

FEB 18 1992



14 February 1992

Mr. Charles B. Schwer
Supervisor
Sites Management Section
Hazardous Materials Division
103 South Main Street/West Building
Waterbury, Vermont 05671-0404

RE: Saint Monica's School, Barre, Vermont. Site #91-1143

Dear Mr. Schwer:

This letter summarizes the results of Griffin's efforts to determine the degree and extent of soil and groundwater heating oil contamination at St. Monica's School in Barre, Vermont. This work was undertaken in response to your 30 October 1991 letter to Al Monty of St. Monica's.

Griffin provided oversight services for the removal of two heating oil underground storage tanks (USTs) on 1 October 1991. During the removal inspection of the 550 gallon No. 2 heating oil tank, a small puncture hole was observed. Photoionization detector (PID) readings of up to 45 parts per million (ppm) were observed in soil immediately surrounding the puncture, but no obvious visual indications of soil contamination were observed.

Removal inspection of the 10,000 gallon No. 2 heating oil tank pit revealed abandoned heating oil lines from when the tank was used to store No. 4 oil. Elevated PID reading of up to 18 ppm were observed in soil beneath these lines. Complete details of the tank pull inspection appear in Griffin's tank pull report. Both tanks were in use up until their removal.

Approximately one cubic yard of contaminated soil was stockpiled on-site from the excavation of the 10,000 gallon UST. This soil may have been contaminated by dripping heating oil lines when the UST was removed. Griffin understands that the soil remains on-site, and is to be destroyed at an asphalt batching plant. These arrangements are to be made directly by St. Monica's.

Based on these findings, additional work was requested by the VTDEC to further define the degree and extent of the observed heating oil contamination.

Due to the location of the former USTs, access for heavy machinery is limited. Heavy equipment used for the tank removals had to be taken apart and re-assembled to access the area. Coarse granite tailings used as fill around the school would have required the use of air rotary drilling to install monitoring wells at these former UST locations.

Difficult access, combined with the need for air rotary drilling, made the installation of monitoring wells using conventional drilling methods unfeasible. Instead, backhoe monitoring wells, utilizing a perforated outer sleeve to contain the sand pack filter and bentonite plug were authorized by the VTDEC.

On 28 January 1992 Griffin supervised backhoe excavations at each former UST site. Excavation #1 (see attached site map) was completed directly into the former 550 gallon UST pit while excavation #2 was completed immediately adjacent to the former 10,000 gallon UST pit so as not to damage the 3,000 gallon replacement UST. Each excavation was extended to thirteen feet, the maximum backhoe depth. Groundwater was not reached at either location.

During the excavations, soils removed from the pits were continuously screened with a PID to determine if hydrocarbon vapors were present. The attached site map shows the locations of the excavations and the materials encountered. As the excavation logs on the site map show, no elevated PID readings were observed in soils from either excavation.

Since groundwater was not encountered in either excavation, no monitoring wells were installed, and the pits were back-filled. Groundwater quality samples could not be collected, and groundwater quality data is not available. No water supply wells are evident in the assumed downgradient direction of groundwater flow, and St. Monica's School is served by the Barre Municipal Water Supply system. It therefore appears that there is little risk posed to local water supplies.

In addition to soils screening, Griffin screened air in the basement level boiler room adjacent to the UST locations. This was done to determine if contaminated soil gases were migrating into the basement and posing a health hazard. During the process, ambient air, and air near the floor joints closest to the UST, was screened with the PID. No elevated PID readings were observed during the screening.

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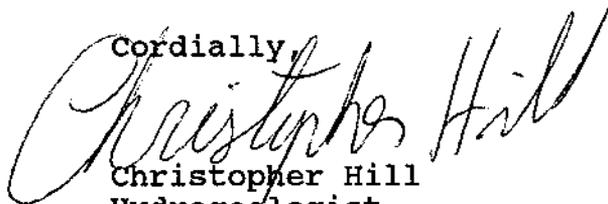
The absence of any elevated PID readings in the boiler room adjacent to the former USTs suggests that contaminated soil gases are not migrating into the St. Monica's school building, and that no health hazard exists at this time.

Based on the results of the PID screening of soils from excavations at or near the former UST locations, and on information from the original tank pull report which suggests that heating oil contamination is not extensive, Griffin concludes that it is unlikely that significant heating oil contamination has occurred at either former UST location, and that little, if any, residual contamination exists.

Based on these data, it appears that long term monitoring, or remediation is not appropriate for this site, and Griffin is recommending no further action.

Should you have any questions regarding the material presented here, please call.

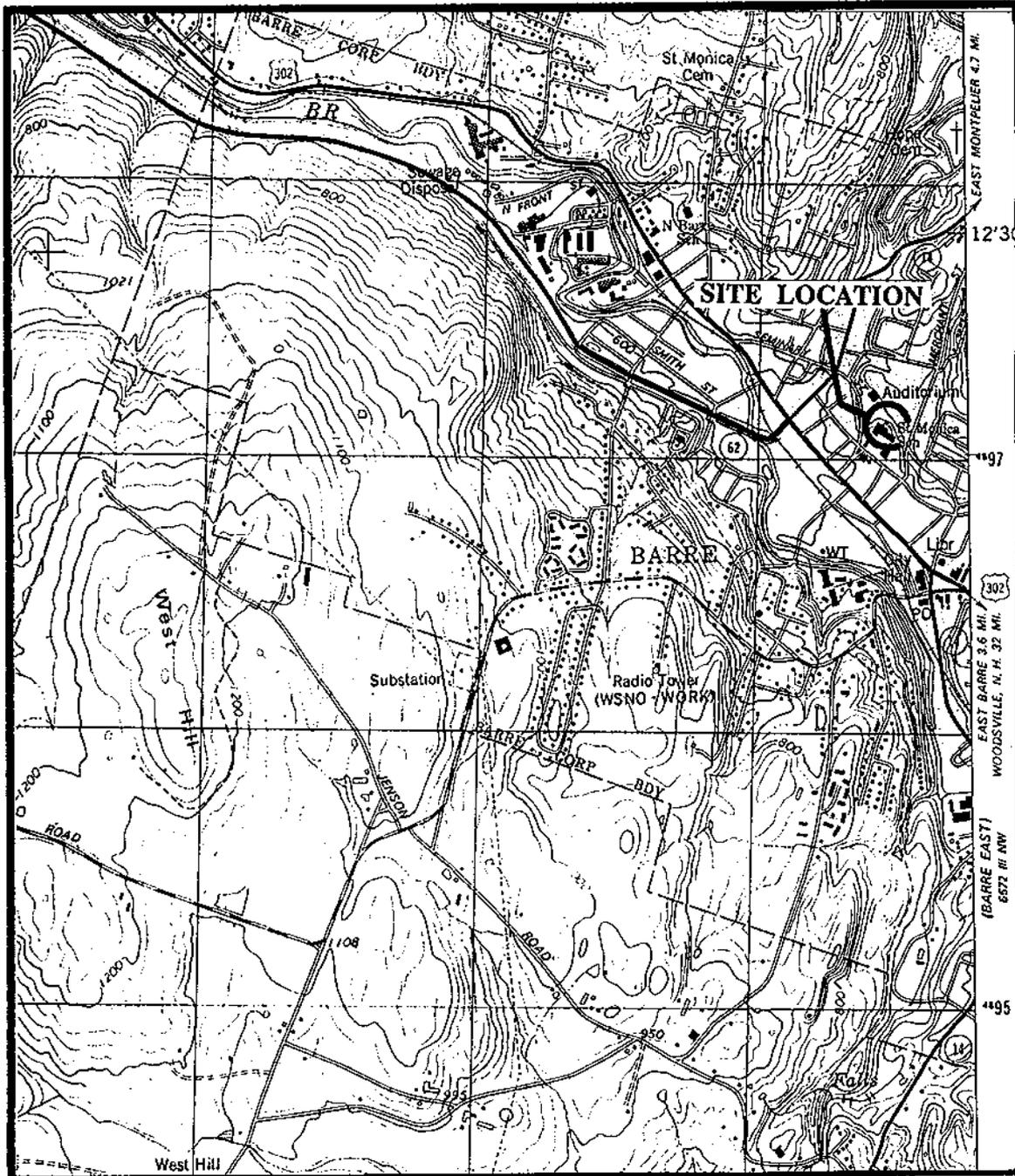
Cordially,

A handwritten signature in cursive script that reads "Christopher Hill". The signature is written in dark ink and is positioned above the typed name and title.

Christopher Hill
Hydrogeologist

Attachments

SITE LOCATION MAP
SAINT MONICA'S SCHOOL
BARRE, VERMONT



SOURCE: USGS BARRE EAST QUADRANGLE. PHOTOREVISED 1988
SCALE 1:24,000

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STEEP RISING EMBANKMENT
OF GRANITE TAILINGS

EXCAVATION #1

DEPTH	MATERIAL	PID READING
0-6'	GRANITE CHIPS & silty SAND	0 ppm
6-13'	Moist Gray, Sandy, Silty CLAY	0 ppm

FORMER
550 GAL
UST



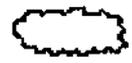
GYM

BOILER
ROOM

EXCAVATION #2

DEPTH	MATERIAL	PID READING
0-8'	SAND and GRAVEL FILL	0 ppm
8-13'	Moist, Silty, Sandy CLAY	0 ppm

10,000 GAL
UST



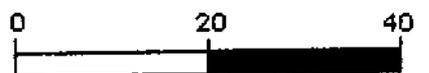
**SAINT MONICA'S
SCHOOL**

CLASS ROOMS

ACCESS
TUNNEL
(10 ft. high)

**SITE MAP
SAINT MONICA'S SCHOOL
BARRE, VERMONT**

GRIFFIN PROJECT *11914142
- LIMITS OF EXCAVATION
SURVEY DATE: 1-28-92



SCALE IN FEET