



SEP 4 2 12 PM '03

September 3, 2003

WASTE MANAGEMENT
DIVISION

Mr. Chuck Schwer
VT DEC
Waste Management Division
103 South Main Street, West Building
Waterbury, Vermont 05671-0404

RE: Soil Stockpile Screening
Schmucker Property, 1480 Dorset Heights, South Burlington, Vermont (Site #93-1471)

Dear Mr. Schwer:

This report presents the details and results of soil stockpile screening at the Schmucker Residence in South Burlington, Vermont ("Site"; see attached Figure 1). This work was conducted by Waite Environmental Management, LLC (WEM) for Mr. Ronald Schmucker on August 12, 2003. A description of the Site background and results of the soil screening follow. Background information, maps, and photographs are included in the attachment.

BACKGROUND

In September 1993, a 1,500-gallon #2 fuel oil underground storage tank (UST) was removed from the Schmucker residence. The steel tank was located off the southeast corner of the residence. The UST was removed at the request of Mr. Schmucker.

During the tank pull assessment¹, the UST appeared to be in good condition with no holes and neither groundwater nor free product was observed. However, soils screened proximal to the fill and vent pipes were found to be contaminated by fuel oil. The peak concentration of volatile organic compounds (VOCs) in the soil as measured using a photoionization detector (PID) was 120 ppm. All soil having a VOC concentration above 10 ppm, reported as 8 cubic yards, was segregated and placed in soil stockpile at the edge of an abutting meadow on the Schmucker property. The approximate location of the soil stockpile is shown in the attached Figure 2. The stockpile was encapsulated in plastic for treatment by passive remediation.

The VT DEC requested that Mr. Schmucker develop a plan to treat and/or monitor the stockpiled soils (see attached letter). No active plan was established, but the soil remained in place and passive remediation continued. In August 2003, Mr. Schmucker contacted WEM to request screening of the soil stockpile. A description of the screening follows.

¹ Wagner, Heindel, and Noyes, *Tank Pull Report, Schmucker Residence*, September 21, 1993.

SOIL SCREENING RESULTS

The soil stockpile was assessed by WEM on August 12, 2003. The oval-shaped stockpile (see attached photographs) has dimensions of 7 ft by 15 ft. The depth of the soil ranged from 2 ft at the center to 0.2 feet along the edges. Based on these dimensions, it is apparent that the actual volume of soil is closer to 5 cubic yards. Presently, approximately 15% of the surface of the stockpile is covered with black plastic. Prior to screening, WEM removed most of the vegetation that had been growing in the soil. One small tree was growing through the northeastern portion of the pile.

WEM subsequently sampled the soil from eight locations throughout the stockpile. Soil sampling locations, labeled SS-1 through SS-8, are shown in the attached Figure 3. Sampling was conducted using a shovel and trowel, and samples were collected from different elevations within the soil column. All samples were examined for visual and olfactory evidence of contamination, placed in a Zip-Loc bag and allowed to equilibrate for 5 minutes, and then screened using a PID². Observations and screening results are presented in Table 1 below.

Table 1: Soil Screening Results

Sample	Depth (ft)	Soil Type	Reading (ppm)	Comments
SS-1	1.2	Med. brown silty sand and gravel	0.0	No odor, damp
SS-2	1.2	Med. brown silty sand and gravel	0.0	No odor, damp
SS-3	1.0	Med. brown silty sand and gravel	0.0	No odor, damp
SS-4	1.5	Med. brown silty sand and gravel	0.0	No odor, damp
SS-5	1.3	Med. brown silty sand and gravel	0.0	No odor, damp
SS-6	1.0	Light brown fine sand	0.0	No odor, damp
SS-7	1.0	Med. brown silty sand and gravel	0.0	No odor, dry
SS-8	0.8	Light brown fine sand	0.0	No odor, dry

CONCLUSIONS & RECOMMENDATIONS

The soil stockpile generated during the removal of a #2 fuel oil UST at the Schmucker residence in September 1993 was assessed by WEM on August 12, 2003. The stockpile, with a estimated volume of 5 cubic yards, appeared to be in tact at the edge of a meadow northeast of the Schmucker residence. Only a limited amount of plastic remained, and much vegetation was growing from the soil. A total of eight soil samples were collected for soil screening with a PID. The soil, primarily brown silty sand and gravel, had no visual evidence of contamination, no petroleum odor, and non-detectable levels of VOCs as measured by the PID.

Based on these results, WEM concludes that passive remediation is complete. According to the *Agency Guidelines for Petroleum Contaminated Soil and Debris*, no further treatment of this soil is required. WEM recommends that the soil be thinspread on the Schmucker property.

² HNU P-101, 10.2 eV bulb, calibrated to an isobutylene standard on the morning of August 12, 2003.

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Schmucker Property Soil Stockpile Screening

WEM also recommends that the Mr. Schmucker be issued a Sites Management Activity Complete (SMAC) letter and that the Site (Site #93-1471) be officially closed. Please take note that the latitude and longitude of this Site in the DEC's database is incorrect. The actual Site location can be seen in the attached Figure 1.

Mr. Schmucker will await a response from the DEC before thinspreading the soils. Do not hesitate to call me if you have any questions or concerns about this report. I can be reached at (802) 860-9400 or by email at mwaite@waiteenv.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Miles E. Waite". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

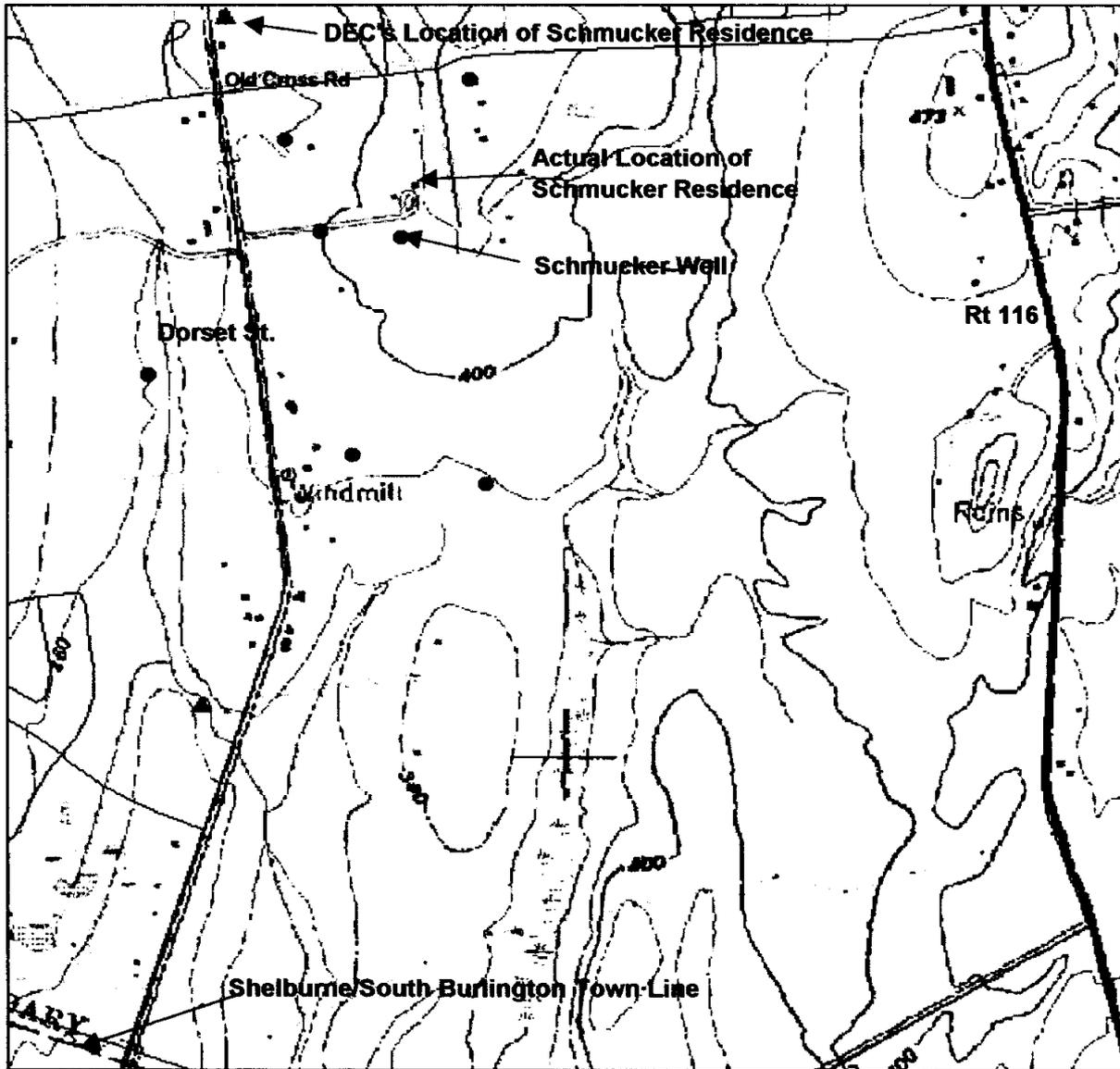
Miles E. Waite, PhD
Principal Hydrogeologist

Attachment

cc: Mr. Ronald Schmucker



ATTACHMENTS



LEGEND

- State-Listed Hazardous Waste Site
- ▲ Registered Underground Storage Tank
- Private Well



WEM Job Number: 80320006
 Map Source: USGS Mapping 7.5 Minute Burlington, Vermont Quadrangle (1987)
 Data Sources: Vermont Center for Geographic Information; ANR Mapping Site (all locations approximate)

WEM

Figure 1
SITE LOCATION MAP
Schmucker Residence

1480 Dorset Heights, South Burlington, Vermont

Date: 08/19/03	Drawing No. 1	Scale: 1"=1,200'	By: MEW
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WEM Job Number:

80320006

Map Source:

USGS Imagery, April 1999 flight, downloaded from terraserver.com

WEM

Figure 2

1999 Orthophotograph

Schmucker Residence

1480 Dorset Heights, South Burlington, Vermont

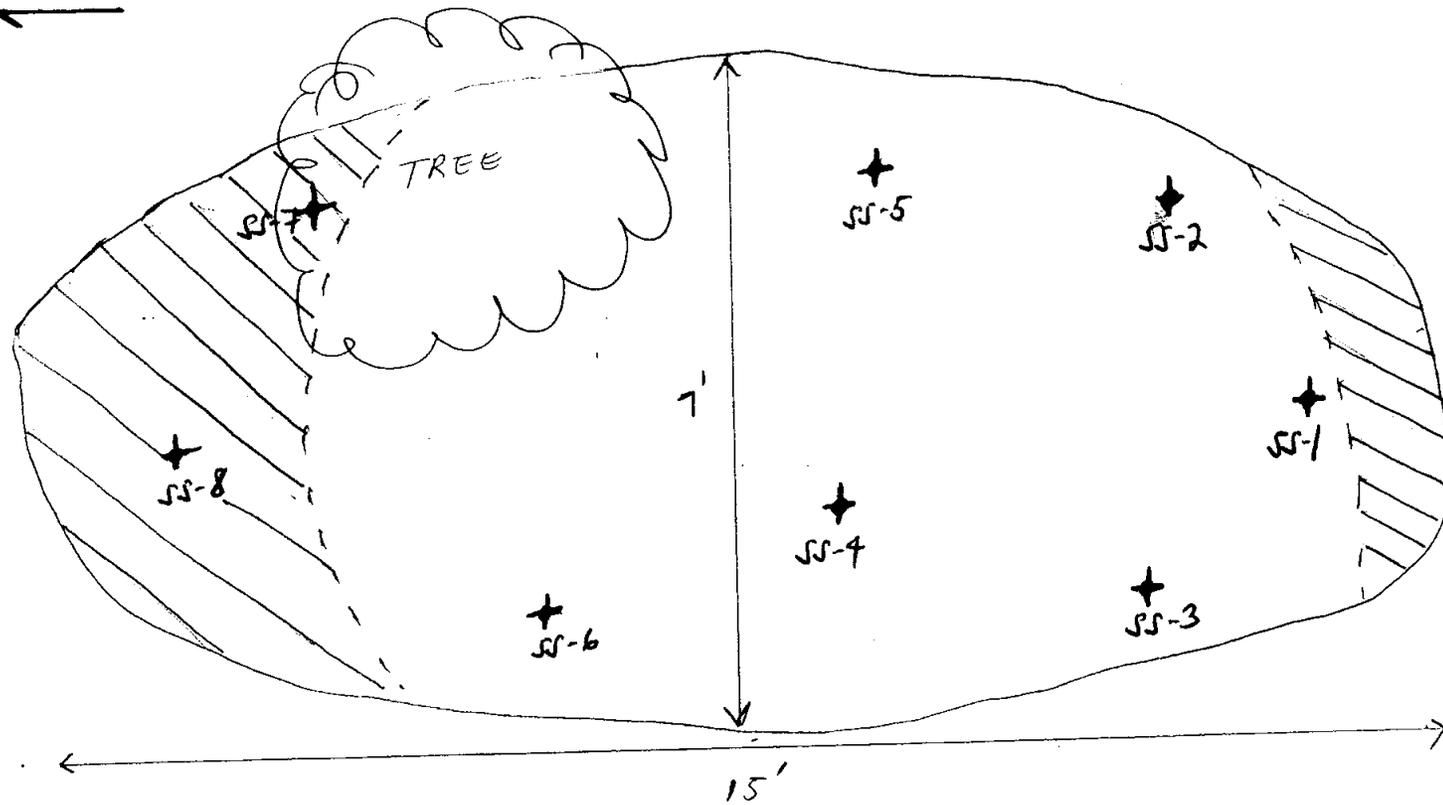
Date: 08/19/03

Drawing No. 2

1" approx. 300'

By:

MEW



LEGEND

+ SS-1 Soil screening Location

▨ plastic covering

WEM Job Number: 080320006

Source: Measurements taken by WEM on 8/12/03

WEM

Figure 3

SOIL PILE SCREENING LOCATIONS
Schmucker Residence
1480 Dorset Heights, S. Burlington, VT

Date: 8/2/03

Scale: 1" = 2'

By: MEW



Photo #1 Soil stockpile looking north



Photo #2: Soil stockpile looking south.

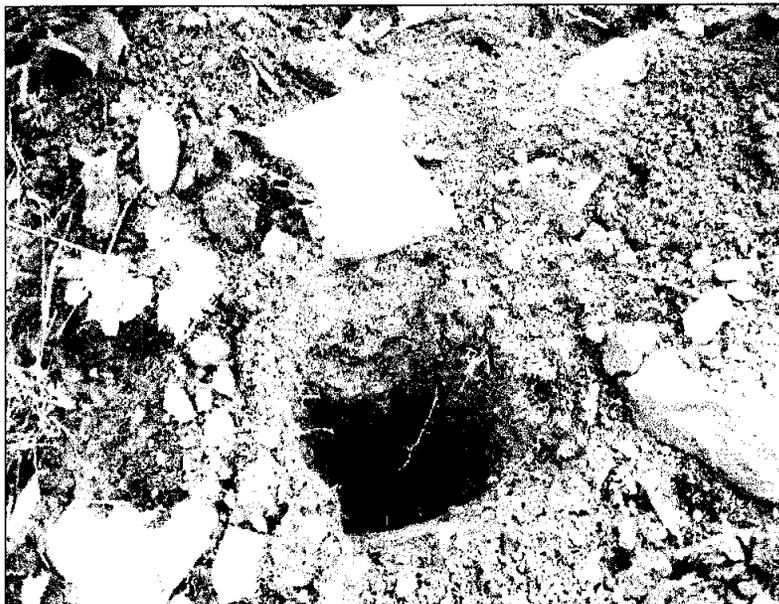


Photo #3: Soil sampling location.

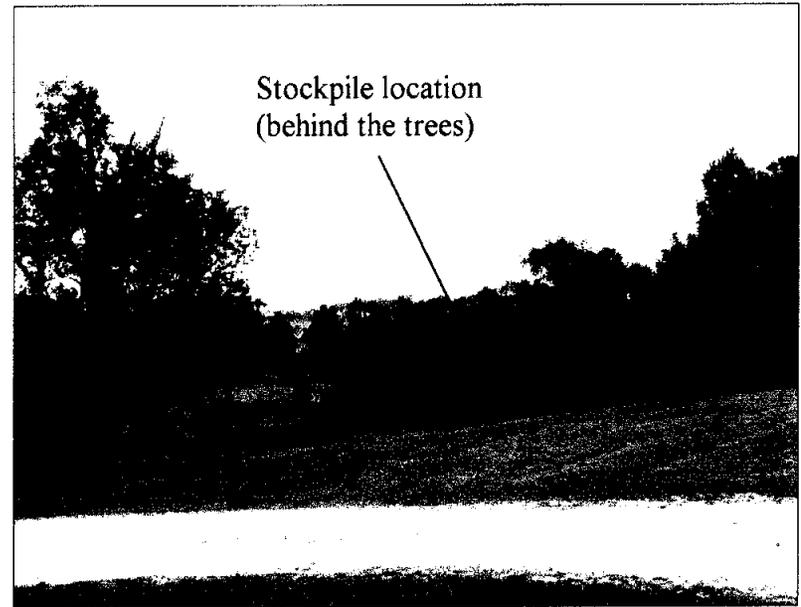


Photo #4: Looking northwest from the Schmucker residence.