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SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM  
EPA CONTRACT 68-W5-0009

12 June 1998  
11098-031-001-5041-70  
DC No. A-2744

Mr. Chuck Schwer  
Vermont Agency for Natural Resources  
Department of Environmental Conservation  
103 South Main Street/West Office  
Waterbury, Vermont 05671-0404

Subject: Final Site Inspection Report  
Canaan Dump  
Canaan, Vermont  
CERCLIS No. VTD982542722  
TDD No. 98-05-0201

Dear Mr. Schwer:

Enclosed are two copies of the Final Site Inspection (SI) Report for the Canaan Dump property in Canaan, Vermont. The U.S. Environmental Protection Agency Region I (EPA Region I), Office of Site Remediation and Restoration and the Vermont Department of Environmental Conservation (VT DEC) had no comments regarding the contents of the Draft SI Report. Attachments have been omitted from this final deliverable as no comments or changes to the attachments were requested during the review process.

Please contact the undersigned at (781) 229-6430 if you have any questions regarding this report.

Very truly yours,

ROY F. WESTON, INC.  
Region I START

Brenda L. Operach  
Site Leader

David S. Gorden  
Work Group Leader

BLO:blo  
Enclosures  
cc: L. Johnson (EPA Task Monitor)

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**FINAL SITE INSPECTION REPORT  
FOR  
CANAAN DUMP  
CANAAN, VERMONT**

Prepared For:  
U.S. Environmental Protection Agency  
Region I  
Office of Site Remediation and Restoration  
John F. Kennedy Federal Building  
Boston, MA 02203-0001

CONTRACT NO. 68-W5-0009

CERCLIS NO. VTD982542722  
TDD NO. 98-05-0201  
PCS NO. 5041  
DC NO. A-2744

Submitted By:  
Roy F. Weston, Inc. (WESTON®)  
Superfund Technical Assessment and Response Team (START)  
217 Middlesex Turnpike  
Burlington, MA 01803

12 June 1998

Region I START  
Reviewed and Approved:

  
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Brenda L. Operach  
Site Leader

12 June 1998  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
David S. Gorden  
Work Group Leader

12 June 1998  
\_\_\_\_\_  
Date

  
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QA Review

6/12/98  
\_\_\_\_\_  
Date

Work Order No. 11098-031-001-5041-70

## DISCLAIMER

This report was prepared solely for the use and benefit of the U.S. Environmental Protection Agency Region I (EPA Region I), Office of Site Remediation and Restoration for the specific purposes set forth in the contract between the EPA Region I and the Roy F. Weston, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START). Professional services performed and reports generated by START have been prepared for EPA Region I purposes as described in the START contract. The information, statements, and conclusions contained in the report were prepared in accordance with the statement of work, and contract terms and conditions. The report may be subject to differing interpretations or misinterpretation by third parties who did not participate in the planning, research or consultation processes. Any use of this document or the information contained herein by persons or entities other than the EPA Region I shall be at the sole risk and liability of said person or entity. START, therefore, expressly disclaims any liability to persons other than the EPA Region I who may use or rely upon this report in any way or for any purpose.



## LIST OF FIGURES

<u>Figure No.</u>	<u>Title</u>	<u>Page</u>
1	Location Map . . . . .	2
2	Site Sketch . . . . .	3

## LIST OF TABLES

<u>Table No.</u>	<u>Title</u>	<u>Page</u>
1	Source Evaluation for Canaan Dump . . . . .	4
2	Hazardous Waste Quantity for Canaan Dump . . . . .	5
3	Public Groundwater Supply Sources Within 4-Radial Miles of Canaan Dump . . . . .	6
4	Estimated Drinking Water Populations Served by Groundwater Sources Within 4-Radial Miles of Canaan Dump . . . . .	7
5	Surface Water Bodies Along the 15-Mile Downstream Pathway from Canaan Dump . . . . .	8
6	Sample Summary: Canaan Dump Sediment Samples Collected by START on 16 July 1997 . . . . .	8
7	Estimated Population Within 4-Radial Miles of Canaan Dump . . . . .	10
8	Sensitive Environments Located Within 4-Radial Miles of Canaan Dump . . . . .	11

## **INTRODUCTION**

The Roy F. Weston, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START) was requested by the U.S. Environmental Protection Agency Region I (EPA Region I), Office of Site Remediation and Restoration to perform a Site Inspection (SI) of the Canaan Dump property on Route 102 in Canaan, Vermont. Tasks were conducted in accordance with the SI scope of work and technical specifications provided by EPA Region I. A Preliminary Assessment (PA) Report for the Canaan Dump property was prepared by the Vermont Department of Environmental Conservation (VT DEC) on 6 July 1989. On the basis of the information provided in the PA report, the Canaan Dump SI was initiated.

Background information used in the generation of this report was obtained through file searches conducted at the EPA Region I, VT DEC, telephone interviews with town officials, conversations with persons knowledgeable of the Canaan Dump property, and conversations with other Federal, State, and local agencies.

This package follows the guidelines developed under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other EPA Region I regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State, or local regulations. SIs are intended to provide a preliminary screening of sites to facilitate EPA Region I's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

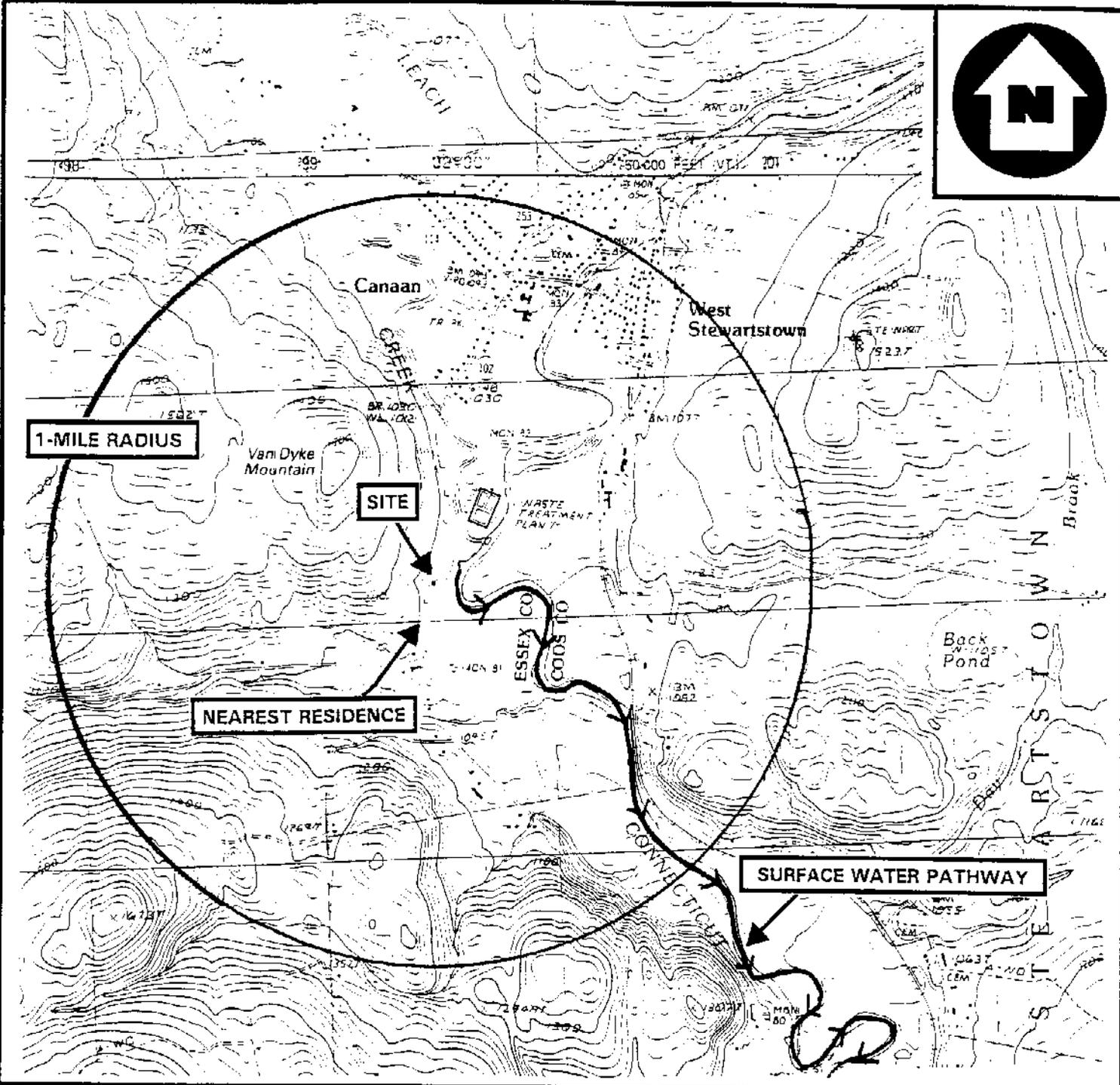
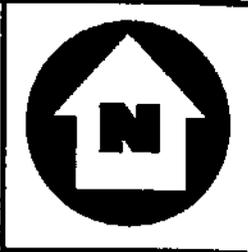
## **SITE DESCRIPTION**

The Canaan Dump (the dump) is located in Canaan, Essex County, Vermont [1, p. 1]. The Town of Canaan is situated in the northeast corner of Vermont, and has an estimated population of 1,200 [1, p. 3]. The geographic coordinates are 44° 59' 5.0" north latitude and 71° 32' 35.2" west longitude (Figure 1).

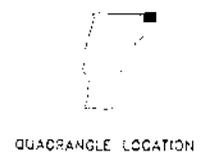
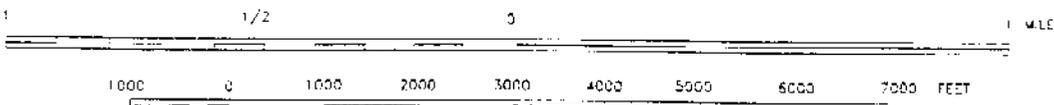
The property is owned by the Town of Canaan. The property is bordered on the east by the Connecticut River, on the north and south by the Richard Norris Farm, and on the west by Vermont State Highway 102 (Figure 2) [1, p. 1; 10].

## **OPERATIONAL AND REGULATORY HISTORY AND WASTE CHARACTERISTICS**

The town acquired the land for the dump in 1940 from the estate of Claude Van Dyke. In 1956, waste was disposed of at the property, burning was permitted, and the refuse was covered with fill about three to four times per year. The dump received municipal solid waste from the towns



BASE MAP IS A PORTION OF THE FOLLOWING 15' U.S.G.S. QUADRANGLE:  
AVERILL, VERMONT



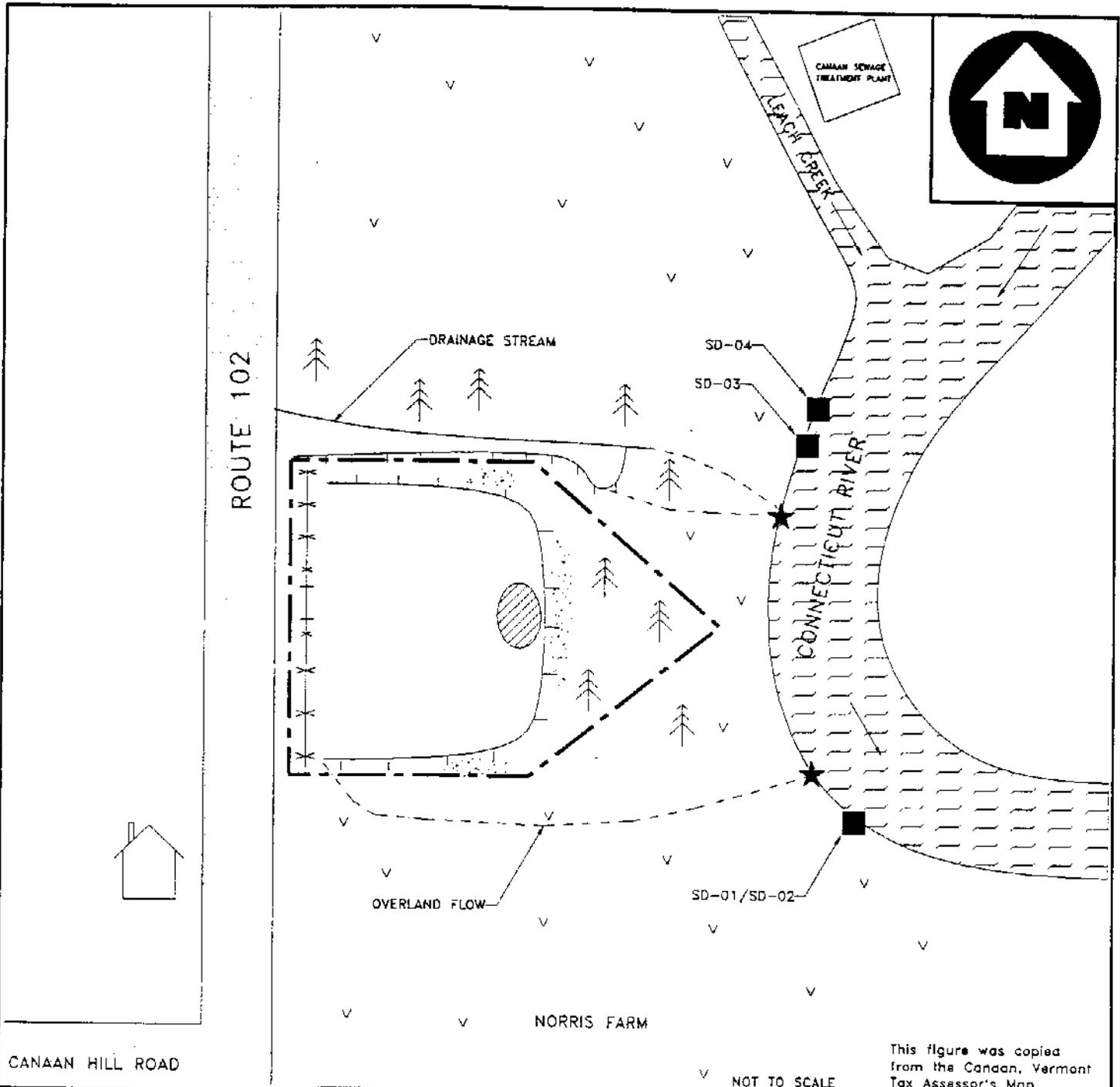
LOCATION MAP  
CANAAN DUMP  
ROUTE 102  
CANAAN, VERMONT



MANAGERS DESIGNERS/CONSULTANTS  
REGION 1: SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

DOC # 97020030	DRAWN BY: B. OPERACH	DATE 5/1/97
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S: 97020030 FIG1.DWG      FIGURE 1



CANAAN HILL ROAD

ROUTE 102

NORRIS FARM

NOT TO SCALE

This figure was copied from the Canaan, Vermont Tax Assessor's Map.

LEGEND	
	Water
	Asphalt Pavement
	Burned Area
	Exposed Rubbish
	Grass
	Probable Point of Entry
	Trees
	Nearest Residence
	START Sediment Sample
	Slope (ticks, downhill)
	Property Lines
	Gate
	Fence

SITE SKETCH

CANAAN DUMP  
ROUTE 102  
CANAAN, VERMONT



REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD # 97-02-0030	DRAWN BY: B. OPERACH	DATE 4/11/97
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FILE NAME:  
S:\97020030\FIG2.DWG

FIGURE 2

of Canaan, Vermont and West Stewartstown, New Hampshire. In 1974, the dump was closed for municipal and household garbage. The dump has remained open for the disposal of stumps and construction debris, and burning is still permitted at the property. When the dump was in operation, an attendant was at the dump on Monday, Wednesday, and Saturday. There is no further information concerning types of waste disposal at the property [1, p. 2].

Between 1969 and 1970, Ethan Allen Beecher Falls (EABF), a furniture manufacturer, allegedly disposed of spray booth wastes, which consisted of stains and lacquers used on finished furniture, at the dump. From 1970 to November 1981, EABF disposed of waste sludges and liquids in an unlined lagoon at the facility. In August 1981, under Dubois and King, Inc.'s direction, the EABF plant engineer collected samples of the "filtered effluent" or sludge from the spray booths at the facility. The results showed toluene [397 parts per million (ppm)], ethyl benzene (1,200 ppm), and xylene (4,400 ppm) [19]. In 1987, the VT DEC conducted an SI at EABF. Environmental samples were collected from the groundwater and soils at the lagoon area, from the sediment at Halls Stream, and from on-site and nearby drinking water supplies. Results revealed the presence of naphthalene at 6 parts per billion (ppb) in groundwater and bis(2-ethylhexyl)phthalate at 19,000 ppb in soils from the lagoon area. The sediment samples contained bis(2-ethylhexyl)phthalate at 190 ppb [18]. The wastes disposed of in the lagoon primarily came from the spray booths. EABF maintained Material Safety Data Sheets (MSDS) for products used in the booths. These included stains and lacquers which contained methyl isobutyl ketone, toluene, xylene, naphtha, ketones, acetones, and various other solvents [19]. Due to the alleged disposal of spray booth wastes at the dump, the above list of contaminants has potentially been disposed of at the dump.

On 15 May 1997, START conducted an on-site reconnaissance at the dump. The 1-acre dump is located on a hill that slopes down to the Connecticut River and is covered with grass and small trees [10]. START observed piles of household debris located along the southern, northern, and eastern boundaries. A burned area was also located along the eastern boundary [10].

Table 1 presents identified structures or areas on the dump property that are documented or potential sources of contamination, the containment factors associated with each source, and the relative location of each source.

**Table 1**  
**Source Evaluation for Canaan Dump**

Source Area	Containment Factors	Spatial Location
Landfill	None	Approximately 1 acre, located along the western boundary of the property.

[1, p. 1; 10]

Table 2 summarizes the types of potentially hazardous substances which have been allegedly disposed, used, or stored on the dump property.

**Table 2**  
**Hazardous Waste Quantity for Canaan Dump**

Substance	Quantity or Volume/Area	Years of Use/Storage	Years of Disposal	Source Area
Acetone	Unknown	1956-1974	1969-1970	Landfill
Bis(2-ethylhexyl)phthalate	Unknown	1956-1974	1969-1970	Landfill
Ethyl benzene	Unknown	1956-1974	1969-1970	Landfill
Methyl Isobutyl Ketone	Unknown	1956-1974	1969-1970	Landfill
Naphthalene	Unknown	1956-1974	1969-1970	Landfill
Toluene	Unknown	1956-1974	1969-1970	Landfill
Xylene, p-	Unknown	1956-1974	1969-1970	Landfill
Xylene, m-	Unknown	1956-1974	1969-1970	Landfill
Xylene, o-	Unknown	1956-1974	1969-1970	Landfill

[2]

## GROUNDWATER PATHWAY

The Groundwater Favorability Map for the area generalizes the sediments as coarse-grained stratified glacial drift and stream gravel. The groundwater in the surficial material has a low-to-moderate groundwater potential, yielding enough water for domestic use [1, p. 4]. On-site soils from the Essex County Soil Survey indicate that underlying bedrock is a dark-gray slate that commonly contains thin beds of gray sandstone of the lower Devonian Gile Mountain Formation [1, p. 5]. No bedrock formation mapped within 4-radial miles of the property exhibits karst characteristics [13-15]. The average annual precipitation for Canaan, Vermont is 38.06 inches [5].

Based on information in the Vermont State files, the depth to groundwater is 20 to 30 feet [2]. Private drinking water supply wells near the property have reported yields ranging from 5 to 90 gallons per minute (gpm). One of the wells is a flowing artesian supply well and overflows at 0.5 gpm. The wells are drilled through approximately 150 feet of overburden that is described as gravel, coarse-gravel, or hardpan [1, p. 4].

The following Vermont towns are located within 4-radial miles of the dump property: Canaan, Averill, and Lemington. Colebrook, Clarksville, and Stewartstown, New Hampshire are also located within 4-radial miles of the property. The northern portions of the 3- and 4-radial mile rings are occupied by Canada, and not assessed in this evaluation. The Towns of Averill,

Colebrook, Clarksville, and Lemington comprise small, remote sections of the 4-mile distance ring that are topographically unlikely to support drinking water supply wells. For that reason, START will assume that there are no public drinking water supply wells located within 4-radial miles of the property that supply public drinking water to Averill, Colebrook, Clarksville, and Lemington [11; 13-15].

The Canaan Water System (CWS) is a municipally owned community water supply system that serves an estimated 975 people. CWS uses springs located just south of the Canadian border as its primary source of water and a gravel-packed supply well as a standby source. The gravel-packed supply well is 110 feet deep and has a reported yield of 250 gpm. A clay and sandy clay layer between 25 feet and 92 feet is an aquitard that slowly recharges the sand and gravel aquifer between 92 feet and 106 feet [1, pp. 4-5]. The CWS well is located 1.1 miles north of the property [1, p. 5]. Other public water supplies include the Green Elderly Housing (GEH) in Canaan and the Riverside Water Works Co. (RWWC) in the Village of Beecher Falls [2]. GEH is a bedrock well that serves 16 people, located approximately 1.2 miles northeast of the property. RWWC is a gravel well that serves 400 people, located approximately 2.5 miles northeast of the property. None of the community public drinking water systems noted below are downgradient of the property [3].

Stewartstown purchases its public drinking water supply from Canaan, and does not maintain any public drinking water supply wells. A portion of the population of Stewartstown is supplied with drinking water from private wells. The locations of the private wells in Stewartstown are unavailable [20]. Table 3 summarizes groundwater supply sources within 4-radial miles of the dump.

**Table 3**

**Public Groundwater Supply Sources Within 4-Radial Miles of Canaan Dump**

Distance (miles)/ Direction from Site	Source Name	Location of Source <sup>a</sup>	Estimated Population Served	Source Type <sup>b</sup>
1.1/north	Canaan Water System	Canaan	975	Overburden
1.2/northeast	Green Hill Elderly Housing	Canaan	16	Bedrock
2.5/northeast	Riverside Water Works, Co.	Beecher Falls	400	Overburden

<sup>a</sup> Indicates Town in which well is located.

<sup>b</sup> Overburden, Bedrock, or Unknown.

[2]

Private groundwater supplies located within 4-radial miles of the property were estimated using equal distribution calculations of U.S. Census CONTRACTS data identifying population, households, and private water wells for "Block Groups" which lie within or partially within individual radial distance rings measured from the property [6]. Four private water supply wells

were identified within 0.25-radial miles of the dump. The closest private drinking water supply well is 94 feet southwest and downgradient of the property [1, p. 8]. Table 4 summarizes estimated drinking water population served by groundwater sources within 4-radial miles of the dump. To date, no known drinking water wells have been impacted by the Canaan Dump.

**Table 4**

**Estimated Drinking Water Populations Served by Groundwater Sources  
Within 4-Radial Miles of Canaan Dump**

Radial Distance from the dump (miles)	Estimated Population Served by Private Wells	Estimated Population Served by Public Wells	Total Estimated Population Served by Groundwater Sources Within the Ring
≥ 0.00 to 0.25	7	0	7
> 0.25 to 0.50	10	0	10
> 0.50 to 1.00	92	0	92
> 1.00 to 2.00	75	991	1,066
> 2.00 to 3.00	146	400	546
> 3.00 to 4.00	157	0	157
<b>TOTAL</b>	<b>487</b>	<b>1,391</b>	<b>1,878</b>

[1; 2; 6]

START has not collected groundwater samples as part of the Canaan Dump SI. There are no monitoring wells on the property and therefore no groundwater data is available. No documented groundwater contamination associated with the disposal of hazardous waste is known to exist at the dump, and therefore, no known targets have been impacted by the property [1, p. 9].

**SURFACE WATER PATHWAY**

The dump property is located on the west bank of the Connecticut River. The property is not located in the 500-year floodplain, but the footprint of the dump is within 200 feet of the Connecticut River and may be in a floodplain [10]. Runoff from the property enters the Connecticut River at two probable points of entry (PPE). The flow rate of the Connecticut River was measured by using the mean annual flow of the Connecticut River at U.S. Geological Survey (USGS) Gaging Station No. 01129200 [564 cubic feet per second (cfs)], located upstream approximately 8 miles from the property in Pittsburg, New Hampshire, and USGS Gaging Station No. 01129500 (1,582 cfs), located downstream approximately 20 miles from the property in North Stratford, New Hampshire. The flow rate of the Connecticut River adjacent to the property is approximately 852 cfs [9]. The 15-mile downstream pathway terminus occurs on the Connecticut River in Bloomfield, Vermont, approximately 2 miles north of the intersection of Mill Brook and

the Connecticut River [11]. Table 5 summarizes surface water bodies along the 15-mile downstream pathway from the dump.

**Table 5**

**Surface Water Bodies Along the 15-Mile Downstream Pathway from Canaan Dump**

Surface Water Body	Descriptor <sup>a</sup>	Length of Reach (miles)	Flow Characteristics (cfs) <sup>b</sup>	Length of Wetlands (miles)
Connecticut River	Mod. to large stream	15	852	1.5

<sup>a</sup> Minimal stream < 10 cfs. Small to moderate stream 10-100 cfs. Moderate to large stream > 100-1,000 cfs. Large stream to river > 1,000-10,000 cfs. Large river > 10,000-100,000 cfs. Very large river > 100,000 cfs. Coastal tidal waters (flow not applicable). Shallow ocean zone or Great Lake (flow not applicable). Moderate depth ocean zone or Great Lake (flow not applicable). Deep ocean zone or Great Lake (flow not applicable). Three-mile mixing zone in quiet flowing river 10 cfs or greater.

<sup>b</sup> Cubic feet per second.

[2; 9; 11]

There are no surface water drinking water intakes along the 15-mile downstream surface water pathway. The Connecticut River is an important fishery and recreational resource [2]. The Connecticut River is also used by bald eagles as a migration area during the winter [12]. There are no other sensitive environments that occur along the 15-mile downstream surface water pathway. No known aqueous surface water samples have been collected to date.

On 16 July 1997, START personnel collected four sediment samples (SD-01 through SD-04) from the Connecticut River. Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), total metals, and cyanide. Table 6 summarizes sediment samples collected by START personnel on 16 July 1997.

**Table 6**

**Sample Summary: Canaan Dump  
Sediment Samples Collected by START on 16 July 1997**

Sample Location No.	Traffic Report No.	Time (hours)	Remarks	Sample Source
<b>MATRIX: Sediment</b>				
SD-01	AMX60 MAKK90	1120	Grab	Grab sediment sample collected from the bank of Connecticut River, approximately 10 feet downstream of the overland flow PPE. (MS/MSD)
SD-02	AMX61 MAKK91	1120	Grab	Duplicate of SD-01.

**Table 6**

**Sample Summary: Canaan Dump  
Sediment Samples Collected by START on 16 July 1997 (Concluded)**

Sample Location No.	Traffic Report No.	Time (hours)	Remarks	Sample Source
SD-03	AMX62 MAKK92	1150	Grab	Grab sediment sample collected upstream of the property to serve as a reference sample.
SD-04	MAKL07	1155	Grab	Grab sediment sample collected in the vicinity of SD-03 to serve as a second reference sample for metals analysis only.

MS/MSD = Matrix Spike/Matrix Spike Duplicate.  
PPE = Probable Point of Entry.

[10]

Contract Laboratory Program (CLP) analyses of sediment samples collected by START did not detect any compounds or elements above concentrations in reference samples SD-03 and SD-04 (metals only) [16; 17]. Complete analytical results of START sediment samples including quantitation and detection limits are presented in Attachment A. Sample results quantified with a "J" on analytical tables are considered approximate because of limitations identified during CLP data validation. In addition, organic sample results reported at concentrations below quantitation limits and confirmed by mass spectrometry are also qualified by a "J" and considered approximate.

START performed sediment sampling as part of the Canaan Dump property SI. No other surface water pathway sampling is known to have been conducted for the Canaan Dump property. Based on the 1997 START sediment sampling data, there has been no documented release of hazardous materials to the Connecticut River from the dump property, and therefore no known targets have been impacted by the property.

**SOIL EXPOSURE PATHWAY**

The nearest residence to the dump property is located on Route 102, approximately 94 feet southwest from the dump [10, p. 2]. No full-time or part-time employees work on the property [10, p. 1]. There are an estimated 89 people living within 1-radial mile of the dump [6]. There are no schools or day-care facilities within 200 feet of an area of observed contamination on the property [10, pp. 1-5].

The dump is 1 acre and is currently being used for the disposal of stumps and construction debris [1, p. 2]. There is no cap or liner on the dump [10]. There is a fence along Route 102 and a cable wire gate that controls vehicle access; however, pedestrian access is unrestricted [10, pp. 1-2]. There are no terrestrial sensitive environments located on the property [4].

On 15 May 1997, START performed an on-site reconnaissance of the dump. START observed piles of old appliances, a crushed car, car battery, cardboard tubing, crushed drums, tires, and other miscellaneous debris along the southern, eastern, and northern border of the dump [10].

START has not collected surficial soil samples as part of the Canaan Dump SI. There are no analytical data available to document a release of hazardous materials from the dump property to the soil exposure pathway, and therefore there are no known targets impacted by the property. Additionally, there are no residents on the property.

### AIR PATHWAY

The nearest residence to the dump is located on Route 102, approximately 94 feet southwest of the dump [10, p. 2]. No employees work on the property [10, p. 1]. There are no on-site residents. An estimated 1,874 residents live within 4-radial miles of the property [6]. Table 7 shows the estimated population within 4-radial miles of the dump.

**Table 7**

**Estimated Population Within 4-Radial Miles of Canaan Dump**

Radial Distance from Canaan Dump (miles)	Estimated Population
On a Source	0
> 0.00 to 0.25	7
> 0.25 to 0.50	17
> 0.50 to 1.00	65
> 1.00 to 2.00	350
> 2.00 to 3.00	732
> 3.00 to 4.00	703
<b>TOTAL</b>	<b>1,874</b>

[6]

No air sampling has been performed on the property. On 15 May 1997, START conducted an on-site reconnaissance of the property. START conducted air monitoring using a photoionization detector (PID) and did not record any readings above background [10].

The State of Vermont Department of Fish and Wildlife Non-game and Natural Heritage Program reported one State-endangered species habitat and one State-threatened species habitats within 4-radial miles of the dump. Table 8 summarizes sensitive environments located within 4-radial miles of the dump.

**Table 8**

**Sensitive Environments Located Within 4-Radial Miles of Canaan Dump**

Radial Distance from Canaan Dump (miles)	Sensitive Environment/Species (status)
On a Source	None
> 0.00 to 0.25	Clean Water Act
	4 acres of wetlands
> 0.25 to 0.50	16 acres of wetlands
> 0.50 to 1.00	38 acres of wetlands
> 1.00 to 2.00	Habitat for State-threatened
	Habitat for State-endangered
	157 acres of wetlands
> 2.00 to 3.00	101 acres of wetlands
> 3.00 to 4.00	89 acres of wetlands

[4; 12-15]

START has not collected air samples as part of the Canaan Dump SI. Since there has been no sampling conducted for the air pathway, there has been no documented release of hazardous materials and no known targets impacted from hazardous materials associated with the property.

## SUMMARY

The Canaan Dump (the dump) is located in Canaan, Essex County, Vermont. Canaan is situated in the northeast corner of Vermont, and has an estimated population of 1,200. The geographic coordinates are 44° 59' 5.0" north latitude and 71° 32' 35.2" west longitude. The dump is located on a hill that slopes down to the Connecticut River. There are piles of household debris located along the southern, northern, and eastern boundaries. A burned area is also located along the eastern boundary.

The property is owned by the Town of Canaan. The property is bordered on the east by the Connecticut River, on the north and south by the Richard Norris Farm, and on the west by Vermont State Highway 102.

The town acquired the land for the dump in 1940 from the estate of Claude Van Dyke. In 1956, waste was disposed of at the property, burning was permitted, and the refuse was covered with fill about three to four times per year. The dump received municipal solid waste from the towns of Canaan, Vermont and West Stewartstown, New Hampshire. Between 1969 and 1970, Ethan Allen Beecher Falls (EABF), a furniture manufacturer, allegedly disposed of spray booth wastes, which consisted of stains and lacquers used on finished furniture, at the dump. In 1974, the dump was closed for municipal and household garbage. The dump has remained open for only stumps and construction debris, and burning is still permitted at the property. When the dump was in operation, an attendant was at the dump on Monday, Wednesday, and Saturday. There is no further information concerning types of waste disposal.

Based on information in the Vermont State files, the depth to groundwater is 20 to 30 feet. Private drinking water supply wells near the property have reported yields ranging from 5 to 90 gallons per minute (gpm). One of the wells is a flowing artesian supply well and overflows at 0.5 gpm. The wells are drilled through approximately 150 feet of overburden that is described as gravel, coarse-gravel, or hardpan.

The Canaan Water System (CWS) is a municipally owned community water supply system that serves an estimated 975 people. CWS uses springs located just south of the Canadian border as its primary source of water and a gravel-packed supply well as a standby source. The gravel-packed supply well is 110 feet deep and has a reported yield of 250 gpm. A clay and sandy clay layer between 25 feet and 92 feet is an aquitard that slowly recharges the sand and gravel aquifer between 92 feet and 106 feet. The CWS well is located 1.1 miles north of the property. Other public water supplies include the Green Elderly Housing (GEH) in Canaan and the Riverside Water Works Co. (RWWC) in the Village of Beecher Falls. GEH is a bedrock well that serves 16 people, located approximately 1.2 miles northeast of the property. RWWC is a gravel well that serves 400 people, located approximately 2.5 miles northeast of the property. None of the community public drinking water systems noted above are downgradient of the property. The total number of people served by private and public water supplies within 4-radial miles of the dump is 1,878.

The Canaan Dump property is located on the west bank of the Connecticut River. The property is not located in the 500-year floodplain, but the footprint of the dump is within 200 feet of the Connecticut River and may be in a floodplain. Runoff from the property enters the Connecticut River at two probable points of entry (PPE). The flow rate of the Connecticut River was measured by using the mean annual flow of the Connecticut River at U.S. Geological Survey (USGS) Gaging Station No. 01129200 (564 cubic feet per second (cfs)), located upstream approximately eight miles from the property in Pittsburg, New Hampshire, and USGS Gaging Station No. 01129500 (1,582 cfs), located downstream approximately 20 miles from the property in North Stratford, New Hampshire. The 15-mile downstream pathway terminus occurs on the Connecticut River in Bloomfield, Vermont, approximately 2 miles north of the intersection of Mill Brook and the Connecticut River. There are no sensitive environments that occur along the 15-mile surface water pathway.

On 16 July 1997, START collected four sediment samples (SD-01 through SD-04) from the Connecticut River. Samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), total metals, and cyanide. Sediment samples collected by START did not detect any compounds or elements above concentrations in reference samples SD-03 and SD-04 (metals only).

The nearest residence to the dump property is located on Route 102, approximately 94 feet southwest from the dump. No full-time or part-time employees work on the property. There are an estimated 89 people living within 1-radial mile and an estimated 1,874 residents living within 4-radial miles of the property. There are no schools or day-care facilities within 200 feet of an area of observed contamination on the property.

The State of Vermont Department of Fish and Wildlife Non-game and Natural Heritage Program reported one State-endangered species habitat and one State-threatened species habitat located within 4-radial miles of the dump.

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