

CC: ASHLEY DESMONT

KENT S. KOPTIUCH, Inc
Geo-Environmental Services
P. O. Box 8248
Essex, Vermont 05451
802-878-1620

RECEIVED
MAR 09 2007
WMD

March 6, 2007

Valerie Lucier
P. O. Box 47
Newport Center, Vermont 05857

Subject: Results from PID Field Screening and Monitoring Well Sampling,
Luciers Store Site, Newport Center, Vermont (SMS Site #94-1610)

Dear Ms. Lucier:

Per your authorization, on January 12, 2007, I conducted the following field investigative activities at your site in order to comply with a September 19, 2005 request to you from Mr. Ashley Desmond of the VT ANR Sites Management Section:

- 1) Sensitive receptor assessment:
 - a) Screening of basement and crawlspace for volatile organic compounds (VOC) by photoionization detector (PID),
 - b) Assessment of surface water drainage from behind store, through fields to Mud Brook by visual inspection for sheens, and by head-space analysis by PID for potential petroleum contamination.
 - c) Assessment of Mud Brook at confluence with surface water drainage noted in b) by visual inspection for sheen, and by head-space analysis by PID for potential petroleum contamination.

In addition, in Mr. Desmond's e-mail approval of my work plan on January 3, 2007, he requested that the one (1) remaining on-site monitoring well be sampled and analyzed by EPA method 8021B for BTEX constituents, MTBE, TMBs, and naphthalene.

I arrived at the site at 1230 hours. The weather was overcast with winds from the west at 3 to 6 MPH. The ambient air temperature was 35° F. There was a snow-pack of approximately 5" on the fields behind the site.

After meeting with you, I calibrated my Rae Systems Multi-Rae Plus and entered the basement. I recorded the following results:

- 1) Ambient air readings in the breathing zone were 0.0 parts per million (ppm) at all locations throughout the usable space.
- 2) Ambient air readings at floor level throughout the room were at 0.0 ppm.
- 3) Ambient air readings around the entire perimeter of the room at the intersection of floor and wall were 0.0 ppm.
- 4) Ambient air readings at all through-wall penetrations for piping and wiring were at 0.0 ppm.

After screening the basement room, I proceeded to enter the crawlspace beneath the rest of the store. I recorded the following results:

- 1) Ambient air readings at all locations throughout the crawlspace were at 0.0 ppm.

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After exiting the crawlspace and returning to the first floor, I completed a walk-around in the store. All ambient air readings in the breathing zone were at 0.0 ppm.

I then exited the store and proceeded to the monitoring well. The well is located on the north side of the store approximately 10' back west of the building's northeast corner. It is approximately 3' from the north wall. The former underground storage tanks (USTs) were apparently located in this vicinity. The current gasoline UST is situated directly in front of the store (east side of building) between the storefront and the dispenser island. The monitoring well was secured appropriately. After unbolting the manhole cover, I screened the head-space in the well casing by PID as I opened the gripper cap. I then gauged the well utilizing a WaterMark Oil/Water Interface Probe. I noted the following results:

- 1) The head-space reading was 0.0 ppm.
- 2) The depth to water from top-of-casing was 6.09'.
- 3) The depth to bottom from top-of-casing was 15.10'.
- 4) The water column in the well was 9.01'.

The well is constructed of 2" inside diameter (ID) PVC screen and casing. A 2" ID pipe contains 0.163 gallons of water per linear foot of water column, thus the borehole volume was 1.47 gallons. Utilizing a disposable, polyethylene bailer, I removed slightly more than three (3) borehole volumes (4.5 gallons) and allowed the water table to recover while preparing sample vials, sample labels, and the chain-of-custody (#87949). I did not note any odor from the bailed waters.

At 1440 hours, the water table in the well had recovered to 6.84' from top-of-casing. At 1445 hours, I secured the well sample, in duplicate, in pre-acidified 40 milliliter glass VOA vials. I secured the samples on ice in a cooler.

I then proceeded behind the store and worked my way down to Mud Brook, following the surficial drainage channel. This channel is piped for some of the distance (6" ID PVC), however, it flows as open water at several locations, including immediately at the western property margin for several feet, and for the last 15 or 20 feet prior to entering Mud Brook. I recorded the following observations:

- 1) The water was running clear with a flow rate of approximately 5 gallons per minute (GPM).
- 2) There was no olfactory odor evident at any location.
- 3) There was no evidence of petroleum sheen at any location.
- 4) A head-space analysis of a jarred sample, secured at the out-flow pipe at the western property margin, yielded 0.0 ppm by PID.

At the drainage channel's juncture with Mud Brook, there was no visual or olfactory evidence of petroleum impact to the surface water. I did not secure a sample for head-space analysis due to icy conditions along the bank and very swift flow in the brook.

Upon returning to the store, I secured my equipment, informed you that I had completed my activities, and departed the site at 1530 hours. The samples were preserved on ice through the weekend and I hand-delivered them to Endyne, Inc. Laboratory in Williston, Vermont on January 15, 2007 at 1322 hours.

I have attached the laboratory chemical analytical results for your review. The laboratory recorded a concentration of 31.6 micrograms per liter (ug/L) for the compound methyl-tert butyl ether (MTBE). The state of Vermont Groundwater Quality Enforcement Standards for MTBE is 40 ug/L. None of the other analytes tested yielded concentrations greater than the laboratory method detection limit (MDL) and no

unidentified peaks (UIP's) were noted by the laboratory. You informed me (personal communication on 03/05/07) that when this well was last sampled on January 2, 2005, Geolabs, Inc. of Braintree, MA. Noted a concentration of 10.1 ug/L for MTBE by EPA method 602/624. No other analytes were detected above the MDL at that time.

In summary, I offer the following findings:

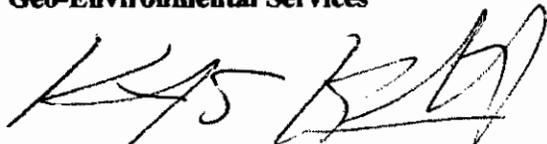
- 1) There is no apparent impact to ambient air by VOC in the occupied store level, the basement level, or the crawlspace of the building.
- 2) There is no apparent impact by VOC or by non-aqueous phase petroleum products to the draining surface waters in the channel behind the store that flow down to merge with Mud Brook.
- 3) There is no apparent impact by non-aqueous phase petroleum products to the surface waters of Mud Brook.
- 4) There is a persistent, presence of dissolved-phase methyl-tert butyl ether at concentrations less than the State of Vermont Groundwater Enforcement Standard in groundwater in the central locale of the site (proximal to the former USTs).

Based upon these findings, there is no apparent immediate or chronic threat by VOC or non-aqueous phase petroleum products to human life, health, or safety at the site. In addition, there is no evidence to suggest an existing or imminent threat or danger to the environment at the site.

Thank you for the opportunity to provide this service to you. Please feel free to call me at (802) 878-1620 with any questions that you may have regarding this information.

Sincerely,

KENT S. KOPTIUCH, Inc.
Geo-Environmental Services



Kent S. Koptiuch, CGWP #112248
President
Principal Hydrogeologist

Attachments (1)

C: Ashley Desmond VT ANR DEC WMD SMS
Christopher Tier American Engineering & Testing



ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

KSK GeoEnvironmental Services,
PO Box 8248
Essex, VT 05451
Attn: Kent Koptiuch

PROJECT: Luciers/Newport Ctr
ORDER ID: 51179
RECEIVE DATE: January 15, 2007
REPORT DATE: January 25, 2007

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. Different groups of analyses may be reported under separate cover.

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 include matrix spike, duplicate and quality control analyses. These standards were determined to be within established laboratory method acceptance limits, unless otherwise noted.

Reviewed by,

Harry B. Locker, Ph.D.
Laboratory Director

enclosures



ENDYNE, INC.

Laboratory Services

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

LABORATORY REPORT

CLIENT: KSK GeoEnvironmental Services, Inc.

ORDER ID: 51179

PROJECT: Luciers/Newport Ctr

DATE RECEIVED: January 15, 2007

REPORT DATE: January 25, 2007

SAMPLER: KK

ANALYST: 110

Ref. Number: 291267

Site: MW-1

Date Sampled: January 12, 2007

Time: 2:45 PM

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Method</u>	<u>Analysis Date</u>
MTBE	31.6	ug/L	SW 8021B	1/22/07
Benzene	< 1.0	ug/L	SW 8021B	1/22/07
Toluene	< 1.0	ug/L	SW 8021B	1/22/07
Ethylbenzene	< 1.0	ug/L	SW 8021B	1/22/07
Xylenes, Total	< 2.0	ug/L	SW 8021B	1/22/07
1,3,5 Trimethyl Benzene	< 1.0	ug/L	SW 8021B	1/22/07
1,2,4 Trimethyl Benzene	< 1.0	ug/L	SW 8021B	1/22/07
Naphthalene	< 2.0	ug/L	SW 8021B	1/22/07
UIP's	0.		SW 8021B	1/22/07
Surrogate 1	108.0%	%	SW 8021B	1/22/07

