

DEC 9 10 21 AM '98

MILTON, VERMONT
05475

Phase (check one)		Type (check one)	
X	Initial Site Investigation		Work Scope
	Corrective Action Feasibility Investigation	X	Technical Report
	Corrective Action Plan		PCF Reimbursement Request
	Corrective Action Summary Report		General Correspondence
	Operations and Monitoring Report		

HYDROGEOLOGIC SUBSURFACE INVESTIGATION

Milton Beverage Warehouse
484 Route 7 South
Milton, Vermont
44°37'40" North, 73°08'16" West

KSKGeoS™ Project #: 98022
DEC Spill #: 98246-3
UST Facility ID #: 8937347

Prepared For:

Mr. Carl Ruprecht
S. B. Collins, Inc.
P. O. Box 671
St. Albans, Vermont 05478

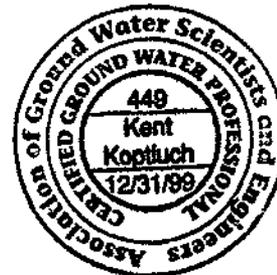
Submitted by:

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Date: December 3, 1998

Prepared By:

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President
Principal Hydrogeologist



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EXECUTIVE SUMMARY
HYDROGEOLOGIC SUBSURFACE SITE INVESTIGATION
MILTON BEVERAGE WAREHOUSE
MILTON , VERMONT

KENT S. KOPTIUCH, Inc. (KSKGeoS™), under the authorization of Mr. Carl Ruprecht of S. B. Collins, Inc., conducted a Phase II subsurface hydrogeologic investigation of the Milton Beverage Warehouse property located on Route 7 in Milton, Vermont.

- KSKGeoS™ completed the installation, development, and sampling of three (3) groundwater monitoring wells. One (1) existing site monitoring well was also sampled. Each of the water samples were analyzed under EPA method 8021B for BTEX, trimethylbenzenes, naphthalene, and MTBE (purgeable aromatics), and under EPA modified Method 8015 for total petroleum hydrocarbons (TPH).
- Groundwater exhibits a northerly flow direction across the site. Gradient is approximately 0.8%. The rate of groundwater travel through the aquifer is approximately 3.8×10^{-1} gpd/ft².
- No separate-phase petroleum hydrocarbon products were observed during soil sampling, well installation, or groundwater sampling activities.
- Soils screened by PID from core-barrel samples yielded volatile organic compounds (VOCs) ranging between 70 ppm and 500 ppm in the MW-1 location.
- Soils screened by PID from core-barrel samples yielded no detectable VOCs from the MW-2 and MW-3 locations.
- The groundwater sample from MW-1 yielded dissolved BTEX constituents, naphthalene, 1-2-4 trimethylbenzene, 1-3-5 trimethylbenzene and MTBE at concentrations in excess of the Vermont Groundwater Enforcement Standards (GES).
- The MW-1 ground water sample also yielded results of 61,400 mg/L as analyzed by EPA modified method 8015 for total petroleum hydrocarbons (TPH).
- Monitoring wells MW-2, MW-3, and MW-4 yielded no detectable concentrations of any analytes by either method 8021B or modified 8015.
- The subject site and all surrounding properties are supplied water by the Champlain Water District. There are no known public or private water supply sources within a one-mile radius of the study site.
- Soils and groundwater beneath and down-gradient of the site, and the trenching associated with the natural gas pipeline serving the site were identified as potential receptors to contaminant impact.
- A review of ANR DEC files revealed no other hazardous sites within 1 mile of the subject site.
- No immediate threats to human life, health, or safety were identified during the course of this investigation.
- KSKGeoS™ has recommended the installation of one (1) additional groundwater monitoring well down-gradient of the former UST system location, and a follow-up sampling round complete with a supplemental investigative report.

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1.0 INTRODUCTION

1.1 Authorization and Site Description

On September 8, 1998, KENT S. KOPTIUCH, Inc. Geo-Environmental Services (KSKGeoS™) was authorized by Mr. Carl Ruprecht of S. B. Collins, Inc. to conduct a phase II subsurface hydrogeologic investigation upon a property located on Route 7 in Milton, Vermont. This property is referred to as the Milton Beverage Warehouse (*the Site*). KSKGeoS™' investigation was performed under the Vermont Agency of Natural Resources (ANR) Department of Environmental Conservation (DEC) Waste Management Division's Sites Management Section (SMS) expressway site investigation format as a result of findings presented in KSKGeoS™' Underground Storage Tank closure report of August 31, 1998.

The site is located on the south side of US Route 7 at its intersection with the West Milton Road in Milton, Vermont. The area surrounding the site is comprised of commercial, agricultural, and residential land use. **Figure 1** is a *Site Location Map* depicting the facility's relative geographic location and its topographic setting. The site is currently occupied by the Milton Beverage Warehouse and consists of a retail petroleum facility (ID #8937347) and convenience store/beverage center. The site includes a single story building which serves as the store and warehouse, and a single story mobile home that serves as a residence for the store owners, Mr. and Mrs. Marcel Guillette. The lot size is slightly larger than 1.0 acre and is primarily triangular in shape.

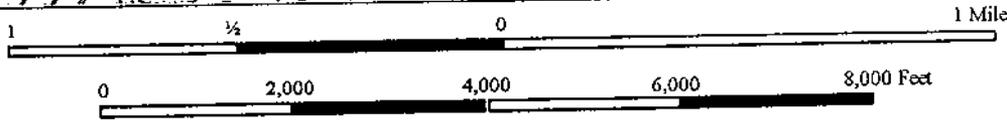
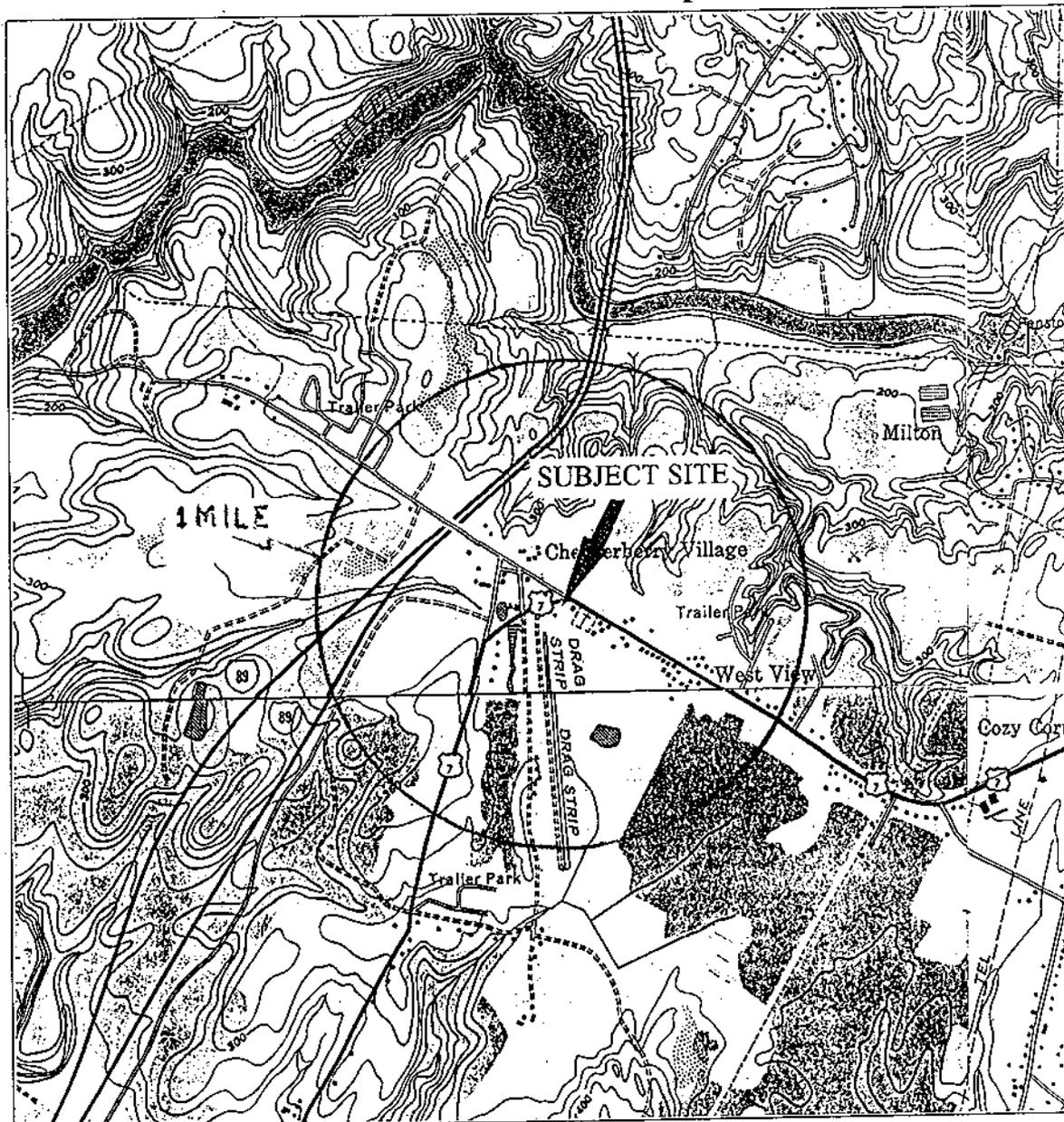
This investigation was initiated following the closure by removal of two (2) USTs completed in August of 1998 to address concerns of possible groundwater and/or soils impact at the site by petroleum hydrocarbons associated with the former UST systems.

1.2 Historical Background

According to Mr. Guillette, the site has been operated as a retail petroleum facility for the last eighteen years. On August 27, 1998, in order to meet the December 22, 1998 deadline for upgrading UST systems, Mr. Guillette elected to close the two (2) USTs by removal. In our Underground Storage Tank Closure Report dated August 31, 1998, KSKGeoS™ noted petroleum impact to soils peaking at 1,870 ppm by photoionization detector (PID). Average concentrations were in the 500 ppm range. Ground water was encountered between 4.0 and 4.5 -feet below grade (BG) during the UST removals. A separate-phase, petroleum sheen was observed on the water table in the UST pit and petroleum staining of soils was noted at and just above the water table on the east sidewall of the excavation. Inspection of the USTs following their removal did not reveal any apparent holes or other evidence of failure. The piping also appeared sound, however, we did note that Mr. Guillette had indicated that he suspected a faulty check valve beneath one of the original pumps may have contributed to the release. All soil removed from the excavation for the UST closures was backfilled in the pit.

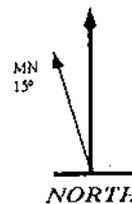
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Figure 1
Site Location Map



SOURCES:

- Colchester Quadrangle, Vermont 7.5 Minute Series (Topographic) U.S.G.S. Reston, VA 1972
- Essex Center Quadrangle, Vermont 7.5 Minute Series (Topographic) U.S.G.S. Reston, VA 1987
- Georgia Plains Quadrangle, Vermont 7.5 Minute Series (Topographic) U.S.G.S. Reston, VA 1987
- Milton Quadrangle, Vermont 7.5 Minute Series (Topographic) U.S.G.S. Reston, VA 1987



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1.3 Goals

KSKGeoS™ developed this investigation to meet the following goals:

- 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).
- To identify and evaluate impacts (if any) to identified 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.

1.4 Scope of Work

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

- A search of the Vermont Agency of Natural Resources Department of Environmental Conservation (DEC) *Vermont Hazardous Sites List (Third Quarter 1998 Update)*.
- Preparation of a site-specific health and safety plan (HASP) in accord with OSHA 29 CFR 1910.120.
- Field identification of potential receptors proximal to the site, including but not limited to: potable water supply sources, surface waterbodies and waterways, sensitive environmental areas, basements and crawl-spaces in on-site and adjacent buildings, and possible preferential subsurface migratory pathways.
- Completion with professional oversight of three (3) soil borings by hydraulic probe methodology; each of these borings was finished as a 1½ -inch diameter groundwater monitoring wells (MW-1, MW-2, and MW-3).
- Inspection of a pre-existing monitoring well on the site to determine its suitability for inclusion in the monitoring well network as MW-4.
- Core-barrel sampling of the overburden soils during soil boring activities. All samples were screened for VOCs, using jarred head-space methodology, with an H-Nu PI-101, 10.2 electron-volt (eV) lamp, photoionization detector (PID).
- Survey of groundwater monitoring well locations and elevations to an assumed datum. Elevational accuracy is $\pm 0.01'$; spatial accuracy is $\pm 1.0'$.
- Gauging of groundwater elevations of all wells in the monitoring well network.
- Sampling of groundwater from wells MW-1, MW-2, MW-3, and MW-4 under chain-of-custody protocol. Field blank samples were also secured.
- Laboratory chemical analyses of groundwater samples for benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tert-butyl ether (MTBE); 1,3,5-trimethylbenzene; 1,2,4 trimethylbenzene; and naphthalene by EPA method 8021b.
- Laboratory chemical analyses of groundwater well samples for total petroleum hydrocarbons (TPH) by modified EPA Method 8015.
- 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 groundwater monitoring well locations, and groundwater contours on October 22, 1998.

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2.0 INVESTIGATIVE METHODOLOGY

2.1 Soil Boring & Groundwater Monitoring Well Installation

Boring and well installations at the site were completed on October 16, 1998. All monitoring well locations were selected by KSKGeoS™ supervising hydrogeologist Kent Koptiuch. Monitoring well locations were sited to best represent the overburden and groundwater conditions on a site-wide basis. Soil borings and wells were completed by Adams Engineering of Underhill, Vermont under the direct supervision of Mr. Koptiuch.

The wells are constructed of 1½" inside-diameter, flush-threaded, PVC screening and casing. Screening is factory-slotted to 0.010' (an equivalent of 0.010 -feet of opening per running foot of screen). The screened interval for each well was determined by the Mr. Koptiuch to extend at least five (5) feet above and five (5) feet below the groundwater table, where possible, to allow for seasonal fluctuations.

The annulus of each borehole was then filter-packed with washed, #1 Morie sand to a depth at least one (1) foot above the top of the screened interval. A one (1) foot (or greater) hydrated bentonite seal was emplaced above the filter-pack. The remainder of the annular space was then backfilled with clean cuttings from each borehole. The top of each well casing was secured with a gripper-type cap. MW-1 and MW-2 were completed with flush-mounted, steel manholes set in concrete pads. MW-3 was completed as a stick-up. Boring and well completion logs are included as **Attachment 1**.

Upon completion, each well was developed by thoroughly purging with a peristaltic pump. Well top-of-casing elevations were surveyed in on October 22, 1998 by KSKGeoS™ to an assumed datum of 100.00 -feet; The top of the concrete slab on the southwest corner of the dispensary island was used as a benchmark.

2.2 Soil Sampling and Field Analysis

Soil boring samples were secured with a two-inch by five-foot (2" x 5') core-barreled sampler, advanced with the aid of a truck-mounted hydraulic probe. Sampling was conducted at continuous intervals beginning at-grade. The core-barrel and probe rods were decontaminated after each sample was collected with a high pressure steam cleaner, liquinox-clean water solution and clean water. The core-barrel was then lined with a clean length of 4 mil polyethylene liner prior to sample procurement.

All samples were classified by the supervising ground water scientist using the Unified Soil Classification System. Each soil sample was screened for the presence of VOCs by PID using bagged, head-space methodology. The PID employed was an H-Nu PI-101 with a 10.2 eV lamp. The unit was calibrated on-site for benzene in calibration gas equivalents (CGEs) of 100% isobutylene at 70 parts per million (ppm).

2.3 Groundwater Monitoring, Sampling, and Analysis

Following the survey, on October 22, 1998, an ART optical interface probe, capable of determining groundwater and separate-phase hydrocarbon petroleum product presence and thickness to within 0.01', was utilized to determine the depth to groundwater and petroleum product (if present) in each well. **Table 1** is a summary of groundwater elevations for the October 22, 1998 gauging event.

Water volumes were then calculated for each of the four (4) wells to be sampled, and the equivalent of three (3) well volumes were purged, by bailing, prior to sampling. Groundwater samples and a field blank were then secured under chain-of-custody protocol.

The sampling bailer was decontaminated between each well utilizing a liquinox-distilled water solution followed by a distilled water rinse. All samples were packed on ice and hand-delivered to Endyne, Inc. Laboratory Services (Endyne) in Williston, Vermont that afternoon. **Table 2** is a summary of the laboratory chemical analytical results for ground water samples obtained on October 22, 1998. The

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SUMMARY TABLE 1: GROUNDWATER ELEVATIONS (in feet) - October 22, 1998						
WELL	GRADE	TOP-OF-CASING	SCREENED INTERVAL	DEPTH-TO-BOTTOM (BG)	DEPTH-TO-WATER	WATER ELEVATION
MW-1	99.10	98.83	85.83 - 95.83	13.27	4.17	84.93
MW-2	99.60	99.23	86.80 - 96.80	12.80	4.06	95.54
MW-3	99.29	101.17	86.45 - 96.45	12.84	3.65	95.64
MW-4	99.69	100.98	90.63 - 97.63	9.06	5.29	94.40

Table 1 Notes:

1) Benchmark: Top of concrete slab (SW corner) for fuel dispenser island.

actual laboratory chemical analytical reports prepared by Endyne are included as Attachment 2.

Laboratory chemical analyses was completed by Endyne in accordance with EPA Method 8021b and with modified EPA method 8015. Method 8021b is utilized to determine concentrations of benzene, toluene, ethylbenzene, and total xylene constituents (BTEX); 1,2,4 tri-methylbenzene; 1,3,5 tri-methylbenzene; naphthalene; and methyl tert-butyl ether (MTBE). The modified EPA Method 8015 is utilized to determine total petroleum hydrocarbon (TPH) concentrations.

2.4 Potential Receptor Survey

A physical survey was conducted to identify potential receptors, including surface waterbodies, potable water sources, neighboring or on-site basements and/or crawl-spaces, sensitive environmental areas, and likely routes of subsurface contaminant migration.

In addition, a review of the DEC's *Vermont Hazardous Sites List* was completed to identify any known spill sites in close proximity to the study site.

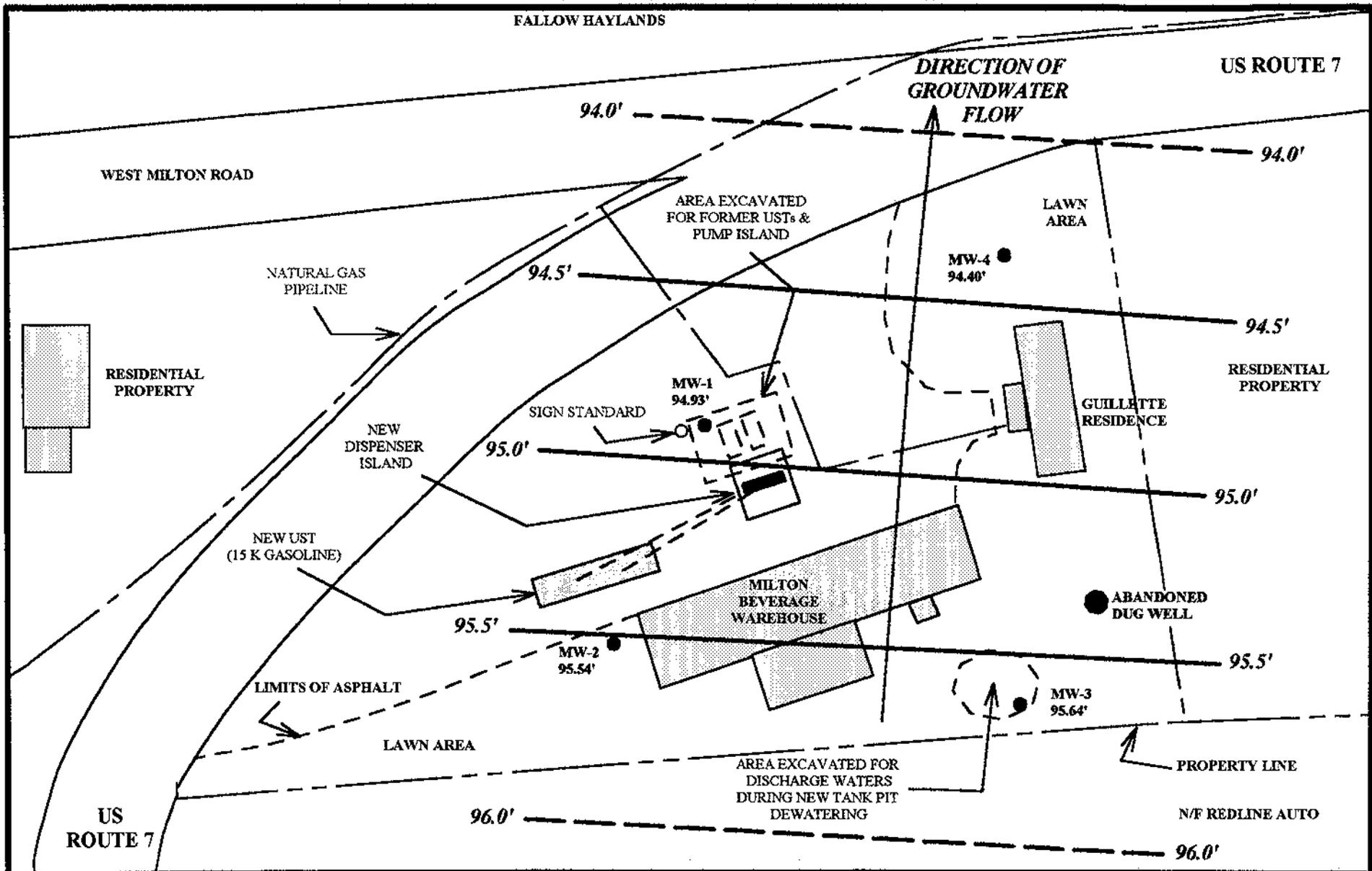
3.0 RESULTS

3.1 Geologic, Overburden Lithologic, Geomorphologic, and Hydrogeologic Summary

The site is located in the Town of Milton, Vermont. The site is situated on a dissected terrace approximately 330-feet above mean sea level. The topography is relatively level; surficial drainage at the site exhibits a radial flow to the south and west with a gradient of less than 1%. Overall regional surficial drainage is generally to the west by means of the Lamoille River basin, which is approximately 1/2-mile north of the site. The Lamoille River flows into the outer bay of Mallett's Bay in Lake Champlain approximately 5 miles west of the site.

According to the *Surficial Geologic Map of Vermont (1970)*, the site is situated upon pebbly marine sands remnant of the former Champlain Sea. Stewart (1974) describes the overburden sands as well-drained above the water table and having moderate-to-high groundwater potential below the water table. Soil horizon profiles exposed during UST excavation and installation activities, and core-barrel samples secured during well installations, revealed fine sand to approximately 7.0 -feet BG, overlying a silty-fine sand horizon that extended to at least 14.0 -feet BG. Groundwater was encountered between 3.0 and 4.0 -feet BG during well installations. During the groundwater sampling event, the water table elevation was gauged at between 3.65 and 5.29 -feet BG.

Bedrock was not encountered during this investigation. According to the *Bedrock Geologic Map of Vermont (1961)*, the underlying bedrock consists of the Skeels Corners slate and the Mill River conglomerate members of the upper Cambrian Sweetsburg formation. Dorsey et. al. (1983) mapped this area as underlain by the upper Cambrian/lower Ordovician Skeels Corners slate, however, she notes the



**FIGURE 2
GROUNDWATER
CONTOUR MAP**

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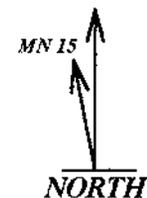
164 Osgood Hill
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PROJECT DETAIL

PROJECT: MILTON BEVERAGE
PROJECT No: 98022
DEC SPILL #: 98-2461
LOCATION: MILTON, VERMONT
CUSTOMER: S.B. COLLINS, INC.
SAMPLE DATE: OCTOBER 22, 1998
DRAWN BY: KOPTIUCH
SCALE: 1" = 50'

CONCENTRATIONS BY WELL IN ug/L

ANALYTE	MW-1	MW-2	MW-3	MW-4
BENZENE	1,710	<1	<1	<1
TOLUENE	13,000	<1	<1	<1
ETHYLBENZENE	1,890	<1	<1	<1
XYLENES	11,200	<2	<2	<2
MTBE	1,090	<2	<2	<2
1,2,4 TRIMETHYLBENZENE	2,310	<1	<1	<1
1,3,5 TRIMETHYLBENZENE	654	<1	<1	<1
NAPHTHALENE	TBQ<1,000	<5	<5	<5
TPH	61,400	<100	<100	<100



0 FEET 50

SUMMARY TABLE 2 - 10/22/98 LABORATORY CHEMICAL ANALYTICAL RESULTS										
WELL	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl- benzene µg/L	Xylenes µg/L	Total BTEX µg/L	1,3,5 Tri- Methylbenzene µg/L	1,2,4 Tri- Methylbenzene µg/L	Naphthalene µg/L	TPH mg/L
MW-1	1,090	1,710	13,000	1,880	11,200	27,790	2,310	654	TBQ<1,000	61.4
MW-2	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<5.0	<0.1
MW-3	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<5.0	<0.1
MW-4	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<5.0	<0.1

Table 2 Notes:

- 1) Volatiles analyzed by EPA Method 8021B.
- 2) Total Petroleum Hydrocarbons (TPH) analyzed by EPA Method 8015 quantitated based upon the response of gasoline.
- 3) TBQ; Trace Below Quantitation Limit.
- 4) Concentrations in bold type represent levels which exceed Vermont Groundwater Enforcement Standards (VT ANR DEC, November 1997)

inverted, north-south running contact with the carbonate sequence of the lower Ordovician Clarendon Springs formation just below the western margin of the site (based upon bedrock exposures south of the site). Stewart (1974) had originally interpreted this contact as an extension of the Muddy Mountain Thrust Fault, however, Dorsey's investigation and reinterpretation showed that this was a graded, depositional contact.

Soil core samples from MW-1 revealed detectable VOCs by PID ranging from 70 ppm in the upper 5.0 - feet to 500 ppm in the 10.0 to 15.0 -foot depth. The samples secured from borings completed for MW-2, MW-3, and MW-4 yielded no detectable concentrations of VOCs by PID.

3.2 Specific Hydrogeological Characteristics

Groundwater beneath the site was gauged at depths ranging from 3.65 (MW-3) to 5.29 (MW-4) -feet BG on the October 22, 1998 sampling date. Groundwater flow direction is to the north across the site with an approximate gradient of 0.8%. 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 (Driscoll, 1986):

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

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-3 to MW-4 on October 22, 1998 is:

$$V_a = \{ [10 \text{ gpd/ft}^2 (95.64' - 94.40') \div 162.5' \} \div 20\% = 3.8 \times 10^{-1} \text{ gpd/ft}^2$$

Table 1 is the groundwater elevation data calculated from the gauging of the monitoring well network on October 22, 1998. Figure 2 depicts groundwater contours of the overburden aquifer based upon this data.

3.3 Groundwater Laboratory Chemical Analytical Results

Actual laboratory chemical analytical results for all analytes are included as Attachment 2 of this report. Table 2 summarizes the results of these analyses. Samples were secured from the four (4) monitoring wells, along with a field blank for quality control purposes.

- Water samples obtained from MW-2, MW-3, and MW-4 were laboratory analyzed by EPA Method 8021B and found to be below the method detection limits (MDL) for methyl-tert butyl ether (MTBE), BTEX, tri-methylbenzenes (1,2,4 and 1,3,5), and naphthalene constituents. The water sample from MW-1 yielded dissolved analyte concentrations as follows: 1,710 µg/L benzene; 13,000 µg/L toluene; 1,880 µg/L ethylbenzene; 11,200 µg/L xylenes (total); 2,310 µg/L 1,2,4 trimethylbenzene; 654 µg/L 1,3,5 trimethylbenzen; 1,090 µg/L MTBE; and a trace below the raised MDL of 1,000 µg/L was picked up for naphthalene.
- A second set of water samples obtained at the site were laboratory analyzed by modified EPA Method 8015 for total petroleum hydrocarbons. The results of these analyses yielded no analyte concentrations above the MDL of 0.1 milligrams per liter (mg/L) in MW-2, MW-3, and MW-4. The sample from MW-1 yielded a total dissolved petroleum hydrocarbon concentration of 61,400 mg/L.
- The field blank samples yielded no detectable analyte concentrations above the MDLs.

3.4 Potential Environmental Concerns

3.4.1 Site Specific Concerns

The Milton Beverage Warehouse is primarily a convenience store; the retail sale of gasoline is ancillary in nature. No mechanical services are performed at the site. The grounds are well-kept. No floor drains were observed. The building is of slab-on-grade construction with no basement or crawl-space.

The Guillette residence is a mobile home; it has a skirted crawl-space beneath the living area. The home is cross-gradient to the former UST location and is not likely to be impacted by the migration of VOC vapors in the overburden soils.

Both site buildings are provided potable water by the Champlain Water District, and the on-site septic system (located adjacent to the abandoned dug well) is up-gradient of the former UST location.

3.4.2 Surrounding Land Uses

Surrounding land uses were noted as follows:

- North and Northeast Fallow agricultural (across Route 7).
- East Residential.
- Southeast Redline Auto - a retail parts and service facility.
- South and Southwest Vacant lands - formerly the Milton drag-strip.
- West The Milton Diner.
- Northwest Residential (across Route 7).

3.4.3 Site Utilities

As noted above, the site is currently supplied potable water by the Champlain Water District. Electrical service is overhead. Natural gas is supplied to the site by way of an underground service that runs in close proximity to the former UST location; the trenching associated with this pipeline system could potentially serve as a migratory pathway for fugitive petroleum hydrocarbons (see Figure 2).

3.4.4 Potable Water Sources - 1 Mile Radius of Site

All of the buildings in the area were tied in to the municipal service (Champlain Water District) several years ago in response to groundwater contaminant problems from a former hazardous waste site (an automobile junkyard now operated as Earth Waste Systems, Inc.) located approximately ¼ mile east of the study site on Route 7. KSKGeoS™ did not identify any public or private water supply sources proximal to the site that have not been abandoned

3.4.5 Other Identified Sensitive Receptors - 1 Mile Radius of Site

Sensitive receptors within a one mile radius of the site include:

- An un-named, headwater tributary to Allen Brook approximately 1/3 -mile south of the site.
- An un-named tributary to the Lamoille River approximately 1/4 -mile west of the site

3.4.6 Hazardous Sites Review/Identification

A review of the Vermont Hazardous Sites List (Third Quarter 1998) yielded no known, active hazardous waste sites within a one -mile radius of the site (with the exception of the site itself).

4.0 FINDINGS

KENT S. KOPTIUCH, Inc. Geo-Environmental Services' phase II subsurface investigation at the Milton Beverage Warehouse property, located on Route 7 in Milton, Vermont yielded the following results and findings:

- The overburden aquifer is comprised primarily of fine sands and silty-fine sands to at least 14 -feet BG. The groundwater table was noted at a depth of approximately 4 -feet below grade at the time of this investigation. Bedrock was not encountered.
- Soil samples secured during the installation of MW-1 yielded VOC concentrations ranging from 70 ppm by PID (0.0 - 5.0 -feet BG) to 500 ppm by PID (10.0 - 15.0 -feet BG).
- Soil samples secured during the installation of MW-2, and MW-3 yielded no detectable VOC concentrations by PID. MW-4 was a pre-existing well; soils were not sampled.
- Groundwater flow conditions in the overburden aquifer exhibit a northerly flow direction across the site. Gradient is approximately 0.8 % with a rate-of-travel through the overburden aquifer of approximately 3.8×10^{-1} gpd/ft².
- Laboratory chemical analytical results of the groundwater samples secured from MW-1 yielded dissolved concentrations in excess of the Vermont Groundwater Enforcement Standards for all analytes run under EPA method 8021B, and a TPH concentration of 61.4 mg/L.
- Laboratory chemical analytical results of the groundwater samples secured from MW-2, MW-3, and MW-4 yielded no detectable analyte concentrations above the MDLs.
- A review of the VT DEC Hazardous Sites List did not identify any known sites within a one -mile radius of the study site.
- The study site, and all surrounding properties are served by a municipal water system. There are no identified wells or surface water sources within a one-mile radius of the site (either public or private) that are currently in-use.
- The trenching associated with the natural gas pipeline that serves the site, and runs parallel to Route 7, has been identified as a potential migratory pathway for petroleum hydrocarbons in the groundwater due to its proximal, down-gradient location to the release area.
- No immediate threats to human life, health, or safety have been identified during the course of this investigation.

5.0 RECOMMENDATIONS

Based upon the findings of this subsurface hydrogeologic investigation, KSKGeoS™ offers the following recommendations for the Milton Beverage Warehouse property:

- An additional groundwater monitoring well (MW-5) should be installed down-gradient of MW-1 adjacent to the natural gas pipeline trench to better evaluate the rate and degree of down-gradient migration (if any) associated with the release of dissolved-phase petroleum hydrocarbons from the former UST system.
- After the installation of the additional well has been completed, a follow-up sampling round, incorporating wells MW-1, MW-2, MW-4, and the new MW-5 should be completed with laboratory chemical analyses by EPA method 8021B for BTEX, trimethylbenzenes, naphthalene, and MTBE constituents.
- A supplemental investigative report should be completed by a qualified groundwater professional with evaluation of these results, and recommendations regarding the need for any additional remedial and/or monitoring actions.

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.

7.0 REFERENCES

- Department of Environmental Conservation, **Chapter 12 - Groundwater Protection Rule and Strategy**, Vermont Agency of Natural Resources, Rule #97-P14, effective November 15, 1997.
- Doll, Charles G., ed., **Centennial Geologic Map of Vermont**, Vermont Geological Survey, Montpelier, VT, 1961.
- Dorsey, Rebecca J., et. al., **Bedrock Geology of the Milton Quadrangle, Northwestern Vermont**, Vermont Geological Survey and Vermont Department of Water Resources and Environmental Engineering, Waterbury, Vermont, Special Bulletin No. 3, 1983.
- Driscoll, Fletcher G., Ph.D., **Groundwater and Wells**, 2nd ed., Johnson Division, St. Paul, MN., 1986.
- Stewart, David P. and Paul MacClintock, **The Surficial Geology and Pleistocene History of Vermont**, Vermont Geological Survey and Water Resources Department, Montpelier, VT, Bulletin No. 31, 1969.

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- Stewart, David P. and Paul MacClintock, **The Surficial Geologic Map of Vermont**, Vermont Geological Survey, Montpelier, VT, 1970.
- Stewart, David P., *Geology for Environmental Planning in the Milton-St. Albans Region, Vermont*, Vermont Geological Survey and Water Resources Department, Montpelier, Vermont, Environmental Geology No. 5, 1974.
- United States Geological Survey, **Colchester Quadrangle, Vermont 7.5 Minute Series (Topographic)**, Reston, VA., 1972.
- United States Geological Survey, **Essex Center Quadrangle, Vermont 7.5 Minute Series (Topographic)**, Reston, VA., 1987.
- United States Geological Survey, **Georgia Plains Quadrangle, Vermont 7.5 Minute Series (Topographic)**, Reston, VA., 1987.
- United States Geological Survey, **Milton Quadrangle, Vermont 7.5 Minute Series (Topographic)**, Reston, VA., 1987.
- Waste Management Division, **Third Quarter 1998 Update, Vermont Hazardous Sites List**, Vermont Agency of Natural Resources Department of Environmental Conservation, Waterbury, VT., October 9, 1998.

Attachment 1

Soil Boring and Well Completion Logs

MW-1 CONSTRUCTION DETAIL

Installation Date: October 16, 1998
Drilling Company: Adams Engineering
Method: Hydro-Punch
Supervising Hydrogeologist: Kent Koptiuch, CGWP
Casing: 1½" Flush-threaded PVC
Screen: 1½" Flush-threaded, 0.010' slot PVC
Grade Elevation: 99.10' (relative to assumed datum of 100.00')
Top-of-Casing Elevation: 98.83' (relative to assumed datum of 100.00')
Screened Interval: 85.83' - 95.83' (relative to assumed datum of 100.00')
Sand Pack: No. 1 Moirie washed sand
Sand Pack Interval: 85.83' - 96.83' (relative to assumed datum of 100.00')
Well Seal: Hydrated, granular bentonite (Benseal)
Well Seal Interval: 96.83' - 97.83' (relative to assumed datum of 100.00')
Well Finish: Flush-mount steel manhole set in asphalt. Slip cap on well-head.

MW-1 SOILS LOG

<u>Sample</u>	<u>Depth BG</u>	<u>Lithology</u>	<u>VOCs (ppm)</u>
0 - 60"	0 - 3"	Wet, pale brown, silty GRAVEL (sure-pack)	0.0
	3 - 9"	Wet, olive brown, very fine SAND	1.0
	9 - 15"	Wet, olive brown, medium SAND	70.0
60 - 120"	60 - 84"	Saturated, As above	200.0
	84 - 119"	Saturated, grey, fine SAND w/many Silts - sheen	500.0
120 - 180"	120 - 148"	Saturated, brown, medium-to-coarse SAND	400.0
	148 - 156"	Saturated, olive, very fine SAND - sheen	400.0

MW-2 CONSTRUCTION DETAIL

Installation Date: October 16, 1998
Drilling Company: Adams Engineering
Method: Hydro-Punch
Supervising Hydrogeologist: Kent Koptiuch, CGWP
Casing: 1½" Flush-threaded PVC
Screen: 1½" Flush-threaded, 0.010' slot PVC
Grade Elevation: 99.60' (relative to assumed datum of 100.00')
Top-of-Casing Elevation: 99.23' (relative to assumed datum of 100.00')
Screened Interval: 86.80' - 96.80' (relative to assumed datum of 100.00')
Sand Pack: No. 1 Moirie washed sand
Sand Pack Interval: 86.80' - 97.80' (relative to assumed datum of 100.00')
Well Seal: Hydrated, granular bentonite (Benseal)
Well Seal Interval: 97.80' - 98.80' (relative to assumed datum of 100.00')
Well Finish: Flush-mount steel manhole set in concrete apron. Slip cap on well-head.

MW-2 SOILS LOG

<u>Sample</u>	<u>Depth BG</u>	<u>Lithology</u>	<u>VOCs (ppm)</u>
0 - 60"	0 - 6"	Moist, dark brown, loamy SAND	0.0
	6 - 12"	Wet, olive brown, very fine SAND	0.0
	12 - 40"	Wet, olive brown, medium SAND	0.0
	40 - 60"	Saturated, as above	0.0
60 - 120"	60 - 82"	As above	0.0
	82 - 120"	Saturated, grey, fine SAND w/many Silts	0.0
120 - 180"	120 - 145"	Saturated, brown, medium-to-coarse SAND	0.0
	145 - 178"	Saturated, olive, very fine SAND	0.0

MW-3 CONSTRUCTION DETAIL

Installation Date: October 16, 1998
Drilling Company: Adams Engineering
Method: Hydro-Punch
Supervising Hydrogeologist: Kent Koptiuch, CGWP
Casing: 1½" Flush-threaded PVC
Screen: 1½" Flush-threaded, 0.010' slot PVC
Grade Elevation: 99.29' (relative to assumed datum of 100.00')
Top-of-Casing Elevation: 101.17' (relative to assumed datum of 100.00')
Screened Interval: 86.45' - 96.45' (relative to assumed datum of 100.00')
Sand Pack: No. 1 Moirie washed sand
Sand Pack Interval: 86.45' - 97.45' (relative to assumed datum of 100.00')
Well Seal: Hydrated, granular bentonite (Benseal)
Well Seal Interval: 97.45' - 98.45' (relative to assumed datum of 100.00')
Well Finish: Stick-up. Slip cap on well-head.

MW-3 SOILS LOG

Sample	Depth BG	Lithology	VOCs (ppm)
0 - 60"	0 - 48"	Dry, olive brown, very fine SAND	0.0
	48 - 60"	Wet, as above	0.0
60 - 120"	60 - 96"	Saturated, as above	0.0
	96 - 120"	Saturated, grey, fine SAND w/many Silts	0.0
120 - 180"	120 - 140"	Saturated, brown, medium-to-coarse SAND	0.0
	140 - 180"	Saturated, olive, very fine SAND	0.0

Attachment 2

**Laboratory Chemical Analytical Results:
October 22, 1998 Groundwater Sampling Event**



Laboratory Services

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

REPORT OF LABORATORY ANALYSIS

CLIENT: KSK GeoS
PROJECT NAME: SBC Milton Beverages
DATE REPORTED: November 2, 1998
DATE SAMPLED: October 22, 1998

PROJECT CODE: KSKG1377
REF. #: 129,770 - 129,774

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

Chain of custody did not indicate sample preservation.

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.

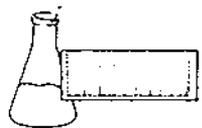
Individual sample performance was monitored by the addition of surrogate analytes to each sample. All surrogate data was determined to be within Laboratory QA/QC guidelines unless otherwise noted.

Reviewed by,

A handwritten signature in black ink, appearing to be "H. Locker", written over a horizontal line.

Harry B. Locker, Ph.D.
Laboratory Director

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ENDYNE, INC.

Laboratory Services

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(802) 879-4333
FAX 879-7103

LABORATORY REPORT

EPA METHOD 8021B COMPOUNDS BY EPA METHOD 8260

CLIENT: KSK GeoS.

PROJECT NAME: SBC Milton Beverages

REPORT DATE: November 2, 1998

DATE SAMPLED: October 22, 1998

DATE RECEIVED: October 22, 1998

ANALYSIS DATE: October 30, 1998

PROJECT CODE: KSKG1377

REF.#: 129,770

STATION: MW-1

TIME SAMPLED: 9:15

SAMPLER: John Roman

<u>Parameter</u>	<u>Detection Limit (ug/L)¹</u>	<u>Concentration (ug/L)</u>
Benzene	200	1,710.
Toluene	200	13,000.
Ethylbenzene	200	1,880.
Xylenes	400	11,200.
MTBE	400	1,090.
1,2,4-Trimethylbenzene	200	2,310.
1,3,5-Trimethylbenzene	200	654.
Naphthalene	1000	TBQ ³

NUMBER OF UNIDENTIFIED PEAKS FOUND: >10

ANALYTICAL SURROGATE RECOVERY:

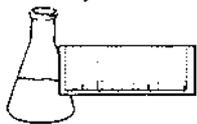
Dibromofluoromethane: 96.%

Toluene-d8: 87.%

4-Bromofluorobenzene: 92.%

NOTES:

- 1 Detection limit increased due to high levels of contaminants. Sample run at a 0.5% dilution.
- 2 Trace below quantitation limit



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LABORATORY REPORT

EPA METHOD 8021B COMPOUNDS BY EPA METHOD 8260

CLIENT: KSK GeoS
PROJECT NAME: SBC Milton Beverages
REPORT DATE: November 2, 1998
DATE SAMPLED: October 22, 1998
DATE RECEIVED: October 22, 1998
ANALYSIS DATE: October 30, 1998

PROJECT CODE: KSKG1377
REF.#: 129,771
STATION: MW-2
TIME SAMPLED: 9:30
SAMPLER: John Roman

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

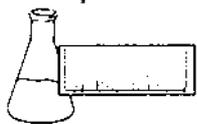
NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane: 98.%
Toluene-d8: 96.%
4-Bromofluorobenzene: 94.%

NOTES:

1 None Detected



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LABORATORY REPORT

EPA METHOD 8021B COMPOUNDS BY EPA METHOD 8260

CLIENT: KSK GeoS
PROJECT NAME: SBC Milton Beverages
REPORT DATE: November 2, 1998
DATE SAMPLED: October 22, 1998
DATE RECEIVED: October 22, 1998
ANALYSIS DATE: October 30, 1998

PROJECT CODE: KSKG1377
REF.#: 129,772
STATION: MW-3
TIME SAMPLED: 9:45
SAMPLER: John Roman

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

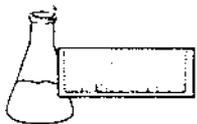
NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane: 98.%
Toluene-d8: 92.%
4-Bromofluorobenzene: 92.%

NOTES:

1 None Detected



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LABORATORY REPORT

EPA METHOD 8021B COMPOUNDS BY EPA METHOD 8260

CLIENT: KSK GeoS
PROJECT NAME: SBC Milton Beverages
REPORT DATE: November 2, 1998
DATE SAMPLED: October 22, 1998
DATE RECEIVED: October 22, 1998
ANALYSIS DATE: October 30, 1998

PROJECT CODE: KSKG1377
REF.#: 129,773
STATION: MW-4
TIME SAMPLED: 10:00
SAMPLER: John Roman

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

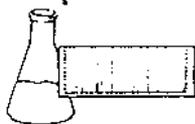
NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane: 98.%
Toluene-d8: 88.%
4-Bromofluorobenzene: 93.%

NOTES:

1 None Detected



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LABORATORY REPORT

EPA METHOD 8021B COMPOUNDS BY EPA METHOD 8260

CLIENT: KSK GeoS
PROJECT NAME: SBC Milton Beverages
REPORT DATE: November 2, 1998
DATE SAMPLED: October 22, 1998
DATE RECEIVED: October 22, 1998
ANALYSIS DATE: October 30, 1998

PROJECT CODE: KSKG1377
REF.#: 129,774
STATION: Field Blank
TIME SAMPLED: 10:30
SAMPLER: John Roman

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

NUMBER OF UNIDENTIFIED PEAKS FOUND: 0

ANALYTICAL SURROGATE RECOVERY:

Dibromofluoromethane: 99.%
Toluene-d8: 103.%
4-Bromofluorobenzene: 92.%

NOTES:

1 None Detected

CHAIN-OF-CUSTODY RECORD

Project Name: <i>SBC MILTON BEVERAGES</i> Site Location: <i>MILTON VERMONT</i>	Reporting Address: <i>KSK Geos</i> <i>164 Osgood Hill Essex Vermont</i>	Billing Address: <i>BC Collins 808 932</i> <i>54 Williams Vt</i> Attn: <i>CARL RUPPECHT (802) 527-0116</i>
Endyne Project Number: <i>KSK6-1377</i>	Company: <i>KSK Geos 802 878-1620</i> Contact Name/Phone #: <i>Kent Koptiuch</i>	Sampler Name: <i>JOHN ROMAN</i> Phone #: <i>802 878-1620</i>

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
<i>129770</i>	<i>MW-1</i>	<i>WATER</i>	<i>X</i>		<i>10/22 915</i>	<i>2</i>	<i>40ML</i>	<i>ODOR</i>	<i>8021B</i>		
<i>129771</i>	<i>MW-2</i>		<i>X</i>		<i>10/22 930</i>	<i>2</i>			<i>8021B</i>		
<i>129772</i>	<i>MW-3</i>		<i>X</i>		<i>10/22 945</i>	<i>2</i>			<i>8021B</i>		
<i>129773</i>	<i>MW-4</i>		<i>X</i>		<i>10/22 1000</i>	<i>2</i>			<i>8021B</i>		
<i>129774</i>	<i>MW-1</i>		<i>X</i>		<i>10/22 920</i>	<i>2</i>			<i>8015</i>		
<i>129775</i>	<i>MW-2</i>		<i>X</i>		<i>10/22 935</i>	<i>2</i>			<i>8015</i>		
<i>129776</i>	<i>MW-3</i>		<i>X</i>		<i>10/22 950</i>	<i>2</i>			<i>8015</i>		
<i>129777</i>	<i>MW-4</i>		<i>X</i>		<i>10/22 1015</i>	<i>2</i>			<i>8015</i>		
<i>129778</i>	<i>Field Blank</i>	<i>✓</i>	<i>X</i>		<i>11/22 1030</i>	<i>2</i>	<i>✓</i>		<i>8021B</i>		

Relinquished by: Signature <i>John Roman</i>	Received by: Signature <i>M. Lander</i>	Date/Time <i>10/22/98 1210</i>
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes No 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 <i>8021B</i>	24	EPA 608 Pest/PCB	29	<i>2015TPH 1100</i>
5	Nitrate N	10	Alkalinity	15	Conductivity	20	EPA 601/602	25	EPA 8240		
29	TCIP (Specify: volatiles, semi-volatiles, metals, pesticides, herbicides)										
30	Other (Specify):										



ENDYNE, INC.

Laboratory Services

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REPORT OF LABORATORY ANALYSIS

CLIENT: KSK GeoS
PROJECT NAME: SBC Milton Beverages
DATE REPORTED: November 2, 1998
DATE SAMPLED: October 22, 1998

PROJECT CODE: KSKG1378
REF. #: 129,775-129,778

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

Chain of custody did not indicate sample preservation.

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.

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

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

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LABORATORY REPORT

TOTAL PETROLEUM HYDROCARBONS (TPH) BY MODIFIED EPA METHOD 8015

DATE: November 2, 1998
CLIENT: KSK GeoS
PROJECT: SBC Milton Beverages
PROJECT CODE: KSKG1378
COLLECTED BY: John Roman
DATE SAMPLED: October 22, 1998
DATE RECEIVED: October 22, 1998

Reference #	Sample ID	Concentration (mg/L) ¹
129,775	MW-1; 9:20	61.4
129,776	MW-2; 9:35	ND ²
129,777	MW-3; 9:50	ND
129,778	MW-4; 10:15	ND

Notes:

1. Value quantitated based on the response of Gasoline. Method detection limit is 0.1 mg/L.
2. None Detected

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

CHAIN-OF-CUSTODY RECORD

Project Name: <i>SRC MILITARY DEBRIS/PCB'S</i>	Reporting Address: <i>KSK 600'S</i>	Billing Address: <i>BC Collins 116932</i>
Site Location: <i>MILTON VERMONT</i>	<i>164 Cogswell Hill Road Vermont</i>	<i>St Albans VT</i>
Endyne Project Number: <i>KSK61378</i>	Company: <i>KSK 600'S 802-878-1620</i>	Sampler Name: <i>JOHN ROMAN</i>
	Contact Name/Phone #: <i>Kent Keptlich</i>	Phone #: <i>802 878-1620</i>

Lab #	Sample Location	Matrix	G R A B	C O M P	Date/Time	Sample Containers		Field Results/Remarks	Analysis Required	Sample Preservation	Rush
						No.	Type/Size				
<i>129770</i>	<i>MW-1</i>	<i>WATER</i>	<i>X</i>		<i>10/22 915</i>	<i>2</i>	<i>40ML</i>	<i>ODOR</i>	<i>8015</i>		
<i>129771</i>	<i>MW-2</i>		<i>X</i>		<i>10/22 920</i>	<i>2</i>			<i>8015</i>		
<i>129772</i>	<i>MW-3</i>		<i>X</i>		<i>10/22 945</i>	<i>2</i>			<i>8015</i>		
<i>129773</i>	<i>MW-4</i>		<i>X</i>		<i>10/22 1000</i>	<i>2</i>			<i>8015</i>		
<i>129775</i>	<i>MW-1</i>		<i>X</i>		<i>10/22 920</i>	<i>2</i>			<i>8015</i>		
<i>129776</i>	<i>MW-2</i>		<i>X</i>		<i>10/27 935</i>	<i>2</i>			<i>8015</i>		
<i>129777</i>	<i>MW-3</i>		<i>X</i>		<i>10/27 950</i>	<i>2</i>			<i>8015</i>		
<i>129778</i>	<i>MW-4</i>		<i>X</i>		<i>10/27 1015</i>	<i>2</i>			<i>8015</i>		
<i>129778</i>	<i>Field Blank</i>	<i>✓</i>	<i>X</i>		<i>10/27 1030</i>	<i>2</i>	<i>✓</i>		<i>8015</i>		

Relinquished by: Signature <i>John Roman</i>	Received by: Signature <i>M. Farnham</i>	Date/Time <i>10/22/98 1210</i>
Relinquished by: Signature	Received by: Signature	Date/Time

New York State Project: Yes No Requested Analyses

1	pH	6	TRN	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	HTEX <i>8015</i>	24	EPA 608 Pest/PCB	29	<i>8015 TPH 480</i>
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):										