August 27, 1996

WASTE MANAGEMENT
DIVISION

Mr. Richard Spiese
Vermont Agency of Natural Resources
Sites Management Section
103 South Main Street
Waterbury, VT 05676 96-2020

Dear Mr. Spiese:

Subject: Phase II Site Assessment at Merchants Bank, 2 South Main St., Northfield, VT

Enclosed you will find a copy of the recently completed Phase II Subsurface Investigation for the aforementioned Merchants Bank Facility.

Should you have questions or concerns, please contact me at (802) 865-1913.

Sincerely,

J. David Kiefner
Administrative Assistant, Facilities/Security

Enc: 1

cc: Doreen Allen (w/o enc.)
File

A PHASE II
SUBSURFACE HYDROGEOLOGIC INVESTIGATION

MERCHANTS DRIVE-THROUGH BANK FACILITY
2 SOUTH MAIN STREET
NORTHFIELD, VERMONT

KSKGeoS™ PROJECT #96012
DEC SPILL #: UNASSIGNED 96 2020
UST FACILITY ID #: UNASSIGNED

PREPARED FOR:

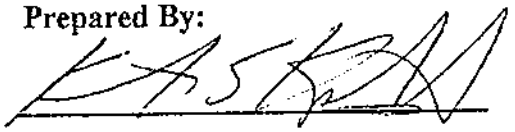
MR. J. DAVID KIEFNER
THE MERCHANTS BANK
P.O. BOX 1009
BURLINGTON, VERMONT 05402

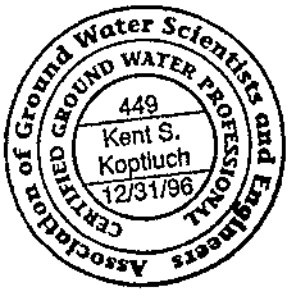
SUBMITTED BY

KENT S. KOPTIUCH, INC.
GEO-ENVIRONMENTAL SERVICES
164 OSGOOD HILL
ESSEX, VERMONT 05452

AUGUST 12, 1996

Prepared By:





Kent S. Koptiuch, CGWP, CEI
President
Principal Geologist

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TO: JOHN SCHMELTZER - VT ANR DEC WMD SMS
FROM: KENT KOPTIUCH - KSKGEOS PAGES: 1
DATE: 9/6/96

1.0 INTRODUCTION

1.1 *Authorization and Site* Description

On July 10, 1996, KENT S. KOPTIUCH, Inc Geo-Environmental Services (KSKGeoS™) was contracted by the Merchants Bank in Burlington, Vermont to conduct a Phase II subsurface hydrogeologic investigation of the Merchants' drive-through banking facility located at 2 South Main Street in Northfield, Vermont. This investigation was prompted by the findings of an ENSA Environmental, Inc. Phase I investigation of the site completed in June 1996.

The site is located on the west side of Route 12 (South Main Street) on the banks of the Dog River in the downtown commercial district of Northfield Village. **Figure 1** is a Site Location Map depicting the facility's relative geographic location. The property is approximately 0.34 acres in size. A 1,260 square foot, wood-frame, single-story structure is situated near the center of the lot; the structure is shared by the Merchants' facility and a video rental shop. As noted in ENSA's Phase I, the building was initially built as a retail petroleum station in 1936 and was utilized as such until 1984.

1.2 Goals

The goals of KSKGeoS™'s investigation at this site were defined as follows:

- To assess the current environmental conditions in the overburden soils and in the unconsolidated groundwater aquifer by defining the extent and concentrations (if any) of separate-phase and/or dissolved-phase petroleum hydrocarbon product plume(s), and to evaluate potential impact to soils at the site from possible metals releases asociated with former use of the property as a print shop and a granite-finishing site (1885-1936).
- To identify and evaluate impacts (if any) to potential receptors in the vicinity of the site, and
- To identify a potential remedial action program or future monitoring program suitable to address identified impacts (if any) revealed through the course of this investigation.

1.3 Scope of Work.

KSKGeoS™'s scope of work on this site included the completion of the following tasks:

- Preparation of a site-specific health and safety plan (HASP in accord with OSHA 29 CFR 1910.120.
- Field identification of potential receptors, including but not limited to: potable water supply sources, surface waterbodies and waterways, and possible preferential subsurface migratory pathways within the immediate vicinity.
- Installation and development of four (4), two-inch (2") diameter, PVC groundwater monitoring wells in accordance with ANR DEC guidelines.
- Completion of two (2) soil borings in the former UST and pump island locations.
- Split-barreled (split-spoon) sampling of the overburden soils during monitoring well installation and soil boring activities. All samples were screened for volatile organic compounds (VOCs), using jarred head-space methodology, with a photoionization detector (PID). In addition, one (1) soil sample was secured from each well for laboratory analysis by EPA method 6010 (8 metals).
- Survey of groundwater monitoring well locations tied into a previously assigned datum: elevational accuracy is ±0.01'; spatial accuracy is ±1.0'.

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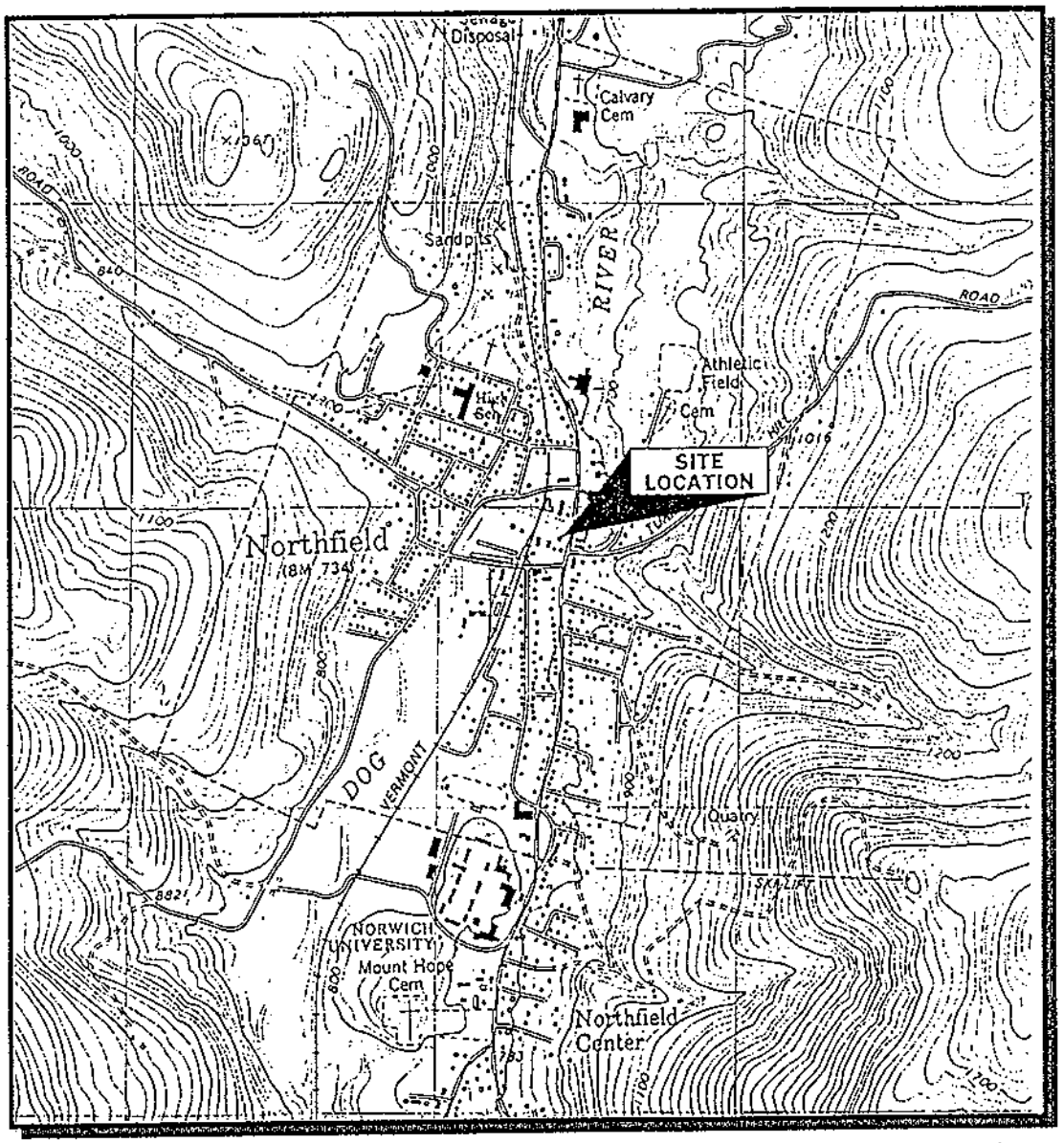
Figure 1

Site Location Map

PROJECT:	**Merchants/Northfield**	**DEC SITE #:**	**Unassigned**
LOCATION:	**2 S. Main, Northfied, Vt.**	**UST Facility ID#:**	**Unassigned**
PROJECT #:	**96012**	**SITE OWNER:**	**The Merchants Bank**



SCALE: 1" = 2,000 Feet

SOURCE: Northfield, Vermont (7.5 x 15 -Minute) Topographic Quadrangle
Washington County, Vermont
United States Geological Survey, Washington, D.C. 1980

NORTH

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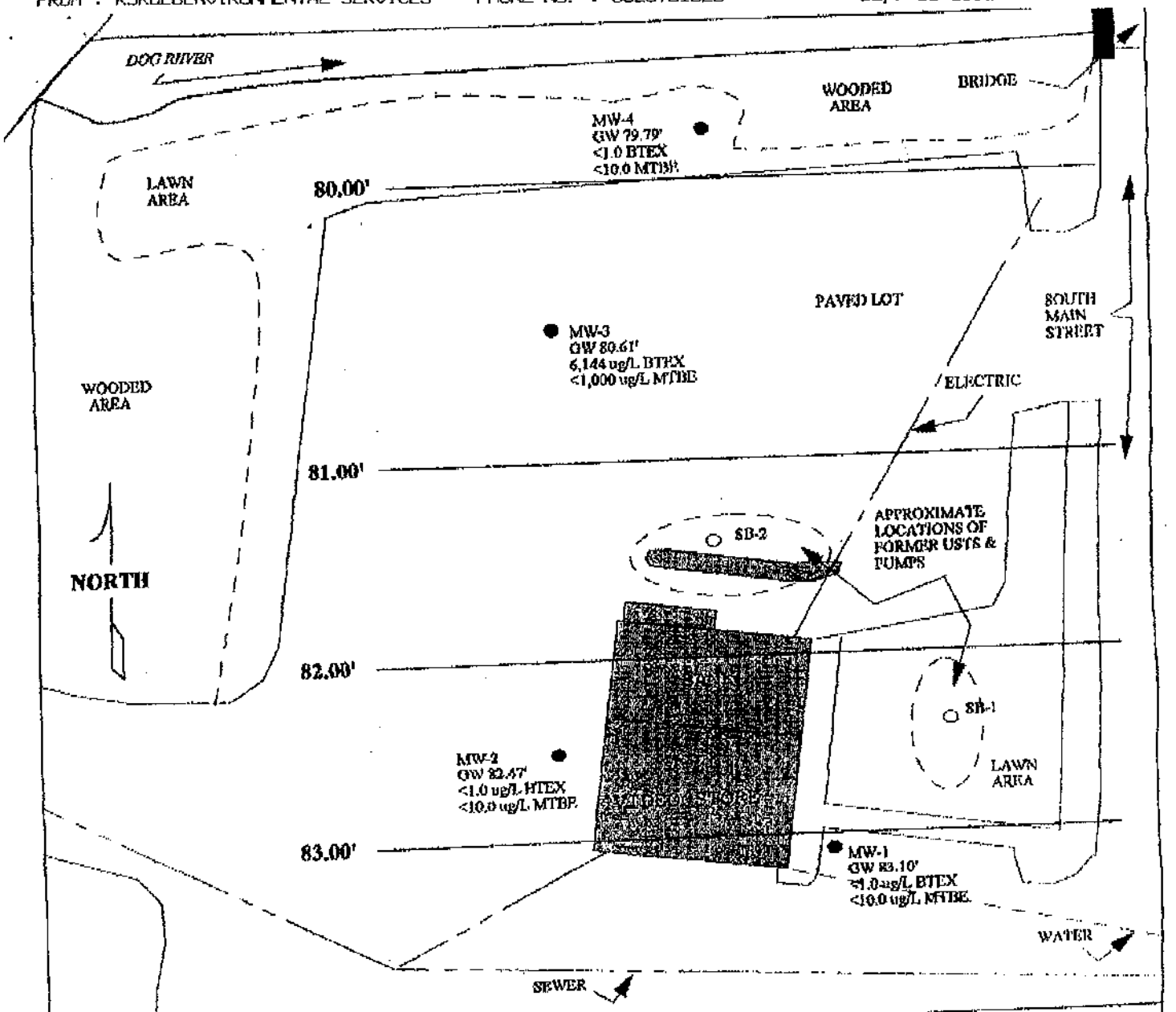

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FIGURE 2
SITE MAP WITH GROUNDWATER CONTOURS, & DISSOLVED BTEX/MTBE CONCENTRATIONS

PROJECT:	MERCHANTS/NORTHFIELD
PROJECT #:	96012
LOCATION:	NORTHFIELD, VERMONT
SAMPLE DATE:	JULY 16, 1996
DRAWN BY:	K. S. KOPTIUCH, CGWP
SCALE:	1 INCH = 25 FEET

To: JOHN SCHMELTZER VT ANR DEC WMD SMS

FAX #: 802 241 3296

#Pages: 1

From: KENT KOPTIUCH

PHONE: 802 878 1620

- Laboratory chemical analysis of groundwater samples from the monitoring well network for benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA method 8020.
- Data evaluation and interpretation.
- Summary report preparation including all investigative results, documentation, interpretation, and findings and recommendations.

Figure 2 is a Site Map showing property layout, with completed groundwater monitoring well locations, groundwater contours, and BTEX and MTBE concentrations on July 16, 1996.

2.0 INVESTIGATIVE METHODOLOGY

2.1 Groundwater Monitoring Well Installation

All monitoring well locations were chosen by KSKGeoS™'s supervising geologist and Certified Ground Water Professional (CGWP), Kent S. Koptiuch. Monitoring well locations were sited to best represent the groundwater conditions on a site-wide basis. Wells were installed by Tri-State Drilling and Boring, Inc. under the direct supervision of Mr. Koptiuch.

On July 9, 1996, a Mobile B-57 drill rig with 4¼ -inch onside diameter hollow stem augers was used to install the wells and to complete soil borings. As augers were advanced, soils were sampled with a two (2) -inch diameter by twenty-four (24) -inch length split-barrel sampler (split spoon) in conformance with ASTM Standard D1586. Split spoons were advanced with a 140 pound drop-hammer. Hammer blows were recorded at six (6) -inch intervals, as the split spoons were advanced, for density determination.

All sampling equipment was thoroughly decontaminated prior-to, and after each use utilizing clean water with a Liquinox® non-phosphate detergent in solution. This was followed up with a clean, water rinse.

Recovered soil samples were then logged in accordance with the Unified Soil Classification System (USCS) and screened for volatile organic compounds (VOCs) by jarred head-space methodology with an H-Nu PI-101, 10.2 electrovolt lamp photoionization detector (PID) by Mr. Koptiuch. The unit was calibrated on-site, prior to use, for benzene in calibration gas equivalents (CGE) of 100% isobutylene at 70 parts per million (ppm). In addition, one (1) soil sample was secured from each well location for eight metals analysis.

Upon achieving the desired depth at each location, a pre-constructed two (2) -inch diameter, flush-threaded PVC screen and casing well was installed within the hollow stem augers. Screening was factory slotted to 020'. The screened interval for each well was determined by the supervising geologist to extend at least five (5) -feet above, and five (5) -feet below the groundwater table where possible. The annulus of each borehole was then filter-packed with washed #0 Moirie Sand to a depth of one (1) -foot (or more) above the screened interval as the augers were extracted from the borehole. A one (1) -foot, hydrated bentonite seal was set in the annulus above the filter-pack. The remainder of the annulur space was then backfilled with clean spoils from each boring. The top of each well casing was secured with a gripper cap. All four (4) wells were completed with flush-mounted, eight (8) -inch diameter, three (3) bolt steel manways

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set in concrete. Soil boring, sampling, and well completion logs are included as **Attachment A.**

Upon completion of all monitoring well installation and soil boring activity, the well top-of-casing elevations, and the grade elevation at each new well, was surveyed in by KSKGeoS™'s field personnel. The top of the concrete, island base adjacent to the bank's drive-through lane was utilized as a benchmark with an assumed datum of 100'.

2.2 Groundwater Monitoring, Sampling, and Analysis

Following their installation, each groundwater monitoring well was developed by means of surged, compressed air injection and hydraulic evacuation. The groundwater was allowed to stabilize and return to static level in the monitoring wells for one (1) week prior to conducting gauging and sampling activities. On July 16, 1996, an optical interface probe, capable of determining groundwater and separate-phase hydrocarbon petroleum product presence and thickness to within 0.01', was utilized to profile the elevations and the VOC characteristics of the overburden aquifer within each well. **Table 1** is a summary of groundwater elevations for the July 16, 1996 gauging event.

Water volumes were then calculated for each of the four (4) wells, and the equivalent of three (3) well volumes were purged, by bailing, prior to sampling. Groundwater samples were then secured from the wells in accordance with EPA method 8020 for BTEX and MTBE.

The sampling bailer was decontaminated between each well utilizing a liquinox-distilled water solution followed by a distilled water rinse. Samples were packed securely on ice and hand-delivered to Endyne, Inc. for chemical analyses on July 17, 1996.

2.3 Potential Receptor Survey

A physical survey was conducted to identify potential receptors, including surface waterbodies, potable water sources, and likely routes of subsurface conductance. In addition, a review of the following data bases was conducted:

- Well completion logs for private and public potable wells in the town of Northfield at the ANR DEC Water Supply Division (WSD),
- the ANR DEC Waste Management Division (WMD) Sites Management Section Hazardous Sites List, and
- the ANR DEC WMD Underground Storage Tank Program facilities list for active and closed USTs.

3.0 RESULTS

3.1 Geologic, Overburden Lithologic, Geomorphologic, and Hydrogeologic Summary

The site is located in the village of Northfield, Vermont in the heart of the Green Mountains, at approximately 720 -feet above mean sea level. The village is situated within and bounding the flood plain of the Dog River. Topography at the site is relatively level with a northwesterly gradient of approximately 1.5%. Surficial drainage is to the north and northwest into the Dog River. The river itself is steeply incised approximately twenty (20) -feet below the grade of the site. Regional drainage of the Dog River is to the north to its juncture with the Winooski River

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SUMMARY TABLE 1: GROUNDWATER ELEVATIONS - July 16, 1996				
WELL	GRADE	TOP-OF-CASING	DEPTH-TO-WATER	ELEVATION
MW-1	99.09'	98.85'	15.75'	83.10'
MW-2	98.75'	98.35'	15.88'	82.47'
MW-3	97.51'	96.96'	16.35'	80.61'
MW-4	97.23'	96.93'	17.14'	79.79'
SB-1	99.12'			
SB-2	99.50'			

approximately eight (8) -miles distant.

Overburden soils are comprised of somewhat poorly sorted, medium-fine sands and gravels, fluvial in origin, approximately twenty (20) to twenty-five (25) -feet in thickness, directly overlying bedrock. Bedrock beneath the site is a carbonaceous, mica-schist of the upper Permian Missisquoi formation.

Subsurface logs describing the overburden lithology, well construction, sampling intervals, and PID results for each location are included as **Attachment A**.

3.2 Specific Hydrogeological Characteristics

Groundwater beneath the site was encountered at depths ranging from 15 to 17 -feet BG on July 9, 1996 when boring activities were conducted. On July 16, 1996, the groundwater table was recorded at 15.75 to 17.14 -feet below the top-of-well casings. Groundwater flow direction is to the north across the site with an approximate gradient of 2.5%. An approximate rate-of-travel (V_a) in the overburden aquifer was calculated through the application of Darcy's Law utilizing typical constants for horizontal hydraulic conductivity (K_H) and porosity (n) of the observed aquifer matrix:

$$V_a = \{[K_H (h_1-h_2)] \div L\} \div n$$

where (h_1-h_2) is the difference in hydraulic head, and L is the distance along the flowpath for which the difference in hydraulic head is measured. When all known and assumed aquifer characteristics are entered into the above equation, the resulting rate-of-travel from MW-1 to MW-4 on July 16, 1996 is:

$$V_a = \{[10\ gpd/ft^2\ (83.10'-79.79')] \div 127'\} \div 25\% = 1.04\ gpd/ft^2$$

Table 1 is the groundwater elevation data calculated from the gauging of the monitoring well network on July 16, 1996. **Figure 2** depicts Groundwater Contours of the overburden aquifer based upon this data.

3.3 Field Screening of Soil Samples

Soil samples were field screened by PID utilizing jarred head-space methodology. None of the samples secured from monitoring wells MW-1, MW-2, and MW-4, or from soil borings SB-1, and SB-2 yielded positive VOC impact. Soil samples secured from MW-3 yielded 300 ppm, 125 ppm, and 5 ppm in the 15.0 to 22.0 -foot depth range. The highest concentrations were noted at the 15.0-16.0 foot depth immediately above the groundwater table. Concentrations decreased rapidly with depth. The soil samples exhibited a distinct gasoline odor.

3.4 Groundwater Laboratory Chemical Analytical Results

Actual laboratory chemical analytical results for all analytes are included as **Attachment B** of this report. **Table 2** summarizes the results of these analyses. Four (4) groundwater samples were secured, along with a trip blank and a field blank for quality control purposes.

- Groundwater samples from MW-1, MW-2, and MW-4 yielded no analyte concentrations above the method detection limits.
- The groundwater sample secured from MW-3 yielded positive VOC impact with a total dissolved BTEX concentration of 6144 micrograms per liter (µg/L). The dissolved benzene concentration was 254 µg/L. The dissolved ethylbenzene concentration was 1,140 µg/L, while dissolved concentrations of toluene and total xylenes were 1,070 µg/L and 3,680 µg/L, respectively. Because of the high contaminant fraction in the sample, the method detection limit (MDL) for MTBE was raised to 1,000 µg/L; MTBE was not detected above this quantitation limit.

SUMMARY TABLE 2 - 08/16/96 LABORATORY CHEMICAL ANALYTICAL RESULTS

WELL	MTBE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYLBENZENE µg/L	XYLENES µg/L	TOTAL BTEX µg/L
MW-1	<10.	<1.0	<1.0	<1.0	<1.0	<1.0
MW-2	<10.	<1.0	<1.0	<1.0	<1.0	<1.0
MW-3	<1,000	254.	1,140.	1,070.	3,680.	6,144.
MW-4	<10.	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:

1	MTBE	Methyl tert-butyl ether.
2	Total BTEX	Total Dissolved Benzene, Toluene, Ethylbenzene, & Xylenes.
3	µg/L	Micrograms per Liter (parts per billion).
4	ND	None Detected.

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3.5 Soils Laboratory Chemical Analytical Results

Actual soil laboratory chemical analytical results are included as **Attachment C** of this submittal. **Table 3** summarizes these results below.

- Concentrations of arsenic were detected in all four (4) soil samples ranging from 6.93 to 51.7 milligrams per killigram (mg/kg).
- Concentrations of Barium were detected in all four (4) soil samples ranging from 9.34 to 63.8 mg/kg.
- Cadmium was detected in the sample from well MW-2 at 1.08 mg/kg.
- Concentrations of Lead were detected in all four (4) soil samples ranging from 4.47 to 29.8 mg/kg.
- Mercury was detected in the samples from MW-3 and MW-4 at concentrations of 0.509 and 0.217 mg/kg, respectively.
- Selenium and silver were not detected in any of the samples at concentrations above the method detection limits.

SUMMARY TABLE 3 - 08/09/96 LABORATORY CHEMICAL ANALYTICAL RESULTS in mg/kg (dry weight)

WELL & DEPTH	ARSENIC	BARIUM	CADMIUM	CHROMIUM	LEAD	MERCURY	SELENIUM	SILVER
MW-1 (15-17')	6.93	9.34	<0.279	5.68	4.47	<0.056	<0.558	<0.558
MW-2 (17-19')	51.7	63.8	1.08	28.0	6.68	<0.060	<0.602	<0.602
MW-3 (15-17')	9.69	11.8	<0.418	11.5	8.27	0.509	<0.835	<0.835
MW-4 (15-17')	16.3	59.1	<0.361	25.6	29.8	0.217	<0.723	<0.723

Indust. 3.3 mg/kg
Resid. 0.37 mg/kg

low low low low low

What are standards for metals? EPA Region III Risk Based Concentrations

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3.6 Potential Receptor Survey & Hazardous Sites Identification

3.6.1 Surrounding Land Uses

Surrounding land uses were noted as follows:

- To the north, on the opposite bank of the Dog River, there is an active retail petroleum/convenience store facility.
- To the northeast, across South Main Street, there is a granite finishing factory.
- To the east, across South Main Street, there are located a law office, a hotel, a doughnut shop, and a bank.
- To the south are located several retail stores, a diner, a pharmacy, and a telephone company office. Residential apartments are located in the upper floors of these buildings.
- West of the property there is a large parking area with three small storage buildings.

3.6.2 Site Utilities

The site is served by the Northfield municipal water supply system; the well-head for this water system is located approximately 1.25 miles south of the site. The site is not within the source protection area for this well-head. Electrical and wastewater lines are also present in the subsurface. Telephone service at the site is provided by overhead lines. All known subsurface conduits are noted on the site map (**Figure 2**).

3.6.3 Potable Water Sources - ½ Mile Radius of Site

There are no private, semi-public, or public potable water sources within a ½ mile radius of the site.

3.6.4 Hazardous Sites Review/Identification

A review of the Vermont WMD files revealed the following information regarding surrounding sites within the Northfield area:

- Site 91-1103/93-1451, Lemery Store/Northfield Green: this site, although currently undergoing active remediation due to separate-phase petroleum hydrocarbon impact to groundwater, is one (1) mile south of the site. Groundwater flow is to the southwest, and not in the direction of the site.
- Site 93-1431, Northfield Fuels: assessment of this site was conducted as the result of a diesel UST closure. This site, located on Wall Street, approximately 0.1 miles to the southwest, although adsorbed impact to overburden soils was noted, no groundwater contamination was detected.
- Site 94-1103, Hayden Hall, Norwich University: this site is approximately one (1) mile south of the subject site. Investigative activities have revealed no groundwater impact from the closed #2 fuel oil UST. Although adsorbed impact to overburden soils was noted. Monitoring is on-going.
- Site 94-1703, Power Plant Site, Norwich University is approximately one (1) mile south of the subject site. Investigative activities have revealed no groundwater impact from the fuel

oil #6 UST. Monitoring is ongoing.

- Site 94-1720, Severy residence. This site is located approximately 1.35 miles south of the subject site. No impact to groundwater was observed during fuel oil #2 UST closure activities. Contaminated soils have been excavated and encapsulated on-site. Monitoring of soils is ongoing.
- Site 77-0062, Stoddard Enterprises, a former wood preservative facility, is a currently inactive site under the Comprehensive Environmental Response Compensation and Liability Sytem (CERCLIS). The preliminary assessment was completed in November 1987. The site is approximately 0.3 miles southwest of the subject property.

Based upon the groundwater characteristics defined through this study, none of the above sites could be considered to have potentially impacted the overburden soils and groundwater at the subject site.

4.0 FINDINGS

KENT S. KOPTIUCH, Inc. Geo-Environmental Services' phase II subsurface investigation at the Merchants' Northfield drive-through facility in Northfield, Vermont yielded the following results and findings:

- The overburden aquifer consists of poorly sorted fine-to-medium sands and gravels associated with fluvial deposition from the Dog River. Bedrock was encountered at approximately twenty-two (22) -feet below grade. The groundwater table was noted at depths of 15 to 17 -feet below grade at the time of this investigation.
- Groundwater flow conditions in the overburden aquifer exhibit a northerly flow direction across the site. Gradient is approximately 2.5% with a rate-of-travel through the overburden aquifer of approximately 1.04 gpd/ft^2.
- No visible evidence of separate-phase petroleum hydrocarbon products was observed during soil sampling, well installation, and groundwater sampling activities at locations for MW-1, MW-2, MW-4, SB-1, and SB-2. No VOCs were detected by headspace analysis of soil samples secured during boring activities at these locations.
- Soil samples in the 15.0 to 22.0 -foot depth below grade yielded VOC impact of 5.0 to 300. ppm by PID and smelled noticeably of gasoline.
- Laboratory chemical analytical results of the groundwater sample secured from monitoring well MW-3 yielded positive impact by benzene; ethylbenzene; toluene; and xylenes (BTEX) at levels ***above*** ANR DEC preventive action levels for groundwater quality standards or guidance values. Total dissolved BTEX concentration was 6,144 micrograms per liter.
- Methyl tert butyl-ether (MTBE) was not detected above the method detection limit in groundwater samples secured from any of the wells.
- Laboratory chemical analytical results of the soil samples secured from MW-1, MW-2, MW-3, and MW-4 yielded positive, low-level impact by arsenic, barium, chromium, and lead.
- Laboratory chemical analytical results of the soil sample secured from MW-2 yielded positive, low-level impact by cadmium.

- Laboratory chemical analytical results of the soil samples secured from MW-3 and MW-4 yielded positive, low-level impact by mercury.
- No evidence of off-site migration by contaminants at concentrations in excess of the Vermont Groundwater Enforcement Standards has been discerned by the workscope defined in this investigation.
- No evidence of any off-site threat to human health, safety, has been discerned by the workscope defined in this investigation.
- No evidence of any impact to the Dog River has been discerned by the work scope defined in this investigation.
- No evidence has been revealed through the activities of this investigation that would indicate that any underground storage tanks remain buried on-site.
- No evidence has been revealed through the activities of this investigation that would indicate the migration of contaminants onto this site, from other sites in the vicinity has occured.

5.0 RECOMMENDATIONS

Based upon the findings set forth in Section 4.0, KSKGeoS™ offers the following recommendations:

- A copy of this report should be forwarded to the Sites Management Section of the Vermont Agency of Natural Resources Department of Environmental Conservation at 103 South Main Street in Waterbury, Vermont.
- Semi-annual groundwater monitoring of all four (4) groundwater monitoring wells should be performed to track dissolved-phase concentrations in the overburden aquifer over time. Laboratory analyses of the samples should be by EPA method 8020 for BTEX and MTBE. Semi-annual summary reports interpreting data results and trends over time should be prepared by a qualified groundwater scientist.
- After a year of groundwater monitoring has been completed, a comprehensive evaluation of this site should be completed by a qualified groundwater scientist to determine the need for additional monitoring and/or other actions.

KENT S. KOPTIUCH, Inc. Geo-Environmental Services

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6.0 LIMITATIONS

This report is based upon limited physical investigation of the site and vicinity, samples from a fixed number of groundwater monitoring wells and sampling points, laboratory chemical analyses, and research of materials and files available at the time of the investigation. The findings presented in this report are based only on the observations drawn during this investigation, and upon data provided by others. This report presents a description of the subsurface conditions, in the overburden lithology at each sampling and/or well location, that were prevalent at the time of KSKGeoS™' investigation.

Subsurface conditions can vary significantly over time, particularly with respect to groundwater elevations and groundwater and soil quality. Findings and recommendations presented in this document are applicable only to the facts and conditions described at the time of this investigation. In performing its professional services, KSKGeoS™ employs the degree of care and skill exercised under similar circumstances by members of the environmental profession practicing in the same or similar locality under similar conditions. The standard of care shall be judged exclusively as of the time these services are rendered, and not according to later standards. KSKGeoS™ makes no express or implied warranty beyond its conformance to this standard. KSKGeoS™ shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed for the preparation of this document. KSKGeoS™ believes that all information contained in this document is factual, but no guarantee is made or implied.

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Attachment A
SOIL BORING & WELL COMPLETION LOGS

KENT S. KOPTIUCH, Inc. Geo-Environmental Services

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Attachment A

SOIL BORING & WELL COMPLETION LOGS

KSKGeoST™

KENT S. KOPTIUCH, INC.
Geo-Environmental Services
164 OSGOOD HILL • ESSEX, VERMONT 05452
TELE/FAX (802) 878-1620

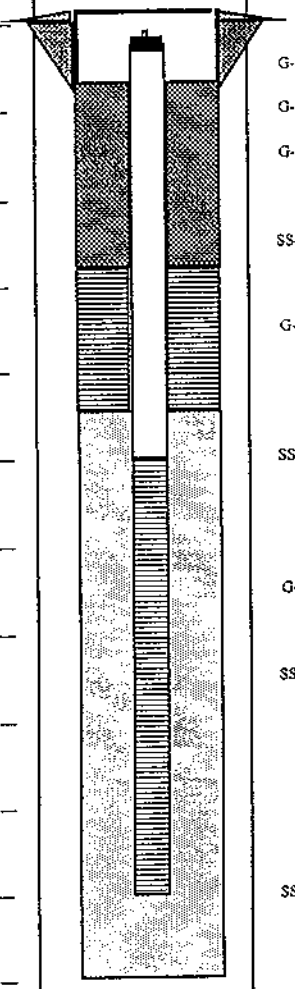
WELL LOG MW -1

INSTALLED: July 9, 1996
LOGGED BY: KENT S. KOPTIUCH, CGWP

PROJECT # 96012	DRILLING COMPANY	DRILL RIG:	SAMPLING METHOD:
MERCHANTS/NORTHFIELD	TRI-STATE DRILLING	MOBILE B-57, 4¼ ID HSA	SPLIT-SPOON & GRAB

BENTONITE WELL SEAL
CONCRETE SURFACE SEAL
NATIVE BACKFILL
#0 MORIE SAND PACK

CASING: 2" DIAM., FLUSH-THREADED PVC
SCREEN: 2" DIAM., FLUSH-THREADED, 0.20' SLOT PVC
GRADE ELEVATION: 99.09' TOP-OF-CASING ELEVATION: 98.85'



DEPTH (ft)	SAMPLE #	DEPTH (ft)	BLOWS/6"	RECOVERY	VOCs (ppm)	SOILS/LITHOLOGY	COMMENTS
0.0	G-1	0.0-0.3		GRAB	0.0	ASPHALT	
	G-2	0.3-0.6		GRAB	0.0	Dry, Grey-Brown, Medium SAND w/Common Fine GRAVEL	
2.0	G-3	0.6-5.0		GRAB	0.0	Dry, Light-Brown, Fine SAND	
4.0	SS-1	5.0-7.0	3-3-3-4	0.9'	0.0	Moist, Olive-Brown, Fine SAND w/Little SILT and	
6.0						Common Fine GRAVELS	
	G-4	7.0-10.0		GRAB	0.0	As Above	
8.0							
10.0	SS-2	10.0-12.0	2-3-5-17	1.9'	0.0	Moist, Orange-Brown Grades to Olive-Grey Fine SAND	
12.0						with Few GRAVELS	
	G-5	12.0-15.0		GRAB	0.0	As Above	
14.0							*WT @15.0'BG*
	SS-3	15.0-17.0	4-7-5-8	1.2'	0.0	Saturated, Olive-Grey, Fine SAND	
16.0							
18.0							
20.0	SS-4	20.0-22.0	1-5-4-6	1.9'	0.0	Saturated, Grey-Brown, Very Fine SAND	
22.0							*End-of-Boring*
24.0							
26.0							
28.0							
30.0							
32.0							

KSKGeoS™

KENT S. KOPTIUCH, INC.
Geo-Environmental Services
164 OSGOOD HILL • ESSEX, VERMONT 05452
TELE/FAX (802) 878-1620

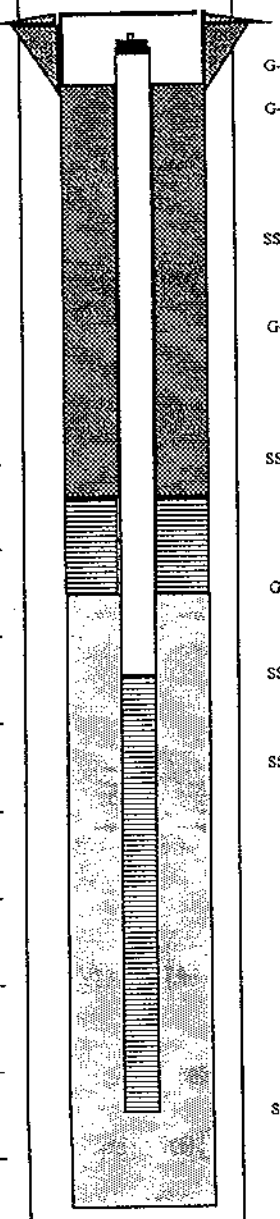
WELL LOG MW -2

INSTALLED: July 9, 1996
LOGGED BY: KENT S. KOPTIUCH, CGWP

PROJECT # 96012	DRILLING COMPANY	DRILL RIG:	SAMPLING METHOD:
MERCHANTS/NORTHFIELD	TRI-STATE DRILLING	MOBILE B-57, 4¼ ID HSA	SPLIT-SPOON & GRAB

BENTONITE WELL SEAL
CONCRETE SURFACE SEAL
NATIVE BACKFILL
#0 MORIE SAND PACK

CASING: 2" DIAM., FLUSH-THREADED PVC
SCREEN: 2" DIAM., FLUSH-THREADED, 0.20' SLOT PVC
GRADE ELEVATION: 98.75'
TOP-OF-CASING ELEVATION: 98.35'



SAMPLE #	DEPTH (ft)	BLOWS/¼'	RECOVERY	VOCs (ppm)	SOILS/LITHOLOGY	COMMENTS
G-1	0.0-0.3		GRAB	0.0	ASPHALT	
G-2	0.3-5.0		GRAB	0.0	Dry, Dark-Brown, Medium-Fine SAND w/Few GRAVELS	
SS-1	5.0-7.0	4-2-2-8	1.2'	0.0	Dry, Olive-Brown, Fine SAND w/Common GRAVELS	
G-3	7.0-10.0		GRAB	0.0	As Above	
SS-2	10.0-12.0	10-12-18-25	0.4'	0.0	Dry, Olive-Brown, Fine SAND w/Common GRAVELS	Orange Mottles
			1.0'	0.0	Dry, Grey, Coarse SAND w/Many GRAVELS	
G-4	12.0-15.0		GRAB	0.0	As Above	
SS-3	15.0-17.0	4-8-12-16	1.2'	0.0	Moist, Grey, Coarse SAND w/Many GRAVELS	
						WT @17.0'BG
SS-4	17.0-19.0	8-10-10-12	0.5'	0.0	Saturated, Grey, Coarse SAND w/Many GRAVELS	
			0.5'	0.0	Saturated, Olive-Grey, Very-Fine SAND	
SS-5	25.0-27.0	1	2.0'	0.0	Saturated, Olive-Brown, Very-Fine SAND	*Running Sands*
						End-of-Boring

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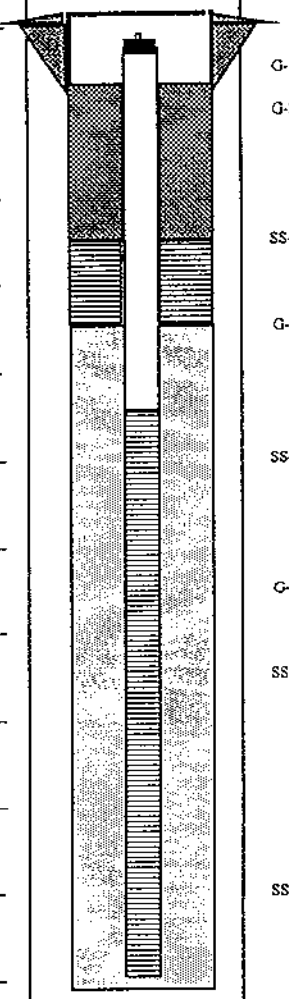
WELL LOG MW -3

INSTALLED: July 9, 1996
LOGGED BY: KENT S. KOPTIUCH, CGWP

PROJECT # 96012	DRILLING COMPANY	DRILL RIG:	SAMPLING METHOD:
MERCHANTS/NORTHFIELD	TRI-STATE DRILLING	MOBILE B-57, 4¼ ID HSA	SPLIT-SPOON & GRAB

BENTONITE WELL SEAL
CONCRETE SURFACE SEAL
NATIVE BACKFILL
#0 MORIE SAND PACK

CASING: 2" DIAM., FLUSH-THREADED PVC
SCREEN: 2" DIAM., FLUSH-THREADED, 0.20' SLOT PVC
GRADE ELEVATION: 97.51' TOP-OF-CASING ELEVATION: 96.96'



SAMPLE #	DEPTH (ft)	BLOWS/6"	RECOVERY	VOCs (ppm)	SOILS/LITHOLOGY	COMMENTS
G-1	0.0-0.3		GRAB	0.0	ASPHALT	
G-2	0.3-5.0		GRAB	0.0	Dry, Light-Brown, Fine SAND w/Common GRAVELS	
SS-1	5.0-7.0	1-2-2-4	0.9'	0.0	Dry, Light-Brown, Fine SAND w/Common GRAVELS	
G-3	7.0-10.0		GRAB	0.0	As Above	
SS-2	10.0-12.0	1-1-4-6	0.3'	0.0	Dry, Dark-Brown, Medium-Fine SAND w/Many GRAVELS	
G-4	12.0-15.0		GRAB	0.0	As Above	
SS-3	15.0-17.0	2-2-3-9	1.0'	300.	Moist, Olive-Grey, Very-Fine SAND	Gasoline Odor
			0.3'	125.	Wet, Grey, Coarse SAND w/Common GRAVELS	*WT @17.0'BG*
SS-4	20.0-22.0	10-15-11-12	1.2'	5.0	Saturated, Grey-Brown, Medium-Fine SAND w/Many Coarse GRAVELS, Few SILTS	
						End-of-Boring

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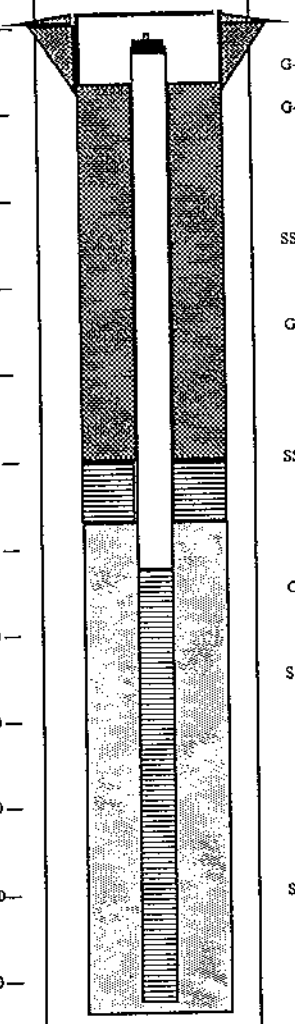
WELL LOG MW - 4

INSTALLED: July 9, 1996
LOGGED BY: KENT S. KOPTIUCH, CGWP

PROJECT # 96012	DRILLING COMPANY	DRILL RIG:	SAMPLING METHOD:
MERCHANTS/NORTHFIELD	TRI-STATE DRILLING	MOBILE B-57, 4¼ ID HSA	SPLIT-SPOON & GRAB

BENTONITE WELL SEAL
CONCRETE SURFACE SEAL
NATIVE BACKFILL
#0 MORIE SAND PACK

CASING: 2" DIAM., FLUSH-THREADED PVC
SCREEN: 2" DIAM., FLUSH-THREADED, 0.20' SLOT PVC
GRADE ELEVATION: 97.23'
TOP-OF-CASING ELEVATION: 96.93'



SAMPLE #	DEPTH (ft)	BLOWS/6"	RECOVERY	VOCs (ppm)	SOILS/LITHOLOGY	COMMENTS
G-1	0.0-1.0		GRAB	0.0	Moist, Dark-Brown, Loamy SAND w/Many Grassy Roots	
G-2	1.0-5.0		GRAB	0.0	Dry, Dark-Brown, Medium SAND w/Few GRAVELS & Little SILT	
SS-1	5.0-7.0	5-2-2-5	0.2'	0.0	Dry, Dark-Brown, Medium SAND w/Common GRAVELS	
G-3	7.0-10.0		GRAB	0.0	Dry, Light-Brown, Fine SAND	
SS-2	10.0-12.0	10-25-20-20	1.5'	0.0	Dry, Olive-Grey SILT w/Many Fine SANDS & Many Coarse, Schistose GRAVELS	
G-4	12.0-15.0		GRAB	0.0	As Above	
SS-3	15.0-17.0	1-2-1-3	1.6'	0.0	Moist, Grey SILT w/Common CLAYS & Fine SANDS	▼ *WT @17.0'BG*
SS-4	20.0-22.0	1-1-12-Ref	1.6'	0.0	Saturated, Grey/Olive-Grey, SILT w/ Many Fine SANDS	
			0.2'	0.0	Grey, Schistose Bedrock Chips	*End-of-Boring*

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BORING LOG SB - 1

INSTALLED: July 9, 1996
LOGGED BY: KENT S. KOPTIUCH, CGWP

PROJECT # 96012	DRILLING COMPANY	DRILL RIG:	SAMPLING METHOD:
MERCHANTS/NORTHFIELD	TRI-STATE DRILLING	MOBILE B-57, 4¼ ID HSA	SPLIT-SPOON & GRAB

BENTONITE WELL SEAL
CONCRETE SURFACE SEAL
NATIVE BACKFILL
#0 MORIE SAND PACK

CASING: N/A
SCREEN: N/A
GRADE ELEVATION: 99.12'

TOP-OF-CASING ELEVATION: N/A

DEPTH (ft)	CONSTRUCTION	SAMPLE #	DEPTH (ft)	BLOWS/6"	RECOVERY	VOCs (ppm)	SOILS/LITHOLOGY	COMMENTS
0.0		G-1	0.0-5.0		GRAB	0.0	Dry, Dark-Brown, Loamy SAND w/Few GRAVELS	
2.0								
4.0		SS-1	5.0-7.0	3-2-2-2	0.9'	0.0	Dry, Dark-Brown, Medium-Fine SAND w/Few GRAVELS & Little SILT	
6.0								
8.0								
10.0		SS-2	10.0-12.0	2-2-2-10	0.5'	0.0	Moist, Dark-Brown, Medium SAND w/Many SILTS & Common GRAVELS	
12.0		SS-3	12.0-14.0	6-10-17-16	1.0'	0.0	Moist, Olive-Grey, Medium-Coarse SAND w/Many GRAVEL	
14.0		SS-4	15.0-17.0	12-14-10-15	1.0'	0.0	Moist, Grey, Coarse SAND w/Common Gravels	▼ *WT @16.0'BG*
16.0					0.1'	0.0	Saturated, As Above	
		SS-5	17.0-19.0	5-10-10-10	1.0'	0.0	Saturated, Black, SILT w/Many SANDS & Common GRAVEL	
18.0					0.3'	0.0	Saturated, Very-Fine SAND	*End-of-Boring*
20.0								
22.0								
24.0								
26.0								
28.0								
30.0								
32.0								

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BORING LOG SB - 2

INSTALLED: July 9, 1996
LOGGED BY: KENT S. KOPTIUCH, CGWP

PROJECT # 96012	DRILLING COMPANY	DRILL RIG:	SAMPLING METHOD:
MERCHANTS/NORTHFIELD	TRI-STATE DRILLING	MOBILE B-57, 4¼ ID HSA	SPLIT-SPOON & GRAB

BENTONITE WELL SEAL
CONCRETE SURFACE SEAL
NATIVE BACKFILL
#0 MORIE SAND PACK

CASING: N/A
SCREEN: N/A
GRADE ELEVATION: 99.50'

TOP-OF-CASING ELEVATION: N/A

DEPTH (ft)	CONSTRUCTION	SAMPLE #	DEPTH (ft)	BLOWS/¼'	RECOVERY	VOCs (ppm)	SOILS/LITHOLOGY	COMMENTS
0.0		G-1	0.0-0.3		GRAB	0.0	ASPHALT	
		G-2	0.3-5.0		GRAB	0.0	Dry, Light-Brown SAND w/Common GRAVELS	
2.0								
4.0		SS-1	5.0-7.0	2-3-5-6	0.5'	0.0	Dry, Olive-Brown, Fine SAND w/Common GRAVELS	
6.0		G-3	7.0-10.0		GRAB	0.0	As Above	
8.0								
10.0		SS-2	10.0-12.0	1-1-4-4	0.9'	0.0	Wet, Olive-Brown Fine SAND w/Few GRAVELS	
					0.3'	0.0	Wet, Grey-Brown, Coarse SAND w/Many GRAVELS	(Schistose)
12.0								
14.0		SS-3	15.0-17.0	10-4-11-10	1.0'	0.0	Dry, Grey-Brown, Coarse SAND w/Common GRAVELS	
16.0								▼ WT @17.0'BG
18.0								
20.0		SS-4	20.0-22.0	2-3-6-7	1.5'	0.0	Saturated, Grey, Coarse SAND w/Many GRAVELs	
22.0								End-of-Boring
24.0								
26.0								
28.0								
30.0								
32.0								

Attachment B

LABORATORY CHEMICAL ANALYTICAL RESULTS: JULY 16, 1996 GROUNDWATER SAMPLING EVENT

KENT S. KOPTIUCH, Inc. Geo-Environmental Services

164 OSGOOD HILL • ESSEX, VT 05452 • TELE/FAX (802) 878-1620

ENDYNE, INC.

Laboratory Services

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

REPORT OF LABORATORY ANALYSIS

CLIENT: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996

PROJECT CODE: KSKG1437
REF.#: 91,387 - 91,392

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Chain of custody indicated sample preservation with HCl.

All samples were prepared and analyzed by requirements outlined in the referenced method and within the specified holding times. All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced method. Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate recovery data was determined to be within laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

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: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 18, 1996

PROJECT CODE: KSKG1437
REF.#: 91,387
STATION: Trip Blank
TIME SAMPLED: 13:30
SAMPLER: Kent Koptiuch

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 97%

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: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 17, 1996

PROJECT CODE: KSKG1437
REF.#: 91,388
STATION: MW-1
TIME SAMPLED: 13:45
SAMPLER: Kent Koptiuch

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 95%

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: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 18, 1996

PROJECT CODE: KSKG1437
REF.#: 91,389
STATION: MW-2
TIME SAMPLED: 14:00
SAMPLER: Kent Koptiuch

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 112%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

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LABORATORY REPORT

EPA METHOD 8020--PURGEABLE AROMATICS

CLIENT: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 18, 1996

PROJECT CODE: KSKG1437
REF.#: 91,390
STATION: MW-4
TIME SAMPLED: 14:15
SAMPLER: Kent Koptiuch

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	ND
Xylenes	1	ND
MTBE	10	ND

Bromobenzene Surrogate Recovery: 108%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

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LABORATORY REPORT

EPA METHOD 8020--PURGEABLE AROMATICS

CLIENT: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 18, 1996

PROJECT CODE: KSKG1437
REF.#: 91,391
STATION: MW-3
TIME SAMPLED: 14:30
SAMPLER: Kent Koptiuch

Parameter	Detection Limit (ug/L)[1]	Concentration (ug/L)
Benzene	100	254.
Chlorobenzene	100	ND[2]
1,2-Dichlorobenzene	100	ND
1,3-Dichlorobenzene	100	ND
1,4-Dichlorobenzene	100	ND
Ethylbenzene	100	1,140.
Toluene	100	1,070.
Xylenes	100	3,680.
MTBE	1,000	ND

Bromobenzene Surrogate Recovery: 100%

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

NOTES:

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

2 None detected

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LABORATORY REPORT

EPA METHOD 8020--PURGEABLE AROMATICS

CLIENT: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 18, 1996

PROJECT CODE: KSKG1437
REF.#: 91,392
STATION: Field Blank
TIME SAMPLED: 14:45
SAMPLER: Kent Koptiuch

Parameter	Detection Limit (ug/L)	Concentration (ug/L)
Benzene	1	ND[1]
Chlorobenzene	1	ND
1,2-Dichlorobenzene	1	ND
1,3-Dichlorobenzene	1	ND
1,4-Dichlorobenzene	1	ND
Ethylbenzene	1	ND
Toluene	1	1.5
Xylenes	1	3.3
MTBE	10	ND

Bromobenzene Surrogate Recovery: 95%

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

NOTES:
1 None detected

ENDYNE, INC.

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FAX 879-7103

EPA METHOD 8020 LABORATORY REPORT

MATRIX SPIKE AND DUPLICATE LABORATORY CONTROL DATA

CLIENT: KSKGeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 20, 1996
DATE SAMPLED: July 16, 1996
DATE RECEIVED: July 17, 1996
DATE ANALYZED: July 17, 1996

PROJECT CODE: KSKG1437
REF.#: 91,388
STATION: MW-1
TIME SAMPLED: 13:45
SAMPLER: Kent Koptiuch

Parameter	Sample(ug/L)	Spike(ug/L)	Dup1(ug/L)	Dup2(ug/L)	Avg % Rec
Benzene	ND[1]	10	10.4	10.6	105%
Toluene	ND	10	10.2	10.4	103%
Ethylbenzene	ND	10	10.1	10.2	102%
Xylenes	ND	30	30.0	30.5	101%

NOTES:
1 None detected

ENDYNE, INC.

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16972

CHAIN-OF-CUSTODY RECORD

Project Name: [illegible] Site Location: [illegible]	Reporting Address: [illegible]	Billing Address: [illegible]
Endyne Project Number: [illegible]	Company: [illegible] Contact Name/Phone #: [illegible]	Sampler Name: [illegible] Phone #: [illegible]

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
	[illegible]	H2O	X		7/[illegible] 1530	2	40 ml/VOA	[illegible]	[illegible]	HCL	
	MW-1				1345						
	MW-2				1400						
	MW-4				1415						
	MW-3				1430						
	FIELD BLANK				1445						

Relinquished by: Signature [illegible]	Received by: Signature [illegible]	Date/Time 7/[illegible] 1530 hrs
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes ___ No X

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify)	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

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16973

CHAIN-OF-CUSTODY RECORD

Project Name: [illegible] Site Location: [illegible]	Reporting Address: [illegible]	Billing Address: [illegible]
Endyne Project Number: [illegible]	Company: [illegible] Contact Name/Phone #: [illegible]	Sampler Name: [illegible] Phone #: [illegible]

Lab #	Sample Location	Matrix	GRAB	COMP	Date/Time	Sample Containers No.	Sample Containers Type/Size	Field Results/Remarks	Analysis Required	Sample Preservation	Rush
	[illegible]	[illegible]	X		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	X		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	X		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
	[illegible]	[illegible]	X		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

Relinquished by: Signature [illegible]	Received by: Signature [illegible]	Date/Time 7/10/96 0950 hrs
Relinquished by: Signature [illegible]	Received by: Signature [illegible]	Date/Time [illegible]

New York State Project: Yes ___ No X

Requested Analyses

1	pH	6	TKN	11	Total Solids	16	Metals (Specify) [illegible]	21	EPA 624	26	EPA 8270 B/N or Acid
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	EPA 625 B/N or A	27	EPA 8010/8020
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	EPA 418.1	28	EPA 8080 Pest/PCB
4	Nitrite N	9	BOD_5	14	Turbidity	19	BTEX	24	EPA 608 Pest/PCB		
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCLP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										

Attachment C

LABORATORY CHEMICAL ANALYTICAL RESULTS: JULY 9, 1996 SOILS SAMPLING EVENT

KENT S. KOPTIUCH, Inc. Geo-Environmental Services

164 OSGOOD HILL • ESSEX, VT 05452 • TELE/FAX (802) 878-1620

ENDYNE, INC.

Laboratory Services

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

REPORT OF LABORATORY ANALYSIS

CLIENT: KSK GeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 24, 1996
DATE SAMPLED: July 9, 1996

PROJECT CODE: KSKG3346
REF.#: 91,068 - 91,071

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody.

Samples were not preserved.

All samples were prepared and analyzed by requirements outlined in the referenced methods and within the specified holding times.

All instrumentation was calibrated with the appropriate frequency and verified by the requirements outlined in the referenced methods.

Blank contamination was not observed at levels affecting the analytical results.

Analytical method precision and accuracy was monitored by laboratory control standards which included matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures

ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

CLIENT: KSK GeoS
PROJECT NAME: Merchants/Northfield
REPORT DATE: July 24, 1996
DATE SAMPLED: July 9, 1996
DATE RECEIVED: July 10, 1996

PROJECT CODE: KSKG3346
REF. #: 91,068
STATION: MW-1 15-17'
TIME SAMPLED: 11:00
SAMPLER: Koptiuch

Digestion was performed by EPA Method 3050.

Parameter	Concentration (mg/kg, dry wt.)	Reporting Limit (mg/kg, dry wt.)	EPA Method	Analysis Date
Total Arsenic	6.93	0.279	7060	7/15/96
Total Barium	9.34	0.558	6010	7/15/96
Total Cadmium	ND[1]	0.279	6010	7/15/96
Total Chromium	5.68	0.558	6010	7/15/96
Total Lead	4.47	0.112	7421	7/19/96
Total Mercury	ND	0.056	7471	7/23/96
Total Selenium	ND	0.558	7740	7/17/96
Total Silver	ND	0.558	6010	7/15/96

NOTES:
1 None Detected