



State of Vermont

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April 25, 2000

DR. ARNIE KOZAK
314 LOST NATION ROAD
ESSEX, VERMONT 05451

RE: Site Management Activity Completed, former Jeff Martin Residence, SMS Site #98-2442
Montpelier, Vermont

Dear Dr. Kozak:

The Sites Management Section (SMS) has reviewed the April 19, 2000 report titled, "*Groundwater Monitoring Report for Dr. Arnie Kozak Residence, (formerly Jeff Martin Residence), Essex, Vermont*" prepared by Griffin International for work conducted at the above referenced site. The SMS has also reviewed information contained in the site file. With this information, the SMS can now make the following conclusions:

- On July 10, 1998 one 500 gallon fuel oil underground storage tank (UST) was removed from the Kozak (formerly Martin) property at 314 Lost Nation Road in Essex.
- During the UST removal, soils surrounding the UST were found to be contaminated with petroleum compounds at concentrations above SMS guideline levels, as measured with a photoionization detector (PID). During the tank removal, a thin layer (<0.1 feet) of free product was observed on the groundwater entering the tank cavity. In addition some petroleum contaminated soil and leaves was observed at the outfall of the garage curtain drain, indicating that some oil had entered the curtain drain system. Approximately 12 yd³ of contaminated soil were removed from the tank location and curtain drain outfall area. This soil was disposed of off-site by Northern Environmental Services of Piermont, New Hampshire. Additional investigation of the UST removal was required by the SMS.
- On July 22, 1998 five soil borings were advanced at the site and four of these were completed as groundwater monitor wells to evaluate potential contamination to the groundwater. A fifth monitor well was installed in the former tank location using a backhoe during the actual tank removal. Groundwater samples were collected from the monitoring wells on July 30 and two of the five showed concentrations of petroleum contamination above Vermont Groundwater Enforcement Standards. These contaminants were: MW-1, naphthalene 144 µg/L, 1,2,4-trimethylbenzene 104 µg/L, and 1,3,5-

over

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trimethylbenzene 24.6 $\mu\text{g/L}$; MW-3 contained benzene 5.2 $\mu\text{g/L}$, naphthalene 28.9 $\mu\text{g/L}$, 1,2,4-trimethylbenzene 9.1 $\mu\text{g/L}$, and 1,3,5-trimethylbenzene 5.2 $\mu\text{g/L}$. Additional monitoring was required to show that this contamination would degrade and dissipate. On March 21, 2000 no contamination was noted in MW-2 through -5 and the contamination in MW-1 had decreased to below the VGES (naphthalene 5.0 $\mu\text{g/L}$, 1,2,4-trimethylbenzene 3.5 $\mu\text{g/L}$, and 1,3,5-trimethylbenzene 3.0 $\mu\text{g/L}$). Groundwater was shown to flow north across the Kozak property and no detectable contamination was found at MW-5, the most down gradient monitor well.

- Soil and water samples were collected from the curtain drain outfall in November 1998 and no petroleum product contamination was detected.
- The subject building is served by a water supply well approximately 60' up gradient of the former UST location. This well was sampled in July 1998 and no petroleum product contamination was detected.
- The nearest surface water, is Colchester Pond, approximately 2000 feet down gradient to the northwest. No impact from this spill is likely given the distance and low contaminant levels found. No other sensitive environmental receptors were identified.
- A sorbent boom was placed at the curtain drain outfall and has been regularly monitored since the tank removal. No petroleum sheens have been noted at this location since the soil removal at this location in 1998.
- Residual contamination in the soil and groundwater associated with the UST was shown to be confined to the subject property. No unacceptable risk to human health and the environment is present due to any residual contamination remaining in the ground from the removed USTs.

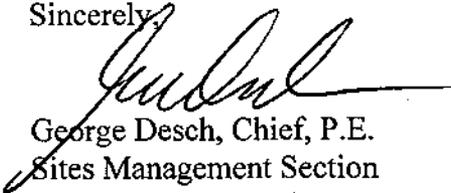
Based on the above, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release you, Dr. Kozak, of any past or future liability associated with the petroleum contamination onsite. It does, however, mean that the SMS is not requesting any additional work in response to the July 1998 UST removal.

If the monitoring wells are no longer used or maintained, then they must be properly closed to eliminate possible conduits for contaminant migration into the subsurface. This closure typically involves filling the wells with a grout material to prevent fluid migration in the borehole. Specific requirements for well closure are outlined in Section 12.3.5 in Appendix A of the Vermont Water Supply Rule-Chapter 21.

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Please feel free to call with any questions.

Sincerely,



George Desch, Chief, P.E.
Sites Management Section

CC: Essex Selectboard
Essex Health Officer
DEC Regional Office
Allen Liptak, Griffin International