

JAN - 5 1993



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SERVICES

New England Industrial Maintenance, Inc.

76 Ethan Allen Drive, So. Burlington, Vermont 05403

January 4, 1993

Ms. Lynda Wedderspoon, Site Manager
Sites Management Section
Vermont Agency of Natural Resources
103 South Main Street/West Office
Waterbury, VT 05671-0404

RE: Site Investigation Report
Georgia Mobil
Georgia, Vermont
SMS Site No. 92-1256

Dear Ms. Wedderspoon:

Enclosed please find one (1) copy of the Site Investigation Report which has been prepared for the above referenced site.

If you have any questions or wish to discuss this report, please do not hesitate to contact me. I can be reached at 863-8714.

Very truly yours,

NEW ENGLAND INDUSTRIAL MAINTENANCE

John R. Diego
Project Manager

Enclosure

cc: Skip Vallee, R.L. Vallee, Inc.

Workplan:georgia.cl



802-863-8714

Fax 802-863-1022

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New England Industrial Maintenance, Inc.

76 Ethan Allen Drive, So. Burlington, Vermont 05403

**SITE INVESTIGATION REPORT
GEORGIA MOBIL
GEORGIA, VERMONT
SMS SITE # 92-1256**

January 4, 1992

Prepared for:
R. L. Vallee, Inc.
282 South Main Street
St. Albans, VT 05478

Prepared by:
New England Industrial Maintenance, Inc.
76 Ethan Allen Drive
South Burlington, VT 05403

NEMI

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SITE INVESTIGATION REPORT
GEORGIA MOBIL

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1.0 EXECUTIVE SUMMARY

In response to a petroleum release discovered during underground storage tank (UST) excavation and replacement activities (June 1992), the Georgia Mobil site located on Route 7 in Georgia, Vermont was the subject of a subsurface investigation. This investigation was proposed by NEIM in a Work Plan dated June 1992 and later approved by the Sites Management Section of the Agency of Natural Resources. Project activities including screening and analyzing subsurface soils and groundwater, were conducted in order to attempt to define the presence and, if possible, extent of subsurface soil and groundwater petroleum contamination; determine the direction of groundwater flow within the overburden aquifer underlying the site; identify potential contamination receptors; propose appropriate remedial measures for stockpiled soil; and evaluate drinking water supplies located in areas adjacent to the site.

The activities conducted for this investigation, and the findings generated as a result, are presented throughout this report. This work was conducted by NEIM during the summer and fall of 1992; the site survey was conducted by Cowan Survey of Vergennes, Vermont; and, the analytical chemistry work was performed by Endyne, Inc. of Williston, Vermont,

2.0 SITE SETTING AND LAYOUT

The subject property, which is located on the south side of Route 7 in Georgia, Vermont, is identified on the site location map provided as Figure 1. The general area surrounding this site is predominantly commercial. The property to the north of the Georgia site includes the Velco right-of-way and power line, and Interstate 89; and, the area to the west of the property includes a residential home owned by Mr. Gary Blake. The property located southwest of the site is Blake's Auto Body; and the property to the south is a retail gasoline and retail convenience store. Located to the east of the property is Route 7, and across from Route 7 is a commercial video store. To the northeast of the site a steep embankment (with a slope ratio of approximately 1:1) exists. This embankment leads downhill to a tributary which flows to Arrowhead Lake.

Note that during the generation of site survey data, it was necessary to use an assumed elevation to generate elevation data. The site is, therefore, not tied into the USGS vertical datum system.

As depicted on the Site Plan, which is provided as Figure 2, existing site structures include a gasoline station/convenience store, pump islands and associated gasoline distribution facilities, and an automobile service station. (Note that the service station portion of the facility is leased and operated separately from the Georgia Mobil facility). The entire site is relatively flat and the front portion of the property is paved. The rear portion of the property, however, is unpaved. This back area of the site contains a mound septic system which receives all domestic wastes generated on-site.

3.0 SITE HISTORY

Based on information indirectly obtained from the site's former consultant [Twin State Environmental (TSE)], this site has been utilized as an automotive service and retail gasoline center for approximately twenty years. The property was recently conveyed to R. L. Vallee, Inc. of St. Albans, Vermont from Mr. Gary Blake of Georgia, Vermont. As a result of this transfer, R. L. Vallee removed the former underground storage tank systems and upgraded the site with the current USTs.

The tank removal and upgrade was conducted in June 1992 and involved the removal of four (4) underground gasoline tanks followed by the installation of three (3) replacement gasoline tanks. Three (3) of the removed USTs were 6,000 gallon gasoline tanks. The fourth UST was a 10,000 diesel tank. The three (3) gasoline tanks were located on the northeast corner of the property as depicted in Figure 2. These tanks were installed in 1972, however, the piping was upgraded in 1989.

In a report by Mr. Owen Fernald of TSE dated June 27, 1992, Mr. Fernald identified three (3) 2 inch galvanized product suction lines which were abandoned in place. This report also discussed the removal of these tanks which were found to be in poor condition. The report also indicated that a 4 inch PVC drain line was installed within the former tank cavity and connected to the ground surface with two vertical standpipes. The purpose for installing this 4" drain pipe was apparently to allow for future air extraction from this cavity.

During the tank removal, soils encountered were found, via PID readings, to exhibit high concentrations of contamination. Excavated soil from this tank cavity was stockpiled on plastic on the rear of the property, and the hole was backfilled with clean sand.

As depicted on Figure 2, the replacement tanks were installed at a different location towards the rear of the property.

In order to access groundwater for later evaluations, TSE apparently installed four (4) monitoring wells (OW-1 through OW-4) in the area north of the former tank cavity and east of the pump islands as depicted on Figure 2. The drilling logs for these monitoring wells are not available, however, as part of this investigation, NEIM visually evaluated these wells and concluded that they are 2" in diameter, constructed of PVC, and range from approximately 7 to 14 feet below the ground surface. Furthermore, all wells are believed to be screened above and below the water table.

4.0 SOIL BORING AND MONITORING WELL INSTALLATION PROGRAM

Prior to the initiation of drilling activities, the site was cleared for the presence of underground utilities by contacting Dig Safe. In addition, the Vermont Agency of Transportation (AOT) was contacted to apply for permission to install monitoring wells within the AOT right-of-way. Accordingly, a permit application was submitted to Mr. John Bushey of the Vermont AOT and subsequently approved for the installation of monitoring wells.

On August 10, 1992, the soil boring/monitoring well installation program proposed in NEIM's June 1992 Work Plan was implemented at the site. As discussed in the following sections, these tasks were conducted in accordance with the procedures and protocols defined in the project Work Plan.

4.1 Soil Borings

In order to assess the horizontal extent of contamination in the overburden soils, a total of 15 soil borings were drilled and evaluated for contamination throughout the site. Each boring was conducted to the depth of an impeding layer with the use of a hollow stem auger drill rig equipped with split spoons. Soils retrieved from various depths of the soil column, were screened both visually and with the use of an Photoionization Detector (PID).

The object of this screening was to generate information regarding the subsurface soils present in order to identify evidence of petroleum contamination, and aid in the placement of monitoring wells. Accordingly, this program was initiated in the area

believed to be downgradient from the former UST location (north of the former UST location) and continued with the installation and screening of subsequent borings throughout the site as illustrated on Figure 2. Based on the data obtained from the installation and screening of these soil borings, seven of the 15 locations were converted to monitoring wells. The remaining eight (8) borings were backfilled to the ground surface. The following list summarizes which soil borings (SB) were converted to monitoring wells (MW).

<u>Soil Boring</u>	<u>Corresponding Monitoring Well</u>
SB-1	MW-1
SB-2	
SB-3	
SB-4	
SB-5	
SB-6	
SB-7	
SB-8	
SB-9	MW-2
SB-10	MW-3
SB-12	MW-4
SB-13	MW-5
SB-14	MW-6
SB-15	MW-7

A summary of the conditions encountered as a result of this screening is presented in the well and soil boring logs found in Appendix A.

4.2 Monitoring Well Installations

In order to evaluate what impact, if any, petroleum contamination has imposed on groundwater underlying the site, and to generate data pertaining to groundwater flow, seven (7) of the soil borings conducted for this investigation were converted to monitoring wells. The locations of these monitoring wells are illustrated on Figure 2.

As proposed by the project Work Plan, each monitoring well was constructed of 2 inch diameter, Schedule 40 PVC solid casing and bottom-plugged well screen (0.010 inch slot). The area surrounding each well screen was backfilled with clean sand to approximately one (1) foot above the top of the well screen, and the area above the sand

pack to just below the ground surface was backfilled with bentonite chips. Native materials were placed above the bentonite to the ground surface. Each well was secured with a locking, protective cap or a flush mounted well guard.

Well logs, which depict the construction of each monitoring well and also provide information pertaining to the soils encountered at each well location are provided in Appendix A of this report.

Following installation, each monitoring well was developed with the use of a peristaltic pump in order to remove all drilling fluids and any stagnant water present in the well. All materials removed from the well were containerized in a 55 gallon 17E drum for subsequent disposal.

Contaminated soils which were encountered as a result of the implementation of these drilling activities and not collected for analysis, were combined with the stockpiled soils.

OVM readings collected throughout this project were collected with the use of a Thermo Environmental Organic Vapor Meter (OVM) calibrated to a benzene equivalent (isobutylene).

5.0 SITE SURVEY

Following the completion of all monitoring wells, the site was surveyed by Cowan Survey of Vergennes, Vermont. As illustrated by the Site Plan (Figure 2), this survey provided location and relative elevation data for all monitoring well locations, building corners, pump islands, and roadways, as well as other pertinent features. Note that well elevations were surveyed to the nearest 0.01' and are tied into an arbitrary benchmark.

6.0 GROUNDWATER SAMPLING AND WATER LEVEL MEASUREMENTS

In order to determine the direction of groundwater flow underlying the site and address groundwater quality, each of the newly installed monitoring wells was sampled by NEIM for groundwater elevation data and volatile organic laboratory analysis. Groundwater samples were collected from monitoring wells by removing three well volumes from each monitoring

well using a pre-cleaned teflon bailer. Purge water was containerized in 55 gallon 17E drums for subsequent transportation and disposal as non-RCRA waste. Following the purging and subsequent recovery from each monitoring well, samples were collected in duplicate 40 mil vials for subsequent analysis by USEPA method 8020.

In order to satisfy the requirements of the SMS potential receptors, including water supply wells, were investigated. Only one water supply well was located proximate to the site. This well is located on the Gaudette property opposite the Georgia Mobil. The well serves several homes and businesses. The well is approximately 400 feet deep. A second receptor, identified as a seep, flows to a small tributary leading to Arrowhead Lake. The seep is located east of Route 7 opposite monitoring well MW-1. In addition to sampling the on-site monitoring wells, Gaudette water supply well and the seep were also sampled for laboratory analysis. The Gaudette well located opposite the Georgia Mobil site was sampled from the tap. Both of these samples were collected for analysis by USEPA method no. 8020.

All samples collected were submitted to Endyne, Inc. of Williston, Vermont for laboratory analysis.

7.0 REMEDIATION OF STOCKPILED SOILS

Approximately 100 cubic yards of stockpiled soils were excavated and polyencapsulated on plastic. In order to allow for the eventual remediation of these soils by vapor extraction, a vapor extraction manifold constructed of 4 inch diameter perforated PVC drain pipe was installed within the stockpiled soils. When operated, negative air would be applied to the soil stockpile by a connection to the back side of a blower. Effluent removed by this process will be transported by the blower to a carbon filtration system for treatment prior to discharge.

8.0 RESULTS

8.1 Groundwater Elevations

Three (3) rounds of groundwater elevation measurements were collected from the wells at the site. The dates of these elevation measurements were August 21, September 4 and October 30, 1992. The groundwater elevations from each sampling event are summarized in Table 1. As shown by this data, there is a slight increase in groundwater elevation between August and October of 1992.

Groundwater flow direction through the site is to the northeast as depicted on Figure 2. The groundwater table is relatively flat across the site and most likely drops off beneath Route 7 prior to reaching the steep embankment east of Route 7. The seep, which was sampled for analysis (as discussed in Section 6.0), was identified at the base of this embankment. The seep was flowing during the two sampling events and samples were subsequently collected.

8.2 Groundwater Quality

Monitoring wells, observation wells the seep located east of Route 7 were sampled for analysis on two occasions, once in August 1992 and again in October 1992. In addition to sampling these monitoring wells, a drilled well owned by the Gaudettes was also sampled during the August 1992 sample event. All samples were analyzed using Method 8020 and MTBE. In addition, the drilled well was also analyzed by Method 8010. Tables 2 and 3 summarize the analytical data including the total BTEX/MTBE concentrations. As indicated, six (6) of the eleven (11) monitoring wells were found to be contaminated during both sample events. All of these wells are located down gradient of the former tank cavity and/or the pump islands.

The wells which show BTEX and MTBE contamination are wells MW-1, 2 and 6 and OW-3. These wells are all down gradient of the former underground storage tank cavity. Wells OW-1 and OW-2, showing high concentrations of BTEX but no MTBE are located to the east of the pump islands and cross gradient from the underground storage tank cavity.

Of the wells that show higher concentrations of contaminants, two scenarios are illustrated. The first scenario shows relatively high concentrations of benzene, toluene, ethylbenzene, xylenes (BTEX) and MTBE, whereas the second scenario shows relatively high concentrations of BTEX but does not show appreciable concentrations of MTBE. This indicates that there were probably two sources of contamination, including one source consisting of a gasoline product containing MTBE, and second source of a gasoline petroleum which was released prior to the use of MTBE as an additive in place of lead. The shaded areas on Figure 2 depict the general area of the contaminated plumes.

GROUND WATER ELEVATIONS
TABLE 1
GEORGIA MOBIL

<u>WELL IDENTIFICATION</u>	<u>8/21/92 ELEVATION</u>	<u>9/04/92 ELEVATION</u>	<u>10/30/92 ELEVATION</u>
MW-1	90.06	91.26	91.39
MW-2	91.60	92.64	92.46
MW-3	92.78	94.20	94.33
MW-4	94.63	95.49	96.51
MW-5	88.66	89.10	89.95
MW-6	92.41	92.89	93.82
MW-7	93.09	94.55	95.26
OW-1	92.77	93.56	93.98
OW-2	92.36	93.35	93.61
OW-3	91.52	93.41	93.27
OW-4	91.63	92.59	92.71

GROUNDWATER ANALYSIS
TABLE 2
GEORGIA MOBIL
AUGUST 1992

WELL IDENTIFICATION	CONCENTRATION IN PPB					
	BENZENE	ETHYLBENZENE	TOLUENE	XYLENES	MTBE	TOTAL BTEX & MTBE
MW-1	2,720	118	3,340	4,340	9,850	20,368
MW-2	4,010	708	7,080	4,100	1,240	17,138
MW-3	ND	ND	ND	ND	ND	0
MW-4	ND	ND	ND	ND	ND	0
MW-5	ND	ND	ND	ND	ND	0
MW-6	8,510	119	5,990	5,540	5,850	26,009
MW-7	TBQ	ND	1	ND	24	25
OW-1	516	110	2,130	3,140	ND	5,896
OW-2	10,600	1,370	27,400	6,970	TBQ	46,340
OW-3	3,850	326	4,120	4,180	3,370	15,846
OW-4	19	44	37	113	TBQ	213
SEEP	ND	ND	ND	ND	17	17
DRILLED WELL	ND	ND	ND	ND	ND	0

NOTES:

- Analysis conducted by Endyne, Inc.
- Samples were collected by NEIM
- Method 8020 was used for analysis
- ND Not detected
- TBQ Trace below quantifiable limit
- The drilled well was also analyzed by Method 8010. No detectable concentrations were present for the compounds tested for.

GROUNDWATER ANALYSIS

TABLE 3
 GEORGIA MOBIL
 OCTOBER, 1992

WELL IDENTIFICATION	CONCENTRATION IN PPB					
	BENZENE	ETHYLBENZENE	TOLUENE	XYLENES	MTBE	TOTAL BTEX & MTBE
MW-1	3,560	464	2,730	4,290	9,580	20,624
MW-2	2,540	231	3,420	1,660	1,220	9,071
MW-3	ND	ND	ND	ND	ND	0
MW-4	ND	ND	ND	ND	ND	0
MW-5	ND	ND	ND	ND	ND	0
MW-6	2,550	ND	2,540	2,670	1,750	9,510
MW-7	ND	ND	ND	ND	TBQ	0
OW-1	988	300	2,730	3,220	ND	7,238
OW-2	6,220	1,530	16,400	8,600	ND	32,750
OW-3	778	ND	3,160	5,070	ND	9,008
OW-4	ND	ND	ND	ND	ND	0
SEEP	ND	ND	ND	ND	ND	0

NOTES:

- Analysis conducted by Endyne, Inc.
- Samples were collected by NEIM
- Method 8020 was used for analysis
- ND Not detected
- TBQ Trace below quantifiable limit

There was some variation in concentrations of several wells between the two sampling rounds. The most notable of which was the MTBE concentration (3,370ppb) in well OW-3 in August 1992 versus the non-detected (ND) concentration of MTBE present in this well in October 1992. This appears to be an anomaly in the analytical data as the location of the well is hydraulically downgradient of the former UST cavity. Additionally, the concentration of MTBE and BTEX from well MW-6 in August of 1992 shows a significantly higher concentration than the concentrations detected from well MW-6 in October 1992. A sample collected from the seep in August 1992 showed an MTBE concentration of 17 ppb, however, a sample collected in October 1992 from this same location did not reveal MTBE concentrations greater than the detection level.

Aside from these anomalies, groundwater concentrations from the two rounds appear to be somewhat consistent. The sample collected from the residential drinking water well did not show concentrations for any of the compounds tested for greater than the detection levels. As previously noted, these samples were collected from the tap at the Gaudette house.

9.0 CONCLUSIONS

Based on the project activities conducted, the following conclusions have been developed with regard to contamination associated with this site:

- The former USTs were installed in 1972 and the piping was upgraded in 1989.
- The overburden aquifer overlying the site is contaminated with gasoline related compounds.
- The overburden aquifer is perched on top of a silt layer and groundwater flows in a northeast direction towards a small tributary west of Route 7.
- The only identified drinking water supply well adjacent to the site (Gaudette) has been found by laboratory analysis to be free of petroleum contamination greater than the detection limits for the compounds tested.
- There are two contaminant plumes containing gasoline related compounds, one contains MTBE and the other does not. The source of the latter appears to originate from the area of the pump islands, whereas the plume containing MTBE appears to originate from the former tank area.
- Approximately 100 cubic yards of gasoline contaminated soil from the excavation and removal of the former underground storage tanks and replacement tanks is stockpiled

and encapsulated on-site. This material can be treated on-site with the aid of a vapor extraction system.

10.0 RECOMMENDATIONS

In order to further address the concerns associated with this site, NEIM proposes the following recommendations:

- Groundwater monitoring should continue on a quarterly basis. This task should also include groundwater elevation measurements and the development of a quarterly groundwater contour map.
- Start-up and shakedown the vapor extraction system to appropriately remediate the soils stockpiled on-site.
- Perform weekly monitoring of the system and provide monthly O&M reports.
- A monitoring well should be installed in the median of Route 7 opposite and slightly north of well MW-1. This will require approval in the form of a permit from the Agency of Transportation.
- Groundwater remediation should be performed at this site to reduce the potential impact of contamination to the seep and subsequently to the tributary east of Route 7.
- A Work Plan should be developed to obtain data for the design of a groundwater remediation system at the site. The Work Plan will outline the tasks necessary to implement a step-type pumping test. The information from the pumping test will aid in selecting groundwater extraction alternatives best suited for this site.

SOIL BORING
AND
WELL LOGS

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 92-07-298
 DATE DRILLED 8/10/92 DEPTH OF HOLE 14.7
 SCREEN DIA. _____ LENGTH _____ SLOT _____
 RISER DIA. _____ LENGTH _____ TYPE _____
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD SPLIT SPOONS

SB NO. 2

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	SOIL BORING	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
0		0 ppm (PID)		SAND AND GRAVEL FILL (FROM AUGERS)
		2 ppm (PID)		SATURATED MEDIUM SAND/GRAY SILT/BLACK ORGANIC LOAM / LIGHT BROWN MEDIUM SAND
		15 ppm (PID)		SATURATED MEDIUM SAND / BLUE GRAY SILT-CLAY
		2 ppm @ TIP (PID)		

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 9207298
 DATE DRILLED 8/14/92 DEPTH OF HOLE 14.7'
 SCREEN DIA. 2" LENGTH 10 SLOT 0.01
 RISER DIA. 2" LENGTH 7.3 TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 1

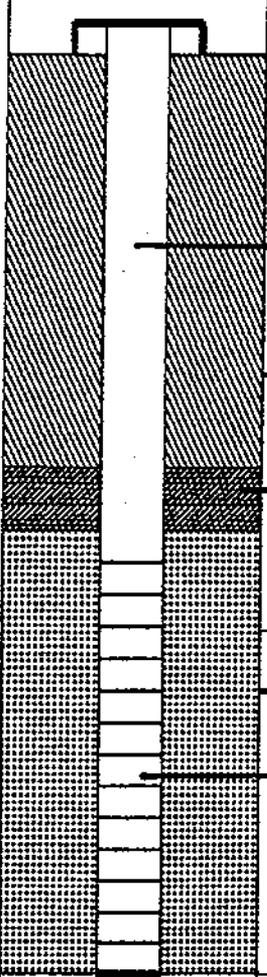
NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
---		CAP		
---		0 > 4' 0 ppm (PID) SOLID RISER		LIGHT BROWN MEDIUM SAND/DAMP DARK GRAY FINE SANDY SILT.
---		BACKFILL		
---		BENTONITE CHIPS		
4.7		- 4' > 9' 30 ppm (PID) SAND PACK	10, 18, 24 28, 31	BROWN MEDIUM SAND/ DARK GRAY SILT/MEDIUM SAND/ GRAY DAMP SAND/GRAY SILT/ BROWN DAMP MEDIUM SAND
---		- 9' > 11' 110 ppm (PID) WELL SCREEN	25, 16	BROWN MEDIUM SAND/ BLACK SATURATED MEDIUM SAND (PRODUCT SHEEN ON SPOON)
14.7				

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 2207,298
 DATE DRILLED 8/11/92 DEPTH OF HOLE 10'
 SCREEN DIA. 2" LENGTH 1' SLOT 0.01
 RISER DIA. 2" LENGTH 5' TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 2

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
0		CAP		
		SOLID RISER		
		BACKFILL		GRAY BROWN SILTY SAND
		BENTONITE CHIPS		
3'		SAND PACK -5' > 10'	8, 10, 17, 18, 21	BROWN SILTY SAND / BLACK BANDS
		WELL SCREEN		WATER AT -6.5'
		NO PID READINGS - STRONG PETROLEUM ODORS		
10'				

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 9207-298
 DATE DRILLED 8/11/92 DEPTH OF HOLE 10.1
 SCREEN DIA. 2" LENGTH 7' SLOT 0.01
 RISER DIA. 2" LENGTH 5' TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 3

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
---		CAP		
0		SOLID RISER		
---		0' > 5.1' BACKFILL		ASPHALT PLUG BROWN SILTY FINE SAND
3.1		BENTONITE CHIPS 0 ppm (PID)		
---		SAND PACK - 5.1' > 10.1'	15, 12, 13, 14, 15	SATURATED BROWN SILTY FINE SAND
---		WELL SCREEN 0 ppm (PID)		
10.1				

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 9207.298
 DATE DRILLED 8/1/72 DEPTH OF HOLE 9.4
 SCREEN DIA. 2" LENGTH 7.1 SLOT 0.01
 RISER DIA. 2" LENGTH 5 TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 4

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
---		CAP		
0		SOLID RISER 0' > 5'		TOP SOIL / SANDY FINE GRAVEL / DARK FINE SAND / SATURATED BROWN MEDIUM SAND
---		BACKFILL oppm (PID)		
---		BENTONITE CHIPS		
-2.3				
---		SAND PACK -5' > 9.4'	8, 8, 8	FLOWING MEDIUM SAND / BLUE GRAY SILT CLAY
---		WELL SCREEN oppm (PID)	9, 10	
-9.4				

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 9207.298
 DATE DRILLED 8/14/92 DEPTH OF HOLE 14.7
 SCREEN DIA. 2" LENGTH 10' SLOT 0.01
 RISER DIA. 2" LENGTH 7' TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 5

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
-2.5		CAP		
0		SOLID RISER		
		BACKFILL		
		BENTONITE CHIPS		
-4.7				
		-5' > 10'		SATURATED BROWN MEDIUM SAND (FROM AUGER CUTTINGS)
		SAND PACK		
		WELL SCREEN	3, 5, 10, 17	SATURATED LENSES MEDIUM SANDS AND SILTS BANDED SILTY FINE SAND
		-10.4' > 14.4'		
		0 ppm (P10)		
-14.7				

PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 9207.298
 DATE DRILLED 8/14/62 DEPTH OF HOLE 15.3
 SCREEN DIA. 2" LENGTH 10 SLOT 0.01
 RISER DIA. 2" LENGTH 3.2' TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 6

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER FEET INCHES	SOIL DESCRIPTION
0		CAP		
		SOLID RISER		
		BACKFILL		
		BENTONITE CHIPS		
-3.2		-5.3' > 10.3'	1, 2, 1, 2, 3	SATURATED SILTY SANDY GRAVEL FILL <small>PETROLEUM SHEEN ON SPOON</small>
		SAND PACK 200 ppm (P10)		
		WELL SCREEN		
		-10.3' > 15.3'	7, 5, 7, 3, 8	SATURATED, DARK BROWN/ SILTY GRAVEL FILL/DARK GRAY FINE SANDY SILT
-13.2		200 ppm (P10)		

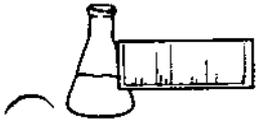
PROJECT NAME GEORGIA MOBIL
 PROJECT NO. 9207292
 DATE DRILLED 8/12/72 DEPTH OF HOLE 13.4'
 SCREEN DIA. 2" LENGTH 10' SLOT 0.01
 RISER DIA. 2" LENGTH 3.4' TYPE PVC
 DRILLING FIRM ADAMS ENG. DRILLER G. ADAMS
 METHOD HOLLOW STEM

WELL NO. 7

NEIM INC.
 76 ETHAN ALLEN DRIVE
 SO. BURLINGTON, VT

DEPTH IN FEET	WELL CONSTRUCTION	NOTES	BLOWS PER 6 INCHES	SOIL DESCRIPTION
0		CAP		GRAVEL / SANDY GRAVEL
0 > 8'		0 ppm (PID)		
		SOLID RISER		
		BACKFILL		
		BENTONITE CHIPS		
-3.4				
		SAND PACK		
		WELL SCREEN		LIGHT BROWN SILTY SAND LENSES
		-8 > 13'		
		0 ppm (PID)		
-13.4				

ANALYTICAL REPORTS



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: MW-1

REF.#: 34,666

TIME SAMPLED: 12:22

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	100.	2,720.
Chlorobenzene	200.	ND ¹
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Ethylbenzene	100.	118.
Toluene	100.	3,340.
Xylenes	100.	4,340.
MTBE	500.	9,850.

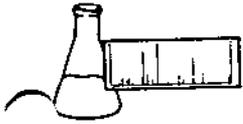
NUMBER OF UNIDENTIFIED PEAKS FOUND: 9

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

Reviewed by _____



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Laboratory Services

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swainbank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: MW-2

REF.#: 34,663

TIME SAMPLED: 12:00

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	50.	4,010.
Chlorobenzene	100.	ND ¹
1,2-Dichlorobenzene	100.	ND
1,3-Dichlorobenzene	100.	ND
1,4-Dichlorobenzene	100.	ND
Ethylbenzene	50.	708.
Toluene	50.	7,080.
Xylenes	50.	4,100.
MTBE	250.	1,240.

NUMBER OF UNIDENTIFIED PEAKS FOUND: 9

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 2% dilution.

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SEP 10 1992

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: MW-3

REF.#: 34,670

TIME SAMPLED: 16:20

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	5.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: MW-4

REF.#: 34,669

TIME SAMPLED: 16:15

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ²
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	5.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: MW-5

REF.#: 34,673

TIME SAMPLED: 16:50

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	5.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: MW-6

REF.#: 34,668

TIME SAMPLED: 12:35

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	100.	8,510.
Chlorobenzene	200.	ND ¹
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Ethylbenzene	100.	119.
Toluene	100.	5,990.
Xylenes	100.	5,540.
MTBE	500.	5,850.

NUMBER OF UNIDENTIFIED PEAKS FOUND: 6

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: OW-1

REF.#: 34,672

TIME SAMPLED: 16:45

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	100.	516.
Chlorobenzene	200.	ND ¹
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Ethylbenzene	100.	110.
Toluene	100.	2,130.
Xylenes	100.	3,140.
MTBE	500.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 9

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: OW-2

REF.#: 34,664

TIME SAMPLED: 12:06

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	500.	10,600.
Chlorobenzene	1,000.	ND ¹
1,2-Dichlorobenzene	1,000.	ND
1,3-Dichlorobenzene	1,000.	ND
1,4-Dichlorobenzene	1,000.	ND
Ethylbenzene	500.	1,370.
Toluene	500.	27,400.
Xylenes	500.	6,970.
MTBE	2,500.	TBQ ³

NUMBER OF UNIDENTIFIED PEAKS FOUND: 4

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 0.2% dilution.

3 Trace below quantitation limit

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: OW-3

REF.#: 34,667

TIME SAMPLED: 12:30

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	100.	3,850.
Chlorobenzene	200.	ND ¹
1,2-Dichlorobenzene	200.	ND
1,3-Dichlorobenzene	200.	ND
1,4-Dichlorobenzene	200.	ND
Ethylbenzene	100.	326.
Toluene	100.	4,120.
Xylenes	100.	4,180.
MTBE	500.	3,370.

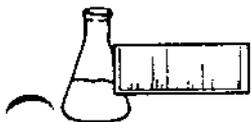
NUMBER OF UNIDENTIFIED PEAKS FOUND: 9

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

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LABORATORY REPORT

EPA METHOD 602 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.

PROJECT NAME: Georgia Mobil

REPORT DATE: September 8, 1992

SAMPLER: Randy Swain Bank

DATE SAMPLED: August 21, 1992

DATE RECEIVED: August 21, 1992

PROJECT CODE: NEIM1022

ANALYSIS DATE: September 1, 1992

STATION: OW-4

REF.#: 34,671

TIME SAMPLED: 16:34

<u>Parameter</u>	<u>Minimum Detection Limit²</u>	<u>Concentration (ug/L)</u>
Benzene	10.	18.7
Chlorobenzene	20.	ND ¹
1,2-Dichlorobenzene	20.	ND
1,3-Dichlorobenzene	20.	ND
1,4-Dichlorobenzene	20.	ND
Ethylbenzene	10.	44.2
Toluene	10.	37.4
Xylenes	10.	113.
MTBE	50.	TBQ ³

NUMBER OF UNIDENTIFIED PEAKS FOUND: 6

NOTES:

1 None detected

2 Detection limit raised due to high levels of contaminants. Sample run at 10% dilution.

3 Trace below quantitation limit

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LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: N.E.I.M.
PROJECT NAME: Georgia Mobil
REPORT DATE: September 14, 1992
SAMPLER: Randy Swainbank
DATE SAMPLED: September 10, 1992
DATE RECEIVED: September 10, 1992

PROJECT CODE: NEIM1114
ANALYSIS DATE: September 14, 1992
STATION: Seep Sample #1
REF.#: 35,521
TIME SAMPLED: 8:05

<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	5.	16.8

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT

TOTAL HYDROCARBONS - EPA METHOD 418.1

CLIENT: N.E.I.M.
REPORT DATE: September 14, 1992
PROJECT NAME: Georgia Mobil
PROJECT CODE: NEIM1115
DATE SAMPLED: September 10, 1992
DATE RECEIVED: September 10, 1992
DATE ANALYZED: September 11, 1992
SAMPLER: Randy Swainbank

Reference number:

Concentration (mg/L)¹

35,522

ND²

Sample ID:

35,522: Seep Sample #2; 8:05

Notes:

- 1 Method detection limit is 0.8 ppm
- 2 None detected

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Reviewed by

Suzanne J. Hill



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LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: September 8, 1992
SAMPLER: John Janesik
DATE SAMPLED: August 31, 1992
DATE RECEIVED: August 31, 1992

PROJECT CODE: NEIM1078
ANALYSIS DATE: September 3, 1992
STATION: Gaudette
REF.#: 34,998
TIME SAMPLED: 6:45

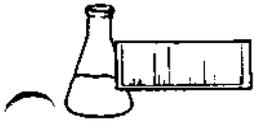
<u>Parameter</u>	<u>Minimum Detection Limit</u>	<u>Concentration (ug/L)</u>
Benzene	1.	ND ¹
Chlorobenzene	2.	ND
1,2-Dichlorobenzene	2.	ND
1,3-Dichlorobenzene	2.	ND
1,4-Dichlorobenzene	2.	ND
Ethylbenzene	1.	ND
Toluene	1.	ND
Xylenes	1.	ND
MTBE	1.	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

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LABORATORY REPORT
EPA METHOD 8010 - PURGEABLE HALOCARBONS (LIQUID)

CLIENT: N.E.I.M.
PROJECT NAME: Georgia Mobil
REPORT DATE: September 8, 1992
SAMPLER: John Janesik
DATE SAMPLED: August 31, 1992
DATE RECEIVED: August 31, 1992

PROJECT CODE: NEIM1078
ANALYSIS DATE: September 3, 1992
STATION: Gaudette Well
REF.#: 34,998
TIME SAMPLED: 6:45

<u>Parameter</u>	<u>Concentration (ug/L)</u>
Bromodichloromethane	ND ¹
Bromoform	ND
Bromomethane	ND
Carbon tetrachloride	ND
Chlorobenzene	ND
Chloroethane	ND
2-Chloroethylvinyl ether	ND
Chloroform	ND
Chloromethane	ND
Dibromochloromethane	ND
1,2-Dichlorobenzene	ND
1,3-Dichlorobenzene	ND
1,4-Dichlorobenzene	ND
Dichlorodifluoromethane	ND
1,1-Dichloroethane	ND
1,2-Dichloroethane	ND
1,1-Dichloroethene	ND
trans-1,2-Dichloroethene	ND
1,2-Dichloropropane	ND
cis-1,3-Dichloropropene	ND
trans-1,3-Dichloropropene	ND
Methylene Chloride	ND
1,1,2,2-Tetrachloroethane	ND
Tetrachloroethene	ND
1,1,1-Trichloroethane	ND
1,1,2-Trichloroethane	ND
Trichloroethene	ND
Trichlorofluoromethane	ND
Vinyl Chloride	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by: _____



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LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,996
STATION: MW-1
TIME SAMPLED: 13:30
SAMPLER: Randy Swainbank

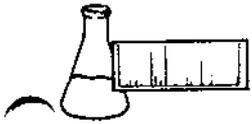
<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	100	3,560.
Chlorobenzene	200	ND ²
1,2-Dichlorobenzene	200	ND
1,3-Dichlorobenzene	200	ND
1,4-Dichlorobenzene	200	ND
Ethylbenzene	100	464.
Toluene	100	2,730.
Xylenes	100	4,290.
MTBE	500	9,580.

NUMBER OF UNIDENTIFIED PEAKS FOUND: 8

NOTES:

- 1 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.
- 2 None detected

Reviewed by _____



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LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,991
STATION: MW-3
TIME SAMPLED: 13:05
SAMPLER: Randy Swainbank

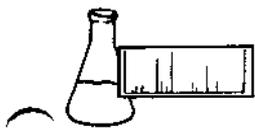
<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by _____



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LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,990
STATION: MW-4
TIME SAMPLED: 13:00
SAMPLER: Randy Swainbank

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

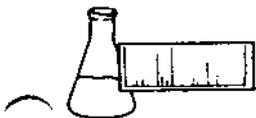
NOTES:

1 None detected

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FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,995
STATION: MW-5
TIME SAMPLED: 13:25
SAMPLER: Randy Swainbank

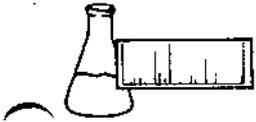
<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by _____



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Laboratory Services

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FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,999
STATION: MW-6
TIME SAMPLED: 13:45
SAMPLER: Randy Swainbank

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	100	2,550.
Chlorobenzene	200	ND ²
1,2-Dichlorobenzene	200	ND
1,3-Dichlorobenzene	200	ND
1,4-Dichlorobenzene	200	ND
Ethylbenzene	100	ND
Toluene	100	2,540.
Xylenes	100	2,670.
MTBE	500	1,750.

NUMBER OF UNIDENTIFIED PEAKS FOUND: 3

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

2 None detected

Reviewed by _____



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Laboratory Services

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Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 38,000
STATION: MW-7
TIME SAMPLED: 13:50
SAMPLER: Randy Swainbank

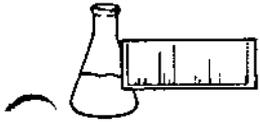
<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	TBQ ²

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

- 1 None detected
- 2 Trace below quantitation limit

Reviewed by _____



ENDYNE, INC.

Laboratory Services

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,992
STATION: OW-1
TIME SAMPLED: 13:10
SAMPLER: Randy Swainbank

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	100	988.
Chlorobenzene	200	ND ²
1,2-Dichlorobenzene	200	ND
1,3-Dichlorobenzene	200	ND
1,4-Dichlorobenzene	200	ND
Ethylbenzene	100	300.
Toluene	100	2,730.
Xylenes	100	3,220.
MTBE	500	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 7

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

2 None detected

Reviewed by _____



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FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,997
STATION: OW-3
TIME SAMPLED: 13:35
SAMPLER: Randy Swainbank

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	100	778.
Chlorobenzene	200	ND ²
1,2-Dichlorobenzene	200	ND
1,3-Dichlorobenzene	200	ND
1,4-Dichlorobenzene	200	ND
Ethylbenzene	100	ND
Toluene	100	3,160.
Xylenes	100	5,070.
MTBE	500	ND

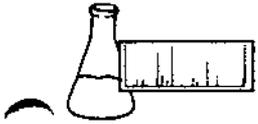
NUMBER OF UNIDENTIFIED PEAKS FOUND: 12

NOTES:

1 Detection limit raised due to high levels of contaminants. Sample run at 1% dilution.

2 None detected

Reviewed by _____



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FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 37,998
STATION: OW-4
TIME SAMPLED: 13:40
SAMPLER: Randy Swainbank

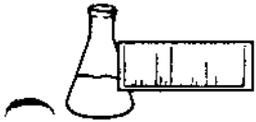
<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by _____ 



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LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 38,001
STATION: Seep Sample
TIME SAMPLED: 14:25
SAMPLER: Randy Swainbank

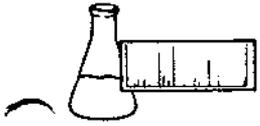
<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by _____



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FAX 879-7103

LABORATORY REPORT

EPA METHOD 8020 -- PURGEABLE AROMATICS

CLIENT: NEIM
PROJECT NAME: Georgia Mobil
REPORT DATE: November 17, 1992
DATE SAMPLED: October 30, 1992
DATE RECEIVED: October 30, 1992
ANALYSIS DATE: November 13, 1992

PROJECT CODE: NEIM1858
REF.#: 38,002
STATION: Trip Blank
TIME SAMPLED: 13:55
SAMPLER: Randy Swainbank

<u>Parameter</u>	<u>Detection Limit (ug/L)</u>	<u>Concentration (ug/L)</u>
Benzene	1	ND ¹
Chlorobenzene	2	ND
1,2-Dichlorobenzene	2	ND
1,3-Dichlorobenzene	2	ND
1,4-Dichlorobenzene	2	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	5	ND

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:

1 None detected

Reviewed by _____

CHAIN OF CUSTODY

CHAIN-OF-CUSTODY RECORD

004515

Project Name: <i>Georgia mobil</i>	Reporting Address: <i>76 Ethan Allen Dr S. Berlington VT</i>	Billing Address: <i>SAME</i>
Site Location: <i>RT 7 Georgia VT</i>	Contact Name: <i>John Diego</i>	Sampler Name: <i>Randy Swainbank</i>
Endyne Project Number:	Company/Phone #: <i>NEEM 863-8714</i>	Company/Phone #:

Lab #	Sample Description	Matrix	Date/Time	Container		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
				No.	Type/Size				
	<i>MW-2</i>	<i>H2O</i>	<i>8/21/92 1200</i>		<i>40ml</i>		<i>8020</i>	<i>4°C</i>	
	<i>MW-2</i>		<i>1201</i>						
	<i>OW-2</i>		<i>1206</i>						
	<i>OW-2</i>		<i>1207</i>						
	<i>MW-7</i>		<i>1215</i>						
	<i>MW-7</i>		<i>1216</i>						
	<i>MW-1</i>		<i>1222</i>						
	<i>MW-1</i>		<i>1223</i>						
	<i>OW-3</i>		<i>1230</i>						
	<i>OW-3</i>		<i>1231</i>						
	<i>MW-6</i>		<i>1235</i>						
	<i>MW-6</i>	<i>✓</i>	<i>1236</i>		<i>✓</i>		<i>✓</i>		

Relinquished by: Signature <i>R. Swainbank</i>	Received by: Signature <i>Louise M. Chambers</i>	Date/Time <i>21 Aug 92 3:10</i>
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals ICP/AA	21	EPA 624	26	EPA 8270
2	Chloride	7	Total P	12	TSS	17	Fecal and/or Toc.	22	EPA 625 B/N or A	27	EPA 8010
3	Ammonia N	8	Total Diss. P	13	TDS	18	ODD	23	EPA 418.1	28	EPA 8020
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB	29	EPA 8080
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240	30	EPTOX
31	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
32	Other (Specify):										

LABORATORY: WHITE

PROJECT MANAGER: YELLOW

SAMPLER: PINK

CHAIN-OF-CUSTODY RECORD

004514

Project Name: <i>Georgia mobil</i>	Reporting Address: <i>76 Ethan Allen Dr</i>	Billing Address: <i>SAME</i>
Site Location: <i>RT 7 Georgia VT</i>	<i>St. Burlington VT</i>	
Endyne Project Number:	Contact Name: <i>John Diego</i>	Sampler Name: <i>Randy Swainbank</i>
	Company/Phone #: <i>NEEM 863-8714</i>	Company/Phone #: <i>SAME</i>

Lab #	Sample Description	Matrix	Date/Time	Container		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
				No.	Type/Size				
	<i>MW-4</i>	<i>H2O</i>	<i>8/29/92</i> <i>1615</i>		<i>40 mL</i>		<i>8020</i>	<i>4°C</i>	
	<i>MW-4</i>	<i>H2O</i>	<i>1616</i>						
	<i>MW-3</i>		<i>1620</i>						
	<i>MW-3</i>		<i>1621</i>						
	<i>OW-4</i>		<i>1633</i>						
	<i>OW-4</i>		<i>1634</i>						
	<i>OW-1</i>		<i>1645</i>						
	<i>MW-5</i> <i>OW-1</i>		<i>1646</i>						
	<i>MW-5</i>		<i>1650</i>						
	<i>MW-5</i>	✓	<i>1652</i>		✓			✓	
							✓		

Relinquished by: Signature <i>Randy Swainbank</i>	Received by: Signature <i>John M. Chamberlain</i>	Date/Time <i>21 Aug 92 3:10</i>
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals ICP/AA	21	EPA 624	26	EPA 8270
2	Chloride	7	Total P	12	TSS	17	Fecal and/or Tot.	22	EPA 625 B/N or A	27	EPA 8010
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8020
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pcsu/PCB	29	EPA 8060
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240	30	EPTOX
31	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
32	Other (Specify):										

LABORATORY: WHITE

PROJECT MANAGER: YELLOW

SAMPLER: PINK

CHAIN-OF-CUSTODY RECORD

005051

Project Name: GEORGIA MOBIL	Reporting Address: 76 ETHAN ALLEN DR	Billing Address: SAME
Site Location: RT 7 GEORGIA	S. Burlington VT	
Endyne Project Number:	Contact Name: JOHN DEGO	Sampler Name: Randy Swinbank
	Company/Phone #: NEIM 863-8714	Company/Phone #: SAME

Lab #	Sample Description	Matrix	Date/Time	Container		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
				No.	Type/Size				
	SEEP SAMPLE # 1	H2O	9/10/92 805	2	40 ML		8020	4°C	
	SEEP SAMPLE # 2	H2O	9/10/92 805	1	1 Lit		418.1	4°C	

Relinquished by: Signature <i>Randy Swinbank</i>	Received by: Signature <i>Tonia M. Chambers</i>	Date/Time 10 Sept. 92 2:05
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals ICP/AA	21	EPA 624	26	EPA 8270
2	Chloride	7	Total P	12	TSS	17	Fecal and/or Tot.	22	EPA 625 B/N or A	27	EPA 8010
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8020
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 606 Pests/PCB	29	EPA 8060
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240	30	EPTOX
31	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
32	Other (Specify):										

LABORATORY: WHITE

PROJECT MANAGER: YELLOW

SAMPLER: PINK

ENDYNE, INC.

32 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY RECORD

005173

Project Name: GEORGINA MOISEL	Reporting Address: 76 Ethan Allen Dr Sr. Burlington VT	Billing Address: SAME
Site Location: RT 7 Georgia VT	Contact Name: John Biago	Sampler Name: Randy Swinbank
Endyne Project Number:	Company/Phone #: NEEM 863-8714	Company/Phone #: SAME

Lab #	Sample Description	Matrix	Date/Time	Container		Field Results/Remarks	Analysis Required	Sample Preservation	Risk
				No.	Type/Size				
	MW 4	H ₂ O	10-30-92 1300	2	40 mL		8020	4°C	
	MW 3		1305						
	MW 1		1310						
	OW 2		1315			(All Samples Collected 10-30-92)			
	MW 2		1320						
	MW 5		1325						
	MW 1		1330						
	OW 3		1335						
	OW 4		1340						
	MW 6		1345						
	MW 7	↓	1350	↓	↓		↓	↓	

Relinquished by: Signature R/Swinbank	Received by: Signature M. P. Swinbank	Date/Time 30 Oct 92 3:05
----------------------------------------------	----------------------------------------------	---------------------------------

Relinquished by: Signature	Received by: Signature	Date/Time
----------------------------	------------------------	-----------

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals ICP/AA	21	EPA 624	26	EPA 870
2	Chloride	7	Total P	12	TSS	17	Fecal and/or Tot.	22	EPA 625 B/N or A	27	EPA 8010
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8020
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pests/PCB	29	EPA 8060
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240	30	EPTOX
31	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
32	Other (Specify):										

LABORATORY: WHITE

PROJECT MANAGER: YELLOW

SAMPLER: PINK

CHAIN-OF-CUSTODY RECORD

005172

Project Name: <i>GEORGE MAISEL</i>	Reporting Address: <i>76 Ethan Allen Dr S. Burlington VT</i>	Billing Address: <i>SAME</i>
Site Location: <i>RT 7 Georgia VT</i>	Contact Name: <i>John Digo</i>	Sampler Name: <i>Randy Swainbank</i>
Endyne Project Number:	Company/Phone #: <i>NEIM 863-8714</i>	Company/Phone #: <i>SAME</i>

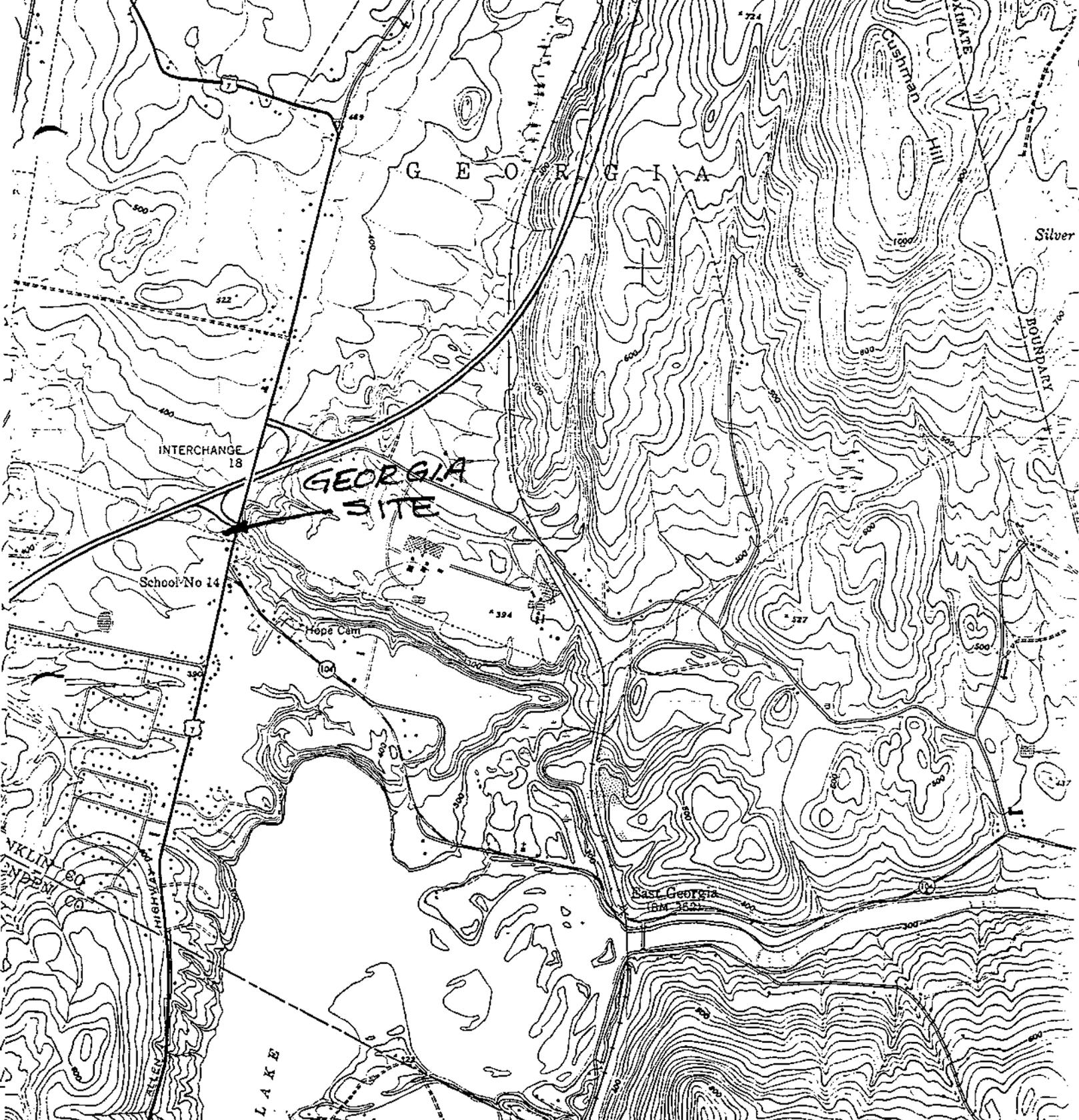
Lab #	Sample Description	Matrix	Date/Time	Container		Field Results/Remarks	Analysis Required	Sample Preservation	Risk
				No.	Type/Size				
	<i>SEEP SAMPLE</i>	<i>H2O</i>	<i>10-30-92 1425</i>	<i>2</i>	<i>40 mL</i>		<i>8020</i>	<i>4°C</i>	
	<i>TRIP BLANK</i>	<i> </i>	<i>1355</i>	<i> </i>	<i> </i>		<i> </i>	<i> </i>	
	<i>Equipment Blank</i>	<i>V</i>	<i>1400</i>	<i>V</i>	<i>V</i>		<i>V</i>	<i>V</i>	

Relinquished by: Signature <i>R/Swainbank</i>	Received by: Signature <i>Laura M. Chouhara</i>	Date/Time <i>30 Oct 92 3:05</i>
Relinquished by: Signature	Received by: Signature	Date/Time

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals ICP/AA	21	EPA 621	26	EPA 8270
2	Chloride	7	Total P	12	TSS	17	Fecal and/or Tot.	22	EPA 625 B/N or A	27	EPA 8010
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8020
4	Nitrite N	9	BOD ₅	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB	29	EPA 8080
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240	30	EPTOX
31	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
32	Other (Specify):										

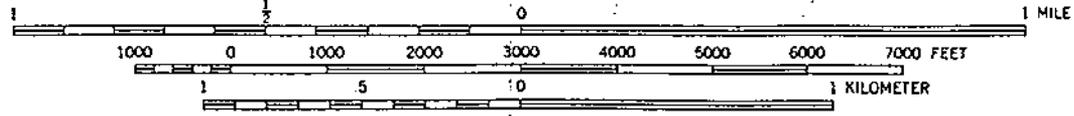
FIGURES 1 AND 2



**GEORGIA
SITE**

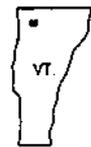
FIGURE 1

SCALE 1:24 000



CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY
DENVER, COLORADO 80225; OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST



QUADRANGLE LOCATION

Revisions shown in purple and wood
by the Geological Survey from aerial

987 MAGNETIC NORTH
1 CENTER OF SHEET