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August 2, 1993

Ms. Linda Wedderspoon
Hazardous Materials
Management Division
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103 South Main Street
Waterbury, VT 05671-0404

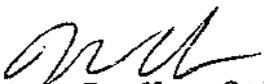
Re: 6 & 8 Platt Street, Swanton, Vermont
Site Investigation (Site #92-1240)

Dear Linda:

As a follow-up to our meeting in Waterbury on July 9, 1993, enclosed please find the "Ground Water and Soil Investigation of 6 & 8 Platt Street Area report prepared by the Johnson Company, Inc. for Brooks Feeds, Inc., July, 1993. As we discussed at our meeting, we understand that the Division will review the attached report and let us know how we should proceed regarding Mr. Ed White, the owner of the 6 Platt Street property, and whether the 6 & 8 Platt Street property should be considered as one, or two sites for the purposes of the Petroleum Clean-up Fund.

As usual, we appreciate your attention to this matter. Please let Brad Wheeler of the Johnson Company or me know if there is additional information we can provide to you at this time.

Very truly yours,


Peter D. Van Oot

PDV:sac
encls.

cc: B. Wheeler
✓ C. Schwer
J. Brooks

F:\DOCS\PDV\INNOVET\JOHNSON

Groundwater Sampling and Soil Investigation
of the
BROOKS FEEDS, INCORPORATED
8 Platt Street Property

Swanton, Vermont

December, 1992

Prepared for:

BROOKS FEEDS, INC.
Swanton, Vermont

Prepared by:

THE JOHNSON COMPANY, INC.
5 State Street
Montpelier, Vermont 05602

THE JOHNSON COMPANY, INC.

Environmental Sciences and Engineering

DEC 16 1992

December 14, 1992

Mr. John Brooks
Brooks Feeds, Inc.
20 Depot Street
Swanton, Vermont 05488

Re: Groundwater Sampling and Soil Investigation of the Brooks Feeds, Inc. Property at 8 Platt Street,
Swanton, Vermont
JCO # 1-0262-2 (42)

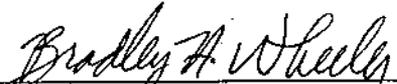
Dear Mr. Brooks:

Enclosed please find our report detailing the findings of our most recent phase of work, including groundwater and soil sampling, conducted for the Brooks Feeds, Inc. property at 8 Platt Street in Swanton, Vermont. If you have any questions, please feel free to call. We have also sent a copy of this report to Parminder Grewal, Project Manager for the Vermont Hazardous Sites Management Section.

Sincerely,

THE JOHNSON COMPANY, INC.

By:



Bradley A. Wheeler, CPSS
Senior Scientist

cc: Parminder Grewal, VT DEC

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1.0 INTRODUCTION

The Johnson Company was hired by Brooks Feeds, Inc. to continue the groundwater and soil investigation at their 8 Platt Street property in Swanton, Vermont. Also included in this phase of the investigation was soil sampling on adjacent property belonging to Ed White, of Saint Albans, Vermont and on property belonging to the Village of Swanton (the Platt Street right of way). A location map for this site is provided as Figure 1. Seven soil borings were conducted using a drill rig and hollow stem auger and 24 soil samples were collected with a split spoon sampler for headspace analysis. Two of the existing groundwater monitoring wells (MW-2 and MW-3) on the 8 Platt Street property were resampled and the groundwater was analyzed for total petroleum hydrocarbons (TPH) using EPA Method 418.1 and for gasoline related (BTEX) volatile organic compounds (VOCs) using EPA Method 8020. This work was carried out as per a request by the Vermont Hazardous Sites Management Section (HSMS). The HSMS reviewed and preapproved the scope of work that was carried out for this investigation.

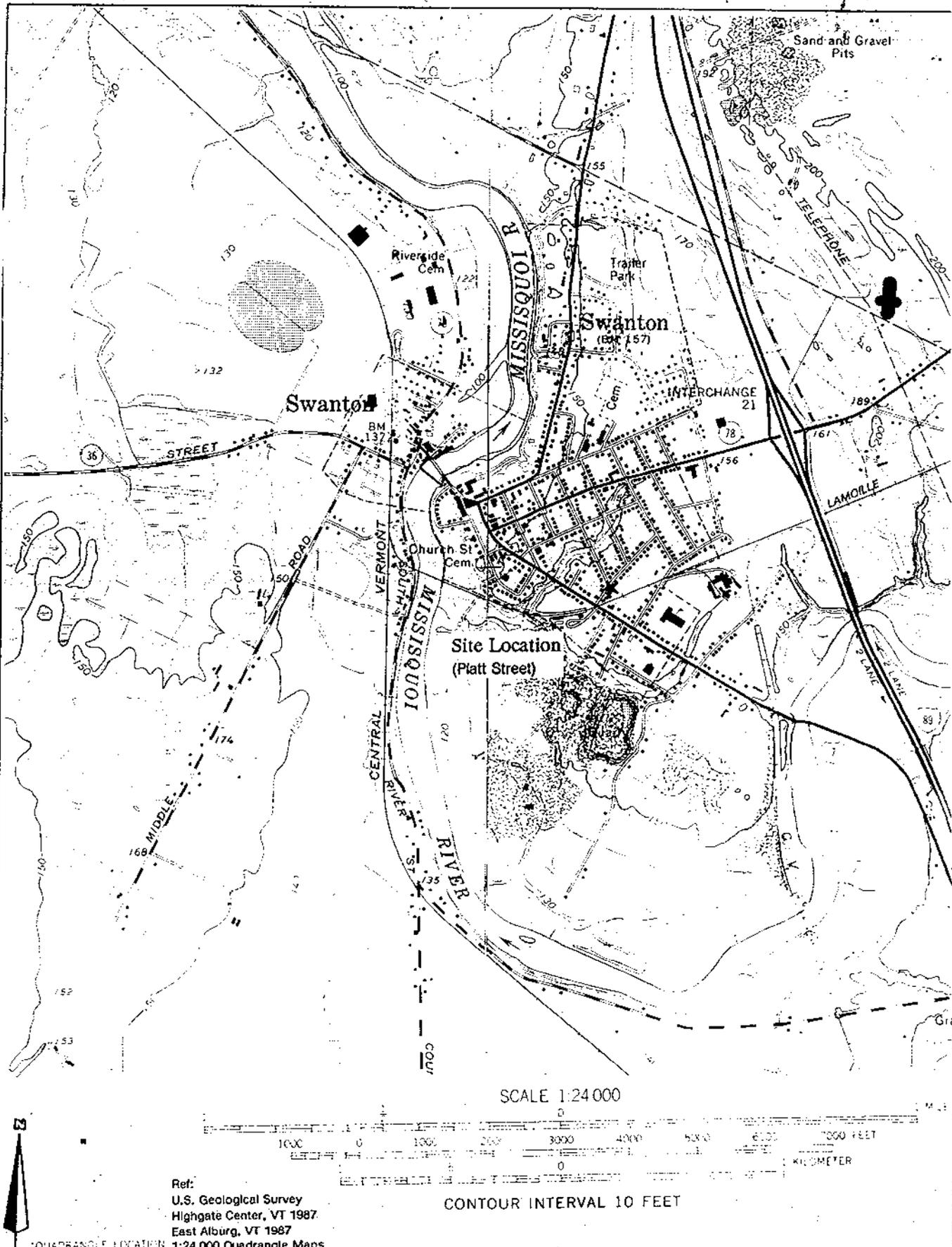
Previous investigations conducted at this site by The Johnson Company revealed that the soils and groundwater are contaminated with VOCs that may have originated from underground storage tanks that were previously located on the 8 and 6 Platt Street properties. The 8 Platt Street property previously had two underground storage tanks. The 6 Platt Street property has a long history of use as a fuel distributor, and had a variety of underground and above ground fuel storage tanks on the property. For more information regarding the previous work on this site, refer to Appendix A and Appendix B.

2.0 GROUNDWATER SAMPLING

2.1 SAMPLE COLLECTION AND HANDLING

Two groundwater monitoring wells on the site were sampled on October 22, 1992. These wells, MW-2 and MW-3, were sampled because previously collected groundwater samples from these wells were found to have low levels of gasoline related compounds during earlier sampling. A sample from MW-2 had 5 parts per billion (ppb) xylenes and a sample from MW-3 had 5 ppb toluene, 5 ppb ethylbenzene and 14 ppb xylenes. These samples were analyzed using EPA Method 602. No VOCs were detected in the sample collected previously from MW-1, so it was not resampled during this phase of the investigation.

The wells were sampled using PVC disposable bailers that are dedicated to each well. As the well cap was removed from each well, a photoionization detector (PID) was placed into the top of the well casing to screen for volatile organic compounds. Readings of 0.0 were obtained from each well. The depth to groundwater in each well was approximately 7 feet below the ground surface. Approximately 4 well volumes of water was purged from each well prior to sampling. Sample collection from each well included two (2) one



Ref:
 U.S. Geological Survey
 Highgate Center, VT 1987
 East Alburg, VT 1987
 1:24,000 Quadrangle Maps

Figure 1
Brooks Feeds, Swanton, VT
Site Location Map

THE JOHNSON COMPANY, INC.
 Environmental Sciences and Engineering
 MONTPELIER, VERMONT 05602

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liter jars for analysis for total petroleum hydrocarbons by EPA Method 418.1 and two (2) 40 milliliter vials for analysis for BTEX by EPA Method 8020. Upon collection, the samples were placed in a cooler on ice. The samples in the one liter jars were preserved with sulfuric acid and the samples in the 40 milliliter vials were preserved with hydrochloric acid. The samples were shipped under chain of custody by Vermont Transit bus to Scitest Laboratory in Randolph, Vermont on October 23, 1992. The samples were stored in a refrigerator at The Johnson Company overnight from October 22 to October 23.

2.2 ANALYTICAL RESULTS

Scitest received the samples on October 23, 1992. The BTEX analysis was done on October 28 and the TPH analysis was conducted on November 2 by Groundwater Analytical, Inc. of Buzzards Bay, Massachusetts, under subcontract from Scitest.

The BTEX analysis showed that neither of the groundwater samples contained any of the analytes for EPA Method 8020 at levels above the detection limit of 1 ppb.

The TPH analysis showed that neither of the groundwater samples contained any of the analytes for EPA Method 418.1 at levels above the detection limit of 0.5 parts per million (ppm). See Appendix D for copies of the Laboratory Analytical Reports.

3.0 SOIL INVESTIGATION

Field work for collection of soil samples was conducted at this property on November 3, 1992. Adams Engineering was hired to do the drilling. The Johnson Company was present to determine drilling locations, observe the drilling, monitor the air space and soils with a PID, and collect soil samples.

Previous soil sampling at this site included nine borings and 23 soil samples collected for headspace analysis. These borings were conducted on or very close to the 8 Platt Street property. These locations and results of the headspace analysis for each sample, are shown on Figure 2.

On the day of field work it was raining heavily in the morning. A drop of water was inadvertently allowed to enter the probe of the PID. This occurred during the start up of field work. Due to the moisture in the PID, the instrument was not working properly, so field notes for the sampling do not include PID readings. Relative degrees of odor of the soil samples were noted throughout the sample collection process.

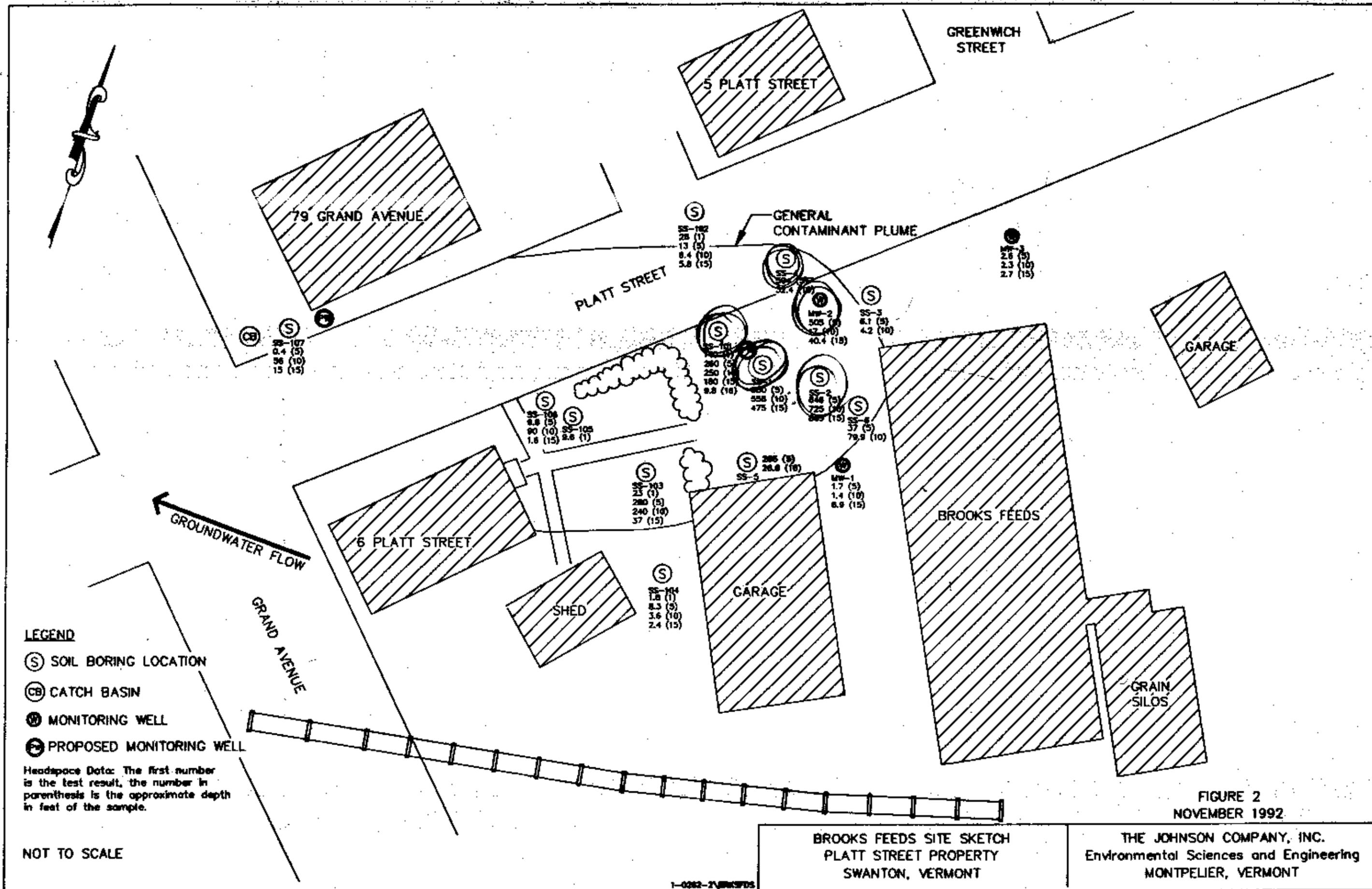


FIGURE 2
NOVEMBER 1992

1-0002-2/BROKFEEDS

Seven holes were drilled and soil samples were collected from each boring. A total of 24 soil samples were collected. The approximate locations of the borings are shown in Figure 2. The soil samples were collected using a split spoon sampler. Generally, samples were collected from 1 foot below the ground surface (bgs), 5 feet bgs, 10 feet bgs and 15 feet bgs from each boring. More precise sampling depths are provided in Table 1.

The split spoon sampler was washed in soapy water between each sample. The augers were steam cleaned between each boring. As they were collected, the samples were placed directly into unused, 12-ounce mason jars. A layer of aluminum foil was placed under the lid of each jar to facilitate the headspace readings that were conducted on November 4, at 7:45 am. The headspace readings were obtained by shaking the warmed (room temperature) soil samples and removing the lid of the jar. The aluminum foil covering was left in place to retain the air in the jar. The probe of the calibrated PID was then carefully inserted through the aluminum foil into the jar. Care was taken to minimize the exchange of air between the inside of the jar and the room, so that concentrations of VOCs in the jar would not be excessively diluted by the relatively clean air in the room.

Table 1 provides the sampling depths and the headspace readings for the soil samples collected on November 3, 1992.

TABLE 1 - HEADSPACE RESULTS

SOIL SAMPLE #	SOIL SAMPLE DEPTH (FEET)	PID READING (ppm) (HEADSPACE)
101a	1	140
101b	4-6	260
101c	9-11	250
101d	14-15.5	180
101e	15.5-16	9.8
102a	1	28
102b	4-6	13
102c	9.5-11.5	6.4
102d	13.9-15.9	5.8
103a	1	23
103b	4-7	280
103c	9.8-11.8	240
103d	14.5-16.5	37
104a	1	1.8
104b	4.3-6.3	8.3
104c	9.8-11.8	3.6
104d	14.8-16.8	2.4
105a	1	9.6
106a	4-6	9.8
106b	9.3-11.3	90
106c	14.8-16.8	1.6
107a	4.3-6.3	0.4
107b	9.3-11.3	56
107c	14.3-16.3	15

The soil data obtained during this investigation suggests that for much of this area the most significant

soil contamination is confined to the upper 10-15 feet of the soil profile. Below that depth, the contamination levels decrease significantly. Four of the six borings that were advanced to a depth of 15 feet or greater showed a silty layer occurring at 14 to 16 feet bgs under the upper layers of fine sand. It is apparent from the headspace data that this layer is restricting the downward migration of contamination in the soils. Examples of this were seen in SS-101, SS-103, and SS-106, as described in the following paragraph.

SS-101; soil textures were fine sand to a depth of 15.5 feet bgs, where a sharp contact with a layer of silty very fine sand occurred. Two separate headspace samples were collected from the same split spoon sample, one from 14 to 15.5 feet bgs and the other from 15.5 to 16 feet bgs. These samples were reflective of the two soil materials seen in the split spoon. As Table 1 shows, the upper, fine sand soils produced a headspace reading of 180 ppm, while the finer textured layer just inches below produced a headspace reading of 9.8 ppm. SS-103; the soil texture of the sample from 9.8 to 11.8 feet bgs was fine sand. It produced a headspace reading of 240 ppm. The texture of the sample from 14.5 to 16.5 feet bgs was silty fine sand, and it produced a headspace reading of 37 ppm. SS-106; at 9.3 to 11.3 feet bgs, soil textures were fine sand and the headspace reading was 90 ppm. At 14.8 to 16.8 feet bgs, soil textures were silty very fine sand and the headspace reading was 1.6.

It was noted during the sampling of SS-106 that the odors of the soil samples were distinctly different from the odors detected earlier in samples from SS-101. The field notes from the sample collected from SS-106 at approximately 10 feet bgs indicate a "very strong odor, different from SS-101, smells like #2 fuel oil instead of gasoline, as in SS-101". Additionally, this sample that was described as having a "very strong odor" produced a headspace reading of 90 ppm. Samples from SS-101 that were described as having "strong odors" produced headspace readings of 260 ppm, 250 ppm and 180 ppm. This may indicate that two types of materials were encountered in these borings.

4.0 RECEPTOR SURVEY

The receptor survey conducted for this site included the area within a 300 foot radius from the site. It appears that the most likely potential receptor is the basement of the house at 6 Platt Street. This is in a hydrologically downgradient position from the site (or more accurately, on the site), and soil contamination on this property is evident at levels exceeding 200 ppm, based on headspace readings obtained approximately 50 feet from the house. The highest headspace reading from a boring closer to the house (SS-106) was 90 ppm at a depth of approximately 10 feet bgs. If the basement at 6 Platt Street is being impacted by the soil contamination, it is probably through the horizontal migration of vapors through the soil and into the basement through cracks in the foundation. Mike Menard of the Village of Swanton Electric and Water

Department indicated that when he was recently in this basement, there were no noticeable petroleum-type odors.

The house at 79 Grand Avenue is another potential receptor of vapors from this site. The soils approximately 30 feet from the house were shown to be contaminated at levels as high as 56 ppm at approximately 10 feet bgs. It is considered unlikely that detectable levels of vapors would migrate into this basement.

Although the Village of Swanton has a municipal water supply from Lake Champlain, there are a few private water supply wells in Swanton. The closest of these wells is at the Swanton Packing Company. This property is approximately 400 feet northwest of the site, so it is outside of the scope of this receptor survey.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

The results of the soil headspace analysis indicate that there is soil contamination on each of the properties included in this investigation. It appears that the contamination is, to a large extent, confined to the upper 10 to 15 feet of the soil profile. Earlier investigations showed high levels of contamination in soils at depths of approximately 17 feet bgs in two borings. These borings were located close to the property line between 6 and 8 Platt Street. Therefore, at least in this relatively small area, it must be concluded that the soil contamination extends to depths below 15 feet bgs.

The sampling has also provided information regarding the horizontal extent of the contamination. SS-102, SS-104 and SS-107 from this phase of the investigation all show relatively low levels of contamination, suggesting proximity to the edges of a possible contaminant plume. Additionally, SS-106 is approximately 30 to 40 feet downgradient (hydrologically) from SS-103, and the contaminant levels have decreased from 240 ppm at approximately 10 feet bgs to 90 ppm at the same depth. Given this decrease over this distance, and the decrease to 56 ppm at approximately 10 feet bgs at SS-107, it appears likely that the soil contamination does not continue at significantly high levels east of Grand Avenue. The definition of a contaminant plume, such as the one indicated on Figure 2, is based on the assumption that the contamination under investigation has its origination from the former location of the USTs at 8 Platt Street. The data collected at this site clearly shows a concentration of high headspace readings occurs slightly downgradient (hydrologically) of this area. As our earlier investigations pointed out, there have been several USTs at the 6 Platt Street property over the last several decades, and there has been at least one UST at the former convenience store at the

northeast corner of Platt and Greenwich Streets. It appears that this UST may still be in place, although it is out of use. If this contamination actually originates from several sources in this area, the general assumptions used in defining a contaminant plume based on a single source are no longer valid. The multiple source scenario may result in a plume that is irregularly shaped, due to the different source locations, instead of a generally regularly shaped oblong plume that has its axis roughly parallel with the direction of groundwater flow, as shown in Figure 2. The data collected to date support the possibility that the contamination documented on the site originates from the northwest corner of 8 Platt Street and/or the northeast corner of 6 Platt Street. Field evidence (the odors described earlier) indicate that there may be more than one type of contaminant from at least two separate locations in this area.

The biggest unanswered question regarding the horizontal extent of the soil contamination in this area is the condition of the soils between the 6 Platt Street house (former gasoline station) and Grand Avenue. This is the area where the gasoline pumps and their associated USTs were formerly located on this property. During the course of this investigation, it was determined that since the client for this project is Brooks Feeds, it was not in their interest to expand the investigation into this area which, if it is heavily contaminated, is clearly separate from the contamination which is potentially originating from 8 Platt Street. If the soils in this area are not contaminated at levels above the 20 to 50 ppm range, it can be assumed that leaking from these tanks was not extensive, or evidence of such leaking has subsided over time.

It should be stated that none of the information collected to date for this site indicates that the former USTs at 8 Platt Street are the sole source of contamination for the site. There were also USTs on the 6 Platt Street property in the area of the highest contaminant concentrations seen on the site. It may be that a combination of tanks from both properties contributed contamination to the site over the years.

The results from the groundwater sampling and analysis indicate that the soil contamination is not adversely affecting the groundwater quality on the Brooks Feeds property. Previous analysis, conducted shortly after the monitoring wells were installed, showed low levels of BTEX compounds (with the exception of benzene, which was not detected) that were well below the Vermont Groundwater Protection Rule and Strategy Enforcement Standard. The current analysis did not detect any petroleum related compounds in the groundwater samples collected from MW-2 and MW-3. The condition of the groundwater downgradient of the area of highest headspace readings was not determined during the course of this investigation.

5.2 RECOMMENDATIONS

This investigation provides us with a general understanding of the soil conditions resulting from the contamination originating near the northwest and northeast corners of the 8 Platt Street and 6 Platt Street properties, respectively. However, we have identified what we consider to be a serious data gap that we feel must be satisfied before a full understanding of this site can be achieved. This missing data is the groundwater condition at locations hydrologically downgradient of the suspected contaminant source area. As Figure 2 illustrates, the three existing monitoring wells on this site are all located in upgradient positions relative to the area where the highest soil headspace readings have been obtained. (These wells were installed prior to the initiation of any soil borings on the site.) In our original proposal for continuing the investigation of this site (dated September 22, 1992), we recommended the installation of three groundwater monitoring wells in a downgradient position from this area. It was determined by the HSMS that these wells were not necessary at that time. At this point, we feel compelled (by the degree of contamination documented in the soils in this area) to recommend that these downgradient wells be installed so that the groundwater downgradient of the most contaminated soils can be sampled and analyzed for VOCs using EPA Method 8020. The proposed locations of these wells are shown on Figure 2. Until we know whether the groundwater downgradient of this area is being adversely impacted by the soil contamination, it is impossible for us to make any well formed recommendations regarding the need for site remediation.

The receptor survey for this area has shown that there is not a great potential for contact by this contamination with humans or sensitive environmental areas such as streams or wetlands. The most likely receptors are the basements of the buildings at 6 Platt Street and 79 Grand Avenue. It is recommended that PID readings be obtained from these basements to determine if petroleum vapors are seeping into them.

6.0 LIMITATIONS

This investigation was based on sound scientific investigative techniques and experience with similar investigations. However, the conclusions of this investigation are based on limited data and the results, conclusions and recommendations herein must be viewed in this light.

Reviewed by: ARL

J:\PROJECTS\1-0262-2\INVEST.RPT December 5, 1992 11.01 BAW/heh

APPENDIX A

**Level 1 & Level II Environmental Site Assessment Report
February 1992**

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**Level I and Level II Environmental Site Assessments of
8 Platt Street and 20 Depot Street**

Brooks Feeds, Incorporated

Swanton, Vermont

February, 1992

Prepared for:

Mr. Louis Pleeter
Fort Lauderdale, Florida

Prepared by:

THE JOHNSON COMPANY, INC.
5 State Street
Montpelier, Vermont 05602

THE JOHNSON COMPANY, INC.

Environmental Sciences and Engineering

February 6, 1992

Mr. Louis Pleeter
Atrium Centre
4801 South University Drive, Suite 306
Fort Lauderdale, Florida 33328

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via Federal Express

Re: Level I and Level II Environmental Site Assessments (ESA) of the Brooks Feeds, Inc. properties at
8 Platt Street and 20 Depot Street, Swanton, Vermont
JCO # 1-0261-1 (54)

Dear Mr. Pleeter:

Enclosed please find our report detailing the findings of our Level I and Level II ESA performed for the Brooks Feeds, Inc. properties at 8 Platt Street and 20 Depot Street in Swanton, Vermont. Should you have any questions or concerns during your review of this report, please feel free to call.

Sincerely,

THE JOHNSON COMPANY, INC.

By: Bradley A. Wheeler
Bradley A. Wheeler, CPSS
Senior Scientist

Reviewed by: A-H

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1.0 INTRODUCTION

The Johnson Company was retained by Mr. Louis Pleeter to perform Level I and Level II Environmental Site Assessments (ESA) for the Brooks Feeds, Inc. properties, located on 8 Platt Street and 20 Depot Street in Swanton, Vermont. A location map of these properties is provided as Figure 1. The 8 Platt Street property is owned by Brooks Feeds, Inc. and the 20 Depot Street property is leased by Brooks Feeds, Inc. from the Central Vermont Railway, Inc. The purpose of the Level I ESA is to investigate the present and historic uses of the site and make an assessment of the likelihood of a release of hazardous materials having occurred on the site as a result of these uses. The Level II ESA was initiated after it was learned that both of the subject properties were at risk of potential releases of hazardous materials. The purpose of the Level II ESA is to conduct subsurface sampling to determine if a release of hazardous materials has impacted the soils or groundwater on a property.

The Level I ESA included an investigation of the site's history, review of existing information, determining the site's regulatory status, contacting appropriate personnel regarding past uses and/or releases of hazardous materials on the site, and a site walkover to visually inspect the site and note any evidence of potential releases of hazardous materials to the environment.

The Level II ESA included the installation of three groundwater monitoring wells at each property for the collection and laboratory analysis of groundwater samples and soil sampling for laboratory and headspace analysis. In general terms, a headspace analysis is conducted by inserting the probe of a photoionization detector (PID) into a jar which is partially filled with a soil sample. This provides a relative indication of the concentration of volatile organic compounds in the soil sample.

The PID is a portable instrument that can detect the presence of some common hazardous compound gases (i.e., certain volatile organic compounds). The PID provides qualitative, field screening data. It does not provide compound specific, quantitative information on specific contaminant concentrations.

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2.0 SITE HISTORY AND REVIEW OF EXISTING INFORMATION

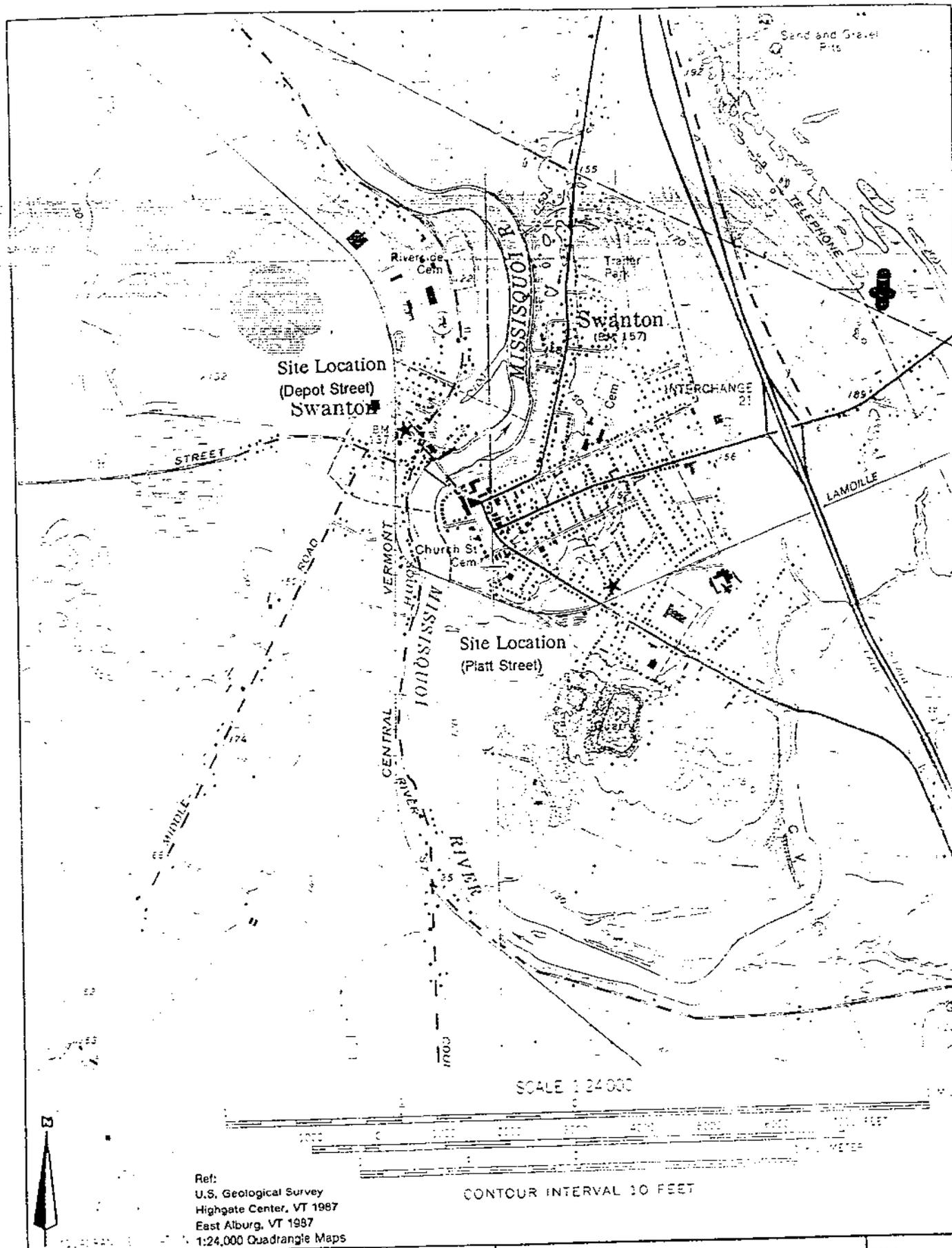
2.1 HISTORICAL REVIEW

Historical reviews of the Brooks Feeds sites were conducted to establish the most likely chronology of site land uses. A site history of past and present land uses can reveal activities which may suggest environmental concerns. The site histories for the Level I ESA were developed from land use information presented in the Sanborn Insurance maps and on an available current title search (Harwood, 1992). Sanborn Insurance maps are provided in Appendix A for 8 Platt Street and Appendix B for 20 Depot Street. The Certificate of Title is provided in Appendix C.

2.1.1 8 Platt Street

The 8 Platt Street property is shown in Figure 2. According to an available title search, the subject site parcel was deeded, as "an irregular parcel of land" from Mr. Ajanson Platt to the St. Johnsbury and Lake Champlain Railroad Company on August 26, 1885 (Harwood, 1992). A 1909 Sanborn map shows the parcel of land currently occupied by the Brooks Feeds, Inc. warehouse and retail feed store, 8 Platt Street, as vacant and located approximately opposite to Skee's Provision House. The next available Sanborn Insurance map following 1909 was produced in 1920. At that time an ice house is shown occupying part of what was to become the subject site parcel. In 1930 the Sanborn Insurance map presents the subject site as vacant and devoid of buildings. A 1938 amendment to the 1930 Sanborn Insurance map shows the subject site as a vacant lot.

The 1938 map shows that the property adjacent and southwest of the subject site, with frontage to Grand Avenue and Platt Street, was developed as a filling station. The map shows three gasoline tanks (possibly placed underground) as well as two fuel oil tanks. The two fuel oil tanks are shown towards the northeastern end of the adjacent property. In past years, this property was occupied by Robinson's Oil and Gas Company. Robinson's sold and distributed oil and gasoline from this property for many years. The same 1938 map shows that the building across Platt Street and to the north of the subject site was also a filling station, with one gasoline tank which may have been located underground. According to a telephone conversation with Phil Saint Marie, this property formerly was occupied by a store called F. R. Saint Marie's, where gasoline was sold up until a few years ago. The store belonged to Phil Saint Marie's father (Wheeler, 1992a).



Ref:
 U.S. Geological Survey
 Highgate Center, VT 1987
 East Alburg, VT 1987
 1:24,000 Quadrangle Maps

Figure 1
 Brooks Feeds, Swanton, VT
 Site Location Map

THE JOHNSON COMPANY, INC.
 Environmental Sciences and Engineering
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Through a Quit-Claim Deed, dated August 26, 1965, the 8 Platt Street property was conveyed from the St. Johnsbury and Lamoille County Railroad to Mr. Donald Skeels, owner of Skeels and Weidman Feed Company (Town Clerk, 1965). In September of 1983 the subject site property was conveyed to Brooks Feeds, Inc. (Town Clerk, 1983).

2.1.2 20 Depot Street

The 20 Depot Street parcel, leased to Brooks Feeds, Inc. by the Central Vermont Railway, Inc., is shown in Figure 3. The Depot Street parcel in question is the same parcel that was earlier leased, July 1, 1965, by Donald Skeels from the Central Vermont Railroad. Said parcel contains an "old freight house" that was conveyed by a Bill of Sale, dated July 27, 1965, to Donald Skeels from the Ralston Purina Company. An 1892 map produced by the Sanborn Perris Map Company shows that the subject parcel contained a portion of the Jewett and Newell's Coal Shed, the rail spur that serviced the shed, a coal office, and possibly a portion of the Central Vermont Railroad freight station, platform, and office. The 1897 edition of the Sanborn Perris map reveals that the coal shed operation is ongoing under another owner, while what was shown as a coal office in 1892 now appears as the American Express office. In 1909 the Sanborn Map shows two buildings to the north of the parcel marked as "Freight Houses" with a "Tool House" to the east of these structures. The coal shed operation extends to the south of the property. The 1920 Sanborn map shows that the 1909 operations continue unchanged with the addition of a scale located at the southern end of the property. Sanborn maps from 1930 and 1938 show that the land use at the subject parcel remained the same as in 1920. The scale, freight house and platform layout most likely served as a transfer station operation that relocated the freight arriving in Swanton by railroad onto lorries and trucks which distributed the received goods to the businesses and industries in the town of Swanton.



SCALE: 1" = ~20'

PLATT STREET

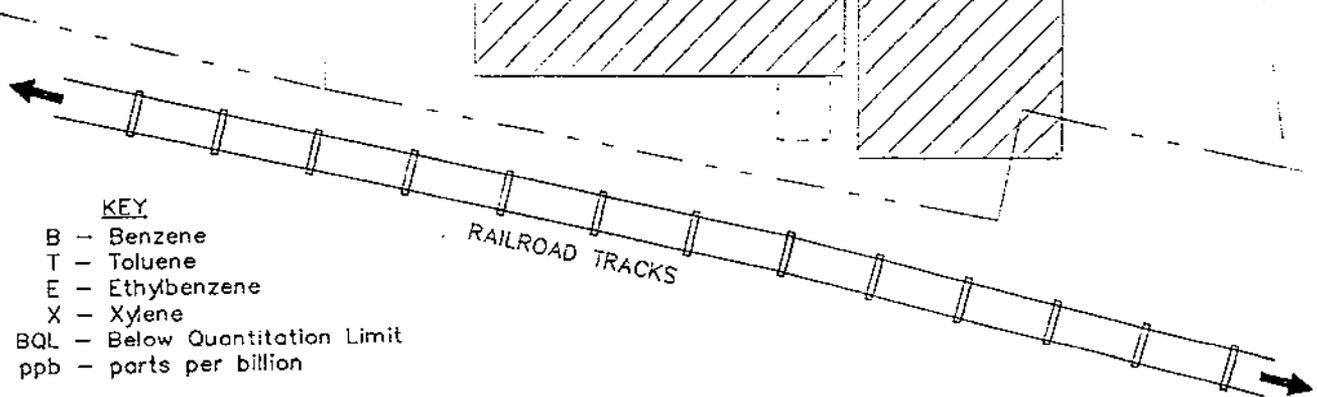
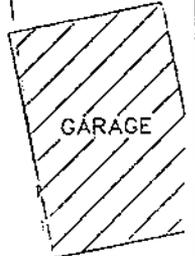
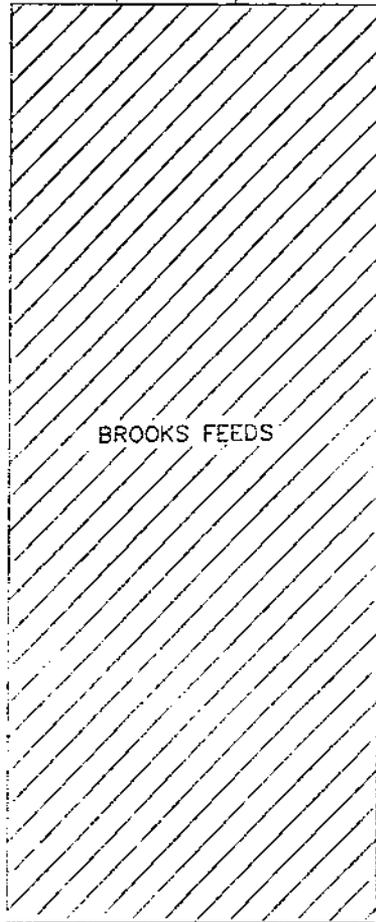
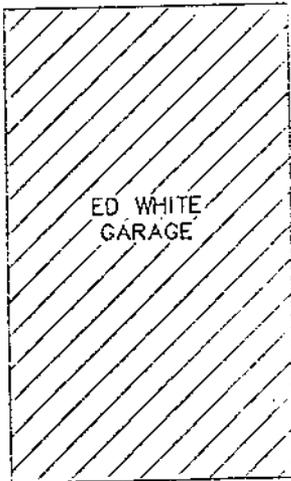
PROPERTY LINE

MW3
2.6
2.3
1.7
B=BQL
T=5ppb
E=5ppb
X=14ppb

MW2 MONITORING
WELL (TYP.)
10.4
B=BQL
T=5ppb
E=BQL
X=BQL

MW1
1.7
1.4
6.9
B=BQL
T=BQL
E=BQL
X=BQL

APPROXIMATE
DIRECTION OF
GROUNDWATER FLOW



KEY

- B - Benzene
- T - Toluene
- E - Ethylbenzene
- X - Xylene
- BQL - Below Quantitation Limit
- ppb - parts per billion

1-0261-1\PLATT.dwg

MONITORING WELL LOCATIONS
PLATT STREET PROPERTY
SWANTON, VERMONT

THE JOHNSON COMPANY, INC.
Environmental Sciences and Engineering
MONTPELIER, VERMONT

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2.2 EXISTING INFORMATION REVIEW

2.2.1 General Information

Files from the Vermont Department of Environmental Conservation (VT DEC) were reviewed by The Johnson Company personnel to determine if past spills or other environmentally threatening events have occurred on the sites or their vicinity, and to identify underground storage tanks (USTs) that are permitted or under notification with the state in the vicinity of the subject sites. The current VT DEC Hazardous Sites list was reviewed to find if the subject sites, or others in the vicinity, are currently on any hazardous sites lists with the state or federal government. The Johnson Company contacted the Swanton Fire Department to determine if any emergency response actions are on file for the subject properties. The Johnson Company also checked the most recent VT DEC listing of Resource Conservation and Recovery Act (RCRA) Hazardous Waste Generators to identify those generators that have or have had a place of business in the immediate vicinity of the subject sites.

2.2.2 Vermont List of Active Hazardous Sites

The file search performed by The Johnson Company personnel of the VT DEC Hazardous Materials Management Division's file indicate that the subject sites are neither in the federal Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), or the Vermont Hazardous / Petroleum Sites lists. The sites presently on the Vermont Hazardous Sites list for the Town of Swanton, as of January 10, 1992, are presented in Table 1. None of the listed sites is within close proximity to the two subject properties.

Table 1 Vermont Hazardous Waste Sites, Swanton, Vermont Active List			
Site #	Site Name	Street Address	Project Status
770131	Atlas Missile S-3	Middle Road	Confirmation study completed July 1988
870054	Swanton Village	Route 78	Remediation ongoing
870150	Bovat Texaco	Route 78	UST contamination found. Monitoring ongoing.
880181	Massey's SB Collins	97 First Street	UST contamination. Remediation ongoing.
890330	Dave's Quik Stop	Route 78	UST contamination. Stockpiled soils.
890420	E.J. Barrette Ford	Route 7	Monitoring completed. VSPS ranking done.
890446	Cota's Sunoco	First Street	UST contamination found. Monitoring needed.
900518	A.R. Sandri	Route 78	Monitoring ongoing.

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2.23 Vermont Spills Lists and Emergency Response

In response to a telephone request to Ms. Ann Thurber of the VT DEC Hazardous Materials Management Division, The Johnson Company received a full listing of all the spills (Incidents) reported to the VT DEC, for the Town of Swanton. A copy of this list is presented in Appendix D. The list documents that no known spills of hazardous materials have occurred on or near the subject sites. According to the VT DEC, a one thousand gallon spill occurred at the Swanton Wastewater Treatment Plant on August 1, 1992.

A telephone conversation with Mark Bostwick, Sr. of the Swanton Fire Department revealed that there is no record of an emergency response at the subject sites (Cazon, 1992a).

2.24 RCRA Generators Listed in Vermont

The Johnson Company has on file the most current, complete listing of RCRA Hazardous Waste Generators for the State of Vermont, produced March 25, 1991 and received September 19, 1991, from the VT DEC. The operations at those facilities listed in Table 2 present potential sources of localized hazardous waste point releases in the Town of Swanton. The former Phillips Metallurgical site, now operating as Browns Foundary, is within several hundred feet of the 20 Depot Street property.

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Table 2 Vermont RCRA List		
GEN-CLASS	CNTY-TN-SEQ#	GENERATOR NAME
S	06-16-001	R.J. Fournier
S	06-16-002	Softlite
S	06-16-003	Vermont Gage Division
S	06-16-004	Bartek, Inc.
S	06-16-005	Chase Auto Sales
S	06-16-006	New England Container Company
S	06-16-007	Car Care Auto Sales (dba) Many's Auto
S	06-16-008	New England Firearms
G	06-16-001	Vermont Precision Tools
NG	06-16-001	Canstar Sports USA, Inc.
NG	06-16-002	Vermont Meat Packers, Inc.
NG	06-16-003	Vermont Country Pine Products
DC	06-15-001	Swanton Laundromat & Cleaners
OB	06-16-001	George Yett Bag Co.
OB	06-16-002	Phillips Metallurgical
Codes: G Generator S Small Quantity OB Out of business DC Dry Cleaners NG Non-generator		

2.2.5 Underground Storage Tanks (USTs)

The VT DEC Underground Storage Tank Program was contacted to identify those permitted USTs in the vicinity of the subject sites (Cazon, 1992b). The DEC has no record of existing underground storage tank facilities at Brooks Feeds or in the immediate vicinity of the Platt and Greenwich Street intersection. USTs are on file both for Saint Marie's on Grand Avenue and Grand Avenue Enterprises, 126 Grand Avenue. The VT DEC UST files also revealed a record of an underground storage tank at North Country Bait and Tackle, on North River Road. Although they are located in the general vicinity, none of these facilities are in the immediate vicinity of the two subject sites.

The VT DEC files also revealed that there were no UST removals on record for the two subject sites with the state agency. The files showed only the following UST removals in the Town of Swanton: 1) E.J.

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Barret and Sons, Canada Street; 2) Agway Swanco, Brooklynn Street; and 3) Coda Service Station, First Street. The VT DEC has maintained UST files dating back to 1985. According to a conversation with John Brooks, President of Brooks Feeds, Inc., two underground storage tanks (one gasoline and one kerosene) were removed from the 8 Platt Street site approximately 9 years ago. Michael Jedware informed us in a telephone conversation that his company, Jedco, Inc., was hired to remove the USTs from the former Robinson's Oil and Gas property, which is adjacent to and west of 8 Platt Street. This property is now owned by Ed White of Saint Albans. Mr. Jedware removed two or three USTs from the front of the property along Grand Avenue and one UST from in front of the garage which is located just west of the 8 Platt Street property. He recalled that the tanks were removed about four years ago (Wheeler,1992b). It is not known if the UST or USTs at the former F. R. Saint Marie property have ever been removed from the site.

2.2.6 Compliance and Permit Status

In a telephone conversation, Ms. Carolyn Root, Vermont DEC District #6 office, had no records concerning the subject facility. No information was listed under either the heading Brooks Feeds or John Brooks (Cazon,1992b). This information suggests that Brooks Feeds is not under any kind of environmental permitting conditions. A follow up conversation with Ms. Ernestine Chevrier, also of District #6, revealed that the agency has no permit and compliance records for the previous owner of Brooks Feeds, the Skeels and Weidman Feed Company (Cazon,1992d).

3.0 SITE INVESTIGATION

A site investigation of the 8 Platt Street and 20 Depot Street properties was conducted by The Johnson Company on January 8, 1992. Also present during the site investigation was John Brooks, President of Brooks Feeds, Inc. Site sketches showing each property are presented in Figures 2 and 3.

The following discussion is separated into sections on each property.

3.1 8 PLATT STREET

This property consists of approximately one third of an acre of nearly level land which is occupied by a building of approximately 4,500 square feet. Water supply for this building, and the buildings in this area, is from the Swanton municipal water system. Wastewater disposal for this building, and the buildings in this

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area, is via the Swanton municipal sewer system. Heat for the retail store area is provided by a corn burning heater that simply blows warm air into the store. The building is used for handling, storing and mixing animal feeds as well as for a retail store which sells feed and other farm related products. During the inspection of this building, no friable materials that are suspected to contain asbestos were noted. Non-friable suspected asbestos containing materials seen in the building include the mortar pad that is under the corn burning stove and the linoleum and floor tiles that are located in the bathroom and desk area. These products do not present a health risk in their present condition, provided they are not damaged or broken up in any way.

An environmental questionnaire was completed by John Brooks during this site visit. A separate questionnaire was also completed for the 20 Depot Street property at this time. They are both included in Appendix E. The questionnaire indicates that the feed production and handling carried out at this property does not utilize hazardous materials, nor does it produce any hazardous wastes.

The main concern, from the standpoint of environmental liability, at this property is the information we have regarding several USTs on the property or on adjacent properties, as discussed in section 2.2.5 of this report. We know of at least seven USTs that have at one time been located on or adjacent to the subject property, and that there have been USTs in this area since at least 1938.

3.2 20 DEPOT STREET

The 20 Depot Street property is occupied by a small office building, a warehouse used to store grain and feed ingredients and a grain manufacturing facility. Water supply for this building, and the buildings in this area, is from the Swanton municipal water system. Wastewater disposal for this building, and the buildings in this area, is via the Swanton municipal sewer system. Heat for the manufacturing facility is provided by a natural gas hot water system. The heat in the office is electric. The warehouse also contained two 55 gallon drums of hydraulic fluid, and a similar looking empty drum was stored just outside of the warehouse. At the southern end of the warehouse are three mostly empty 55 gallon drums that previously contained animal fat, used as a feed additive. The property also has railroad tracks on it, which are part of the Central Vermont Railroad. East of the property is a lumber yard and west of the property is the headquarters for the Abnaki Nation. To the northwest, and upgradient of the site, is the Swanton municipal sewage treatment plant, which includes an earthen lagoon, according to John Brooks. Drainage tile installed

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for agricultural production in past years was seen by John Brooks to be passing through the property from the direction of the fields in which the sewage lagoon is now located. A concern about effluent leaching through the liner of the sewage lagoon was expressed by John Brooks, and he indicated that local residents had been concerned about this for some time (Wheeler, 1992c). Also upgradient and to the northwest of 20 Depot Street is a business called Brown's Foundry. This building was formerly occupied by Phillips Metallurgy, which was listed as a generator of hazardous waste by the VT DEC.

Six electrical transformers are located on this property. The foreman of the Swanton Electric Department, Richard Dean, informed us that their records indicate that there are no PCBs in four of the transformers (#'s 1370, 1371, 1372 and 1407) and that the other two (#'s 172 and 424) were made prior to the use of PCBs in transformers, so it is unlikely that they contain PCBs (Wheeler, 1992d).

The site inspection did not reveal any building materials that are friable and suspected to contain asbestos. The one exception to this was a partial roll of gasket material in the furnace/electrical room. This material had also been installed around the access panel of the furnace.

4.0 LEVEL I ESA CONCLUSIONS AND RECOMMENDATIONS

4.1 8 PLATT STREET

Based on the information obtained regarding the USTs that were formerly located on this property, formerly on the old Robinson's Oil and Gas property and either formerly or currently on the former F. R. Saint Marie store property, we have concluded that there is a likelihood that the 8 Platt Street property may be contaminated with gasoline or a related petroleum product. We recommended that three groundwater monitoring wells be installed on the property and that soils be sampled for headspace analysis with a PID. These recommendations were implemented during a Level II ESA conducted at this site and are discussed further in section 5.0 of this report.

4.2 20 DEPOT STREET

This property has a long history of use as a railroad depot where the delivery and transfer of a wide variety of materials occurred. Over the course of more than 90 years, we feel that the likelihood of releases

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of materials such as petroleum products or solvents could pose a significant threat to the environmental integrity of this property.

Also on this property are subsurface agricultural drainage tiles that drain the groundwater from an upgradient field that now is partially occupied by the Swanton Wastewater Treatment Facility sewage treatment lagoon. This lagoon has been suspected of leaching effluent into the surrounding soils (Wheeler,1992c). Considering that the effluent in a municipal sewage treatment lagoon may contains a wide variety of industrial wastes from local industries, we suspect that the possibility of contaminated groundwater being carried onto the 20 Depot Street property is significant.

For these reasons, we recommended that three groundwater monitoring wells be installed at this property so that the groundwater could be sampled and analyzed at a laboratory. We also recommended that soil samples be collected from the boreholes drilled for well installation, so that the soils could also be analyzed at a laboratory. These recommendations were implemented during a Level II ESA conducted at this site and are discussed further in section 5.0 of this report.

5.0 LEVEL II ESA INVESTIGATION

5.1 8 PLATT STREET

Field work for the installation of groundwater monitoring wells and soil sample collection was conducted at this property on January 16, 1992. Chevalier Drilling was hired to do the drilling and well installation. The Johnson Company was present to observe the drilling, monitor the air space and soils with a PID, and collect soil samples.

Three monitoring wells (MW-1, MW-2 and MW-3) were installed and three soil samples were collected from each boring. The approximate locations of the monitoring wells are shown in Figure 2. The soil samples were collected using a split spoon sampler. A sample was collected from 5 to 7 feet, 10-12 feet, and 15-17 feet below ground surface (bgs) from each boring. The split spoon sampler was thoroughly washed between each sample. The samples were placed directly into unused quart-sized mason jars. During drilling, the air space in the breathing zone of the drillers and at the top of the borehole was monitored frequently with

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a PID. The breathing zone readings were consistently less than 2 ppm. The readings at the top of the borehole for MW-2 ranged from 30 ppm to 100 ppm as drilling progressed to 15 feet bgs, and readings of 0 were recorded for all depths at MW-1 and MW-3.

The PID was calibrated just prior to the field investigation and also just prior to reading the headspace of the soil samples. The PID used for this project was a Thermo Environmental Instruments OVM Model #580B with a 10.6 eV lamp. It was calibrated using 100 ppm isobutylene gas prior to each day's field work and prior to its use for headspace analysis.

The following table provides the sampling depths and the headspace readings for the soil samples collected during drilling for the monitoring well installation.

Soil Sample #	Soil Sample Depth (feet)	PID Reading (ppm) (headspace)
1	5-7	1.7
2	10-12	1.4
3	15-17	6.9
4	5-7	505.0
5	10-12	17.0
6	15-17	40.4
7	5-7	2.6
8	10-12	2.3
9	15-17	1.7

The monitoring wells were sampled on January 23, 1992. The top of casing relative elevations were also shot in on this day, and the water level in the wells was measured. An interface probe was used to check for the presence of floating gasoline in the wells; none was found in any of the three wells. The following table provides the top of casing relative elevations and depth to groundwater for each well. Using this information, we were able to determine the groundwater flow direction using the "three point solution". An arrow indicating the groundwater flow direction is shown on Figure 2.

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WELL NUMBER	TOP OF CASING RELATIVE ELEVATION	DEPTH TO GROUNDWATER (below t.o.c.)	GROUNDWATER RELATIVE ELEVATION
MW-1	105.62	7.35 ft.	98.27
MW-2	105.56	7.50 ft.	98.06
MW-3	105.68	7.23 ft.	98.45

The groundwater samples were delivered to IEA, Inc. in Essex, Vermont on the same day they were collected. They were then shipped to IEA's laboratory in Billerica, Massachusetts. The samples were analyzed on January 27, 1992 for gasoline related compounds (BTEX and MTBE). The laboratory analysis of the groundwater samples detected concentrations of xylenes in the samples from wells MW-2 and MW-3 as well as ethylbenzene and toluene in the sample from MW-3. The following table provides a summary of the laboratory data. The laboratory data sheets are included in Appendix F.

ANALYTE	MW-1 (ppb)	MW-2 (ppb)	MW-3 (ppb)	ENFORCEMENT STANDARD*
TOLUENE	BQL	BQL	5	2,420
ETHYLBENZENE	BQL	BQL	5	680
XYLENES	BQL	5	14	400

* Vermont Groundwater Protection Rule and Strategy Enforcement Standards.
ppb - parts per billion
BQL - Below Quantitation Limits

As the table above indicates, the compounds detected in the groundwater are well below the Vermont Groundwater Protection Rule and Strategy Enforcement Standards.

5.2 20 DEPOT STREET

Field work for the installation of groundwater monitoring wells and soil sample collection was conducted at this property on January 16 and 17, 1992. Chevalier Drilling was hired to do the drilling and well installation. The Johnson Company was present to observe the drilling, monitor the air space and soils with a PID, and collect soil samples.

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Three monitoring wells (MW-4, MW-5 and MW-6) were installed and soil samples were collected from each boring. The approximate locations of the monitoring wells are shown in Figure 3. The soil samples were collected using a split spoon sampler. The split spoon sampler was thoroughly washed between each sample. One sample from each boring was collected for laboratory analysis. Two of the samples froze and broke the 40 ml glass vial in which they were contained, so only one soil sample, from MW-6, was sent to the laboratory for analysis. This soil sample was analyzed using EPA method 8240. None of the compounds tested for under this method were detected in the sample (Laboratory data sheets are provided in Appendix F). Three samples for headspace analysis were collected from the boring for MW-6. The samples were placed directly into unused quart-sized mason jars. During drilling, the air space in the breathing zone of the drillers and at the top of the borehole was monitored frequently with a PID. The breathing zone readings were consistently at 0 ppm, as were the readings from the tops of the boreholes. The headspace results for the three samples collected from MW-6 were all 0 ppm.

The groundwater was sampled from the monitoring wells on January 23, 1992. Groundwater flow direction could not be accurately determined at this site because of the extensive subsurface drainage system that is in place around the manufacturing building and the grain storage silos. The measurements of depth to groundwater indicated that a large drawdown of the groundwater is being created by this drainage system. The drainage system terminates into a large corrugated steel pipe, from which the water is pumped into the municipal wastewater treatment system. The groundwater samples were delivered to IEA, Inc. and shipped to their Billerica, Massachusetts laboratory on the date of sampling. The samples were analyzed on January 27, 1992. The samples were analyzed using EPA method 8240. None of the compounds tested for under this method were detected. The laboratory data sheets are provided in Appendix F.

6.0 LEVEL II ESA CONCLUSIONS AND RECOMMENDATIONS

6.1 8 PLATT STREET

Based on the information obtained through the Level I and Level II ESAs for this property, we have determined that a release of what is probably gasoline or kerosene has occurred on or near this property. The groundwater flow direction for this site, which is to the northwest, suggests that the contamination did not move onto the subject property from either of the two properties adjacent to the subject property which have

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in the past had USTs or may currently have USTs. The most likely source of the contamination detected on this property is from two USTs that were previously located on the property. These USTs were removed from the property in 1983. Their former location coincides with the general area of contamination on the property.

We recommend that the VT DEC be notified of the condition of this site. The VT DEC may require additional site investigation to more fully characterize the extent of the contamination in this area. Following that, site remediation may become necessary. This site is likely to be covered by the Petroleum Cleanup Fund (PCF), which would probably result in the landowner's liability being limited to \$10,000, provided that the cost of any future site remediation that may be required is less than \$1,000,000. The VT DEC will make the final determination of whether the site is covered by the PCF, so it is best that they be consulted so the issue of future work on this site can be addressed. If the site is covered by the PCF, it is likely that the VT DEC will require that any future work be approved by them before it is carried out. If a proposed workplan is required for future investigation or remediation at this site, The Johnson Company would be happy to prepare a plan for VT DEC approval.

6.2 20 DEPOT STREET

The Level I and Level II ESAs on this property did not uncover any evidence of an uncontrolled release of hazardous materials. Although the Level I ESA conclusion was that the site history and current condition indicated the potential for contamination on the site, the Level II ESA did not detect any contamination on the property. Any one of several components of the Level II investigation could have indicated on-site contamination, including monitoring with the PID while drilling and soil sampling was ongoing, headspace analysis of soil samples, laboratory analysis of the one soil sample that did not freeze and laboratory analysis of the groundwater samples. There was no indication of any contamination found during any of these project components.

We do not recommend that further investigation be conducted at this property at this time.

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7.0 LIMITATIONS

The conclusions of this Level I and Level II ESA were arrived at based on information obtained from the historical and regulatory research conducted for the properties, on information gathered during the site walkover and on the information gathered during the subsurface drilling, well installation, soil sampling and laboratory analysis.

This investigation was based on sound scientific investigative techniques and experience with similar investigations. However, the conclusions of this Level I and Level II ESA are based on limited data and the results, conclusions and recommendations herein must be viewed in this light.

This report was prepared solely for Mr. Louis Pleeter, and it is not to be used by anyone for anything other than its original intended use.

J:\PROJECTS\1-0261-1\ESA\I&II.RPT

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References Cited

- Cazon, H.M. (The Johnson Company, Inc.) 1992a, telecon with Mark Bostwick, Sr. (Swanton Fire Department)
RE: Emergency response at subject properties. January 7, 1992.
- Cazon, H.M. (The Johnson Company, Inc.) 1992b, telecon with Ann Thurber (VT DEC) RE: USTs at or near
the subject sites. January 9, 1992.
- Cazon, H.M. (The Johnson Company, Inc.) 1992c, telecon with Caroline Root (VT DEC District 6 office) RE:
Environmental permits for subject properties. January 7, 1992.
- Cazon, H.M. (The Johnson Company, Inc.) 1992d, telecon with Ernestine Chevrier (VT DEC District 6 office)
RE: Environmental permits for subject properties. January 14, 1992.
- Wheeler, B.A. (The Johnson Company, Inc.) 1992a, telecon with Phil Saint Marie, RE: status of USTs at
former F.R. Saint Marie Store. January 9, 1992.
- Wheeler, B.A. (The Johnson Company, Inc.) 1992b, telecon with Michael Jedware (Jedco, Inc.) RE: USTs
at former Robinson Oil and Gas property. January 21, 1992.
- Wheeler, B.A. (The Johnson Company, Inc.) 1992c, personal communication with John Brooks (Brooks Feeds,
Inc.) RE: Swanton municipal wastewater treatment system. January 8, 1992.
- Wheeler, B.A. (The Johnson Company, Inc.) 1992d, telecon with Richard Dean (Swanton Electric Department)
RE: transformers on 20 Depot Street property. January 9, 1992.

APPENDIX B

**Soil Investigation of 8 Platt Street
February 1992**

Soil Investigation of

8 Platt Street

Brooks Feeds, Incorporated

Swanton, Vermont

February, 1992

Prepared for:

Brooks Feeds, Inc.
Swanton, Vermont

Prepared by:

THE JOHNSON COMPANY, INC.
5 State Street
Montpelier, Vermont 05602

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Figure 1 Site Location Map

Figure 2 Property Sketch with Soil Sampling Locations

1.0 INTRODUCTION

The Johnson Company was hired by Brooks Feeds, Inc. to collect soil samples from their 8 Platt Street property in Swanton, Vermont and from an adjacent property belonging to Ed White, of Saint Albans, Vermont. One boring was also located in the Town of Swanton right-of-way adjacent to Platt Street. A location map for this site is provided as Figure 1. Six soil borings were made and 14 soil samples were collected for headspace analysis.

2.0 SOIL INVESTIGATION

Field work for collection of soil samples was conducted at this property on January 17, 1992. Chevalier Drilling was hired to do the drilling. The Johnson Company was present to observe the drilling, monitor the air space and soils with a photoionization detector (PID), and collect soil samples.

The PID is a portable instrument that can detect the presence of some common hazardous compound gases (i.e., certain volatile organic compounds). The PID provides qualitative, field screening data. It does not provide compound specific, quantitative information on specific contaminant concentrations.

Six holes were drilled and soil samples were collected from each boring. The approximate locations of the borings are shown in Figure 2. The soil samples were collected using a split spoon sampler. Samples were collected from 5-7 feet and 10-12 feet below ground surface (bgs) from each boring, and additional samples were collected from 16-18 feet bgs from boring #1 and 15-17 feet bgs from boring #2. The split spoon sampler was thoroughly washed between each sample. The samples were placed directly into unused quart-sized mason jars. During drilling, the air space in the breathing zone of the drillers and at the top of the borehole was monitored frequently with a PID. The breathing zone readings were consistently less than 2 ppm. The readings at the top of the boreholes ranged from approximately 5 ppm at boring #3 to approximately 300 ppm at boreholes #1 and #5. Readings at the boreholes for borings #2 and #4 ranged from approximately 50 ppm to 200 ppm.

The PID was calibrated just prior to the field investigation and also just prior to reading the headspace of the soil samples. The PID used for this project was a Thermo Environmental Instruments OVM Model #580B with a 10.6 eV lamp. It was calibrated using 100 ppm isobutylene gas in accordance with the manufacturer's specifications for calibration of the instrument.

Table 1 provides the sampling depths and the headspace readings for the soil samples collected on January 17, 1992.

TABLE 1 - HEADSPACE RESULTS

Soil Sample #	Soil Sample Depth (feet)	PID Reading (ppm) (headspace)
SS-1s	5-7	350
SS-1d	10-12	558
SS-1b	16-18	475
SS-2s	5-7	646
SS-2d	10-12	725
SS-2b	15-17	805
SS-3s	5-7	6.1
SS-3d	10-12	4.2
SS-4s	5-7	504
SS-4d	10-12	32.4
SS-5s	5-7	265
SS-5d	10-12	26.8
SS-6s	5-7	37
SS-6d	10-12	79.9

3.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the soil headspace analysis indicate that there is soil contamination on each of the properties included in this investigation. The headspace analysis does not provide us with qualitative information regarding what material may be in the soil. However, based on the history of underground storage tanks (USTs) in this area, it is reasonable to assume that gasoline or a related petroleum product is causing the readings shown in the data table presented in section 2.0. The levels of soil contamination indicated by the headspace readings suggest that one or more of the USTs in this area may have been leaking.

The Vermont Department of Environmental Conservation (VT DEC) has issued a set of interim guidelines for handling contaminated soils encountered during the removal of USTs. These guidelines provide recommendations as follows: if gasoline contaminated soils produce PID readings of less than 20 ppm, they

may be used as backfill after the tank is removed. On-site treatment or off-site treatment is needed for soils with PID levels of 20 to 100 ppm. If PID readings are from 100 to 1,000 ppm, the soils need to be treated on-site. When PID levels exceed 1,000, the soils need to be treated in-situ or they must be treated as hazardous waste. The respective PID levels for the options listed above are lower if the soils are contaminated with diesel, kerosene or #2 heating oil. In areas where there are sensitive receptors such as water supply wells, the VT DEC will not authorize backfilling contaminated soils as an option. This information is provided to give you some sense of how the VT DEC may respond to the soil contamination levels seen in this area.

It is the responsibility of the property owner to notify the VT DEC about the condition of this site. We recommend that this notification be carried out as soon as possible. The VT DEC is likely to require that the extent of contamination for this site be more fully characterized, and that some type of remediation be proposed for the site. We recommend that you first notify the VT DEC of the situation and work with them to reach a determination of whether this site will be covered by the Petroleum Cleanup Fund (PCF). Preliminary indications are that this site will be eligible for financial aid from the PCF for future site characterization and remediation. If the PCF covers this site, it is expected that the property owner's liability for the site characterization and remedial work, if needed, will be limited to \$10,000. The PCF will then cover up to \$1,000,000 in costs associated with this work.

The Johnson Company would be happy to help you with the required notification or to develop a workplan for site characterization and a remediation plan, if needed, based on the information obtained through the site characterization process.

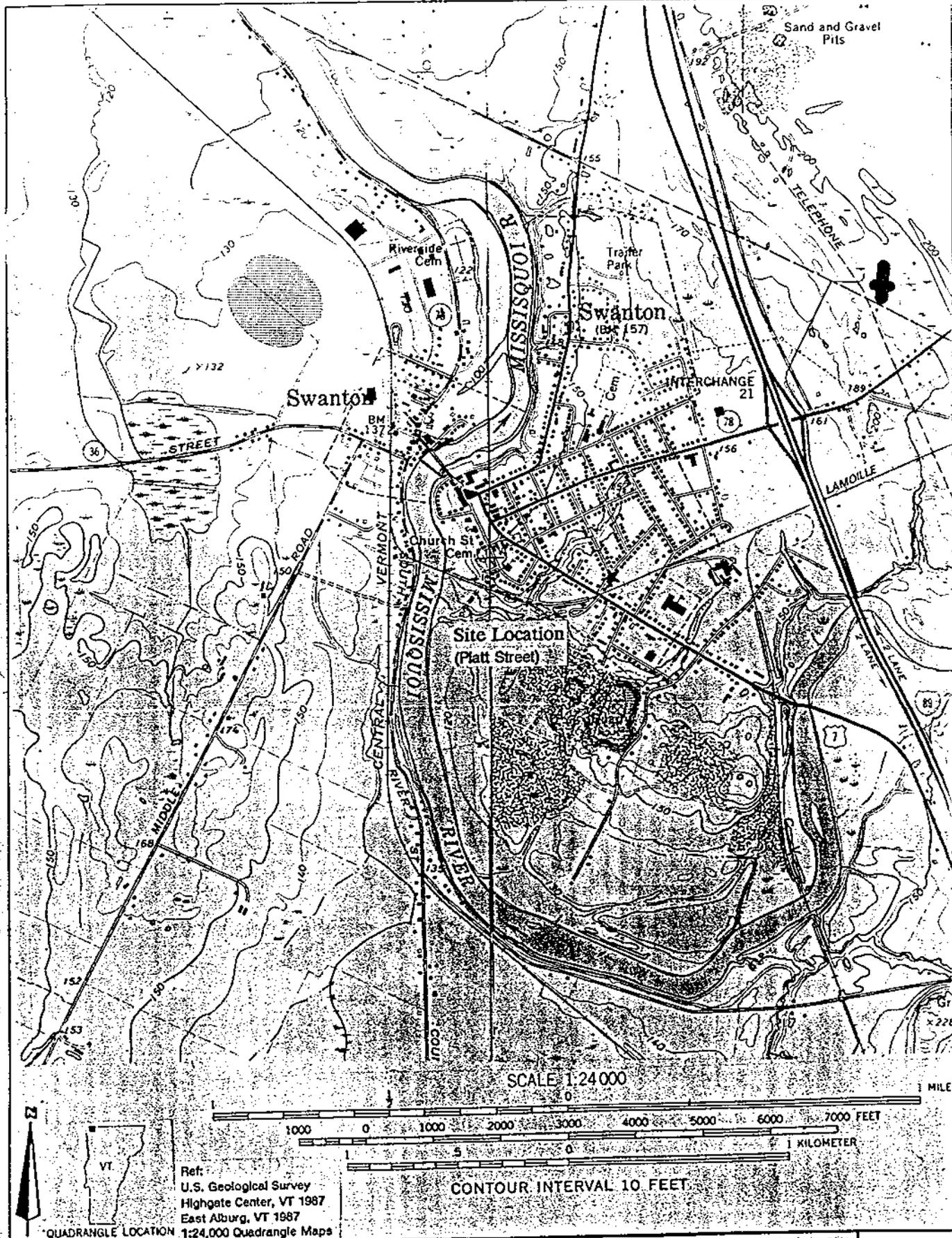
4.0 LIMITATIONS

This investigation was based on sound scientific investigative techniques and experience with similar investigations. However, the conclusions of this investigation are based on limited data and the results, conclusions and recommendations herein must be viewed in this light.

This report was prepared solely for Brooks Feeds, Inc., and it is not to be used by anyone for anything other than its original intended use.

Reviewed by: A-HJ:\PROJECTS\1-0262-1\INVEST.RPT February 6, 1992 15.02 BAW

FIGURES



CHARRETTE

Figure 1
Brooks Feeds, Swanton, VT
Site Location Map

Ref:
 U.S. Geological Survey
 Highgate Center, VT 1987
 East Alburg, VT 1987
 1:24,000 Quadrangle Maps

THE JOHNSON COMPANY, INC.
 Environmental Sciences and Engineering
 MONTPELIER, VERMONT 05602

Scale
Drawn by
Checked by
Date
Dwg No



SCALE: 1" = ~20'

PLATT STREET

PROPERTY LINE (TYP.)

SS-4 504
32.4

SS-3 4.1
SOIL SAMPLING LOCATION (TYP.)

MW3 2.6
2.3
1.7

MW2 505
17
40.4

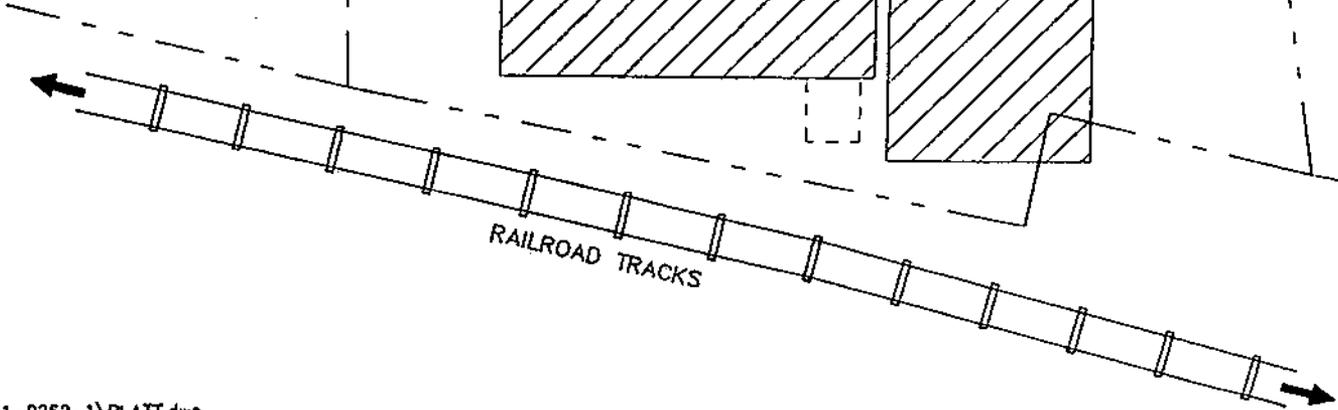
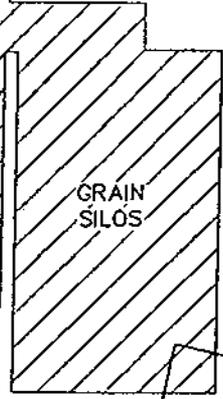
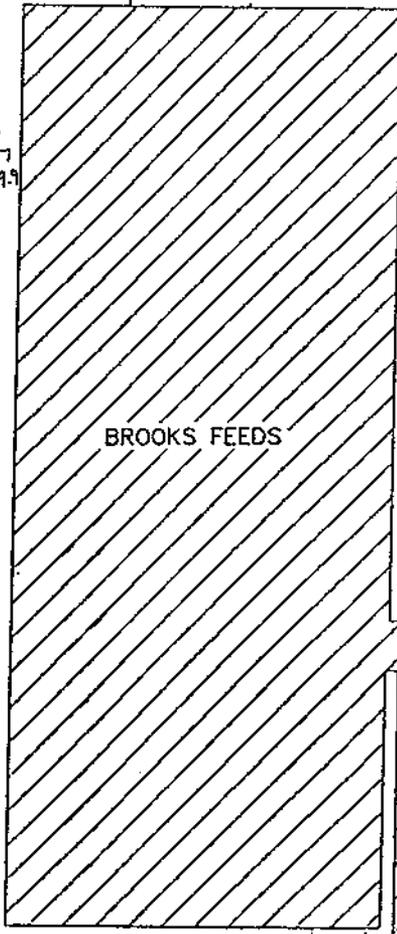
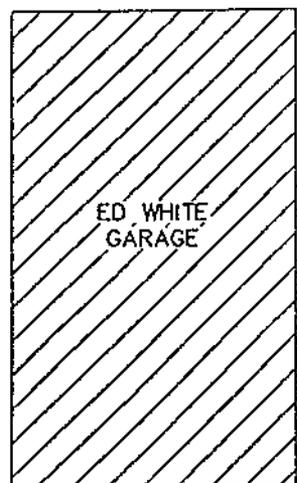
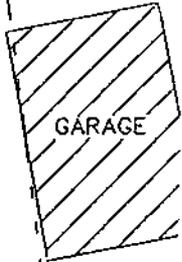
SS-1 350
55.8
475

SS-2 646
72.5
705

SS-6 37
79.9

SS-5 265
26.8

MW1 17
1.4
6.9



1-0262-1\PLATT.dwg

SOIL SAMPLING LOCATIONS
PLATT STREET PROPERTY
SWANTON, VERMONT

THE JOHNSON COMPANY, INC.
Environmental Sciences and Engineering
MONTPELIER, VERMONT

APPENDIX C

Soil Boring Logs

The Johnson Company, Inc.
 Environmental Sciences and Engineering
 5 State Street
 Montpelier, Vermont 05602

DRILLING LOG
WELL # SS-101

Project: Brooks Feeds
 Location: 8 Platt Street, Swanton
 Job # 1-0262-2
 Logged By: Brad Wheeler
 Date Drilled: 11/03/92
 Driller: Adams Engineering
 Drill Method: HSA

Casing Type:
 Casing Diameter:
 Casing Length:
 Screen Type:
 Screen Diameter:
 Screen Length:
 Slot Size:

Total Pipe: 0.0 ft.
 Stick Up: 0.0 ft.
 Total Hole Depth: 16.0 ft.
 Well Guard Length: 0.0 ft.
 Initial Water Level: None
 Surface Elevation: -
 T.O.C. Elevation: -

Sheet 1 of 1

█ = Sampled Interval

Depth (feet)	Well Construction	Notes	Geology	Odor	Description
5					
4					
3					
2					
1					
0				none	brown fine sand
1					
2					
3					
4				strong	gray, mottled fine sand
5					
6					
7					
8					
9				strong	gray fine sand
10					
11					
12					
13					
14				strong	14-15.5: tan, mottled fine sand; 15.5-16: gray silty very fine sand, no odor
15					
16					
17					

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Montpelier, Vermont 05602

DRILLING LOG
WELL # SS-102

Project: Brooks Feeds
Location: 8 Platt Street, Swanton
Job # 1-0262-2
Logged By: Brad Wheeler
Date Drilled: 11/03/92
Driller: Adams Engineering
Drill Method: HSA

Casing Type:
Casing Diameter:
Casing Length:
Screen Type:
Screen Diameter:
Screen Length:
Slot Size:

Total Pipe: 0.0 ft.
Stick Up: 0.0 ft.
Total Hole Depth: 15.9 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: None
Surface Elevation: -
T.O.C. Elevation: -

█ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	Odor	Description
5					
4					
3					
2					
1					
0					
█ 1			[Dotted Geology Pattern]	none	brown fine sand
2					
3					
4					
█ 5				none	tan, mottled fine sand
6					
7					
8					
9					
█ 10				none	gray, mottled fine sand
11					
12					
13					
█ 14				none	13.9-14.9: gray fine sand;
█ 15					14.9-15.9: gray silty very fine sand
16					
17					

The Johnson Company, Inc.
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 Montpelier, Vermont 05602

DRILLING LOG
WELL # SS-103

Project: Brooks Feeds
 Location: 8 Platt Street, Swanton
 Job # 1-0262-2
 Logged By: Brad Wheeler
 Date Drilled: 11/03/92
 Driller: Adams Engineering
 Drill Method: HSA

Casing Type:
 Casing Diameter:
 Casing Length:
 Screen Type:
 Screen Diameter:
 Screen Length:
 Slot Size:

Total Pipe: 0.0 ft.
 Stick Up: 0.0 ft.
 Total Hole Depth: 16.5 ft.
 Well Guard Length: 0.0 ft.
 Initial Water Level: None
 Surface Elevation: -
 T.O.C. Elevation: -

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	Odor	Description
5					
4					
3					
2					
1					
0				none	brown loamy fine sand
1					
2					
3					
4					discolored sandy fill
5				strong	
6					
7					
8					
9					
10				strong	gray fine sand, sheen
11					
12					
13					
14					
15					14.5-15.5: gray fine sand
16				moderate	15.5-16.5: gray, mottled silty fine sand, faint or no odor
17					

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DRILLING LOG
WELL # SS-104

Project: Brooks Feeds
Location: 8 Platt Street, Swanton
Job # 1-0262-2
Logged By: Brad Wheeler
Date Drilled: 11/03/92
Driller: Adams Engineering
Drill Method: HSA

Casing Type:
Casing Diameter:
Casing Length:
Screen Type:
Screen Diameter:
Screen Length:
Slot Size:

Total Pipe: 0.0 ft.
Stick Up: 0.0 ft.
Total Hole Depth: 16.8 ft.
Well Guard Length: 0.0 ft.
Initial Water Level: None
Surface Elevation: -
T.O.C. Elevation: -

■ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	Odor	Description
5					
4					
3					
2					
1					
0					
1				none	brown loamy fine sand
2				none	
3					
4					
5				none	tan, mottled fine sand
6					
7					
8					
9					
10				none	gray, mottled fine sand
11					
12					
13					
14					
15				none	gray fine sand
16					
17					

The Johnson Company, Inc.
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DRILLING LOG
WELL # SS-105

Project: Brooks Feeds
 Location: 8 Platt Street, Swanton
 Job # 1-0262-2
 Logged By: Brad Wheeler
 Date Drilled: 11/03/92
 Driller: Adams Engineering
 Drill Method: HSA

Casing Type:
 Casing Diameter:
 Casing Length:
 Screen Type:
 Screen Diameter:
 Screen Length:
 Slot Size:

Total Pipe: 0.0 ft.
 Stick Up: 0.0 ft.
 Total Hole Depth: 3.5 ft.
 Well Guard Length: 0.0 ft.
 Initial Water Level: None
 Surface Elevation: -
 T.O.C. Elevation: -

█ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	Odor	Description
5					
4.5					
4					
3.5					
3					
2.5					
2					
1.5					
1					
0.5					
0					
0.5					brown fine sand
1					
1.5				none	
2					
2.5					
3					
3.5					stopped at 3.5' on a metal object which fills bottom of 9 inch diameter auger hole, may be a UST
4					
4.5					
5					
5.5					
6					

The Johnson Company, Inc.
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 Montpelier, Vermont 05602

DRILLING LOG
WELL # SS-106

Project: Brooks Feeds
 Location: 8 Platt Street, Swanton
 Job # 1-0262-2
 Logged By: Brad Wheeler
 Date Drilled: 11/03/92
 Driller: Adams Engineering
 Drill Method: HSA

Casing Type:
 Casing Diameter:
 Casing Length:
 Screen Type:
 Screen Diameter:
 Screen Length:
 Slot Size:

Total Pipe: 0.0 ft.
 Stick Up: 0.0 ft.
 Total Hole Depth: 16.8 ft.
 Well Guard Length: 0.0 ft.
 Initial Water Level: None
 Surface Elevation: -
 T.O.C. Elevation: -

█ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	Odor	Description
5					
4					
3					
2					
1					
0					
1					
2					
3					
4					
5				moderate	tan, mottled fine sand
6					
7					
8					
9					
10				v. strong	gray fine sand
11					
12					
13					
14					
15					
16				v. slight	14.8-16: gray, mottled fine sand; 16-16.8: gray silty very fine sand
17					

The Johnson Company, Inc.
 Environmental Sciences and Engineering
 5 State Street
 Montpelier, Vermont 05602

DRILLING LOG
WELL # SS-107

Project: Brooks Feeds
 Location: 8 Platt Street, Swanton
 Job # 1-0262-2
 Logged By: Brad Wheeler
 Date Drilled: 11/03/92
 Driller: Adams Engineering
 Drill Method: HSA

Casing Type:
 Casing Diameter:
 Casing Length:
 Screen Type:
 Screen Diameter:
 Screen Length:
 Slot Size:

Total Pipe: 0.0 ft.
 Stick Up: 0.0 ft.
 Total Hole Depth: 16.3 ft.
 Well Guard Length: 0.0 ft.
 Initial Water Level: None
 Surface Elevation: -
 T.O.C. Elevation: -

█ = Sampled Interval

Sheet 1 of 1

Depth (feet)	Well Construction	Notes	Geology	Odor	Description	
5						
4						
3						
2						
1						
0						
1						
2						
3						
4						
5					none	light brown, mottled fine sand
6						
7						
8						
9						
10					moderate	gray fine sand
11						
12						
13						
14						
15				none	gray, mottled fine sand	
16						
17						

APPENDIX D

Laboratory Analytical Reports



P.O. Box 339
Randolph, Vermont 05060-0339
(802) 728-6313

LABORATORY REPORT

CLIENT NAME:	The Johnson Company	LABORATORY NO.:	2-1828
ADDRESS:	5 State Street Montpelier, VT 05602	PROJECT NO.:	78611
LOCATION:	Brooks Feeds, Inc. Swanton, VT	DATE OF SAMPLE:	10/22/92
ATTENTION:	Brad Wheeler	DATE OF RECEIPT:	10/23/92
		DATE OF REPORT:	11/16/92

TOTAL PETROLEUM HYDROCARBONS (418.1)

(Expressed as milligrams per liter mg/l except as noted)

<u>Sample</u>	<u>Results</u>
MW-2	49.5 mg/l
MW-3	49.5 mg/l

Respectfully submitted,

SCITEST, INC.

 Frederick J. Lamothe
 Laboratory Director

RJL/ph

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 NOV 18 1992
 THE JOHNSON CO., INC.
 MONTPELIER, VERMONT

LABORATORY REPORT

CLIENT NAME: The Johnson Company LABORATORY NO.: 2-1828
ADDRESS: 5 State Street PROJECT NO.: 78611
 Montpelier, VT 05602 DATE OF SAMPLE: 10/22/92
LOCATION: Brooks Feeds, Inc. DATE OF RECEIPT: 10/23/92
 Swanton, VT DATE OF REPORT: 11/16/92
ATTENTION: Brad Wheeler

RESULTS

<u>PARAMETER</u>	<u>TRIP BLANK</u>	<u>MW-2</u>	<u>MW-3</u>
Benzene	<1	1	1
Toluene	<1	1	1
Ethylbenzene	1	1	1
Total Xylenes	<1	<1	1
Chlorobenzene	<1	<1	1
1,2-Dichlorobenzene	<1	<1	1
1,3-Dichlorobenzene	1	<1	1
1,4-Dichlorobenzene	<1	<1	1
Methyl Tertiary Butyl Ether	<1	<1	1
Surrogate % Recovery	101%	98%	100%

Detection level 1 ug/l, except as noted.
EPA Method 8020

THE JOHNSON CO., INC.
MONTPELIER, VERMONT

NOV 18 1992

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