



# State of Vermont

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March 9, 1998

JOHN HALL  
TOWN OF ST JOHNSBURY  
34 MAIN STREET  
ST JOHNSBURY VERMONT 05863

RE: Site Management Activity Completed (SMAC) for St. Johnsbury Town Garage  
St. Johnsbury, Vermont (Site #97-2178)

Dear Mr. Hall:

After reviewing previous reports and the letter dated January 12, 1998 by Marin Environmental, the Sites Management Section (SMS) has the following understanding of the site:

- Soil contamination was found during the removal of a 2,000-gallon diesel underground storage tank (UST) and a 3,000-gallon diesel UST on April 21, 1997. Photoionization detector (PID) readings within the UST excavations ranged between 1.2 parts per million (ppm) and 1,269 ppm. Depth to groundwater in the two excavations was about 6 feet and a petroleum sheen was visible on the groundwater. PID readings in the upper two feet of the excavations ranged from 1.2 ppm to 92.2 ppm. All soils were backfilled into the two former UST pits.
- On July 21, 1997, one monitoring well (MW-2) was installed using a vibratory drilling technique. On July 29, 1997, two monitoring wells (MW-3 and MW-4) were installed using a hollow stem auger. All wells were drilled to a depth of 15 feet and placed in the presumed downgradient direction of the former USTs. Monitoring well (MW-1) was previously installed in the former location of the 2,000-gallon diesel UST. Soils from the borings consisted of coarse sand and gravel, with occasional medium-fine sand.
- During the installation of the wells, soil samples from each well were screened for petroleum contamination. PID readings of the soil samples ranged from near zero to 3.1 ppm, with the highest reading at a depth of 5 feet in MW-2. This well is about 60 feet hydraulically downgradient from the former USTs.
- Water-level measurements and groundwater samples were taken at the site on August 8, 1997, and December 2, 1997. Based on the last water level measurements, depth to groundwater ranged from approximately 10 feet to 14 feet. Depth to groundwater on August 8, 1997, ranged from 7 feet to 11 feet. Groundwater flow direction was southeast toward the Moose River. The Moose River is about 150 feet from the site.
- In both sampling rounds, the groundwater samples were analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) using EPA Method 8020 and total petroleum hydrocarbons (TPH) using modified EPA Method 8100. In the August 1997

(Over)

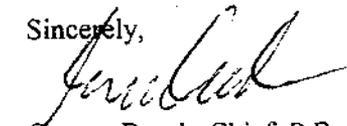
sampling round, detectable concentrations of petroleum compounds were found in all four wells. No contaminants levels in both round of samples were above the current Vermont Groundwater Enforcement Standards (VGES), which were adopted on November 15, 1997. Also, contaminant concentrations in the samples collected on December 2, 1997, decreased from the August sampling round. No TPHs were detected in the last sampling round.

- Although the USTs contained diesel, small concentrations (significantly below the VGES) of the gasoline additive methyl tertiary butyl ether (MTBE) were found in the groundwater samples from MW-3 and MW-4. According to the State's UST permit records, the original permit for this site in 1986 had one of the USTs registered for containing gasoline. In 1992, the tank registration was amended to show the two diesel USTs. Therefore, a past gasoline release from the UST before 1992 is the likely source of the MTBE found in the groundwater.
- Marin performed a sensitive receptor survey and risk assessment at the site. The closest sensitive receptors are the on-site maintenance building and the Moose River. The maintenance building is on a concrete slab, so the potential is low for vapors from the subsurface contamination to enter the building. A visual inspection along the banks of the Moose River showed no visual evidence of petroleum contamination. The on-site buildings and surrounding areas are served by a municipal water system. The closest residences are on the opposite side of the river.
- Shallow soil contaminated with petroleum in the area of the island dispenser and the former UST areas are covered with either pavement or concrete. Therefore, the potential for direct contact with the contamination is low.

Based on the above, the SMS believes that the residual petroleum contamination at the site does not pose an unreasonable risk to human health and safety or the environment. Therefore, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release you of any past or future liability associated with the petroleum contamination remaining in the ground from the removed USTs. It does, however, mean that the SMS is not requesting any additional work at this time.

If the monitoring wells are no longer used or maintained, then they must be properly closed to eliminate a possible conduit 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. Also, the road box or stand-up well guard for a monitoring well must be removed before well closure is considered complete. The SMS considers reasonable costs to properly close monitoring wells at this site reimbursable by the Petroleum Cleanup Fund (PCF) if uninsured and eligible costs for cleanup at the site exceed the \$10,000 deductible. If you have any questions or comments, please contact me at (802) 241-3888.

Sincerely,

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

cc: DEC Regional Office  
St. Johnsbury Selectboard  
: Bruce Hamilton, Marin Environmental  
wp51/sites/972178/sjtg1.smc