VERMONT

State of Vermont
Department of Environmental Conservation
Waste Management Division
103 South Main Street/West Building
Waterbury, VT 05671-0404
(802) 241-3888
FAX (802) 241-3296

AGENCY OF NATURAL RESOURCES

June 15, 2007

FRANK WILSON
TEN ACRES LODGE
14 BARROWS ROAD
STOWE, VERMONT 05672

RE: Sites Management Activity Complete, Ten Acres Lodge, SMS Site #2004-3263, Stowe, Vermont

Dear Mr.Wilson:

The Sites Management Section (SMS) has reviewed the May 7, 2007 report titled, *"Ground Water Quality Monitoring Report – April 2007, Ten Acres Lodge, SMS #2004-3263"* prepared by Ross Environmental Associates (REA) for groundwater monitoring conducted at your property on April 10, 2007. The SMS also reviewed information contained in the site file; with this information, the SMS can now make the following conclusions:

- During the August 9 and 11, 2004 removal of one 3,000 gallon and two 500 gallon fuel oil underground storage tanks (UST) contaminated soil was observed. Volatile organic compounds (VOCs) were measured by a photoionization detector (PID). PID readings of the soils at the Red Cottage UST ranged up to 1001 parts per million (ppm). The soil was observed to be medium sand and coarse gravel. Groundwater was encountered in the tank pit at a depth of 5'. A fuel oil sheen on the groundwater, strong odors, and holes in the UST were observed. Contaminated soils were backfilled.

  The maximum PID reading at the Gray Cottage UST was 10 ppm, no odors, soil staining or groundwater sheens were present.

  During the removal of the 3,000 gallon UST a small fuel spill occurred and soil staining was observed at the fill pipe. Approximately 2 yds^3 of stained soil was excavated and shipped off site for proper disposal. REA recommended additional investigation at the Red Cottage UST, and no further work at the 500 gallon UST Gray Cottage and the 3,000 gallon UST.

- On October 7, 2004 three groundwater monitor wells were installed in order to evaluate potential contamination related to the 500 gallon Red Cottage UST. Fine sand and trace amounts of clay were observed from grade to 17' below the ground surface. Bedrock was not encountered. No petroleum odors were noted during installation of monitor wells MW-2 and -3. The maximum PID reading was 5 ppm at MW-2 and 2.2 ppm at MW-3, down gradient of the UST. MW-1 was installed in the former tank grave and the maximum PID reading was 260 ppm; petroleum odors were also reported.

- On October 20, 2004 MW-1, -2, and -3 were sampled for VOCs via EPA 8021B and total petroleum

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hydrocarbons (TPH) by EPA 8015DRO. The two site water supply wells were sampled for VOCs by EPA 524.2. No groundwater contamination was detected and confirmatory samples were requested by the SMS.

- On April 29, 2005 all wells were resampled. The Main Lodge water supply well contained low levels of bromodichloromethane, bromoform, chloroform, and dibromochloromethane below the Vermont Groundwater Enforcement Standards (VGES). These compounds are often found in water that has been chlorinated. Monitor well MW-1 contained 1,3,5-trimethylbenzene (7 µg/L) above the VGES. TPH was found at 17.5 mg/L. TPH does not have a VGES, but is used as a general indicator of petroleum contamination. Oil sheens and odors were also reported in the water sample. MW-2 and -3 and the Red Cottage supply well contained no detectable contamination.

- Annual sampling of MW-1 and near by Red Cottage supply well was implemented. No contamination was found during the April 2006 and April 2007 sampling of MW-1 and the Red Cottage supply well.

- The two site water supply wells, and soil and groundwater near the former tank locations were identified as sensitive receptors. The Red Cottage water supply is approximately 10' from the former tank pit. No other at-risk sensitive receptors were identified.

- The Red Cottage Supply well was sampled four times for VOCs and twice for TPH. The Main Lodge supply well was sampled twice for VOCs. With the exception of low level chlorination by-products in the Main Lodge well, no VOCs or TPH were detected in either water supply. No unacceptable risk to human health and the environment is present due to any residual contamination remaining in the ground from the removed USTs. Residual contamination in the soil and groundwater associated with the UST removals was shown to be confined to the subject property.

- The three groundwater monitoring wells were properly closed to eliminate possible conduits for contaminant migration into the subsurface. This closure involved removal of the protective well cover, removal of the well casing, filling the remaining bore hole with a grout material to prevent fluid migration into the shallow aquifer, and finishing to the surrounding grade.

Based on the above, the SMS is assigning this site a Site Management Activity Completed (SMAC) designation. This SMAC designation does not release the Ten Acres Lodge 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 August 2004 fuel oil UST removals.

Please feel free to call with any questions.

Sincerely,

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

CC: Stowe Selectboard
Stowe Health Officer
DEC Regional Office (via electronic mail)
Juliette Hancock, REA, (via electronic mail)