Phase I Environmental Site Assessment

Former Saputo Cheese/Richmond Creamery 125 Bridge Street and 74 Jolina Court Richmond, VT

October 2008

Prepared for: Chittenden County Regional Planning Commission 30 Kimball Avenue, Suite 206 South Burlington, VT 05403



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October 29, 2008

Samantha Tilton, Staff Planner Chittenden County Regional Planning Commission 30 Kimball Avenue, Suite 206 South Burlington, VT 05403

Re: Phase I Environmental Site Assessment Former Saputo Cheese/Richmond Creamery Richmond, Vermont JCO Project #1-0346-3

Dear Ms. Tilton:

The Johnson Company is pleased to present you with this draft report of our findings of a Phase I Environmental Site Assessment (ESA) of the former Saputo Cheese/Richmond Creamery site, which is composed of two parcels currently owned by Scott and Elizabeth Ingalls and Casing Development, LLC, located at 74 Jolina Court and 125 Bridge Street in Richmond, Vermont, respectively. This ESA was conducted in general accordance with the scope and limitations of the American Society for Testing and Materials' (ASTM) Standard Practice for Environmental Site Assessments E 1527-05 in conformance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries.

We appreciate being of assistance to you on this project. Please do not hesitate to contact either Kurt Muller or me should you have questions regarding the following information.

Sincerely,

THE JOHNSON COMPANY, INC.

By: Rhonda Kay

Project Manager

c. Scott Ingalls, Casing Development

Attachment K:\1-0346-3\Report\102908 RichmondCreamery ESA-Final.doc Phase I Environmental Site Assessment Report Former Saputo Cheese/Richmond Creamery Richmond, Vermont

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Kurt Muller

Project Engineer

Rhonda Kay Project Manager

EXECUTIVE SUMMARY

The Johnson Company, Inc. of Montpelier, Vermont was retained by the Chittenden County Regional Planning Commission (CCRPC) of South Burlington Vermont to conduct a Phase I Environmental Site Assessment (ESA) of the former Saputo Cheese/Richmond Creamery facility located on two parcels at 74 Jolina Court (Parcel 1) and 125 Bridge Street (Parcel 2) in Richmond, Vermont (the Site). The Johnson Company understands that the potential redevelopment of the Site will include both commercial and residential use.

This ESA was performed by personnel from The Johnson Company who meet the definition of Environmental Professional as defined in 40 CFR Part 312. This ESA included reviewing existing information including available aerial photographs and topographic maps, determining the regulatory status of the Site, contacting appropriate personnel regarding past and present uses of the Site, investigating the potential for past releases of petroleum products and/or hazardous substances at the Site, and conducting a site reconnaissance to visually inspect accessible portions of the Site to ascertain the presence of recognized environmental conditions in the form of past, present or potential release(s) of hazardous substances or petroleum products.

The former Saputo Cheese/Richmond Creamery facility and surrounding land is located on approximately seven acres bordered by a cemetery and Bridge Street to the northwest and a gravel roadway (identified as Jolina Court) and railroad tracks to the northeast, and a wooded slope to the southwest. The property extends into an adjacent field to the southeast. The Site is currently composed of two parcels: Parcel 1 is currently owned by Scott and Elizabeth Ingalls, and Parcel 2 is owned by Casing Development, LLC. Mr. Ingalls has reported that a transfer of Parcel 1 to Casing Development is currently in progress.

The Site is classified under the Resource Conservation and Recovery Act (RCRA) as a conditionally exempt hazardous waste generator under the name Richmond Cheese, but this appears to be a relic since the Richmond Cheese factory was closed in 1999. Although Richmond Cheese should have notified the VT DEC that they were no longer a RCRA generator, the VT DEC has no record of this notification; however, as a conditionally exempt generator, Richmond Cheese was not required to undertake formal RCRA closure procedures. The Site is not listed on the Federal National Priority List (NPL) as a Superfund Site. The Site is not listed as a hazardous waste site on the federal Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) and is not a currently permitted underground storage tank (UST) facility. An ammonia release in 1997 was listed on the Federal Emergency Response Notification and VTDEC database. The release was contained within the building and is further discussed in Section 4.2.6.

A Site reconnaissance visit was conducted by The Johnson Company on September 23, 2008. The reconnaissance included interior and exterior inspections of the building and host property. A full inspection of the surrounding dense vegetation or fields was not performed. No evidence of underground storage tanks, uncontained spills, leaks, stressed vegetation or staining from release(s) of hazardous substances was observed.

Ms. Samantha Tilton of CCRPC and Mr. Scott Ingalls, owner of Parcel 1 and a partner in Casing Development, LLC (owner of Parcel 2), were both present during the time of the inspection and answered questions to the best of their knowledge.

A Phase I Environmental Site Assessment was prepared by Heindel and Noyes, Inc. of Burlington, Vermont (H&N), dated December 2, 2002. The H&N report was provided to The Johnson Company by CCRPC staff and reviewed as part of this ESA. In an effort to fully document all existing environmental conditions that may impact the potential for redevelopment and reuse of the Site, the findings presented in the 2002 H&N Phase I ESA report are individually addressed in Section 8 of this report.

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM E 1527-05 in compliance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries at the former Saputo Cheese/Richmond Creamery site at 74 Jolina Court and 125 Bridge Street in Richmond, Vermont.

Overall, the former use of the Site for dairy processing and cheesemaking does not appear to have resulted in gross contamination of environmental media. However, some discrete areas of concern exist as a result of the former industrial uses or the age of the building. The Johnson Company has identified the following RECs and associated recommendations for the Site:

• Containerized potentially hazardous materials in the former factory and storage buildings. Some of these containers were observed to be uncovered, which presents risk for spills or releases.

<u>*Recommendation:*</u> A licensed environmental contractor should characterize and remove all containerized potentially hazardous materials.

• Onsite well, not abandoned or used since connection to Town of Richmond municipal water supply. If unsecured, this well can provide a conduit for hazardous materials to be released to groundwater.

<u>Recommendation:</u> If there is no proposed use for the groundwater from the on-site well, it should be properly abandoned. Since the facility is served by municipal water service, it is unlikely that the well will be permitted for future use. However, any use should be preceded by sampling for a variety of potential contaminants.

• Property records indicate Standard Oil Company formerly owned a portion of the Site, and a 1926 Sanborn map shows the approximate location of three oil storage tanks.

<u>Recommendation:</u> The approximate location of the three former oil storage tanks associated with the Standard Oil Company should be inspected with a metal detector. Should this limited inspection indicate the presence of underground storage tank(s) on

site, the tanks should be removed in accordance with VTDEC UST guidelines. A proper UST closure will include confirmatory soil sampling and will include groundwater sampling if soil samples show evidence of a release.

- A hollow pit of unconfirmed contents, covered by a concrete slab, is present on the Site. <u>Recommendation:</u> The contents of the pit should be determined. If there is evidence that the pit once contained oil, soil and/or groundwater sampling should be conducted immediately outside the pit.
- Polynuclear aromatic hydrocarbons (PAHs) from idling rail cars may be present in the vicinity of the former rail spur that crossed the northeastern corner of the Site.

<u>Recommendation:</u> Efforts should be made to conduct a limited near-surface soil investigation for the presence of PAHs.

• Potential impacts to soil and groundwater resulting from possible releases during ongoing factory operations. Due to the machinery formerly present at the Site, the use of lubricating oils and cleaning chemicals is suspected, although in many areas of the factory it is likely that these cleaning products were food-grade and not a major source of contamination to environmental media.

<u>Recommendation</u>: A limited subsurface soil and groundwater investigation should be conducted in the building interior and exterior to evaluate potential contamination as a result of releases.

• The presence of hydraulic fluid buckets in the storage shed indicates that this product was used in some machinery or equipment at the Site. Some hydraulic fluids historically contained PCBs before their use in unenclosed systems was banned in the late-1970's. There is not evidence to suggest the widespread release of hydraulic fluids in a food-manufacturing facility.

<u>Recommendation</u>: A limited surface soil and building flooring investigation for PCBs is warranted in and around the storage shed. A limited number of wipe or bulk concrete samples inside the building is also recommended to provide more information on the prevalence of PCBs at the Site.

Although not Recognized Environmental Conditions, the following items should be addressed in future investigations at the Site:

• A 10,000-gallon above ground storage tank containing some residual fuel oil sludge is present on the Site. The piping for this AST was routed overhead, and no staining or olfactory evidence of releases to the ground surface were observed.

<u>Recommendation:</u> The sludge from the AST should be removed and the tank should be cleaned. This would remove the potential for releases to the environment if the AST fails. If the AST is to be reused, it must be inspected before being filled with oil.

- Residual ammonia potentially present in the abandoned refrigeration system <u>Recommendation</u>: Prior to any clean up efforts, a licensed environmental contractor should characterize and remove all containerized potentially hazardous materials.
- Asbestos has been identified in the shingles that cover the outside of the factory building. Soils in unpaved areas immediately outside the building should be sampled for asbestos to determine if asbestos fibers are present at levels that would cause health risks to site users. Accessible areas of the building have been sampled for asbestos, but portions of the building may not have been assessed. In addition, sampling for lead paint has not been conducted.

<u>Recommendation:</u> Additional sampling should be conducted to assess all remaining areas of the building, including the roof, for asbestos-containing materials. Soil sampling outside the building should be completed to evaluate the potential for exposure to asbestos in soils. A lead paint assessment should be completed before the building is renovated or demolished.

• Fluorescent light bulbs possibly containing mercury and lead in the factory building.

<u>Recommendation</u> Prior to any site reuse, a licensed environmental contractor should characterize and remove all out of service or unused fluorescent light bulbs and PCB-containing fluorescent light ballasts.

In an effort to fully address environmental considerations at the Site, The Johnson Company reviewed all Recognized Environmental Conditions (RECs) identified in the 2002 H&N Report. Several of the 2002 H&N RECs were not identified by The Johnson Company and are summarized below with a follow-up response.

- <u>2002 H&N REC:</u> The use of the open pipe into the ground within the boiler building is currently unknown.
 <u>The Johnson Company Follow Up:</u> Based on observations at the Site and confirmation by Mr. Ingalls, the pipe led to a condensation tank that has been removed.
- <u>2002 H&N REC:</u> The rusted AST located to the rear of the boiler building could be of concern, as its use and contents are unknown.

<u>The Johnson Company Follow Up:</u> According to Mr. Ingalls, this AST was removed in 2005. The tank contained condensate from the boiler, and it was not perceived as a REC.

• <u>2002 H&N REC</u>: Since one transformer was manufactured prior to the ban on PCBs, it is assumed to contain PCB oils.

<u>The Johnson Company Follow Up:</u> All transformers and overhead power lines at the Site have been removed, and are no longer a REC at the Site.

• <u>2002 H&N Observation</u>: There is a large amount of trash of an unknown composition observed in one section of the property.

<u>The Johnson Company Follow Up</u>: Although a pile of tires and small amounts of trash were observed, a "large amount of trash of unknown origin" was not observed by The Johnson Company. Mr. Ingalls indicated that, since the completion of the 2002 H&N ESA, he had removed and disposed of approximately 15 cubic yards of non-hazardous trash.

• <u>2002 H&N Observation</u>: There is a pipe coming out of an embankment whose beginning point is unknown. It is likely a storm water drain, but this opinion has yet to be confirmed.

<u>The Johnson Company Follow Up:</u> This pipe was not observed by The Johnson Company. It is possible that the pipe was obscured by vegetation.

TABLE OF CONTENTS

1.0	INTRODUCTION1				
2.0	SITE		SCRIPTION		
	2.1	SET	TING AND SURROUNDING DEVELOPMENT	3	
	2.2	HEA	ATING, WATER AND SEWER	5	
	2.3		DLOGY AND HYDROGEOLOGY		
3.0	SITE	E HIS	TORY AND REVIEW OF EXISTING INFORMATION	8	
	3.1	HIS	ΓORICAL REVIEW	8	
	3.1		Land Records		
	3.1	1.2	U.S.G.S. Topographic Maps	9	
	3.1		Aerial Photographs		
	3.1	1.4	Sanborn Fire Insurance Maps	10	
	3.1	1.5	Environmental Questionnaire	11	
			ERVIEWS	11	
	3.2		Current Owner		
	3.2		Past Owner/Occupant		
	3.2		State/Local Officials		
			Neighboring or Nearby Property Owner/Occupant		
			OR INVESTIGATIONS		
4.0			TORY STATUS		
			IRONMENTAL LIENS		
			ERAL REGULATORY FILES		
			Federal National Priority List (NPL)	12	
	4.2	2.2	Comprehensive Environmental Response, Compensation and Liability		
			Information System (CERCLIS) List		
	4.2		Federal Resource Conservation and Recovery Act (RCRA) Generators		
	4.2		RCRA Treatment, Storage and Disposal (TSD) Facilities		
	4.2		Federal Institutional Control/Engineering Registries		
			Federal Emergency Response Notification (ERNS) List		
			TE/TRIBAL REGULATORY FILES		
	4.3		Hazardous Sites List		
	4.3		Underground Storage Tank List		
	4.3		Spills List		
			Landfills		
	4.3		Institutional Controls/Engineering Controls Registries		
			Voluntary Cleanup Sites		
	4.3		Brownfield Sites		
			CAL REGULATORY FILES		
	4.4		Fire Department and Town Health Officer		
			Local Electric Utility Company (Polychlorinated biphenyls)		
	4.5	NON	N-AAI/ASTM SCOPE CONSIDERATIONS	18	

	4.5.1	Asbestos and Lead Paint Issues	18
	4.5.2	Wetland and Rare Habitat Location	18
5.0	SITE RE	CONNAISSANCE	18
	5.1 EX	TERIOR OBSERVATIONS	19
	5.2 INT	TERIOR OBSERVATIONS	20
	5.2.1	Cold Storage/Apartment on Parcel 1	20
		Boiler Building/Storage Shed on Parcel 2	
		Factory on Parcel 2	
6.0		ESPONSIBILITIES	
7.0	CONCLU	USIONS	24
8.0	DATA G	APS/LIMITATIONS	28
	8.1 DA'	TA GAPS	28
	8.2 LIN	/ITATIONS	29
9.0	REFERE	ENCES	30

LIST OF FIGURES

Figure 1	Site Location	2
Figure 2	Site and Host Vicinity Orthophoto	4
Figure 3	Site Layout	6

LIST OF TABLES

Table 1	Property Ownership Summary	9
Table 2	Water Quality Results 1	
Table 3	Observations of Containerized Substances in Factory Building 2	21

LIST OF APPENDICES

- Appendix 2 Environmental Questionnaire
- Appendix 3 User's Questionnaire
- Appendix 4 Map of Nearby Hazardous Sites
- Appendix 5 2002 Heindel and Noyes Phase I Environmental Site Assessment
- Appendix 6 Map of Nearby Vermont Hazardous Sites
- Appendix 7 Factory Building Layout

1.0 INTRODUCTION

The Johnson Company, Inc. of Montpelier, Vermont was retained by the Chittenden Regional Planning Commission (CCRPC) of South Burlington, Vermont to conduct a Phase I Environmental Site Assessment (ESA) of the former Saputo Cheese/Richmond Creamery facility located on two parcels at 74 Jolina Court (Parcel 1) and 125 Bridge Street (Parcel 2) in Richmond, Vermont (the Site). The location of the Site is depicted in Figure 1.

The purpose of this ESA was to identify Recognized Environmental Conditions (RECs) associated with the Site that indicate the presence or likely presence of hazardous substances or petroleum products resulting from conditions associated with an existing release, past release, or a material threat of a release at the property. Based on information provided by CCRPC and the property owner, The Johnson Company understands that the facility is no longer in operation and may be redeveloped and reused for commercial and/or residential purposes.

This ESA included reviewing existing information made available and/or that was reasonably ascertainable regarding current and past usage of the property, determining the Site's regulatory status, contacting appropriate personnel regarding current and past uses of the Site, investigating past, present and/or the potential for releases of hazardous substances at the Site, and conducting a reconnaissance to visually inspect the accessible portions of the Site.

This ESA was performed by personnel from The Johnson Company who meet the definition of Environmental Professional as defined in 40 CFR Part 312, in general conformance within the scope and limitations of ASTM E 1527-05 in compliance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries. This Phase I ESA was performed in general accordance with the American Society of Testing and Materials' Standard Practice for



Environmental Site Assessments, ASTM E 1527-05. Credentials of the Environmental Professionals and support staff from The Johnson Company are available upon request.

2.0 SITE DESCRIPTION

The Site, as defined in this report, consists of a former food product manufacturing facility and surrounding property owned by Casing Development, LLC. The Site has historically been divided into four parcels, but now consists of two contiguous parcels: Parcel 1 (approximately 0.16 acres); and Parcel 2, which is currently composed of three formerly separate parcels merged into one parcel of approximately 5.84 acres. Mr. Ingalls has reported that the transfer of Parcel 1 to Casing Development is currently in progress. The Site abuts the northern and eastern sides of the Town of Richmond cemetery and is accessed from a dirt roadway identified as Jolina Court, which extends in an easterly direction from Bridge Street.

2.1 SETTING AND SURROUNDING DEVELOPMENT

The land surrounding the Site is primarily used for commercial and agricultural purposes, with the nearest residential properties approximately 300 feet to the northeast. The Site is bounded by a cemetery to the west, the New England Central Railroad tracks to the northeast, and the Winooski River floodplain to the south. The neighboring property to the southeast of the Site is a cornfield bordered by vegetated buffer zones and open fields. The Richmond Town Offices (Post Office, Town Office, Library) are located on Bridge Street, directly to the southwest of the property, separated from the Site buildings by sparse woods and steep slopes. The Chittenden East Supervisory Union office and preschool is also located in this complex. The Site and surrounding properties are depicted on Figure 2.

The Site is characterized by the following features located on Parcel 1: a former cheese processing factory (the basement footprint is approximately 14,440 square feet, although the first and second floors are smaller), a former storage shed (approximately 550 square feet) and boiler building (approximately 2,200 square feet), herbaceous vegetation, a dirt roadway, a wooded slope, and a small portion of a field used for agricultural purposes. Parcel 2 hosts a former cold storage and apartment building (approximately 2,980 square feet), which is being



renovated and is now used for storage. Topographically, the ground surface generally slopes towards the southwest and southeast in the direction of the Winooski River floodplain. The basement of the manufacturing building is at ground level on the on the southeastern end, but below grade on the northern end, due to the slope of the surrounding property. A Site Layout Map is included in Figure 3.

The factory was constructed in the early 1900's, and has been out of use since 1999. Much of the Site has fallen into disrepair since the active operation of the factory, which can partially be attributed to re-occurring acts of vandalism.

2.2 HEATING, WATER AND SEWER

During operation, the factory was originally heated with fuel oil and was later converted to use propane. Although the exact date of this conversion is not known, the 2002 H&N ESA identified a 10,000 gallon propane tank, and boilers are described as using propane "in recent years". According to Mr. Ingalls, the 10,000 gallon propane tank was removed in 2003 for insurance purposes. A 10,000± gallon above ground storage tank (AST) used to store heating oil remains at the Site and is located approximately 50 feet northeast of the former boiler building. Although some heating oil sludge remained, the tank appeared to be in good condition with only minor rust, minimal pitting, and no visible evidence of leaks or staining of the nearby soil. It was noted in the Environmental Questionnaire, completed by Mr. Scott Ingalls of Casing Development, LLC, that minor releases may have occurred at the fuel oil tank while being filled, although he was never witness to any such release. This AST appeared to have been formerly connected to the boiler house by overhead piping, but no pumps are present and it appears that the piping has been disconnected from the AST.

An ammonia refrigeration system was utilized in the factory operations, and the conveyance piping and ammonia tanks are still present. There was no visible evidence of leaks,



although an ammonia release in 1997 was listed on the Federal Emergency Response Notification and VTDEC database. Mr. Tom Levesque, the town of Richmond Fire Chief, also indicated he had responded to an ammonia release. The release is discussed in further detail in Sections 3.2.3 and 4.2.6.

Potable water is supplied by the Richmond municipal water supply. According to correspondence with the Richmond Town Administrator, the Town of Richmond began providing municipal water services in 1955, and the Richmond Creamery connected to the municipal water supply sometime after this service became available, and before 1985 (Rodjenski, 2008). Prior to this connection, an on-Site water supply well was active. Because of dense vegetation that prevented access, this well was not observed or sampled as part of this site assessment.

During factory operations, wastewater generated at the facility was managed by the Richmond Wastewater treatment facility. Wastewater comprised mostly of whey water associated with the cheese-making processes was stored in a large equalization and aeration tank and was routinely tested prior to conveyance to the municipal wastewater facility. According to Mr. Ingalls, this tank was removed between 2003 and 2004 for use at the Hinesburg Saputo Cheese Factory. After removal of the tank, the wastewater collection pipes on either side were connected and insulated with an earthen berm to prevent freezing. Additionally, an abandoned smaller tank also previously used for wastewater processes at the factory remains onsite directly to the northeast of the berm. According to correspondence with the Richmond Town Administrator, the Richmond Creamery was connected to municipal wastewater treatment in 1971, when Town of Richmond began providing municipal wastewater services. Prior to the 1971 connection, all wastes (process, sanitary) were discharged directly into the Winooski River (Rodjenski, 2008). As such, it is unlikely that a septic system or leach field was ever constructed on-Site. Electricity to the property was provided by Green Mountain Power (GMP) via overhead lines. Based on conversations with GMP field staff (GMP, 2008), the overhead lines and transformers were removed at the request of the property owner approximately 5 to 7 years ago.

2.3 GEOLOGY AND HYDROGEOLOGY

The surficial geology at the site is mapped as "Recent Alluvium" (Doll, 1961), composed of sand and gravel formations from river-transported deposits. The bedrock in the area consists of gray-green schist with abundant lenticular segregations of granular white quartz, reflective of the Underhill Formation (Stewart and MacClintock, 1970).

The soil on site is defined as Duane and Deerfield soils, consisting of 5-12% slopes, moderately well drained fine sands with high loam content to 15 inches, and high gravel content below 4 inches. The depth to water table within this soil formation is typically 18-24 inches (NRCS, 2008).

The direction of groundwater flow was not directly measured as part of this ESA, however based on topography; it is presumed that regional groundwater flow is south towards the Winooski River.

3.0 SITE HISTORY AND REVIEW OF EXISTING INFORMATION

3.1 HISTORICAL REVIEW

3.1.1 Land Records

A search of the Land Records in the Richmond Town Clerk's office on the day of the Site walkover, September 23, 2008, identified two parcels within the boundaries of the Site. Parcel 1 is a 0.16 acre parcel, located at 125 Bridge Street, and the current owners were listed as Scott and Elizabeth Ingalls; Parcel 2 is a 5.84 acre parcel, located at 74 Jolina Court, and the current owner was listed as Casing Development, LLC. Casing Development, LLC acquired two additional parcels (Parcels 3 and 4) within the boundary of Parcel 1 in 2004 from Canadian National Railroad. Because these two parcels appear to have been created by conflicting deed

descriptions and outdated surveying methods, the prior history of these parcels was not researched as part of this report. Details of historical ownership transfers obtained from the Richmond Town Clerk's office and Mr. Ingalls are summarized in Table 1 below.

	Table	. 1					
Fo	Property Ownership Summary Former Richmond Creamery/Saputo Cheese Factory, Richmond Vermont						
Grantee	Grantor	Date	Book	Page	Type		
Grantee	Grantee Grantor Date Book Page Type Parcel 1						
Scott and Elizabeth	Casing Development LLC	3/31/05	162	545	Quit Claim Deed		
Ingalls					C		
Casing Development	Saputo Cheese, Inc.	12/18/02	137	421	Warranty Deed		
Saputo Cheese, Inc.	Dari-Desserts, Inc.	12/18/02	137	409	Corporate Name		
~ · F · · · · · · · · · · · · · · · · ·	,,				Change		
Dari-Desserts, Inc.	John and Elizabeth Faunce and	11/19/79	37	77	Warranty Deed		
	Richmond Corporation						
John and Elizabeth	Xenophon and Irene Wheeler	4/17/75	31	68/70	Warranty Deed		
Faunce							
	Parce	12					
Casing Development	Saputo Cheese, Inc.	12/18/02	137	421	Warranty Deed		
Saputo Cheese, Inc.	Dari-Desserts, Inc.	12/18/02	137	409	Corporate Name Change		
Dari-Desserts, Inc.	Richmond Cooperative	11/16/79	37	61	Warranty Deed		
	Association						
Richmond Cooperative	Standard Oil Company	12/14/28	19A	227	Quit-Claim Deed		
Association							
Richmond Cooperative	M.S. Whitcomb	2/19/19	17	50	Warranty Deed		
Association							
Richmond Cooperative	Marsha Green, Admin of Estate of	12/7/16	17	309	Warranty Deed		
Association	George Green						
	Parcels 3 and 4 (now part of Parcel 2)						
Casing Development, LLC	CV Properties Incorporated	12/15/04			Warranty Deed		

3.1.2 U.S.G.S. Topographic Maps

The 1924 and 1948 Port Henry, NY-VT 15-minute United States Geological Survey (USGS) topographic quadrangle maps were reviewed as part of this ESA (UNH, 2008). Both maps show a building at the approximate location of the factory, to the southwest of the railroad line. The 1948 map shows what appears to be a railroad spur leading to the factory, and some

additional buildings to the southwest of the Site on Bridge Street. The two historical maps indicate that the Site and neighboring properties have not significantly changed since 1924.

3.1.3 Aerial Photographs

A 2003 ortho-photograph from the National Agriculture Imagery Program (NAIP) was reviewed as part of this ESA and depicts the Site in its current configuration. A copy of the 2003 air photo (NAIP, 2003) is included as Figure 2. A State of Vermont 1963 low-altitude aerial photograph was reviewed at the Vermont State Library in Montpelier (Vermont, 1963). This aerial photography confirms topographic map interpretations that the Site and neighboring properties have not significantly changed in the past 50 years.

3.1.4 Sanborn Fire Insurance Maps

Historical Sanborn Fire Insurance Maps were provided by Environmental Data Resources, Inc (EDR) and the property owner. The maps are included in Appendix 4. The Site did not appear on the 1904 or 1910 Sanborn maps. The Site is labeled on the 1926 and 1939 Sanborn maps as "Richmond Cooperative Association Creamery". There were three structures shown with the label "Oil Tanks" on the 1926 and 1939 maps to the north of the factory building, at the edge of the Jolina Court roadway. It cannot be determined from the Sanborn maps if these tanks were above or below ground, and the existence of these oil storage tanks has not been confirmed. According to Mr. Ingalls, individuals that frequented the Richmond Creamery in the 1930s are not aware of any oil storage tanks on the Site. There is a recorded Quit Claim (see Table 1) from Standard Oil to Richmond Cooperative dated 1928. Although there is no evidence to prove that the tanks were related to this Quit Claim, this is the only reference to a petroleum company in the records reviewed. However, based on this tie to Standard Oil and the absence of any records or recollections of the tanks past 1939, it is likely that these tanks have been out of service for more than 65 years. As such, it is expected that natural attenuation would have largely reduced any contamination from ASTs or filling practices in soil and groundwater to levels that are not of concern at the Site. However, if the tanks were

USTs, any releases may have occurred more recently, as the tank condition would have worsened over time.

3.1.5 <u>Environmental Questionnaire</u>

The Johnson Company's standard Environmental Questionnaire was provided to Mr. Scott Ingalls and was received by The Johnson Company on October 3, 2008. A copy of the completed questionnaire is included in Appendix 2.

3.2 INTERVIEWS

3.2.1 <u>Current Owner</u>

Mr. Scott Ingalls accompanied The Johnson Company staff on the September 23, 2008 Site visit, and answered questions regarding environmental conditions at the Site to the best of his ability. Mr. Ingalls had some knowledge of the history of the Site and previous factory operations.

3.2.2 Past Owner/Occupant

Prior to the property transfer to Mr. Ingalls/Casing Development in 2002, Saputo Cheese Factory owned and operated the Site. Saputo Cheese factory was not contacted for the purposes of this most recent ESA. A representative from Saputo Cheese was interviewed as part of the 2002 Heindel & Noyes Phase I ESA, which is included as Appendix 5.

3.2.3 <u>State/Local Officials</u>

A representative of the Richmond Fire Department was contacted on October 1, 2008 regarding hazardous materials incidents at the Site. Fire Chief Tom Levesque informed The Johnson Company that his department responded to the Saputo Cheese Factory property for a spill of ammonia approximately nine years ago. Mr. Levesque was fairly certain that this was the same 1997 release listed on the Federal Emergency Response Notification list, discussed in Section 4.2.6. Mr. Levesque indicated that there were no other spills or releases of hazardous substances that he was aware of during his 40 years with the Richmond Fire Department.

Several unsuccessful attempts were made via telephone to contact Mel Pritchett, the Richmond Town Health Officer.

3.2.4 Neighboring or Nearby Property Owner/Occupant

Information regarding the Site was available from the current owner. Therefore, it was not necessary to contact neighboring property owners for information about the Site.

3.3 PRIOR INVESTIGATIONS

A Phase I Environmental Site Assessment report was issued by Heindel and Noyes (H&N) on December 2, 2002. The H&N report was provided to The Johnson Company by CCRPC and reviewed as part of this effort. In an effort to fully document any possible data gaps, Recognized Environmental Conditions (RECs) discussed in the 2002 H&N ESA that are not addressed within this report are evaluated in Section 9.1.

4.0 REGULATORY STATUS

4.1 ENVIRONMENTAL LIENS

A search of the files at the Richmond Town Clerk's office on September 23, 2008 revealed no environmental liens on the property.

4.2 FEDERAL REGULATORY FILES

4.2.1 <u>Federal National Priority List (NPL)</u>

According to the Environmental Protection Agency's (EPA) website, last updated April 11, 2008, the Site is not listed on the National Priority List (NPL), i.e., Superfund site, nor is any property within a one mile search radius of the Site (EPA1, 2008).

4.2.1.1 Delisted NPL sites

Neither the Site nor any other properties within the 0.5 mile search radius are delisted NPL sites (EPA2, 2008).

4.2.2 <u>Comprehensive Environmental Response, Compensation and Liability Information</u> <u>System (CERCLIS) List</u>

As of September 29, 2008, the Site does not appear on the CERCLIS database and there are no listed CERCLIS sites within a 0.5 mile search radius of the Site (EPA3, 2008).

4.2.2.1 No Further Remedial Action Planned (NFRAP) site list

Neither the Site nor any sites within a 0.5 mile search radius are listed as CERCLIS designated sites with a no further remedial action planned (NFRAP) status (EPA4, 2008).

4.2.3 <u>Federal Resource Conservation and Recovery Act (RCRA) Generators</u>

Based on The Johnson Company's review of the Vermont Department of Environmental Conservation's (VTDEC) RCRA Hazardous Waste Generators web site, the Site is listed as a conditionally exempt hazardous waste generator under the name Richmond Cheese Company, Handler ID VTD002084770 (VTDEC1, 2008). Ms. Lynn Metcalf of the Hazardous Waste Program at VT DEC was contacted regarding the status and history of this listed generator. Ms. Metcalf reported that the VT DEC database showed that the last notification from Richmond Cheese was in 1997. Facilities are required to notify the VT DEC only when their waste production or management practices are changed, not on an annual basis. Ms. Metcalf stated that Richmond Cheese produced used oil and acid-based wastes, but that the acid-based wastes were sent through their wastewater treatment plant for neutralization and were, therefore, not sent offsite. The VT DEC's Wastewater Program conducted a multi-media inspection of the facility in circa 1997 that included a checklist from the RCRA program (Metcalf, 2008). Ms. Metcalf reported that Richmond Cheese Company should have notified the program that they were no longer generating waste, but they did not, nor did Saputo Cheese.

No adjacent properties are listed on the VTDEC RCRA Hazardous Waste Generators list. The Site and adjoining properties are not included on the Federal RCRIS sites list, dated June 8, 2006 (EPA5, 2008).

4.2.3.1 RCRA Corrective Action Sites (CORRACTS) List

The Site is not on the list of RCRA Corrective Action sites for EPA Region 1, nor is any property within a one mile search radius of the Site (EPA6, 2008).

4.2.4 <u>RCRA Treatment, Storage and Disposal (TSD) Facilities</u>

As of June 8, 2006, there were no transportation and disposal (TSD) facilities listed on within a 0.5 mile search radius of the Site (EPA7, 2008).

4.2.5 <u>Federal Institutional Control/Engineering Registries</u>

As of the date of this report, the EPA was developing the Institutional Controls Tracking System, and the system had not yet been implemented (EPA8, 2008). Since the State of Vermont has made institutional control information publicly available, the absence of a federal system is not significant, but ESA standards require that federal registries must be reviewed.

4.2.6 <u>Federal Emergency Response Notification (ERNS) List</u>

According to a query on the National Response Center website at the time of this report (NRC, 2008), there was a spill of anhydrous ammonia reported on November 14, 1997, related to operations at the Site. The responsible party is listed as Richmond Cheese Company on Railroad Street in Richmond, Vermont. According to the incident report, an unknown amount of anhydrous ammonia was released from a pump attached to seven 150 lb cylinders. The cause of the incident is listed on the incident report as "under investigation" and the incident report indicated the release was as contained within the building and there was no release to the environment.

4.3 STATE/TRIBAL REGULATORY FILES

There are no recognized tribal or American Indian-owned lands within Vermont; therefore, no tribal files were searched during this ESA.

4.3.1 <u>Hazardous Sites List</u>

Based on The Johnson Company's review of the VTDEC Hazardous Sites web site, two active sites and four closed sites were identified to be within the 1-mile search radius of the Site (VTDEC2, 2008 and ANR1, 2008 and ANR2, 2008). These properties are identified on Table 2.

Table 2 Hazardous Waste Sites within 1 Mile of Saputo Cheese/Richmond Creamery				
Site	Location	Status		
Richmond Wastewater Treatment Plant	Esplanade Street	SMAC		
Harringtons	Rt. 2	NFAP		
Richmond Town Garage	Thomson Road	Low Priority		
Richmond Truck and Auto Repair	Rt. 2	Low Priority		
Richmond Dental Clinic	72 Bridge Street	SMAC		
Green Mountain Power Substation # 51	School Street	SMAC		
SMAC - Site Management Activity Completed				
NFAP - No Further Action Planned				

The two active sites, Richmond Town Garage and Richmond Truck and Auto Repair, were listed following petroleum product releases via spills or storage tank leakages. Twin State Environmental Corp. completed a Site Investigation Report in July 1996 for the Richmond Town Garage (Twin State, July 1996). This report identified volatile organic compound (VOC) releases from a former gasoline, kerosene, and diesel UST. No further information pertaining to this site was available. Due to the distance from the Richmond Town Garage to the Site (0.7 miles), and the presumed hydraulic barrier of the Winooski River between the two sites, groundwater impacts at the Site resulting from this petroleum release are unlikely.

Twin State Environmental Corp., of Richmond Vermont, completed a *Site Investigation Report for the Richmond Truck and Auto Repair* in 1996 (Twin State, June 1996). Additional groundwater investigation was recommended due to petroleum-impacted soil and groundwater. No further information was available for this site. Due to the distance from the Richmond Town Garage to the Site (0.6 mile), groundwater impacts at the Site resulting from this petroleum release are unlikely.

The remaining four sites within one mile listed on the VTDEC list of hazardous sites are considered to be closed sites, listed as either SMAC (Site Management Activity Completed) or NFAP (No Further Action Planned). Of the closed sites, the only site that appeared to be upgradient and potentially capable of impacting groundwater at the Site was Richmond Dental Clinic, located at 72 Bridge Street in Richmond Vermont. According to a February 2005 report prepared by KAS, Inc., of Williston, Vermont, petroleum impacts to subsurface soils were detected during the removal of a 1,000 gallon fuel oil UST in November 2004 (KAS, 2005). Four shallow monitoring wells were subsequently installed, no petroleum compounds were reported above laboratory detection limits, and it was determined that the source(s), nature, and extent of the petroleum contamination had been adequately defined to be confined to on-site soils.

Based on these findings, environmental impacts to the Site from the six sites listed on the VTDEC Hazardous Waste Sites (VTDEC2, 2008) are unlikely. A map of the nearby sites is included in Appendix 6.

4.3.2 <u>Underground Storage Tank List</u>

According to the VTDEC database, there are no registered active underground storage tanks (USTs) at the Site (VTDEC3, 2008). There is a listed UST on an adjacent property at Richmond Town Center, 72 Bridge Street (VTDEC4, 2008). This tank is listed as a 10,000 gallon fuel oil tank that was removed in 1994, according to the Vermont UST database (VTDEC5, 2008).

4.3.3 Spills List

As discussed in Section 4.2.6, an Anhydrous Ammonia release was reported at the Site on November 14, 1997.

4.3.4 Landfills

According to the VTDEC list of Solid Waste Management Facilities, last updated on July 26, 2006, there are no certified landfills within a 0.5 mile search radius of the Site (VTDEC6 2008).

4.3.5 <u>Institutional Controls/Engineering Controls Registries</u>

An investigation of the records available at the Richmond Town Clerk's office revealed that no institutional and/or engineering controls had been filed in the Land Records for the Site as of September 23, 2008.

4.3.6 Voluntary Cleanup Sites

No properties enrolled in the Voluntary Cleanup Program are located within the 0.5 mile search radius of the Site at the time of this report (NRPCVT, 2008).

4.3.7 <u>Brownfield Sites</u>

No sites enrolled in the Brownfield Cleanup Program were identified to be within a 0.5 mile search radius of the Site at the time of this report (VTDEC2, 2008 and ANR3, 2008).

4.4 LOCAL REGULATORY FILES

4.4.1 Fire Department and Town Health Officer

The Richmond Fire Department was contacted on October 1, 2008 regarding hazardous materials incidents at the Site (Levesque, 2008). Fire Chief Tom Levesque informed The Johnson Company that his department had responded to an ammonia spill at the Saputo Cheese Factory approximately 9 years ago. Mr. Levesque stated that the ammonia spill was the result of a malfunctioning pump, and that the ammonia release was contained within the factory, although a strong ammonia smell was present outside the factory at the time of the release. Mr. Levesque did not recall any other responses to releases or spills of hazardous substances during his 40 years with the Richmond Fire Department (Levesque, 2008).

Several unsuccessful attempts via telephone were made to contact Mel Pritchett, the Richmond Town Health Officer.

4.4.2 Local Electric Utility Company (Polychlorinated biphenyls)

Electricity to the property was served by Green Mountain Power (GMP) via overhead lines. According to telephone communication with GMP field operations personnel (GMP, 2008), all overhead lines and transformers were removed sometime between 2001 and 2003 at the request of the property owner. Observations made during the Site visit on September 23, 2008 confirm that no overhead power lines or transformers were present at the Site, and Mr. Ingalls further confirmed this in the Environmental Questionnaire.

4.5 NON-AAI/ASTM SCOPE CONSIDERATIONS

4.5.1 Asbestos and Lead Paint Issues

An asbestos and lead paint inspection was not performed as part of this ESA. Due to the age and condition of the former factory, there may be either or both present. Mr. Ingalls indicated in the Environmental Questionnaire that buildings on the Site had been tested for asbestos containing materials. According to Mr. Ingalls, samples taken in the factory from interior flooring materials tested negative for asbestos, and it is assumed that asbestos may be present in the shingles used for siding. Additionally, asbestos-containing flooring materials were removed prior to the gutting of the former cold storage/apartment building on Parcel 1.

4.5.2 <u>Wetland and Rare Habitat Location</u>

According to the Vermont Department of Fish and Wildlife Significant Habitat Map for the Town of Richmond (1997), there is one incidence of "rare, threatened or endangered species or significant natural community" that may be adjacent to the southern property line of the Site. The nearest mapped wetlands are directly to the south of the Site, associated with the Winooski River Floodplain.

5.0 SITE RECONNAISSANCE

A Site walkover was conducted on September 23, 2008 by Kurt Muller and Mike Marotto of The Johnson Company. The weather conditions on the day of the Site visit were foggy, approximately 45 degrees, with light wind. Photos taken during the Site visit are documented in the photo plates included as Appendix 1 of this report.

5.1 EXTERIOR OBSERVATIONS

The Site is characterized by a former cheese processing factory, a former cold storage and apartment building, a former storage shed and boiler building, herbaceous vegetation, a dirt roadway, a wooded slope, and a field.

Some miscellaneous trash was observed on the Site. Specifically, a pile of tires and some rusted metal drums filled with solid concrete were observed near the access road, to the southeast of the former factory.

A disconnected 10,000 gallon above ground heating fuel storage tank was observed near the boiler building. A secondary containment structure was not present. The tank was empty except for some residual fuel sludge, observed from a small access port on the southwest end of the tank. The tank did not appear to be rusted through or leaking, and no evidence of stressed vegetation or staining was observed in the area surrounding the tank.

A pit covered by a concrete slab was observed on the dirt roadway, southeast of the factory. No opening was observed, but the pit appeared hollow, and Mr. Ingalls indicated that snow in this spot is often melted during periods of snow cover.

A berm was observed adjacent to a dirt roadway directly to the south of the factory building. As outlined in Section 2.2, this berm was constructed by the property owner to cover and prevent a sewer line from freezing. This sewer pipe was connected following the removal of the wastewater equalization tank. A smaller abandoned wastewater tank was covered in vegetation and not thoroughly inspected during the Site visit.

According to the H&N report, a well is located at the northeast property corner, but was not observed during the Site visit because it was surrounded by thick brush. The well reportedly has not been used since the Site was connected to the Town of Richmond municipal water supply, and was not listed on the VTDEC well database (ANR4, 2008).

The former rail spur that crossed the northeastern corner of the property was also not observed. Idling locomotives can be a source of polynuclear aromatic hydrocarbons (PAHs) in soils, and there is the potential that spills may have occurred off rail cars in this area.

No visual indications of the presence of underground storage tanks were observed on any portion of the Site during the site walkover. The approximate location of oil storage tanks documented on the 1926 and 1939 Sanborn Maps was inspected, and no indication (such as staining or disturbed ground) was observed at this location.

5.2 INTERIOR OBSERVATIONS

5.2.1 <u>Cold Storage/Apartment on Parcel 1</u>

The interior of the former cold storage area and apartment area was being used as a large storage room and contained some building materials and wooden pallets. The northeastern wall of the building has been removed and replaced by a chain-link fence across the opening. According to Mr. Ingalls, part of this building was used as housing for a former employee at the former Saputo Cheese Factory. Mr. Ingalls indicated that asbestos-containing linoleum was removed as part of recent renovations.

5.2.2 <u>Boiler Building/Storage Shed on Parcel 2</u>

The storage shed was accessed by an open front entrance (on the northeast side of the building); inside, three five gallon pails, two labeled as hydraulic fluid, and one with an illegible label, were observed. One hydraulic fluid pail was empty and overturned, and the other two pails contained some liquid. Mr. Ingalls indicated that the hydraulic fluid buckets were present when he purchased the property. These indicate the use of hydraulic fluid somewhere on the Site, but their presence in the storage shed suggests that the fluid may have been used for machinery, such as tractors or loaders, that were not used inside the building. Although PCBs have historically been present in hydraulic fluids manufactured before 1978, there is not sufficient evidence that hydraulic fluids were required extensively inside the building, although it is clear that they were used in some equipment or machinery near the storage shed.

The boiler building was accessed through a locked door opened by Mr. Ingalls. An exposed pipe leading outside boiler building appeared to have been cut. Mr. Ingalls indicated that he had removed and disposed of a tank that had been connected to this pipe. The aboveground tank had previously been filled with pea gravel and served as a condensate (water) overflow tank.

5.2.3 <u>Factory on Parcel 2</u>

A former loading dock located at the rear of the factory building provided entrance to the basement of the main factory building. The basement is connected to a second and third floor, all of which were inspected during the Site visit. A layout of the building is provided in Appendix 7. Overall, the facility appeared to be in disrepair, as a result of water damage and vandalism. Mr. Ingalls indicated that incidents of vandalism have been a common occurrence at building. Staining on the concrete floor was observed throughout the factory basement. Staining as a result of an overturned oil storage container, which appeared to be the result of vandalism and not ongoing factory operations, was observed in the storage room on the first floor (the basement is below this portion of the building) Minor staining was observed throughout the factory building. Table 3 summarizes containerized substances observed throughout the factory building. Items such as fluorescent light ballasts that may contain PCBs or thermostats that may contain mercury have not been inventoried in Table 3 because they are not within the scope of a Phase I ESA.

Table 3 Observations of Containerized Substances in Factory Building				
Basement				
Production Area	One 55 Gallon Drum of Hydrogen Peroxide (not a contaminant of potential concern (COPC))			
	Two five gallon containers labeled "Klenzade" (food-grade equipment cleaner, not a COPC)			
Maintenance Room	One five gallon can of gear lubricant (COPC if released)			

Table 3					
Observations of Containerized Substances in Factory Building					
		Three unlabelled 55 gallon drums (COPC determination not possible)			
		One container of Bleach (not a COPC)			
Milk Receiving Room	I	One container with approximately 1/2 gallon unknown green liquid (COPC determination not possible)			
		One gallon container antifreeze (not a COPC)			
		One 2.5 gallon container with light brown liquid (COPC determination not possible)			
		One gallon can of Methyl Ethyl Ketone (COPC if released)			
Storage Area adjacen	t Milko-Scan Room	Two five gallon buckets labeled "Perma Tec 3000" (floor coating, not a COPC)			
		Unlabelled Drum (COPC determination not possible)			
Storage Area adjacen	t Maintenance Room	One gallon can labeled "corrosive" (COPC determination not possible)			
		One 55 gallon drum hydrogen peroxide (not a COPC)			
Stanon Ana aliana	4 Mille December of	Four 55 gallon drums not labeled/unknown substances (COPC determination not possible)			
Storage Area adjacen Room	t Milk Receiving	One uncovered 5 gallon bucket with rusty unknown substance (COPC determination not possible)			
		One uncovered 5-gallon bucket containing unknown substance (COPC determination not possible)			
First Floor					
	Overturned oil contair	ers, sorbent placed on stained areas			
North Area of Large Storage Room	Unlabelled five gallon				
	55 Gallon drum with v	vaste oil label above funnel on top of drum			
A	Two Ammonia tanks	•			
Ammonia Compressor Room	Ammonia labeled con	veyance piping			

Peeling paint was observed throughout the building. Due to the age of the building, it is possible that the paint contains lead.

Potentially asbestos-containing materials were observed throughout the building. As discussed in Section 4.5.1, some asbestos testing has been done, and asbestos has been confirmed in the shingle siding of the factory building.

Several damaged boxes of fluorescent light bulbs were observed in a maintenance area. It is likely that these light bulbs contain mercury and lead. The light ballasts may also contain PCBs, if manufactured before 1979.

Floor drains with evidence of staining and corrosion were observed in the basement area. Mr. Ingalls reported that these floor drains were connected to the municipal wastewater facility circa 1969.

An elevator shaft was observed from the second floor. The operations of the elevator appeared to be electric, therefore the release of hydraulic fluid at this location was not perceived as a possible threat.

6.0 USER RESPONSIBILITIES

In order to qualify for one of the Landowner Liability Protections (LLP) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the user must provide the following information (if available) to the environmental professional:

- 1. Environmental cleanup liens that are filed or recorded against the Site;
- 2. Activity and land use limitations that are in place on the Site or that have been filed or recorded in a registry;
- 3. Specialized knowledge or experience of the person seeking to qualify for the LLPs;
- 4. Relationship of the purchase price to the fair market value of the property if it were not contaminated;
- 5. Commonly known or reasonably ascertainable information about the property;

6. The degree of obviousness of the presence or likely presence of contamination at the property and the ability to detect the contamination by appropriate investigation.

All of the information listed above was addressed by the property owner and provided to The Johnson Company. A copy of a completed User Questionnaire pertaining to Site was completed by CCRPC, and Mr. Ingalls. Copies of both completed User Questionnaires are included with this report in Appendix 3.

7.0 CONCLUSIONS

This Phase I ESA was performed in general conformance with the scope and limitations of ASTM E 1527-05 in compliance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries at the former Saputo Cheese/Richmond Creamery site at 74 Jolina Court and 125 Bridge Street in Richmond, Vermont.

Overall, the former use of the Site for dairy processing and cheesemaking does not appear to have resulted in gross contamination of environmental media. However, some discrete areas of concern exist as a result of the former industrial uses or the age of the building. The Johnson Company has identified the following RECs and associated recommendations for the Site:

Containerized potentially hazardous materials in the former factory and storage buildings.
 Some of these containers were observed to be uncovered, which presents risk for spills or releases.

<u>Recommendation:</u> A licensed environmental contractor should characterize and remove all containerized potentially hazardous materials.

• Onsite well, not abandoned or used since connection to Town of Richmond municipal water supply. If unsecured, this well can provide a conduit for hazardous materials to be released to groundwater.

<u>Recommendation:</u> If there is no proposed use for the groundwater from the on-site well, it should be properly abandoned. Since the facility is served by municipal water service, it is unlikely that the well will be permitted for future use. However, any use should be preceded by sampling for a variety of potential contaminants.

• Property records indicate Standard Oil Company formerly owned a portion of the Site, and a 1926 Sanborn map shows the approximate location of three oil storage tanks.

<u>Recommendation</u>: The approximate location of the three former oil storage tanks associated with the Standard Oil Company should be inspected with a metal detector. Should this limited inspection indicate the presence of underground storage tank(s) on site, the tanks should be removed in accordance with VTDEC UST guidelines. A proper UST closure will include confirmatory soil sampling and will include groundwater sampling if soil samples show evidence of a release.

- A hollow pit of unconfirmed contents, covered by a concrete slab, is present on the Site. <u>Recommendation:</u> The contents of the pit should be determined. If there is evidence that the pit once contained oil, soil and/or groundwater sampling should be conducted immediately outside the pit.
- Polynuclear aromatic hydrocarbons (PAHs) from idling rail cars may be present in the vicinity of the former rail spur that crossed the northeastern corner of the Site.
 <u>Recommendation:</u> Efforts should be made to conduct a limited near-surface soil investigation for the presence of PAHs.
- Potential impacts to soil and groundwater resulting from possible releases during ongoing factory operations. Due to the machinery formerly present at the Site, the use of lubricating oils and cleaning chemicals is suspected, although in many areas of the

factory it is likely that these cleaning products were food-grade and not a major source of contamination to environmental media.

<u>Recommendation</u>: A limited subsurface soil and groundwater investigation should be conducted in the building interior and exterior to evaluate potential contamination as a result of releases.

The presence of hydraulic fluid buckets in the storage shed indicates that this product was used in some machinery or equipment at the Site. Some hydraulic fluids historically contained PCBs before their use in unenclosed systems was banned in the late-1970's. There is not evidence to suggest the widespread release of hydraulic fluids in a food-manufacturing facility.

<u>Recommendation</u>: A limited surface soil and building flooring investigation for PCBs is warranted in and around the storage shed. A limited number of wipe or bulk concrete samples inside the building is also recommended to provide more information on the prevalence of PCBs at the Site.

Although not Recognized Environmental Conditions, the following items should be addressed in future investigations at the Site:

• A 10,000-gallon above ground storage tank containing some residual fuel oil sludge is present on the Site. The piping for this AST was routed overhead, and no staining or olfactory evidence of releases to the ground surface were observed.

<u>Recommendation:</u> The sludge from the AST should be removed and the tank should be cleaned. This would remove the potential for releases to the environment if the AST fails. If the AST is to be reused, it must be inspected before being filled with oil.

• Residual ammonia potentially present in the abandoned refrigeration system <u>Recommendation:</u> Prior to any clean up efforts, a licensed environmental contractor should characterize and remove all containerized potentially hazardous materials.
• Asbestos has been identified in the shingles that cover the outside of the factory building. Soils in unpaved areas immediately outside the building should be sampled for asbestos to determine if asbestos fibers are present at levels that would cause health risks to site users. Accessible areas of the building have been sampled for asbestos, but portions of the building may not have been assessed. In addition, sampling for lead paint has not been conducted.

<u>Recommendation:</u> Additional sampling should be conducted to assess all remaining areas of the building, including the roof, for asbestos-containing materials. Soil sampling outside the building should be completed to evaluate the potential for exposure to asbestos in soils. A lead paint assessment should be completed before the building is renovated or demolished.

• Fluorescent light bulbs possibly containing mercury and lead in the factory building. <u>Recommendation</u> Prior to any site reuse, a licensed environmental contractor should characterize and remove all out of service or unused fluorescent light bulbs and PCBcontaining fluorescent light ballasts.

In an effort to fully address environmental considerations at the Site, The Johnson Company reviewed all Recognized Environmental Conditions (RECs) identified in the 2002 H&N Report. Several of the 2002 H&N RECs were not identified by The Johnson Company and are summarized below with a follow-up response.

- <u>2002 H&N REC</u>: The use of the open pipe into the ground within the boiler building is currently unknown.
 <u>The Johnson Company Follow Up</u>: Based on observations at the Site and confirmation by Mr. Ingalls, the pipe led to a condensation tank that has been removed.
- <u>2002 H&N REC:</u> The rusted AST located to the rear of the boiler building could be of concern, as its use and contents are unknown.

<u>The Johnson Company Follow Up:</u> According to Mr. Ingalls, this AST was removed in 2005. The tank contained condensate from the boiler, and it was not perceived as a REC.

• <u>2002 H&N REC</u>: Since one transformer was manufactured prior to the ban on PCBs, it is assumed to contain PCB oils.

<u>The Johnson Company Follow Up:</u> All transformers and overhead power lines at the Site have been removed, and are no longer a REC at the Site.

• <u>2002 H&N Observation</u>: There is a large amount of trash of an unknown composition observed in one section of the property.

<u>The Johnson Company Follow Up:</u> Although a pile of tires and small amounts of trash were observed, a "large amount of trash of unknown origin" was not observed by The Johnson Company. Mr. Ingalls indicated that, since the completion of the 2002 H&N ESA, he had removed and disposed of approximately 15 cubic yards of non-hazardous trash.

• <u>2002 H&N Observation</u>: There is a pipe coming out of an embankment whose beginning point is unknown. It is likely a storm water drain, but this opinion has yet to be confirmed.

<u>The Johnson Company Follow Up:</u> This pipe was not observed by The Johnson Company. It is possible that the pipe was obscured by vegetation.

8.0 DATA GAPS/LIMITATIONS

8.1 DATA GAPS

Extensive vegetation and slopes prohibited inspection of the entire 7-acre Site. The Site was observed along the roadway and accessible areas of the property. Because many windows were boarded up, and no lighting was present, visibility was limited inside the factory building basement, but not to the extent that it precluded observations of drums or containers. No olfactory evidence of petroleum or chemical releases was noticed in these portions of the building. The se data gaps are not expected to significantly impact the findings of this ESA.

8.2 LIMITATIONS

The conclusions of this ESA were based upon information obtained and made available to The Johnson Company from the following sources: the Richmond Town Clerk; the Montpelier Law Library, the VTDEC; the Federal EPA; and from information gathered during the Site reconnaissance and interviews. This information has been intended for the sole use of the Chittenden County Regional Planning Commission and the Property Owner. No other uses, expressed or implied, are warranted. The design of the investigation was based on sound scientific techniques and experience with similar investigations. Should additional information become available pertaining to environmental concerns that may be associated with the Site, the information should be made available to The Johnson Company so that we may re-evaluate our conclusion.

9.0 REFERENCES

- ANR1, 2008, <u>www.anr.state.vt.us/dec/wastediv/rcra/pubs/allVTGen.pdf</u>, "All Vermont Generators, (Active IDs Only)", Vermont Agency of Natural Resources, Department of Environmental Conservation, updated August 13, 2008.
- ANR2, 2007, <u>http://www.anr.state.vt.us/dec/cf/acthazsite/search.cfm</u>, "Vermont Active Hazardous Sites List", Vermont Agency of Natural Resources, Department of Environmental Conservation, updated April 2008.
- ANR3, 2008,

http://www.anr.state.vt.us/dec/wastediv/SMS/RCPP/pubs/Brownfield_Sites_List.pdf, "Brownfield Sites List", Department of Environmental Conservation, Vermont Agency of Natural Resources, updated August 26, 2008.

- ANR4, 2008, <u>http://maps.vermont.gov/imf/sites/ANR_WSWelldriller/jsp/launch.jsp</u> Vermont Agency of Natural Resources Well Locator, accessed October 1, 2008
- Doll, Charles, 1961, Centennial Geologic Map of Vermont, State of Vermont Geologist's Office, 1961. (accessed via http://www.anr.state.vt.us/dec/geo/centmap/htm)
- EPA1, 2008, <u>http://www.epa.gov/enviro/html/cerclis/cerclis_query.html</u>, Office of Emergency Remedial Response, Environmental Protection Agency, updated April 11, 2008.
- EPA2, 2008, <u>http://www.epa.gov/superfund/sites/query/queryhtm/npldel.html</u>, "Delisted National Priorities Sites By State", Environmental Protection Agency, updated September 22, 2008.
- EPA3, 2008, <u>http://www.epa.gov/enviro/html/cerclis/cerclis_query.html</u>, Office of Emergency Remedial Response, Environmental Protection Agency, updated April 11, 2008.
- EPA4, 2008, <u>http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm</u>, "Search Superfund Site Information", Environmental Protection Agency, updated September 8, 2008.
- EPA5, 2008, <u>http://www.epa.gov/enviro/html/rcriss/rcris_query.html</u>, Resource Conservation and Recovery Act Query Form, Environmental Protection Agency, updated February 1, 2008.
- EPA6, 2008, <u>http://www.epa.gov/ne/cleanup/rcra/</u>, "Waste Site Cleanup and Reuse in New England" Region 1, Environmental Protection Agency, updated July 5, 2008

- EPA7, 2008, <u>http://www.epa.gov/enviro/html/rcriss/rcris_query.html</u>, Resource Conservation and Recovery Act Query Form, Environmental Protection Agency, updated February 1, 2008.
- EPA8, 2008, <u>http://www.epa.gov/oswer/onecleanupprogram/init2-IC.htm</u>, Federal Institutional Controls Registry, Not online as of October 1, 2008
- GMP, 2008, Telephone communication with Green Mountain Power Field Service Operator (Richmond Area) October 2, 2008
- KAS, 2005, Initial Site Investigation Report, Richmond Dental, Richmond, Vermont, KAS Inc., February 2005
- Levesque, 2008, Telephone communication with Richmond Fire Chief Tom Levesque, October 1, 2008.
- NAIP, 2003, Orthophoto 4407233_sw. National Agricultural Inventory Program.
- NRC, 2008, <u>http://www.nrc.uscg.mil/foia.html</u>, National Response Center, United States Coast Guard, accessed October 1, 2008.
- NRCS, 2008, <u>http://websoilsurvey.nrcs.usda.gov/app/</u>, "Web Soil Survey", United States Department of Agriculture, National Resources Conservation Service, March 2008.

NRPCVT, 2008,

http://www.nrpcvt.com/nrpcvt/planning_activities_files/Brownfield%20Funding%20%20 <u>Resources.pdf</u>, Vermont Department of Environmental Conservation Brownfield Resources accessed October 1, 2008

- Rodjenski, 2008, email correspondence with Richmond Town Administrators Ronald Rodjenski and Kendall Chamberlin, October 24-October 27, 2008
- Stewart, D.P. and MacClintock, P., 1970, Surficial Geologic Map of Vermont; State of Vermont, 1970.
- Twin State, 1996, *Site Investigation Report for the Richmond Truck and Auto Repair*, Twin State Environmental Corp., July 23, 1996
- UNH, 2008, <u>http://docs.unh.edu/nhtopos/nhtopos.htm</u>, Historical topo maps of New England and New York, updated May 2007

- Vermont Department of Fish and Wildlife, 1997, Town of Richmond Significant Habitat Map, 1997.
- Vermont, 1963, Low Altitude Aerial Photograph VT 62-L46-7. Reviewed at Vermont Law Library, 5-2-63
- VTDEC1, 2008, <u>http://www.anr.state.vt.us/dec/wastediv/rcra/pubs/allVTGen.pdf</u>, RCRA Report Handler List, All Vermont Generators, August 18, 2008
- VTDEC2, 2008, <u>http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/launch.jsp</u>, "Waste Management Site Locator", Vermont Agency of Natural Resources, Department of Environmental Conservation, October, 2008.
- VTDEC3, 2008, <u>www.anr.state.vt.us/dec/wastediv/ust/USTlist.htm</u>, "Vermont Permitted Underground Storage Tank List", Vermont Agency of Natural Resources, Department of Environmental Conservation, August, 2005.
- Vermont UST Databases (Registered and Pulled), Vermont Agency of Natural Resources, Department of Environmental Conservation, March 30, 2005.
- VTDEC, 2005b, <u>www.anr.state.vt.us/dec/wastediv/ust/USTlist.htm</u>, "Vermont Permitted Underground Storage Tank List", Vermont Agency of Natural Resources, Department of Environmental Conservation, December 29, 2005.
- VTDEC, 2006, <u>www.anr.state.vt.us/dec/wastediv/solid/pubs/Vermont.Solid.Waste.Facilities.pdf</u>, "Vermont Solid Waste Management Facilities", Vermont Agency of Natural Resources, Waste Management Division, Solid Waste Management Program, July 26, 2006.
- VTDEC, 2007a, <u>http://maps.anr.state.vt.us/website/wm_viewer/viewer.htm</u>, "Waste Management Site Locator", Vermont Agency of Natural Resources, Department of Environmental Conservation, April, 2007.
- VTDEC, 2007b, Vermont Spills Database, Vermont Agency of Natural Resources, Department of Environmental Conservation, January 22, 2007.

APPENDIX 1

PHOTO PLATES



Plate 1: View of former Saputo Cheese/Richmond Creamery factory from Jolina Ct.



Plate 2: Former cooler storage building



Plate 3: Pile of tires



Plate 4: Drums filled with concrete



Plate 5: Berm covering wastewater conveyance pipe



Plate 6: Severed pipe in rear of boiler building



Plate 7: Above ground heating oil storage tank



Plate 8: Five gallon buckets in storage building



Plate 9: Fluorescent light bulbs





Plate 11: Ammonia tank



Plate 12: Various chemicals in maintenance area



Plate 13: Containers with unknown substances



Plate 14. Oil spilled on Level 1 by vandals.

APPENDIX 2

ENVIRONMENTAL QUESTIONNAIRE

ENVIRONMENTAL OUESTIONNAIRE

INSTRUCTIONS: Please complete the following questionnaire. If you have any questions about how to answer the question, answer to the best of your ability, and indicate your question. If additional pages are necessary to fully respond to the question, please mark each page and attach them to this questionnaire. Also, please attach copies of any requested documents. If copies cannot be made, please indicate that, and have the originals available for review during our visit to your Facility.

L <u>GENERAL BACKGROUND INFORMATION</u>:

1.Address of Facility: 74 JOLINA CT. RICHMOND, 405477

(Telephone) Scott INGALL' Cell: 802.734.7804

2. Name and position of person responding to this Questionnaire:

3. To the best of your knowledge, provide an operational and ownership history of the site.

Name of	Owner/	Year (s) Owned or	Operated	Process	Current	
Facility	Operator	from	to		Address	
RICHMOND DAINY COOPE	nation	1915	1993 1983	DAINY PRODUC	defunct	
Richmond	Cheese Co.	1983	1999	CHEESES, ICE CREAM,	defunci	MERGED
Richmond C	herse Merge	with 1999	2002)	BUTTERMIL		
SARATO	Cheese, USA	CLOSED R	CILITY 1999	chase	Hmesburg, VT	
SAPUTO +	D GASING	12 2002				
LANDS OU	NED BY C	N. RAILWAM	-No structu	nes-to c	ASING	
12 200	5					

Portion of DAIRY CO-OP 1903 1928 OIL Storage STANDARD OIL OF N.Y. - See lot desc. (metes & bounds) attached. [AIT: 4] 4. Describe the general character of the Facility site and the surrounding area (including terrain, location of

wetlands, coastlines, rivers, streams, lakes, springs, drinking water wells, roads, water intake and discharge structures, landmarks, flood plains, etc.):

Approx 7 ALRES SLOPING & FLAT. Approx 5 3/4 ALRES OF THE 7 AL. ARE ABOUG FLOOD PLAIN. FORMER RIVER BED FORMIS SOUTHERN BOUNDARY WITH SEASONAL WATER FLOW/ PONDING. FLOOD PLAIN IS CORN FIELD.

- 5. Describe all known former uses of the Facility, whether carried out under the current ownership, or any prior ownership: - DAINY PRODUCT MFG. - OII TANKS (STORAGE) 1920'S 430'S?-ACTIVE 1903-1928
 - STABLES, BLACKSMITH, FEED& GRAIN, DAINY COOLER (FRONT LOT)
- 6. Does any person, firm or corporation other than the owner occupy the site or any part of it? If yes, identify them and describe their use of the property.
- 7. Have there been any spills, releases, or unpermitted discharges at or near the Facility (including neighboring properties)? If so, describe; and attach any incident reports and the results of any investigations:

UNKNOWN

8. Has the Facility ever been the subject of any enforcement actions by any federal, state, or local government entities, or does the Facility have knowledge of any contemplated enforcement actions? If so, state the results of the enforcement action (consent order, penalties, no action, etc.) and describe the circumstances:

UNKNOWN

- 9. Is the Facility now under any state, federal or local agency orders or consent decrees? If so, attach them to this response. NOT TO MY MNOWLEDGEE
- Have there been any formal or informal citizen complaints regarding the Facility? If so, did they result in the filing of a notice of citizen suit, or a civil complaint, or other administrative or criminal procedure? If so, describe in full detail:
- 11. Provide the Facility's RCRA number, if applicable. N/A
- 12. Provide the Facility's SIC number, if applicable.

N/A

13. Describe past/present building/facility heating system.

14. Name of architectural/engineering firm or contractors that erected and/or remodeled the facility.

15. Has the site ever been used for excavation or fill operations?

No

16. Are there, or have there ever been, any buildings, storage sheds, or other structures on the property? YES.

If so, how many? Where are they, how big are they, how old are they, and what are they used for? WOODEN WATER TANK, STABLES, BARNS DATED BACK TO 1827 FER OLD MAPS.

17. Describe the circumstances of the transaction that has made the present ESA necessary.

Transaction type:

Q	Sale	Q	Foreclosure	Q	Re-financing	Q	Other
Identify	the follo	wing:					
Owner_	CA	SING	F DEVELO	PMER	JT, LLC		
Operato	or/tenant_		SAME		·		
Buyer_		_	For	SAL	E		
Financing Institution							
	tate Ager		REDS	TONE			

II. <u>SOLID AND HAZARDOUS WASTES</u>:

Does the facility generate any solid or hazardous wastes? If so, provide the Facility's EPA (or State) identification number <u>NO</u>.

- 19. Does the facility have any RCRA Hazardous Waste Permits? If so, please attach to this questionnaire. \cancel{NO}
 - a) Generator
 - b) Transporter
 - c) Treatment, Storage, Disposal Facility
- 20. Have any of the Facility's solid or hazardous wastes been analyzed? If so, attach the results of any analyses done on those wastes.
- 21. Identify the transporter of any hazardous wastes, and attach a copy of the transporter's permits and invoices from the last two years for the transport of wastes.
- 22. Identify the solid or hazardous waste disposal or treatment facilities which receive the Facility's wastes, and attach a copy of the applicable permits and invoices from the last two years. M/A
- 23. Does the Facility treat or dispose of any wastes on site (including without limitation incineration, reclamation, neutralization or recovery)? If so, describe in full, and attach any applicable permits.
- 24. Attach copies of the hazardous waste manifests for the last two years and all annual/biennial reports on hazardous wastes. N/A
- 25. Does the Facility transfer, incinerate, process, or store any non-hazardous solid wastes or hazardous wastes, other than refuse-derived fuel or waste oil, which is generated off-site? If so, describe: **NO**
- 26. Does the Facility accumulate and store any hazardous wastes on site for disposal for longer than 90 days? If so identify the substance, the quantity and describe how it is stored:

27. Identify all hazardous wastes generated at the facility, and as to each, state its hazardous characteristics (toxicity, reactivity, corrosivity, ignitability) and whether it is a listed hazardous waste: NONE FACILITY CLOSED 1999

HI. SURFACE WATER/WATER OUALITY/DISCHARGE TO MUNICIPAL SEWAGE TREATMENT PLANT:

28. Identify and attach all permits at the Facility relating to all Facility discharges to water, including discharges of wastewater, process water, contact or non-contact cooling water, storm water, as well as water from cafeterias and restrooms. N/A.

INACTIVE SITE

- 29. Has the Facility tested the groundwater at or around its Facility? If so, attach all analytical results. NO
- If any questionnaires have been completed and submitted to any federal, state, or local agencies relating to water, including industrial pretreatment questionnaires, please attach them.
- 31. Is any waste deposited in or near surface or groundwaters? If so, describe in detail, including not only the receiving water's classification, but a description of the type and quantity of the wastes.
- 32. Attach copies of the Facility's Discharge Monitoring Reports for the last two years, if the Facility is required by regulation to complete such reports.

33. Provide the Facility's NPDES number. N/A

IV.

34. Are there any drinking water wells, or other wells, on the property? If so, give location.



35. Are there any air emission sources that emit contaminants from the Facility? If so, describe each source, including whether it is a stationary combustion installation, process source, exhaust or ventilation system, incinerator, or other source:

36. Are any of the sources permitted? If so, attach a copy of each permit.

N/A

Describe past/present process ventilation system.

A NONE UNKNOWN

V. SPILLS AND UNDERGROUND STORAGE TANKS (USTs):

38. List and describe all above and below ground storage tanks used to store petroleum or gasoline products, or other chemicals or wastes, including the contents and capacity of each tank. For all USTs, provide corresponding notification and permit numbers, dates, and material. Are said tanks double lined? Do they have cathodic protection? Provide any tank tightness test results for the on-site tanks.

1) ABOVE GROUND : SEE ATTACHED DESCRIPTION FROM 2002 Phase I PER FORMER MGR., ASE DISCONTINUED EARLY 1970'S.) SANG

39. List and locate <u>ALL</u> past/present underground storage tanks on site, even if they are not now in service, and state whether any notification has been filed with the local, state or iederal government concerning existence of those tanks.

NO KNOWN UST NOW OR IN PAST

40. Have there been any leaks, spills, releases or other discharges (including loss of inventory) associated with any of these tanks? If so, give full details, including the response taken, all analytical results or reports developed through investigation (whether internal or external), and the agencies which may have become involved.

UNKNOWN - NOTHING OF FILE W/STATE.

- 41. Is there a septic system, leach field, or dry well, etc., on the property: or to the best of yourknowledge, has there ever been such a system on the property? If yes, please locate. UNKNOWD. SITE CONNECTED TO MUNICIPAL SYSTEM SINCE 1969. PLIOR TO THAT, 3 PIPES If so, where is it? DISCHARGED ALL VILLAGE WASTE NTO WINDOSKI RIVER NERR BRIDGE
- 42. Have any underground storage tanks ever been removed from the property? If so, please give dates and copies of State reports, if available. (ANKNOWN)
- 43. Are there any floor drains in the facility? If yes, please locate. SEE Floor PLAN Attached. Where do the floor drains go (choose one)?
 - A. Are they connected to municipal sewer system?
 - B. Do they drain into a septic system, leach field or dry well?
 - C. Do they drain into a stream?
 - D. Do they drain onto the ground surface?
 - E. Other? Please explain.

UNKNOWN - ASSUMED INTO SEVER

- VL POLYCHLORINATED BIPHENYLS ("PCB'S") AND ASBESTOS:
- 44. Provide any records the Facility has concerning any on-site PCBs or PCB equipment, whether used or stored, and whether produced as a byproduct of the manufacturing process or otherwise. (PCBs are generally associated with transformers or capacitors, circuit breakers, voltage regulators, switches or cables.)

GMP REMOU	ED TRANSFORMERS	in	2003.	(POL MOUNTED)

- 45. Have there been any PCB spills, discharges or other accidents? If so relate all the circumstances: UNKNOWN
- 46. Does the Facility have any asbestos containing materials, including materials used to construct the building? If yes, please list locations: ONE STAUCTURE HAS ASBESTOS SHINGLES (SIDING)
 Asbestos WAIL Doard (1/2") LINES SOME PRODUCTION ROOMS.
 LINOLOUM LESSED NO ASBESTOS
 47. Does the facility have any LIREA formalishable form containing materials including materials used to include
- 47. Does the facility have any UREA formaldehyde foam containing materials, including materials used to insulate the building? If so, list: UNKNOWN

SUBMITTED BY:

٤

(Firm/Company Name/Corporation)

(Date) 9 24 08



APPENDIX 3

USER'S QUESTIONNAIRE

USER QUESTIONAIRE¹

A. <u>GENERAL BACKGROUND INFORMATION</u>:

1.Name and Address of Facility:
1. Name and Address of Facility: CASING DEVELOPMENT, LLC /BARLINGTON SF ESSEX TIT IT OF AT 05452
18 ARLINGTON ST
SUBJECT PROPERTY: 74 JOLINA Ct. RICHMOND, VT 05477
(Telephone) 802, 878, 8919 02 CELL: 802.734.7804

2. Name and position of person responding to this Questionnaire:

R. Scott INGALLS, Ptr

B. <u>USER SUPPLIED INFORMATION</u>

(1.) Environmental Cleanup liens that are filed or recorded against the Site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?



(2.) Activity and land use limitations that are in place at the site or that have been filed or recorded in a registry (40CFR 312.26).

Are you aware of any AULs such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal tribal, state or local law?

COVENANT FROM 1800'S PROHIBITING BLACKSMITH SHOP.

¹ In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments") the User must provide the above-listed information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemical and processes used by this type of business?

NO

(4.) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? THE PURCHASE PRICE PAID FOR THE

VARIOUS PARCELS (NOW MERGED) WAS DUE TO SEVERE BOUNDARY DISCREPANCIES, INADEQUATE ARCESS & ASBESTOS SIDING AS WELL AS THE KNOWN OIL TANK. THERE WERE ALSO ZONING CONFLICTS WITH CURRENT / FORMER USE.

(5.) Commonly known or reasonable ascertainable information about the property (40 CFR 312.30).

Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example as user:

- (a.) Do you know the past uses of the property? YES
- (b.) Do you know the specific chemicals that are present or once were present at the property?
- (c.) Do you know of spills or other chemical releases that have taken place at the property? NO
- (d.) Do you know of any environmental cleanups that have taken place at the property? NO

(6.) The degree of obviousness of the presence or likely presence of contamination at the property and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence of likely presence of contamination at the property? THE FUEL OIL TANK MAY HAVE HAD SPILLS WHEN BEING FILLED.

SUBMITTED BY:

CASING DEDELOPMENT, LLC (Firm/Company Name/Corporation) (BY) R. Scott INGALLS PARTNER (Title) (Signature)

O:\AAI_ESA_User_Questionnaire.doc

09-24-08

(Date)

USER QUESTIONAIRE¹

INSTRUCTIONS: Please complete the following questionnaire. If you have any questions about how to answer the question, answer to the best of your ability, and indicate your question. If additional pages are necessary to fully respond to the question, please mark each page and attach them to this questionnaire.

I. <u>GENERAL BACKGROUND INFORMATION</u>:

1.Address of Facility: <u>125 Bridge Street. Richmond VT</u>

(Telephone)

Scott Ingalls 8002.734.7804

2. Name and position of person responding to this Questionnaire: Samantha Tilton, Staff Planner at CCRPC

II. <u>USER SUPPLIED INFORMATION</u>:

1. Environmental Cleanup liens that are filed or recorded against the Site (40 CFR 312.25): Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law?

Not to my knowledge.

2. Activity and land use limitations that are in place at the site or that have been filed or recorded in a registry (40CFR 312.26): Are you aware of any AULs such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal tribal, state or local law?

Not to my knowledge.

3. **Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28):** As the user of this ESA do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemical and processes used by this type of business?

No, all of the information we have on the site has been shared with the consultants and is public information. CCRPC is not involved in the same line of business as the current or former occupants of the property or adjoining properties.

4. **Relationship of the purchase price to the fair market value of the property if it were not contaminated** (40 CFR 312.29).: Does the purchase price being paid for this property reasonably reflect the fair market

¹ In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments") the User must provide the above-listed information (if available) to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

Not applicable.

- Commonly known or reasonable ascertainable information about the property (40 CFR 312.30): Are 5. you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example as user:
 - Do you know the past uses of the property? Yes, the site was used as a Creamery for decades. This a. information has been shared with the consultant.
 - Do you know the specific chemicals that are present or once were present at the property? b. Everything CCRPC knows about the chemical use of the property is based off of the 2002 Phase I report which has been shared with the consultant.
 - Do you know of spills or other chemical releases that have taken place at the property? Not to our c. knowledge.
 - d. Do you know of any environmental cleanups that have taken place at the property? - Nothing beyond what was discussed in the 2002 Phase I.
- 6. The degree of obviousness of the presence or likely presence of contamination at the property and the ability to detect the contamination by appropriate investigation (40 CFR 312.31). As the user of this ESA, based on your knowledge and experience related to the property are there any obvious indicators that point to the presence of likely presence of contamination at the property?

The only indicators of any potential contamination are discussed in the 2002 Phase I report.

SUBMITTED BY:

Chittenden County Regional Planning Commission	October 15, 2008
(Firm/Company Name/Corporation)	(Date)

Samantha L. Tilton (BY)

Staff Planner (Title)

(Signature)

O:\AAI_ESA_User_Questionnaire.doc

APPENDIX 4

HISTORICAL SANBORN FIRE INSURANCE MAPS

Richmond Creamery 74 Jolina Court Richmond, VT 05477

Inquiry Number: 2324891.1s September 24, 2008

Certified Sanborn® Map Report



440 Wheelers Farms Road Milford, CT 06461 800.352.0050 www.edrnet.com

Certified Sanborn® Map Report

Site Name: Richmond Creamery 74 Jolina Court Richmond, VT 05477	Client Name: The Johnson Company 100 State Street Montpelier, VT 05602	EDR [®] Environmental Data Resources Inc
EDR Inquiry # 2324891.1s	Contact: Kurt Muller	

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Certified Sanborn Results:

Site Name:	Richmond Creamery
Address:	74 Jolina Court
City, State, Zip:	Richmond, VT 05477
Cross Street:	
P.O. #	1-0346-3
Project:	Richmond Creame
Certification #	D73F-45C3-AB9B

Maps Identified - Number of maps indicated within "()"

1939 (2) 1926 (2) 1910 (1) 1904 (1) 1899 (1) 1894 (1)

Total Maps: 8

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9/24/08
















APPENDIX 5

2002 HEINDEL AND NOYES PHASE I ENVIRONMENTAL SITE ASSESSMENT



P.O. Box 64709 Burlington, Vermont 05406-4709

Consulting Hydrogeologists
Engineers

Environmental Scientists

802-658-0820 Fax 802-860-1014

FORMER SAPUTO CHEESE FACTORY 634 BRIDGE STREET Richmond, Vermont

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Prepared by:



Prepared for:

Mr. Scott Ingalls

December 2, 2002



Consulting Hydrogeologists
 Engineers

• Environmental Scientists

802-658-0820 Fax 802-860-1014

P.O. Box 64709 Burlington, Vermont 05406-4709

December 2, 2002

Mr. Scott Ingalls Casing Development, LLC 18 Arlington Street Essex Junction, VT 05452

Mr. Ingles:

Please find enclosed the revised Phase 1 Environmental Site Assessment for the former Saputo Cheese factory located in Richmond, Vermont. H&N is qualified to assist you with the recommendations found within the report, and would welcome the opportunity to continue working with you in order to further examine the property.

We appreciate the opportunity to be of service to you in this transaction, and if you have any further questions or concerns please feel free to call either Jeffrey Noyes or myself at (802) 658-0820.

Regards,

Wendersheller

Wendy Shellito (ext. 26) Staff Environmental Scientist

Or

Jeffrey E. Noyes (ex. 18) Chief Hydrogeologist

Enclosure

U:\PROJECTS\Phase 1s\Former_Saputo\trans_letterREV.doc



P.O. Box 64709 Burlington, Vermont 05406-4709

Consulting Hydrogeologists
Engineers

• Environmental Scientists

802-658-0820 Fax 802-860-1014

FORMER SAPUTO CHEESE FACTORY 634 BRIDGE STREET Richmond, Vermont

PHASE I ENVIRONMENTAL SITE ASSESSMENT

Prepared by:



Prepared for:

Mr. Scott Ingalls

December 2, 2002



Heindel and Noyes P.O. Box 64709 Burlington, Vermont 05406-4709 Consulting HydrogeologistsEngineers

• Environmental Scientists

802-658-0820 Fax 802-860-1014

FORMER SAPUTO CHEESE FACTORY 634 BRIDGE STREET RICHMOND, VERMONT

PHASE I ENVIRONMENTAL SITE ASSESSMENT

TABLE OF CONTENTS

Page

EXEC		SUMMARY	. i
1.0	INTRO	DDUCTION	1
	1.1	Objective	
	1.2	Scope of Services	
	1.3	Qualifications	
	1.4	User Reliance	
2.0	SITE	DESCRIPTION	
	2.1	Location and Legal Description:	
	2.2	Site and Vicinity General Characteristics	3
		2.2.1 Geological Conditions	3
		2.2.2 Soil Conditions	4
		2.2.3 Surface and Groundwater Conditions	
		2.2.4 Wetlands	
	2.3	Current Uses of Property	4
	2.4	Description of Improvements on Site	.5
		2.4.1 Structures	
		2.4.2 Roadways and Boundaries	.5
		2.4.3 Potable Water Supply	.5
		2.4.4 Sewage Disposal System	
		2.4.5 Heating/Cooling System	
3.0	USEF	R PROVIDED INFORMATION	.6
	3.1	Title Records	.6
	3.2	Environmental Liens or Activity and Use Limitations	
	3.3	Specialized Knowledge	.7
	3.4	Valuation Reduction for Environmental Issues	
	3.5	Owner, Property Manager, and/or Occupant Information	
	3.6	Reason for Performing Phase ESA	

4.0	RECORDS REVIEW	7
	4.1 Standard Environmental Record Source	7
	4.2 Public Wells and Wellhead Protection Areas	8
	4.3 Historic Use Information on the Property	8
	4.4 Historic and Current Use Information on Adjoining Properties	9
5.0	SITE RECONNAISSANCE	
	5.1 Methodology and Limiting Conditions	11
	5.2 Building(s) Inspection	12
	5.3 Grounds Inspection	
	5.4 Hazardous Material or Petroleum Product Use	15
	5.5 Storage Tanks	
	5.5.1 Active USTs	16
	5.5.2 Removed USTs	16
	5.5.3 Active ASTs	
	5.5.4 Removed ASTs	17
	5.6 Odors 18	
	5.6 Pools of Liquid	18
	5.8 Drums18	
	5.9 Hazardous Substance and Petroleum Products Receptacles	
	5.10 Unidentified Substance Containers	18
	5.11 PCBs 18	
	5.12 Stains or Corrosion	
	5.13 Drains and Sumps	
	5.14 Pits, Ponds or Lagoons	
	5.15 Stained Soil or Pavement	20
	5.16 Stressed Vegetation	20
	5.17 Solid Waste Disposal	
	5.18 Wastewater and Stormwater	
	5.19 Unnatural Fill or Grading	
	5.20 Trash On-Site	20
	5.21 Asbestos	
	5.22 Lead-based Paint	21
6.0	FINDINGS	
7.0	RECOMMENDATIONS	
8.0	DEVIATIONS	
9.0	SIGNATURES OF ENVIRONMENTAL PROFESSIONAL(S)	25

APPENDICES

Appendix 1 - Maps

- Appendix 2 Hazards Map and Identification Appendix 3 Photographic Record
- Appendix 4 Environmental Questionnaire
- Appendix 5 Resumes



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FORMER SAPUTO CHEESE FACTORY 634 BRIDGE STREET RICHMOND, VERMONT

PHASE I ENVIRONMENTAL SITE ASSESSMENT

December 2, 2002

EXECUTIVE SUMMARY

This report presents the results of a Phase I Environmental Site Assessment (ESA) conducted at the Former Saputo Cheese Factory located at 634 Bridge Street in Richmond, Vermont. Heindel & Noyes (H&N) has been retained by Mr. Scott Ingalls of Casing Development, LLC to perform this ESA on the subject property. Mr. Bob Bart, former employee of the plant from the mid 1970's through its closing in 1999, was present during the inspection and answered questions as they arose to the best of his knowledge.

The subject property on which this ESA was conducted consists of the former Saputo Cheese Factory and grounds encompassing three separate parcels of land. The original facility was built in the early 1900's with numerous additions over the years. The factory has been out of use since 1999, at which time all manufacturing machinery was removed. Since its abandonment, the facility has fallen into disrepair, with much water damage and vandalism.

One area of the facility utilized an ammonia refrigeration system. The holding tank containing the ammonia is present and could potentially still contain ammonia. Mr. Bart believed the piping network leading from the tank to the refrigeration system had been cleared upon the abandonment of the facility, but was not certain. The pipes in the area were clearly marked as containing ammonia, and an ammonia material safety data sheet

(MSDS) was located at the doorway to the room. The environmental questionnaire states an ammonia leak occurred from a crack which developed in a compressor serving this system. The compressor was immediately repaired, and the leak was reported to the authorities. It is currently unknown when this leak occurred, and no record has been found on State databases regarding this past leak.

Approximately three containers were observed throughout the facility which contained an unknown substance. The substance was a dark brown color and was odorless. No elevated levels were recorded on the PID within these containers.

One room of the facility appeared to be used to store older equipment that was not often used. A 5-10 gallon drum and plastic tub container were present and were clearly marked as containing waste oil. An older parts-washing station containing waste oil was also observed within a maintenance shop area of the facility.

One room of the facility contained two holding tanks connected to each other. The precise use and contents of these tanks are unknown.

A cargo elevator is located in one area of the facility. The base is of concrete, and minor staining from the oils used in the lift was observed.

Within the boiler building an open pipe was observed that likely led underground from the boiler and served an unknown purpose. The exact use and connection point of this pipe is unknown at this time.

To the rear of the boiler building an empty and rusted above ground storage tank (AST) was observed. This tank was lying on its side and had pipes leading from the boiler into it. The purpose of this tank is unknown at this time.

A large (+/-) 10,000-gallon AST is present on the property. This tank previously contained #6 fuel oil used to generate the boilers serving the facility. This tank was taken out of service when a (+/-) 10,000-gallon propane AST was installed. Mr. Bart was unsure of the tank's age, but knew it was prior to his employment in the early 1970's. An opening was present into the tank which at one time had a pipe leading in. Upon closer inspection, fuel sludge was observed within the tank. A secondary containment is not present in the event

of any leaks or spills occurring. No areas surrounding either tank appeared to be stained or compromised.

The New England Central Railroad borders the property on the east. A railroad tie was previously located through a portion of the driveway area which was removed in the 1970's.

The area along this existing railroad has been used as miscellaneous dumping area since the facility became vacant. Various abandoned ASTs, plastics, metals, old blacktop roadway, discarded washing machine and dryer as well as other miscellaneous trash is present.

Based on title information and H&N's review of historical documents, the subject property appears on 1926 and 1939 Sanborn Maps as a dairy processing facility. Prior to these dates, these maps do not include the subject area. Title deed information shows the Standard Oil Company at one time owned a portion of the subject property. The above Sanborn maps for the property show oil storage tanks were at one time present on land that appears to be bordering the railroad property and subject property. It is probable these tanks were located underground, although they were labeled only as storage tanks on the historic maps and without further investigation this cannot be definitively stated. There has been no known history of any spills occurring during the oil company's use of the lands and no evidence of any was found in the general vicinity of these former tanks during the site inspection; however, the storage tanks were present on the lands during a time when the hazards of oil and gas releases to the environment were unknown. Given the known history of fuel management at these types of facilities, it is probable an undocumented release could have occurred at some time in the past.

The property is currently connected to the municipal wastewater disposal facility serving the town of Richmond. All floor drains located throughout the facility are also connected to this system. A large equalization tank with an aerator system is present to the rear of the facility to maintain appropriate wastewater flow rates into the municipal system. During regular operations of the factory, the contents of the tank were routinely tested to make certain the contents were not in violation of the facility's wastewater disposal permit. The status of a former on-site septic system is unknown at this time.

Prior to the municipal water supply connection, the property was served by an on-site well. This well is located along the southeastern property boundary at the bottom of an embankment leading from the railroad line. It is contained within a concrete structure approximately 10 feet tall. The interior was not observed due to lack of site entry. The age of the well is unknown. However, Mr. Bart stated the municipal connection was in place when he started his employment in the 1970's, and to his knowledge the facility was no longer connected to this well. He had no knowledge as to whether or not the well had been capped and abandoned.

An old abandoned pit of unknown origin was observed within a portion of the rear driveway area. The top was concrete and contained a small opening with limited visibility within. A metal support beam as well as concrete blocks and other debris was observed in the pit area. The use of this pit is unknown at this time.

Five transformers were observed on the subject property. All but one of these has been determined to be PCB free, and upon inquiry to Green Mountain Power, the third has not been tested and was manufactured prior to the 1980 ban on PCBs.

A discharge drain was observed below an embankment in the vicinity of an outside trench drain located in the rear loading dock area whose beginning point is unknown. It is likely that this is a storm water drain, but may be from another point on the subject property.

There are no mapped or unmapped streams or bodies of surface water on the subject property. One area along the southeastern property boundary is located within a mapped wetland area, as well as within a small area inundated by the100-year floodplain. Neither of these areas is in close proximity to the structures located on the property.

According to federal and state environmental databases, there are two listed hazardous threats within a ½ mile radius of the subject property. Based on the locations in relation to the subject property, they do not appear to pose a threat at this time.

Given the original age of the facility, lead-based paint is likely to be present; however, it is unknown if an official lead paint survey has been conducted. The majority of the facility contained cracked and peeling paint. Given the original age of the facility, it is likely asbestos containing materials (ACM) are present, and it was stated within the environmental questionnaire that an official asbestos inspection has not be conducted. A few areas of piping insulation were observed which could potentially contain ACMs; however, an official asbestos inspector did not make these observations.

In the course of conducting this Phase I ESA of the subject area, we have identified the following Recognized Environmental Conditions.

- It is likely that ammonia, a regulated substance, is still present in the refrigeration system's holding tank.
- The AST for #6 fuel oil could potentially still contain product and there is no secondary containment system in place. Is unknown if an SPCC plan is in effect regarding this tank, which is required if it to be utilized in the future.
- The presence of the receptacles containing an unknown substance does pose a threat, as the nature of their contents is unknown at this time.
- The use of the open pipe into the ground within the boiler building is currently unknown.
- The rusted AST located to the rear of the boiler building could be of concern, as its use and contents are unknown at this time.
- The presence of waste oil within the drum, plastic tub and parts washing station is a violation of current waste oil storage regulations.
- There are two holding tanks observed in the facility whose past use and contents are unknown.
- Given the past use of a portion of the property as a storage area for oil and or gas in an area appearing to border property owned by the railroad and the subject property, there is the probability a release of product occurred which could have impacted the soils surrounding the oil storage area and the subject property.

Prior to the municipal disposal connection it is likely an on-site septic system was utilized to manage the facilities waste disposal needs. It is unknown if this previous system has been removed or is still present on the property.

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- Since one transformer was manufactured prior to the ban on PCBs, it is assumed to contain PCB oils.
- Due to the presence of a railroad along the property border, it is possible polycyclic aromatic hydrocarbons (PAHs) often associated with railroad use have migrated onto the subject property and impacted the surrounding soils of the area. PAHs could also be present along the driveway area where a historic railroad tie was located until its removal in the 1970's.
- There is a large amount of trash of an unknown composition observed in one section of the property.
- The origin and former contents of the pit observed within the driveway area is unknown.
- There is a pipe coming out of an embankment whose beginning point is unknown. It is likely a storm water drain, but this opinion has not been confirmed.
- An on-site well is still present on the property which was utilized prior to the municipal connection. It is currently unknown if this well has been disconnected from the facility and capped, as is required by current groundwater protection rules.
- The likely presence of lead-based paint poses a threat to the environment as well as to human exposure.
- The likely presence of asbestos containing materials poses a threat to the environment as well as human health if a certified consultant does not remove it.



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FORMER SAPUTO CHEESE FACTORY 634 BRIDGE STREET RICHMOND, VERMONT

PHASE I ENVIRONMENTAL SITE ASSESSMENT

December 2, 2002

1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (ESA) conducted at the former Saputo Cheese Factory Plant located at 634 Bridge Street in Shelburne, Vermont. The property encompasses three separate parcels at this time. Heindel & Noyes (H&N) has been retained by Mr. Scott Ingalls of Casing Development, LLC to perform this ESA on the subject property. Mr. Bob Bart, a former employee of the plant from the mid 1970's through its closing in 1999, was present during the inspection and answered questions to the best of his ability as they arose.

1.1 Objective

The purpose of this Phase I ESA is to render an opinion regarding the presence of environmental conditions at the subject property. Such conditions may indicate an existing release, a past release, or a potential threat of a release of hazardous substances or petroleum products into the environment. The investigative procedures and reporting format used herein generally conform to the requirements of the American Society of Testing Materials (ASTM) Standard E 1527-2000.

1.2 Scope of Services

A Phase I ESA is a research and reconnaissance-level review of a property and the surrounding area to identify potential environmental conditions that may indicate the

presence of a release or threat of release of hazardous substances or petroleum. The assessment is largely dependent on direct observation of site conditions, inquiries into previous ownership and uses of the property, and reviews of reasonably and readily available federal, state, and local environmental records. No subsurface investigations or sampling were conducted as part of this investigation. The Phase I ESA scope of services for this site included:

Site history development: This entails a review of the history of site ownership, use, and potential environmental issues based on available information obtained from interviews with persons knowledgeable of the area.

Record searches at appropriate federal, state and local agencies providing information pertaining to possible environmental conditions at or in the vicinity of the subject property. This includes the subject property and properties within a ½ mile radius.

 Review of available historical sources such as Sanborn Fire Insurance Maps, aerial photographs, Beers Atlas and the Mannings Index.

 A site reconnaissance to observe, document, and photograph site operations, property conditions, and signs of potential environmental liabilities, including asbestos and leadbased painted surfaces.

Field-testing for volatile organic compounds (VOCs) with an H-Nu Model PI-101 photoionization detector (PID), with a 10.6 eV UV lamp probe, was conducted during the physical inspection of the property. The PID measures the relative levels of volatile organic compounds referenced to an isobutylene-in-air standard. Although PID screening cannot be used directly to quantify VOC concentrations or identify individual compounds, the results serve as a relative indicator of the presence of VOCs in the area. VOCs are often an indication of petroleum or solvent product contamination. VOCs are also often present in paints, varnishes, solvents, adhesives, and common household institutional cleaning agents. Only one area in close proximity to a parts washing station containing waste oil registered an elevated reading on the PID during the inspection.

1.3 Qualifications

A corporate resume for Heindel & Noyes, LLC can be found in Appendix 5. The site visit, research, and report preparation were conducted by Wendy Shellito, H&N Staff

Environmental Scientist, with supervision, assistance, and report review by Jeffrey Noyes, H&N Chief Hydrogeologist. These resumes can also be found in Appendix 5.

1.4 User Reliance

This report was prepared solely for the use of Mr. Scott Ingalls of Casing Development, LLC. The conclusions provided by H&N in this report are based solely on the information referenced within this document. While we are unaware of any facts or circumstances, which would cause us to suspect that the conclusions drawn herein are incorrect or misleading, it is possible that additional information could require refinement or modifications of our conclusions. This report has been prepared in general accordance with ASTM E 1527-2000.

2.0 SITE DESCRIPTION

2.1 Location and Legal Description:

The subject property on which this ESA was conducted consists of three separate parcels of land known as the former Saputo Cheese Factory located at 634 Bridge Street in Richmond, Vermont. A USGS topographic map, orthophotographic map, site plan, and facility layout plans are included in Appendix 1, pages 1-6.

2.2 Site and Vicinity General Characteristics

2.2.1 Geological Conditions

The Surficial Geology of the subject property is mapped as "Recent Alluvium" (map symbol: AL), which is described as Accumulations of detrital materials, which have been eroded, transported, and deposited by streams. A map is included on page 7 of Appendix 1.

The *Bedrock Geology* of the subject property is mapped as an Underhill formation (map symbol: Cu), which is described as predominantly a gray-green schist combination of different quartzes and phyllite, which is very abundant in gneissic facies. (Centennial Geologic Map of Vermont 1961; a map is not included, as the subject area data is not yet available in a digital format).

2.2.2 Soil Conditions

The Chittenden County Soil Survey (NRCS, dated 1989) shows soils in the area to be mapped as a combination of the Hadley Series and Duane and Deerfield Series (Map symbol Hh and DdB). Hh soils are very fine sandy loams that are typically deep, well drained and frequently flooded with a slope of 0%-3%. DdB soils are typically deep, very friable with rapid permeability with a slope of 5%-12%. A map is included on page 9 of Appendix 1.

2.2.3 Surface and Groundwater Conditions

Surface Water: There are no mapped or unmapped streams or bodies of surface water located directly on the subject property with the exception of a swale leading to a small backwater of the Winooski River located approximately 350 feet to the south of the facility. The river itself is located approximately 920 feet southwest.

Groundwater: Based on the general slope of the ground surface as shown on the USGS map in Appendix 1, groundwater on the subject parcel is assumed to flow to the south, southwest in the direction of the Winooski River.

One Hundred Year Floodplain: One small area along the southeastern property boundary is mapped as being within a 100-year floodplain as designated by the Federal Emergency Management Agency, with areas along the southwestern property boundary designated within the 500-year floodplain. Neither of these areas is in close proximity to the structures located on the property. A map is included on page 10 of Appendix 1.

2.2.4 Wetlands

One small area along the southeastern property boundary is mapped as being within a mapped wetland area. The location of this wetland is not in close proximity to any structures located on the property. A map is included on page 10 of Appendix 1.

2.3 Current Uses of Property

The facilities located on the subject property are currently vacant.

2.4 Description of Improvements on Site

2.4.1 Structures

There are a total of four structures located on the subject property. The main manufacturing facility was originally constructed in the early 1900's, with various additions throughout the years. The age of the boiler building and boiler within is unknown, but believed to be over 25 years old, and the adjacent storage shed is of an unknown age. The building located along Bridge Street containing the refrigerated storage area with an adjacent office space and upstairs apartment are also of an unknown age.

2.4.2 Roadways and Boundaries

The property's primary access is from Jolina Court, which leads from Bridge Street in Richmond, Vermont.

For the purposes of this ESA, the boundaries of the subject property are assumed to be those parcel lines provided by the town of Richmond and shown on the orthophoto found on page 2 in Appendix 1. The subject parcel currently encompasses three separate parcels.

2.4.3 Potable Water Supply

Potable water is currently supplied through the Richmond municipal water supply. Prior to this connection the property relied on an on-site water supply well. This well is still present and is located approximately 300 feet southeast of the main facility. The well is enclosed in a concrete structure rising approximately 10 feet high with no simple access to the interior. It is possible access can be obtained through the roof of the structure, although the roof was not observed during the inspection due to safety concerns. It is unknown if this well was capped upon the municipal connection.

2.4.4 Sewage Disposal System

Sewage disposal on the property is currently through the Richmond Wastewater disposal facility. A large equalization tank with an aerator system is present to the rear of the facility to maintain wastewater flow rates into the municipal system. During regular operations of the factory, the contents of the tank were routinely tested to make certain the contents were not in violation of the facility's wastewater disposal permit. Mr. Bart was unaware of

any problems associated with this system. A smaller tank is located behind the currently used tank which Mr. Bart believed to be an older holding tank used prior to the installation

of the current equalization tank. He did not know if this older tank was still used. The status of any previously existing on-site septic system is unknown at this time.

2.4.5 Heating/Cooling System

Heating for the facility is provided through a combination of electric baseboard heaters as well as ceiling mounted heaters. Mr. Bart believed that all of the heaters were fueled by propane contained within the large AST at the rear of the facility.

3.0 USER PROVIDED INFORMATION

3.1 Title Records

Mr. Ingalls provided the following *partial* title record summaries to H&N for the purpose of identifying environmental liens and identifying possible prior land uses; *it does not constitute a complete title search.*

TITLE RECORD Saputo Cheese USA Parcel 1								
Book #	Page #	Date	Grantor	Grantee	Comments			
45	35	10/28/83	Richmond Cooperative Association, Inc.	Richmond Cheese Company	Warranty Deed			
19A	227	12/14/28	Standard Oil Company	Richmond Cooperative Association	Quit-Claim Deed			
17	50	2/19/19	M.S. Whitcomb	Richmond Cooperative Association	Warranty Deed			
17	309	12/7/16	Marsha Green, Admin of Estate of George Green	Richmond Cooperative Association	Deed			
		(*	Parcel 2					
37	77		John & Elizabeth Faunce	Dari-Desserts, Inc.	Warranty Deed			
37	80	11/19/79	John & Elizabeth Faunce and Richmond Corporation	Dari-Desserts, Inc.				
31	70	4/17/75	Xenophon & Irene Wheeler	John & Elizabeth Faunce	Warranty Deed			
31	68	4/17/75	Xenophon & Irene Wheeler	John & Elizabeth Faunce	Warranty Deed			

7

3.2 Environmental Liens or Activity and Use Limitations

No environmental liens or use limitations were disclosed with the title deed research provided to H&N by the law offices of Kolvoord, Overton & Wilson. However, this finding does not represent a formal title search and further review of the land records could change this determination.

3.3 Specialized Knowledge

H&N previously conducted an Environmental Audit of the facility in August 1997 while the plant was operating under normal conditions. None of the information obtained during this Environmental Audit report was utilized in the writing this Phase I ESA.

3.4 Valuation Reduction for Environmental Issues

This section is not applicable to this Phase I Environmental Site Assessment. It is H&N's understanding that this ESA was requested in order to find evidence of recognized environmental conditions with regards to the subject property's structures and grounds.

3.5 Owner, Property Manager, and/or Occupant Information

Saputo Cheese USA has owned and occupied at least a portion of the subject property for almost twenty-five years; however, the facility has been used as a cheese manufacturing plant for approximately fifty years.

3.6 Reason for Performing Phase I ESA

This Phase I Environmental Site Assessment (ESA) was performed by H&N at the request of Mr. Scott Ingalls of Casing Development, LLC to present an opinion regarding evidence of Recognized Environmental Conditions on the subject property or within any structures located on the lands.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Source

The following federal EPA and State of Vermont databases were searched for hazardous sites or conditions, which might have an impact on the environmental status of the subject property.

LIST UPDATED	STATUS
07/02	Site not listed
07/02	SITE LISTED
	07/02 07/02 07/02 07/02 07/02 07/02

The subject property is listed on the orphan RCRA generators list under its former name of the Richmond Cheese Co, EPA ID #VTS002054770 and is listed as a conditionally exempt generator. However, the plant has been closed for three years and is not at this time generating any waste stream.

4.2 Public Wells and Wellhead Protection Areas

Public Wells: The State of Vermont GIS mapping system identifies one public well ("Wellhead Protection Area Source Well") within the 0.5-mile radius of the subject property. This well belongs to the Richmond Water District and is located to the south on the opposite side of the Winooski River from the subject property. A map is included on page 10 of Appendix 1.

Wellhead Protection Areas: The subject property is not located within any areas designated by the state's GIS mapping system as being located in any wellhead protection areas (WHPAs). One is located to the south on the opposite side of the Winooski River from the subject property. A map is included on page 10 of Appendix 1.

4.3 Historic Use Information on the Property

Based on title information and H&N's review of historical documents, the subject property appears on 1926 and 1939 Sanborn Maps as a dairy processing facility. Prior to these dates, these maps do not include the subject area. Title deed information shows the Standard Oil Company at one time owned a portion of the subject property. The above Sanborn maps for the property show oil storage tanks were at one time present on land that appears to be bordering the railroad property and subject property. It is probable these tanks were located underground, although they were labeled only as storage tanks

on the historic maps and without further investigation this cannot be definitively stated. There has been no known history of any spills occurring during the oil company's use of the lands and no evidence of any was found in the general vicinity of these former tanks during the site inspection; however, the storage tanks were present on the lands during a time when the hazards of oil and gas releases to the environment were unknown. Given the known history of fuel management at these types of facilities, it is probable an undocumented release could have occurred at some time in the past. The historic Sanborn Maps showing this are not included due to copy write restrictions, and included in Appendix 1, pages 11-13, are the 1857 Wallings Map, 1869 Beers Atlas and 1944 Rural Electric Map for Richmond, Vermont.

4.4 Historic and Current Use Information on Adjoining Properties

Surrounding the subject property are predominantly commercial enterprises, with the New England Central Railroad running along the northeast boundary.

The same Federal and Vermont databases that were searched for information on the subject property (see Section 4.1 above) were also searched regarding hazardous sites or conditions on neighboring properties. A map showing the locations of listed environmental sites within 0.5 miles of the subject property is shown on page 1 of Appendix 2.

The remaining pages of Appendix 2 contain the current listings in the state environmental databases for threats within a ½ mile radius of the subject property as of July 2002. These treats include hazardous waste sites, USTs, Pulled USTs, pollution source inventory sites, RCRA manifests, orphan hazardous waste sites, orphan USTs, orphan pulled USTs, orphan hazardous spills, orphan RCRA manifests and orphan RCRA generators. Orphans are sites that the State of Vermont does not have a physical location for on the maps. Below is a summary of our analysis of the hazards map and the orphan lists.

Active Hazardous Waste Sites: There is one active hazardous waste site listed within a 0.5-mile radius of the subject property as of the July 2002 update of this list. This site is described as follows:

<u>Richmond Wastewater Treatment Plant (Site #20002731)</u> Medium Priority: In 2000 a release of approximately 1,000-gallons of heating fuel occurred from an underground storage tank containing many holes. The tank was removed, and initial clean-up practices took place to contain the release. An initial site investigation was completed in 2000 by

ATC which found groundwater contamination on the property due to the leak. The State has approved a semiannual monitoring schedule to begin in 2002.

Based on the topography of the area and distance of this site in relation to the subject property, it is unlikely that this site is having or had an impact on the subject area.

There are no <u>Orphan Hazardous Waste</u> sites listed for Richmond as of the July 2002 update of this list.

There is no <u>Closed Hazardous Waste</u> sites currently located within the 0.5-mile radius of the subject property.

 There is no <u>Underground Storage Tank (UST)</u> sites registered within the 0.5-mile radius of the subject property.

There are four <u>Orphan Underground Storage Tank (USTs</u>) sites listed within Richmond. Based on the available address information for these sites, none appear to be within close proximity to the subject property.

There is one <u>Pulled UST (PUSTs)</u> site listed within 0.5 miles of the subject property. It is listed as the Richmond Wastewater Treatment plant and is described above as an active hazardous waste site posing no immediate threat to the subject area.

There are three <u>Orphan PUST</u> sites listed within Richmond. Based on the available address information, H&N is able to determine one does not pose any threat to the subject area. One site does not show any address, and the third shows the location as Bridge Street. Due to the lack of adequate address information for these two remaining sites, H&N has no way to verify they were not located near the subject property and cannot ascertain if they could have posed a threat.

Of the <u>Orphan Hazardous Spill</u> sites listed within Richmond, H&N was unable to determine precise locations for fourteen sites due to inadequate addressing. Due to the lack of addressing for these sites, H&N has no way to determine if the spills occurred in close proximity to the subject property.

11

There are three <u>RCRA Manifest</u> sites (listed shipper of hazardous wastes) listed within the 0.5-mile radius of the subject property. Based on the available addressing for these sites in relation to the subject property, they do not appear to pose a threat.

There is one <u>Orphan RCRA Manifest</u> site located within Richmond. Based on the address information available, it is not located in close proximity to the subject property.

There are ten <u>Orphan RCRA Generator</u> sites (generators of hazardous waste) listed for Richmond. The subject property is listed under its former name of the Richmond Cheese Co, EPA ID #VTS002054770 and is described above. All remaining sites show address information placing them outside the general vicinity of the subject property.

There is one <u>Pollution Source Inventory sites (PSI)</u> listed by the state within a 0.5mile radius of the subject property. These PSI site locations were a predecessor to the current hazardous waste database system, and H&N has no way to verify the accuracy of the mapped locations.

Note that our tentative analyses regarding the orphan sites area based only on our limited local knowledge. We cannot be certain that none of these orphan sites are near the subject property.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

H&N Staff Environmental Scientist Wendy Shellito conducted a site visit on October 29, 2002. This site visit consisted of an inspection of the structures and grounds of the subject property. Photographs taken during the site visit are shown in Appendix 3. Mr. Bob Bart, former employee of the facility, was present during the inspection to assist with questions that arose. Chantel Dignard, a current employee of the Saputo Corporation, provided answers to an environmental questionnaire regarding the subject property, which is included in Appendix 4.

Limiting conditions encountered during the site inspection included:

 Access was unable to be obtained to the front building containing the freon refrigeration unit due to lack of a key.

- Electricity is not currently supplied to the property, limiting overall observations throughout the buildings
- A few areas on the top floor of the main facility were not observed due to possible safety concerns for the areas in question. Mr. Bart stated that to his knowledge these unobserved areas were used only as extra storage.

5.2 Building(s) Inspection

Four buildings are currently located on the subject property and are described as follows:

<u>Main Facility</u>

The main structure of the facility was originally constructed of brick in the early 1900's, with multiple additions throughout the yeas. The most recent addition is believed to have occurred in the mid 1970's. All ground level and sublevel floors are comprised of concrete and have floor drains that lead to the municipal wastewater facility. Many of these floors are cracked and dilapidated. All machinery associated with the cheese-making processes were removed upon the closure of the plant, and all that remains are the refrigeration coolers and various small tools used to fix the larger machinery. The piping network formerly attached to the equipment is still present. The paint is pealing throughout the facility and excessive water damage was noted, as the building is not secure and is open to the elements and human vandalism. A facility layout map is included in Appendix 1, pages 1-5.

Cheese production was the primary operation occurring at the facility. This included development of a starter base that was sampled and tested in a small laboratory area in close proximity to its manufacturing area. A whey condenser, reverse osmoses machines, cookers, and brine vat were present at one time for the cheese development processes, but have been removed. One area of the ground floor level was used to store large quantities of sodium chloride for use in the brine vat and cheeses. This storage area has a concrete floor.

Two ammonia generated refrigeration systems are present within one room of the facility. The exact ages of these systems are unknown, but believed to be at least thirty years in age. A sign is posed at the entrance stating the room contains a possible breathing hazard along with a material safety data sheet (MSDS) for ammonia. The piping in the room is clearly marked as containing ammonia, as is the ammonia holding tank. The environmental questionnaire states an ammonia leak occurred from a crack which developed in a compressor serving this system. The compressor was immediately repaired, and the leak was reported to the authorities. It is currently unknown when this leak occurred, and no record has been found on State databases regarding this past leak. Mr. Bart believed the pipes had been drained, and was unsure as to the status of the holding tank. It is possible the holding tank still contains an unknown amount of ammonia.

A room on the second floor of the facility contained machinery that included an air compressor, a cheese compressor and a pasteurizing machine. Mr. Bart believed this equipment was inoperable and being held here in storage. Also in the room was a 10-gallon drum containing used oils that appeared to be partially full. In addition to this drum, a 5-gallon plastic tub was also present containing waste oil. A sign was clearly stated the oil present were waste oils.

A small maintenance shop is present within the facility that was used for minor repairs on the equipment. Oil and grease staining was observed upon the concrete flooring in the room, and appeared to be consistent with maintenance repair activities. A parts washing station was still present that was previously maintained by Safety Clean. It was an older model that did not discharge into a receptacle, but instead all material was caught in the bottom of the sink and manually drained out. During the inspection, the sink section was approximately ¼ full with what appeared to be oil, based on the odor emanating from it. A slightly elevated reading was recorded on the PID within the waste oil receptacle.

Another area on the second floor was used to store pizza boxes, which the company distributed. This area is unheated, and was used only for this purpose. It is located adjacent to the original brick structure, and is constructed on a steel frame with metal roofing.

One large sump pump was located within the delivery area. Access was not easily obtainable, as it was located approximately three feet below the opening leading to the sump pit. This sump appeared to have three pumps attached to it and upon observations during the site inspection, contained an unknown amount of water. The water present was a murky brown color, but did not appear to contain any petroleum sheens and no odor was noted. There were no elevated readings from the PID.

One room of the facility contained two metal holding tanks. Mr. Bart had no knowledge as to the uses of these connected tanks, as he had never entered this part of the facility before.

Boiler Building

There is currently one boiler located in this building, and Saputo personnel were unsure of the building's age. During the normal operations at the plant, two boilers were used for the various heating operations in the cheese making processes. These boilers were originally fueled by the (+/-) 10,000-gallon AST located outside of the boiler building that contained #6 fuel oil. In recent years they were utilized the propane contained within a (+/-) 10,000-gallon AST located outside the building to the south. Various pipes within the building appeared to contain possible asbestos containing materials (ACMs) based on initial observations, but this finding does not constitute an asbestos inspection. To the rear of the building, a rusted 250-gallon AST was observed lying on its side with a hole cut into the top. There were pipes running into it from the boiler. It was not known what purpose this tank served. No elevated levels were recorded on the PID within the tank. The existing boiler showed a date of manufacture of 1967.

An open pipe leading underground was observed within the boiler building. The purpose of this pipe was unknown. There was no elevated reading recorded on the PID within the pipe.

Storage shed

This shed is located between the boiler building and the existing AST containing #6 fuel oil. During the inspection, this shed contained miscellaneous metal supports, wood, and old doors. All materials set upon a concrete slab with the front portion open to the elements. The age of this storage shed is unknown at this time.

Front Building

The exact age of construction for this building is unknown, but likely to have occurred over 30 years ago. It served as office space with a second floor apartment and adjoining refrigeration storage area for shipping of the cheese products. Heat was supplied to the office and apartment by a combination of electric baseboard heaters upstairs, and a kerosene heater downstairs. The kerosene heater and related components have been removed. The front refrigeration area was not observed, as Mr. Bart did not have the necessary key. Mr. Bart stated the refrigeration unit in this area was generated by freon and no problems had been associated with it to his knowledge.

5.3 Grounds Inspection

The grounds of the facility consist of a dirt roadway extending from the front of the facility to the rear loading dock area. It branches off in the rear, continues down a slight rise past the sewage holding tank, and leads into the field that leads to the Winooski River.

The area immediately surrounding the buildings are grass covered, which have been overgrown since the facility ceased operations approximately three years ago. A small area to the west consists of sparse trees leading to the adjoining property. An area along the south and southeastern boundary, in close proximity to the railroad tracks appears to be utilized as a miscellaneous dumping area. During the inspection, an old washer and dryer, tires, plastics, scrap metal, old roadway debris, abandoned steel storage tanks, scrap wood and an old mattress were observed. This dumping area extends down the embankment towards the on-site well to the rear field area. No elevated levels were recorded on the PID in these areas.

An old abandoned pit of unknown origin was observed within a portion of the rear driveway area. The top was concrete and contained a small opening with limited visibility within. A metal support beam as well as concrete blocks and other debris was observed in the pit area. The former use of this pit is unknown at this time.

The Standard Oil Company at one time owned a portion of the land along the railroad. Historic 1926 and 1939 Sanborn maps for the property show storage tanks were at one time present on land that appears to be bordering the railroad property and subject property. It is probable these tanks were located underground, although they were labeled only as storage tanks on the historic maps and without further investigation this cannot be definitively stated. There has been no known history of any spills occurring during the oil company's use of the lands and no evidence of any was found in the general vicinity of these former tanks during the site inspection; however, the storage tanks were present on the lands during a time when the hazards of oil and gas releases to the environment were unknown. Given the known history of fuel management at these types of facilities, it is probable an undocumented release could have occurred at some time in the past.

A discharge drain was observed below an embankment in the vicinity of an outside trench drain located in the rear loading dock area whose beginning point is unknown. It is likely that this is a storm water drain, but may be from another point on the subject property.

5.4 Hazardous Material or Petroleum Product Use

One (+/-) 10,000-gallon AST is present on the property that once contained #6 fuel oil for two boiler units. This tank has not been used for an undetermined amount of time, as the facility changed to propane. This AST does not have a secondary containment system in the event a spill or leak occurs. If this tank is to be utilized in the future, an approved spill

prevention control and countermeasure plan (SPCC) is required in the event of a spill occurring. The AST for the propane also has a capacity of (+/-) 10,000-gallons and is located to the rear of the facility.

In addition to these storage tanks, a 5-10 gallon drum is located inside the facility and is clearly marked as containing waste oil. Beside this drum is a plastic 5-gallon receptacle that also contains used oil.

A parts washing station is present within the former maintenance area of the facility. This station still contained waste oils generated during the normal operations of the facility.

One area of the facility contains a refrigeration system utilizing ammonia. Mr. Bart believed the piping of the system had been flushed upon closure of the facility in 1999, but was not certain. A holding tank is still present, which could potentially still contain ammonia. The environmental questionnaire states an ammonia leak occurred from a crack which developed in a compressor serving this system. The compressor was immediately repaired, and the leak was reported to the authorities. It is currently unknown when this leak occurred, and no record has been found on State databases regarding this past leak. Also in this area were two 5-gallon holding tanks containing an unknown substance. Upon investigation of these unknown holding tanks with the PID meter, no elevated readings were noted.

5.5 Storage Tanks

5.5.1 Active USTs

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There are no listed underground storage tanks (USTs) on the subject property and none are known to exist.

5.5.2 Removed USTs

There are no listed pulled underground storage tanks (PUSTs) on the subject property and none are known to have existed.

5.5.3 Active ASTs

There are six ASTs currently located on the property, although none are currently in use. There have been no spills or leaks known to be associated with any of these tanks, and it

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is unknown if an SPCC (spill prevention control and countermeasure) plan is in effect regarding the fuel tanks, and one is required if they are to be utilized in the future.

- There is a (+/-) 10,000-gallon tank formerly containing #6 fuel oil that used to service the boilers serving the facility. It was unknown if the contents of the tank had been properly removed upon discontinued use of the tank. During the inspection, one inlet to the tank was not covered, and tank sludge was observed within. The tank did not have any secondary containment system for spills or leaks; however, no staining of the surrounding ground surface was noted and a petroleum odor was noted only in close proximity to the opening. There was no elevated PID reading near the inlet.
- Another (+/-) 10,000-gallon AST is also present and contains propane. The exact age of this tank was unknown, and, based on observations from outside of a fence surrounding it, appeared to be in good condition.
- One (+/-) 100-gallon AST is present within the facility and was used to hold ammonia for a refrigeration unit. The environmental questionnaire states an ammonia leak occurred from a crack which developed in a compressor serving this system. The compressor was immediately repaired, and the leak was reported to the authorities. It is currently unknown when this leak occurred, and no record has been found on State databases regarding this past leak. Mr. Bart was unsure if the tank was empty and it was not possible to confirm or deny the existence of ammonia through our inspection.
- Two additional steel ASTs are present within the facility that are connected to each other. The purpose and contents of these tanks are unknown. The possibility exists these were both water holding tanks connected to the on-site well previously serving the property. However, this has not been confirmed. There was no severe staining observed on the concrete flooring beneath these tanks, and no elevated levels were recorded on the PID in their vicinity.
- One above ground holding tank is present to the rear of the facility and is a septic holding tank with an attached aerator system.

5.5.4 Removed ASTs

There have been no known ASTs removed from the subject property.

5.6 Odors

Throughout the facility, a general musty odor was noted, and the odor intensified within the former refrigerated areas. Within the former maintenance room a slight oily odor was noted and can likely be attributed to the presence of an old parts washing station still containing oils as well as the past maintenance practices taking place. Petroleum odor was noted in the opening to the AST containing #6 Fuel oil, located outside the facility.

5.5 Pools of Liquid

The only pools of liquid noted during the site inspection appeared to be from leaking water within the building.

5.8 Drums

Approximately ten 55-gallon drums were observed during the site inspection and were found to be empty, or contained only water from leaks in the roofing. The drums formerly held sodium hypochlorite solution, hydrogen peroxide, foam chlorine and lubricating oils. A one additional drum approximately 5-10 gallon in size was also observed. This drum was clearly marked as containing waste oil and was possibly half full.

5.9 Hazardous Substance and Petroleum Products Receptacles

In addition to the ammonia holding tank and AST formerly containing #6 fuel oil described above, a parts washing station was present within the facility. It appeared to be an older model as the waste receptacle was not a separate container, but part of the whole unit. Safety Clean maintained this during normal operations at the facility. During our inspection, the unit was approximately a quarter full of an oily substance. Waste oil was also present in a small drum and plastic container located within the facility.

5.10 Unidentified Substance Containers

Approximately three 5-gallon containers were observed within the facility and contained an unknown substance. The contents were a dark brown colored liquid with no strong odor. No elevated levels were recorded on the PID within these receptacles.

5.11 PCBs

Cooling oil containing PCBs is sometimes present in older electrical transformers. The manufacture of PCB-containing transformers was banned in 1980. Three pole mounted

transformers are located to the front of the main facility with documentation on them stating them to be PCB free. Two additional pole-mounted transformers are located near the front office/refrigeration building. Upon inquiry to Alan Richer of Green Mountain Power, one of these has been designated as PCB free. The second transformer has not been tested and was manufactured in 1969, making it likely to contain PCBs.

5.12 Stains or Corrosion

Various stains were observed throughout the facility and boiler building during the site inspection. Most staining appeared to be rusting from the water damage incurred from the dilapidated stated of the facility since its vacancy three years ago. Oil and grease stains were observed upon the concrete flooring of the maintenance shop area, which is typical of the room's use.

5.13 Drains and Sumps

A number of drains were present throughout the facility which all connect to the municipal treatment system. The main substances introduced into these drains during the normal operations of the facility were milk and water. It is not known if these drains were present before the municipal connection and, if so, where their discharge point was.

A discharge drain was observed below an embankment in the vicinity of an outside trench drain located in the rear loading dock area whose beginning point is unknown. It is likely that this is a storm water drain, but may be from another point on the subject property.

One large sump pump is located within the main facility. During the site inspection, close observation of this sump was not possible due to its location approximately 3-4 feet below the floor surface. No oily sheens or odors were noted, and the water was a murky brown color. No elevated PID readings were detected.

5.14 Pits, Ponds or Lagoons

An old abandoned pit of unknown origin was observed within a portion of the rear driveway area. The top was concrete and contained a small opening with limited visibility within. A metal support beam as well as concrete blocks and other debris was observed in the pit area. The former use of this pit is unknown at this time.

5.15 Stained Soil or Pavement

No staining of the soil or pavement was noted at any location during the site inspection of the property.

5.16 Stressed Vegetation

Stressed vegetation was not observed during the site inspection of the property.

5.17 Solid Waste Disposal

There is currently no solid waste generated by the facility on the property, as the buildings are not actively used.

5.18 Wastewater and Stormwater

The property is connected to the municipal wastewater disposal facility serving Richmond and is more thoroughly described in section 2.4.4.

Only one storm water drain was observed to the rear of the facility in the loading dock area. Upon inquiry, Mr. Bart was unsure of the discharge location. However, a drain outlet was observed in the embankment leading to the field located beyond the facility. This is likely the outlet of the drain observed; however, this has not been confirmed.

5.19 Unnatural Fill or Grading

No areas of unnatural fill or grading were observed on the subject property.

5.20 Trash On-Site

One area near the railroad line located along the southeastern property boundary was observed to have a large amount of miscellaneous trash that has been disposed of in the area over the years. These items include old tires, mattresses, wood, roadway debris; empty storage tanks, plastics, clothes washer and dryer and other debris. Mr. Bart stated the debris was not present during active use of the facility.
5.21 Asbestos

The manufacturing of asbestos containing materials was banned in approximately 1980. Since the buildings were constructed prior to this ban it is possible areas of asbestos containing materials are present. A few areas within the main facility as well as within the boiler building appeared to have possible asbestos materials covering the pipes. This cannot be considered an official asbestos inspection, as the H&N personnel conducting the site visit is not a certified asbestos inspector.

5.22 Lead-based Paint

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The use of lead in paint was banned in 1978 – 1979. Since the buildings were constructed prior to this ban it is probable lead paint has been used on the building. Most areas contained severely cracked and peeling paint, the majority of which is likely lead-based due to the facility's age. These observations cannot be considered an official lead-based paint inspection.

6.0 FINDINGS

We have performed a Phase I ESA update in conformance with the scope and limitations of ASTM Practice E 1527-2000 on the Former Saputo Cheese USA Factory located at 634 Bridge Street in Richmond, Vermont. Heindel & Noyes (H&N) has been retained by Mr. Scott Ingalls of Casing Development, LLC to perform this investigation.

In the course of conducting this Phase I ESA of the subject area, we have identified the following Recognized Environmental Conditions:

- It is likely that ammonia, a regulated substance, is still present in the refrigeration system's holding tank.
- The AST for #6 fuel oil could potentially still contain product and there is no secondary containment system in place. Is unknown if an SPCC plan is in effect regarding this tank, which is required if it to be utilized in the future.
- The presence of the receptacles containing an unknown substance does pose a threat, as the nature of their contents is unknown at this time.

- The use of the open pipe into the ground within the boiler building is currently unknown.
- The rusted AST located to the rear of the boiler building could be of concern, as its use and contents are unknown at this time.
- The presence of waste oil within the drum, plastic tub and parts washing station is a violation of current waste oil storage regulations.
- There are two holding tanks observed in the facility whose past use and contents are unknown.
- Given the past use of a portion of the property as a storage area for oil and or gas in an area appearing to border property owned by the railroad and the subject property, there is the probability a release of product occurred which could have impacted the soils surrounding the oil storage area and the subject property.
- Prior to the municipal disposal connection it is likely an on-site septic system was utilized to manage the facilities waste disposal needs. It is unknown if this previous system has been removed or is still present on the property.
- Since one transformer was manufactured prior to the ban on PCBs, it is assumed to contain PCB oils.
- Due to the presence of a railroad along the property border, it is possible polycyclic aromatic hydrocarbons (PAHs) often associated with railroad use have migrated onto the subject property and impacted the surrounding soils of the area. PAHs could also *°* be present along the driveway area where a historic railroad tie was located until its removal in the 1970's.
- There is a large amount of trash of an unknown composition observed in one section of the property.
- The origin and former contents of the pit observed within the driveway area is unknown.
- There is a pipe coming out of an embankment whose beginning point is unknown. It is likely a storm water drain, but this opinion has not been confirmed.

- An on-site well is still present on the property which was utilized prior to the municipal connection. It is currently unknown if this well has been disconnected from the facility and capped, as is required by current groundwater protection rules.
- The likely presence of lead-based paint poses a threat to the environment as well as to human exposure.
- The likely presence of asbestos containing materials poses a threat to the environment as well as human health if a certified consultant does not remove it.

7.0 RECOMMENDATIONS

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Based on the findings of this study, H&N makes the following recommendations:

- 1. If the ammonia refrigeration system is not going to be utilized, a certified hazardous waste hauler should remove the holding tank and related piping and dispose of it to the proper facility.
- 2. If the AST previously containing #6 fuel oil is not going to be utilized, it should be removed by a certified hazardous waste hauler as soon as possible to eliminate the possibility of any remaining product being introduced to the outside environment. If the tank is not removed, federal regulations require that a Spill Prevention, Control, and Countermeasure plan be developed and implemented.
- 3. The containers holding an unknown substance should be analyzed to determine their contents and/or removed by a certified hazardous waste hauler.
- 4. Further investigation of the open pipe within the boiler building should be conducted to determine its exact past use and where it connects. A dye test analysis could potentially determine its discharge location.
- 5. Further investigation of the rusted AST is needed to ascertain its past use and possible former contents.
- 6. A certified hazardous waste hauler should properly dispose of the waste oil contained within the drum, parts washing station and plastic receptacle observed on the property.

- Further investigation and testing of the contents within the two holding tanks is recommended to make certain the contents do not pose any risk to the environment.
- 8. The area where 1926 and 1939 historic Sanborn maps show oil storage tanks were present should be investigated with a metal detector to ascertain if abandoned underground storage tanks are present. Soil borings should be advanced in the general area and analyzed for possible contaminants resulting from a historic leak or spill occurring which could have impacted the soils surrounding these past tanks, and impacted the subject property.
- 9. Further investigation of the property is recommended to determine if an on-site septic system is still present. If one is found to exist, the tank contents should be analyzed to make certain they pose no risk to the surrounding environment. Based on the results, further investigation of the underlying soils or groundwater could be warranted.
- 10. The local power company should be contacted to have them test or remove the older transformer.
- 11. The soils currently adjacent to the railroad, as well as the soils located along the former railroad tie should be tested for the possible presence of hazardous PAHs.
- 12. The on-site trash located on the property should be properly removed. An inspection should be conducted in the dumping areas to ascertain if there is any staining. If so, soil testing of the underlying soils would be warranted.
- 13. Further investigation should be conducted to find out the exact past use of the pit located by the driveway, as well as what is currently contained within. Possible PCB testing and/or soil sampling could be warranted depending on what is found.
- 14. The beginning point of the discharge pipe in the embankment should be determined.
- 15. Investigation of the on-site well should be conducted to ascertain if it has been properly disconnected, closed and capped as regulated by current groundwater rules since it is no longer in use.
- 16. Prior to any demolition or remodeling taking place, a n official lead-paint inspection and asbestos survey should be conducted by a certified firm.

8.0 DEVIATIONS

The following deviations were made from the ASTM Practice E 1527-00 for conducting a Phase I Environmental Site Assessment:

- Access was limited to the front building and only the apartment/office space was observed and not the freon refrigeration area.
- Electricity is not currently supplied to the property, limiting overall observations throughout the buildings
- A few areas on the top floor of the main facility were not observed due to possible safety concerns for the areas in question. Mr. Bart stated that to his knowledge these unobserved areas were used only as extra storage.

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONAL(S)

This report was prepared solely for the use of Mr. Scott Ingalls of Casing Development, LLC. The conclusions provided by H&N in this report are based solely on the information referenced within this document. While we are unaware of any facts or circumstances that would cause us to suspect that the conclusions drawn herein are incorrect or misleading, it is possible that additional information could require refinement or modifications of our conclusions. This report has been prepared in accordance with generally accepted site assessment practices in accordance with the terms and conditions in our agreement.

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Date

Signature () Wendy Shellito, Staff Environmental Scientist

Signature Jeffrey E. Noyes, Chief Hydrogeologist

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USGS Map



October 16 2002

N a m e : Former Saputo Plant A d d r e s s : 634 Bridge Street Richmond, VT







Orthophoto Map



October 16 2002

Name: Address:

Former Saputo Plant 634 Bridge Street Richmond, VT

Parcel Boundaries

NOPAGENC

Heindel and Noyes



Orthophotography flown in 1999

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SURFICIAL GEOLOGY LEGEND

GLACIOLACUSTRINE





 T_{BI}^{l} mantling the bedrock and reflecting the topography of the underlying bedrock surface. Thicker in the valleys and er on the uplands. On many exposed uplands, postglacial thir on has left only rubble and scattered boulders on the er he YCK.



Ice marginal till accumulations with morainic topography. M- frontal moraine assumed to be recessional.

Τ terminal moraine.

> ĸ ion -



lo. plated kame.

ĸ ĸ ame terrace.

ve

KM- kame moralne, kame complete with morainic topography.



- Hortzontally bedded glaciofluvial gravel. Spillway or valley
- gravel in stream valleys. May or may not have a thin tre
 - r of postglacial alluvium.



ESKER uous ridge of constructional form, consisting of stratified. Aⁱ. accumulations, of glacial sand and gravel.

EOLIAN



Deposits of sand arranged by the wind.



- B

·LS,	PS	BS	DS		
LITTORAL SEDIMENT					

PREDOMINANTLY SAND LS-well sorted sand, no pebbles or boulders. PS- pebbly sand.

BS- sand containing ice rafted boulders. DS- delta sand.



LAKE BOTTOM SEDIMENTS STC- sitt, sitty clay, and clay.

VC- varved clay.

BC- slit, slity clay, and/or clay containing ice rafted boulders. LC - lacustrine clay and sllt



Till from the top of which the finer materials have been removed by wave action, leaving boulder concentrations on the surface.



BEACH RIDGE A linear accumulation of beach material, behind the beach which was created from waves or other action.

POSTGLACIAL FLUVIAL





Gravel laid down by a river or a stream.



Sand laid down by a river or a stream.



RECENT ALLUVIUM Accumulations of detrital materials, which have been eroded, transported, and deposited by streams.

RCE NOTES: S

ce Geology was digitized and scanned, by Wagner, Heindel, and Noyes, into a PC ARC/INFO database from 1:62500 original State of Vermont surficial geology base maps (1956-1968). These base maps were created under the supervision of David P, Stewart (1956-1996), Paul MacClintock (1963-1968), William F. Camon (1964), G. Gordon Connally (1985), Parker E. Calkin (1965),

Robert E. Beltling (1966), and William W. Shilts (1966). Sunicial data for most of the state is available, in 15 minute quads, from WHN (602) 855-0820.

alized Bedrock Outcrops were digitized from 1:82500 state surficial geology maps as linear features, which were buffered to 25m. Data available from WHN with surficial geology coverages.

Centerlines were generated from pre-1990 1:5000 orthophotos (or better). Road data (RDSnn) is available from the Vormont Center for Geographic Information, VCGI (602) 656-4277. r Surface Waters are Digital Line Graph Data, generated from 1:24,000 USGS topographic maps. This data is available from VGIS. 1ť

Town Boundaries were digitized from pre-1990 1:24000 USGS topographic maps. This coverage was created by the EPA and is available through VGIS.

and derived from 1:250.000 Surficial Geologic Map of Vermont (1970).









MS- marine sand without pebbles or boulders. PSM- pebbly marine sand.



MARINE CLAY



A natural mound or exposed face of gravel.



SWAMP, PEAT and/or MUCK



Solid filled bedrock was taken directly from the state source maps.

Hatch filled bedrock represents generalized centerlines with a 25m buffer.

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102 · TOP () ---FLUVIAL SAND

<u>Soils Map</u>



(tober 16 2002

Name: iddress:

Former Saputo Plant 634 Bridge Street Richmond, VT



Chittenden County Soils

Orthophotography flown in 1999





FEMA/WHPA/Wetland Map



tober 16 2002

Name: ddress:

Former Saputo Plant 634 Bridge Street Richmond, VT



XXX National Wetland Inventory (NWI) Wellhead Protection Area (WHPA) Source Well Wellhead Protection Area (WHPA) FEMA 100-year flood plain boundary FEMA 500-year flood plain boundary











Property Screening Service



la ardous Waste Sites

6- 1-2002

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Richmond Wastewater Treatment Plant

•	ade Street Richmond	
17/(04/02 Appximately 1,000-gallon catastrophic Approx	kimately 1,000-gallon catastrophic release	01/02 Approximately 1

elease of No. 2 heating oil; UST had null ile holes. Emergency investigation ind VE and hand bailing cleanup iompleted. Semiannual monitoring ipproved for 2002. Approximately 1,000-gallon catastrophic relea of No. 2 heating oil; UST had multiple holes. Emergency investigation and SVE and hand bailing cleanup completed. Additional SI and quarterly monitoring approved for 2001.

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Approximately 1,000-gallon catastrophic release of No. 2 heating oil; UST had multiple holes. Emergency investigation and SVE and hand bailing cleanup completed. Additional SI and quarterly monitoring approved for 2001.

'ulled Underground Storage Tanks

3-C -2002

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unk ID:	1970-1-R
ufie D:	5,551,883.00
ncil :	Richmond Wastewater Treatment
ddress:	281 Esplande
3107. -	Richmond
Tai ; Pulled:	1
mik Pull Code:	с
whee Year:	2000
:	

ULL CODE

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No contamination found; (less than 1 ppm by PID)

Contamination found but below PID standards (20 ppm for gasoline, 10 ppm for deisel)

Intamination above standards

i state inspection or site assessment at the tank puli

Tank closed in-place

orma in and Visualization Services (IVS), PO Box 64709, Burlington, VT - Tel (802) 865-0437

CRA Manifests

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ICHMOND WA	ASTE WATER TREAT ADDRESS	MENT PLAN SUBSTANCE	QUANTITY UNITS	DATE	DESCRIPTION	TOWN	
TP0 1009639	281 ESPLANADE	PETRO OIL	450.00 P	2000-01-25	No info from state	RICHMOND	
IMOTHY RAN	ION						
PA	ADDRESS	SUBSTANCE	<u> 2UANTITY UNITS</u>	DATE	DESCRIPTION	TOWN	
TP0008810	59 CHURCH STREET	LEAD CHIPS	30.00 P	1 998- 12-28	Lead	RICHMONU	
RI: FATE EN							
PA	ADDRESS	SUBSTANCE	QUANTITY UNITS	DATE	DESCRIPTION	TOWN	
TP000009702	65 HUNTINGTON ROAD	BENZENE SOLID	100.00 P	2000-04-03	No info from state	RICHMOND	

maximum of 20 records are shown for each RCRA Manifest generator. More than 20 may exist for those sites.

olf-tion Source Inventory

 Number:
 RHC01

 'SI vpe:
 PETROCHEMICALS

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Drphan Underground Storage Tanks

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ACI	LITY	ADDRESS	TOWN	HAZARDOUS I	TANK ID	YEAR	CAPACIT	SUBSTAN
Jumi	perland Farms #4016	Main and Bridge Street	Richmond	854	1986-1-M		8000	GS
Jur	erland Farms #4016	Main and Bridge Street	Richmond	854	1986-2-M		8000	GS
Zmb	perland Farms #4016	Main and Bridge Street	Richmond	854	1986-3		8000	GS
dac	Residence	Pleasant St	Richmond	1289	1980-1		1250	24
Aot	R/S 12274	1436 West Main Street	Richmond	1088	1974-1-R	1987	6000	GS
Aobil	R/S 12274	1436 West Main Street	Richmond	1088	1974-2-R	1987	8000	GS
Aot	R/S 12274	1436 West Main Street	Richmond	1088	1974-3-R	1987	12000	GS
Aota	R/S 12274	1436 West Main Street	Richmond	1088	1987-1		12000	GS
lobil	R/S 12274	1436 West Main Street	Richmond	1088	1987-2		10000	GS
Not	R/S 12274	1436 West Main Street	Richmond	1088	1987-3		10000	GS
liver	side Farms	Route 2	Richmond	1159	1985-1		3000	DZ

ima____on and Visualization Services (IVS), PO Box 64709, Burlington, VT - Tel (802) 865-0437

)rphan Pulled Underground Storage Tanks 5-0 t-2002

ACILITY	ADDRESS	TOWN	HWS ID	TANK ID	# PUL	LED PULL
ller ; Garage	Route 2	Richmond	0	1961-1	2	D
ler ; Garage	Route 2	Richmond	0	1961-2	2	D
ichmond Town Center	Bridge Street	Richmond	0	1966-1	1	B
elk / Estates		Richmond	0	-1-1	2	B
elk_/ Estates		Richmond	0	-1-2	2	B

- No contamination found; (less than 1 ppm by PID) ntamination found but below PID standards (20 ppm for gasoline, 10 ppm for deisel) ntamination above standards
- :
 - In state inspection or site assessment at the tank pull
 - Tank closed in-place

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torm in and Visualization Services (IVS), PO Box 64709, Burlington, VT - Tel (802) 8(

Drr han Vermont Hazardous Spills

R AND SPILL NUM		TOWN Richmond LOCATION ACTION TAKENW.r. Invest R	
RODUC Diesel	BER 1977005 QUANTIT 50 INCIDENT TYFTruck Accident	G TOWN Richmond LOCATION I-89 ACTION TAKENF.d. Flushed Diesel Off R	ESP PARTGomez Trans. Co
	BER 1979112 QUANTIT 1 INCIDENT TYPDrum In River	G TOWN Richmond LOCATION ACTION TAKENDrum Removed R	
PRC UC Asphalt	IBER 1980127 QUANTIT 100 INCIDENT TYFTruck Tank Leak	G TOWN Richmond LOCATION ACTION TAKEN	
PRODUC Co 2	IBER 1981032 QUANTIT 0 INCIDENT TYFTruck Accident	TOWN Richmond LOCATION I-89	
RODUC Gasoline	IBER 1981033 QUANTIT 50 INCIDENT TYPBus Accident	G TOWN Richmond LOCATIOI ACTION TAKENW.r. Investigated R	
PRC UC Natural Caus	IBER 1981093 QUANTIT ses INCIDENT TYRSheen In Wetland	TOWN Richmond LOCATION ACTION TAKENW.r. Investigated R	
TEAR AND SPILL NUN	IBER 1985089 QUANTIT 15 INCIDENT TYFGas Spill	TOWN Richmond LOCATIOI Lucky S ACTION TAKENN.e.marine Clean Up F	Spot Variety RESP PART
TEA., AND SPILL NUN RODUC Paint Thinne		TOWN Richmond LOCATIOI Sand P ACTION TAKENSite Visit-drums Secure F	it RESP PART)
TEA AND SPILL NUM	IBER 1988093 QUANTIT 90 INCIDENT TYFTractor Trailer	TOWN Richmond LOCATIOI 189 ACTION TAKENKen Rota To Scene	
'EAR AND SPILL NUM 'RC UC Powd. Chem		TOWN Richmond LOCATIOI W. Wh ACTION TAKENSite Visit/pvh	ite Hill Rd RESP PARTUnknown
TEAR AND SPILL NUM	ABER 1989057 QUANTIT 100 INCIDENT TYPRuptured Line At	TOWN Richmond LOCATIOI River R ACTION TAKENInfo. Only/wymans Did	Road RESP PARTMoe Harvey
	INCIDENT TYPSeptic Oder In	TOWN Richmond LOCATION ACTION TAKENContacted Dept. Of Health	
EA AND SPILL NU	MBER 1990068 QUANTIT INCIDENT TYFOII On Road	TOWN Richmond LOCATIO Kenyor ACTION TAKENInformation Only	n Road RESP PARTYown Of
TEAR AND SPILL NUI	WBER 1990131 QUANTIT 20 ium INCIDENT TYFOverturned Fuel	TOWN Richmond LOCATIOI Snap Is ACTION TAKENBb To Scene Town To Clean	
EA AND SPILL NUI	MBER 1990181 QUANTIT INCIDENT TYFTruck Accident	TOWN Richmond LOCATIOI 189 ACTION TAKENInformation Only	RESP PARTSafety Kleen
TEA AND SPILL NUI	MBER 1990191 QUANTIT INCIDENT TYRSpill From 55	TOWN Richmond LOCATION ACTION TAKENInformation Only	
EAR AND SPILL NU	MBER 1990298 QUANTIT 275 INCIDENT TYFHeat. Oil Tank	G TOWN Richmond LOCATIOI 1600 F	Pleasant St RESP PARTMarshall Paulsen
EAK AND SPILL NU RODUC Gasoline	MBER 1991001 QUANTIT 10 INCIDENT TYFOII Spill	G TOWN Richmond LOCATIOI Rte 2 ACTION TAKENReport Taken	RESP PARTCumberland
EA AND SPILL NU RO JC Hydraulic F	MBER 1991108 QUANTIT 2 luid INCIDENT TYFHydraulic Fluid	G TOWN Richmond LOCATIO	
EAP AND SPILL NU RO, JC Gasoline	MBER 1991164 QUANTIT 18 INCIDENT TYFTank Overfill At	G TOWN Richmond LOCATIOI Rt 2	RESP PARTWright Preston
EAR AND SPILL NU RODUC Diesel Fuel		G TOWN Richmond LOCATIOI 32 Hir ACTION TAKENDropped Off Dispersant &	Minimum Information
EAI AND SPILL NU RODUC Gasoline		TOWN Richmond LOCATIOI Stone	Fence Rd
		ACTION IARENNEPOR TAKEN, LEAK III HUSE	NEOF FANTINIUNEI HUCKING

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	an 200		ont Haz	ardous	Spills						
		SPILL N Kerosen	UMBER	1993051 NCIDENT		NTIT 800 Accident	G		Richmond TAKENOn Site-c	LOCATIOI Coch lean Up Supervised	ran Road RESP PARTNorth Oil
		SPILL Mineral S	NUMBER Spirits	1993283 INCIDENT	QUA TYRSpill	NTIT 4 To Cement	G		Richmond TAKENClean Up	LOCATIOI Hunti By Safety Kleen	ngton Rd RESP PARTSafety Kleen
EA A	ANE JC	SPILL N #2	UMBER	1993304 INCIDENT		NTIT 25 Overfill	G		Richmond TAKENReport Ta	LOCATIOI Rt 11 aken	7, River Rd RESP PARTPatterson Fuels
	ANE JC) SPILL I	UMBER	1994WMI INCIDENT	D QUA TYFUnkn	NTIT Iown Liq			Richmond TAKENC Schwei	LOCATIOI To Site, No Haz	
		Diesel	NUMBER	1994WMI INCIDENT	D QUA TYFDispe	NTIT 20 enser Line	G		Richmond TAKENPattersor	LOCATIOI Rt 11 Fuel Clean Up And	7
		OSPILL I Unknown		1995WMI	D QUA TYFFoan	NTIT n In River			Richmond TAKENFoam Ap	LOCATIOI Richr pears To Be Natura	
		O SPILL I Unk		1996WM		NTIT harge From			Richmond TAKENC Schwe	LOCATIOI Thom r To Site. No	npson Rd RESP PARTWashburn
		SPILL I Kerosen	NUMBER	1996WM	D QUA	NTIT 4 ve Ground	G		Richmond TAKENFire Dept	LOCATIOI Gree t Deployed Pads,	n Acres Trailer Pk RESP PARTScott French
EA.		SPILL I Kerosen	NUMBER e	1996WM	D QUA TYFCont	NTIT am During			Richmond TAKENSite Visit	LOCATIOI 4/24. Contam Soils	RESP PARTFalcon Mgmnt Co
		Waste C		1996WM	D QUA	NTIT Oiling At			Richmond TAKENNo Rp Fo	LOCATIOI Cona	RESP PART
EAR RO		Diesel/h	NUMBER ydraulic	1996WM	D QUA	NTIT 10 k Roll Over	G		Richmond TAKENFire Dep	LOCATIO: Hunt t Off Loaded And	ington Rd RESP PARTVt Electrical
		SPILL Kerosen		1997WM		NTIT 150 /e Ground	G		Richmond TAKENReport T	LOCATIOI Rive aken. Site #97-2138	rview Trailer Pk RESP PARTPauline Whipple
EA RO	ANI	D SPILL Unknow		1997WM		NTIT Iged Contai	m	TOWN ACTION	Richmond TAKEN	LOCATIO! Snip	e Island Rd RESP PART
EAP RO	ANI	D SPILL Gasoline		1997WM	D QUA TYFTani	NTIT 3 Overfill	G		Richmond TAKENRichmon	LOCATIOI nd Fire Dept Clean	米- RESP PARTTown Of
		SPILL Kerosen		INCIDENT		NTT V Drip From			Richmond TAKENTold Ow	LOCATIOI Rt 1 ner To Repair Valve	17 . RESP PARTLucky Spot
		D SPILL Kerosen		NCIDEN	D QUA	NTIT serie Spill			Richmond TAKENRichmor	LOCATIOI Chri nd F.d. Set Tank	stmas Hill Rd RESP PART
EA. RO		D SPILL Gasoline		R 1997WM		Accident	G		Richmond TAKENNo Odor	LOCATIOI 1-89 On Side Rd Of Soil	s, RESP PARTPov
		D SPILL Anhydro		NCIDEN		NTTT pressor Le	ak		Richmond	LOCATIOI Of Waste To Be	来 RESP PARTRichmond
		D SPILL Used O		R 1997WM		NTIT 10 zie Fell Wh			Richmond		bins Mountain Road d RESP PARTNorthern Coal
EA			NUMBER	R 1998WM		ANTIT took on wat	er		Richmond	LOCATIOI E M ecide to pull tank or	ain St RESP PARTCatherine Coggi
		D SPILL lime and		NCIDEN	ID QU/ T TYFfloor	ANTIT 160 ded basemo) p ent		Richmond	LOCATIOI 6 Ba	aker St RESP PARTA Schweitzer
		D SPILL keroser		R 1998WM		ANTIT 1 I during tan	g k fill		I Richmond I TAKENRP to ex	LOCATIOI 52 h	North Ave RESP PARTMr Bombard
EAI		D SPILL gasoline		R 1998WM		ANTIT 7 accident	g		Richmond	LOCATIOI MM	
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) 16-{	han ±-200	Vermo 12	ont Haz	ardous S	Spills					
real PR(R ANI	D SPILL I diesel	NUMBER	1999WMD INCIDENT T	QUANTIT 2 YReaking build			Richmond TAKENFD padded	LOCATIOI 99 Mi . No evidence of	
				1999WMD	QUANTIT YFspill on high			Richmond TAKENSand sprea	LOCATIOI Gov F ad . No runoff off	Peck Road RESP PART
rej PRI		D SPILL I diesel	NUMBER	1999WMD	QUANTIT Yfleaking fuel			Richmond TAKENNo product	LOCATIOI I-89 off asphalt.	RESP PARTHarvey and Co
		D SPILL I motor oil		1999WMD	QUANTIT YPtruck accide			Richmond TAKENRichmond	LOCATIOI MM 7 & Bolton FD on	3 KESP PARTPolestar
		D SPILL I heating o		NCIDENT 1	QUANTIT YFUnderground	100 g d tank		Richmond TAKENUST pull so	LOCATIOI Espla	nade St RESP PARTTown Of
Æ/ PRO	AN י סטני	D SPILL diesel fu	NUMBEF el	NCIDENT T	QUANTIT Yffruck accide			Richmond TAKENE P and S	LOCATIOI John on site. No impact	nie brook rd RESP PARTRollex Transport
		D SPILL Diesel F		R 2000WMD	QUANTIT Tyfleak along h	150 g lighway		Richmond TAKENFD sanded	LOCATIOI and padded. EP	業 RESP PARTHarris Transport
		D SPILL kerosen		R 2001WMD	QUANTIT TYFabove grour	200 g nd tank		Richmond TAKENFuel deale		ower Circle, Rivervi
	AN		NUMBER	R 2001WMD	QUANTIT TYFabove grour			Richmond TAKENTenant use	LOCATIO: 3103 ed sump to drain	Huntington Rd RESP PARTAlison Anand
/E/I PR(D SPILL diesel ar	NUMBER nd	R 2001WMD	QUANTIT TYFexcavator of			Richmond TAKENRichmond	LOCATIOI Rt 2 FD response.	RESP PARTRobert Lian
		D SPILL hydrauli		R 2001WMD	QUANTIT FYFhydraulic lin			Richmond TAKENGMP clear	LOCATIOI Wes n up. 2-3 yds	t White Hill Rd RESP PARTGreen Mtn Powe
'EA 'RC	K AN	D SPILL #2	NUMBE	R 2001WMD	QUANTIT TYRank overfill			Richmond TAKENSpill to gra	LOCATIOI 164 Ivel driveway. EP	River Rd RESP PARTPatterson Fuels
'EA 'RC	AN UC	D SPILL various	NLIMBEI solid	R 2001WMD	QUANTIT TYFdumping so	lid		Richmond TAKENCalled EE	LOCATIOI East O Klausenberg to	
'EA 'R(D SPILL #2	NUMBEI	R 2001WMD	QUANTIT TYFAST overfill	10 g		Richmond TAKENRP hired T	LOCATIOI 910 win State for clear	Cochran Rd n RESP PARTPatterson Fuels
		gaSOLI		R 2002WMD	QUANTIT TYFspill during	10 G delivery	ACTION	Richmond TAKENJ P Noona	LOCATIOI Rt 2 In hired Clean	RESP PARTY P Noonan
'EA	AN	ID SPILL motor of	NUMBE	R 2002WMD	QUANTIT TYRruck accide			Richmond TAKENFD respor	LOCATIOI Acce ise. Padded. EP	ess Rd RESP PARTCovenant
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Drnhan RCRA Manifests

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SLACK LAB			-			550001070V	
<u>PA 1</u>	ADDRESS	SUBSTANCE	<u> 2UANTITY</u>	<u>UNITS</u>	DATE	DESCRIPTION	TOWN
7T5()001479	1 MILLET STREET	FIXER	55	G	11/25/95	Silver	RICHMOND
rT5000001479	1 MILLET STREET	FIXER	55	G	11/29/99	Silver	RICHMOND
ግንበ 1479	1 MILLET STREET	FIXER	55	G	4/27/97	Silver	RICHMOND
TSI 1001479	1 MILLET STREET	LIQUID FIXER	55	G	9/2/99	Silver	RICHMOND
rtsiuu001479	I MILLET STREET	FIXER	55	G	8/1/95	Silver	RICHMOND
rT5000001479	1 MILLET STREET	FIXER	55	G	12/21/98	Silver	RICHMOND
T5(1001479	1 MILLET STREET	FIXER	55	G	3/16/96	Silver	RICHMOND
'T50 001479	1 MILLET STREET	FIXER	55	G	3/5/97	Silver	RICHMOND
"T5000001479	1 MILLET STREET	FIXER	25	G	8/28/95	Silver	RICHMOND
T50-1001479	1 MILLET STREET	FIXER	55	G	6/24/96	Silver	RICHMOND
"T5(1001479	I MILLET STREET	FIXER	55	G	10/14/96	Silver	RICHMOND
"T56.J001479	1 MILLET STREET	FIXER	55	G	12/3/96	Silver	RICHMOND

maximum of 20 records are shown for each RCRA Manifest generator. More than 20 may exist for those sites.

Drphan RCRA Generators

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ACILITY NAME	FACILITY STREET	TOWN	EPA ID#	PHONE	STATUS
ACI' VB	1 MILLET ST	RICHMOND	VT5000001479	802-434-2261	Conditionally exempt generator
OEN SOLID WASTE DIST RICHMON	83 OLD DUMP RD	RICHMOND	VTR000013763	872-8100	
MBERLAND FARMS #4016	CNR MAIN & BRIDGE ST	RICHMOND	VTR000502724		Conditionally exempt generator
FFCI AUTO SALES	DEPOT ST	RICHMOND	VTR000007245	802-434-4404	Conditionally exempt generator
ORAL JIL CORP SS GH8	US RTE 2 & 189	RICHMOND	VTD988369997	512-493-8244	Conditionally exempt generator
BRIENS AUTO	64 HUNTINGTON ROAD	RICHMOND	VTR000500843	434-2849	Conditionally exempt generator
ILS TO BODY	MULLETT ST	RICHMOND	VTD981213382		Small quantity generator
CHINGIND CHEESE CO	JOLINA CT	RICHMOND	VTD002084770	434-2103	Conditionally exempt generator
JUTHANORTH-MILTON	US RTE 2	RICHMOND	VT5000000513	802-434-4719	Conditionally exempt generator
ASH IN SERVICE CENTER	83 HUNTINGTON ROAD	RICHMOND	VTR000005579	802-434-3940	Conditionally exempt generator

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Former Saputo Cheese USA



Former Saputo Cheese USA



Photo #3: One interior area of facility.



Photo #4: Drum and vat containing waste oil.

Former Saputo Cheese USA







Photo #6: Above ground storage tank.





Photo #8: Miscellaneous trash near railroad.



Heindel and Noyes P.O. Box 64709 Burlington, Vermont 05406-4709

 Consulting Hydrogeologists • Engineers

• Environmental Scientists

802-658-0820 Fax 802-860-1014

ENVIRONMENTAL QUESTIONNAIRE

(for use on H&N Phase I Environmental Site Assessments) (Client Confidentiality Guaranteed)

> Prepared by: Heindel and Noyes

> > (H&N)

H&N Interviewer	Wendy Shellito
Person being interviewed	Chantel Dignard
(name and telephone number)	514-328-8662 (Quebec)
Representing:	
	Saputo Cheese USA
(Organization, address)	Bridge Street Richmond, VT
Others present:	
Date of interview:	_10/29/02
Interview method:	In person By telephone



Consulting Hydrogeologists
Engineers

Environmental Scientists

802-658-0820 Fax 802-860-1014

ENVIRONMENTAL QUESTIONNAIRE (for use on H&N Phase I Environmental Site Assessments) (Client Confidentiality Guaranteed)

Heindel and Noyes interviewer		Wendy Shellito	uraj la torff		
Person being interviewed		Chantal Dignard			
Date of interview		10/29/02			
Format of interview		In person	By telephone		
I. BAC	KGROUND INFORMATION				
1. Address of Facility		644 Bridge Street			
		PO Box 242			
		Richmond, VT 05477			
(Telephone)		802-434-2185 - no longer in use			
2.	If there is a person(s) responsible for environmental management of the site, please list name, address, telephone number(s).				
	Saputo, Inc., Environmental Affairs Department				
	6869 Metropolitan Blvd. East, St. Leonard, Quebec H1P 1X8, 514-328-8662				
3.	Are any of the following features present on site: wetlands, rivers, streams, springs, drinking water wells, water intake, and discharge structures, landmarks, flood plains, etc.). Attach a plot plan if available.				
	No				
			Anno 1997		
4.	its structures) and each of its operations or processes.				
	At least 35 years (operation at the facility - 50 years).				

5. List all known former uses of the property (including facilities).

Cheese manufacturing facility (30 years)

6. Does any person, firm, or corporation, other than the owner, occupy the site or any part of it? If yes, identify them and describe their use of the property.

No

7. List any known sites, releases, or unpermitted discharges at or within one mile of the subject property and include applicable incident reports and the results of any investigations.

We had an ammonia leak from a cracked compressor of the refrigeration system. The compressor was immediately repaired. The leak was reported to authorities.

8. Has the facility ever been the subject of any enforcement actions by any federal, state or local government entities, or does the facility have knowledge of any contemplated enforcement actions? If so, list with a description of each event.

The facility was not subject to enforcement actions.

 Is the facility now under any state, federal or local agency orders or consent decrees? If so, describe.

No

II. SOLID AND HAZARDOUS WASTES:

10. Does the facility generate any wastes? If so, list the wastes and provide the facility's EPA (or State) identification number.

Presently no wastes are generated. Prior to closure, the facility generated liquid effluent from its process and solid waste (i.e. packaging wastes. Cardboard).

11. Describe the facility's non-hazardous wastes. How are these wastes handled/disposed? Who handles/disposes of these wastes?

Prior to closure, the liquid effluent was discharged to the Town of Richmond wastewater treatment plant. The solid waste, to our knowledge, was removed by the town of Richmond.

12. Is the subject property part of a Superfund site and has the facility been named a potentially responsible party?

No

13. Describe RCRA permit status of any treatment, storage, or disposal facilities.

No RCRA permit.

14. Have any of the facility's solid or hazardous wastes been analyzed? If so, attach appropriate results.

No - N/A

15. Identify the transporter of any hazardous wastes.

Prior to closure, the only waste that may have been classified as hazardous is the used oil. We do not recollect the name of the transporter.

16. Identify the hazardous waste disposal or treatment facilities which receive the facilities wastes.

N/A

17. Does the facility treat or dispose of any wastes on site?

Prior to closure, the facility pretreated their liquid effluent. The systems consisted of pH control and aeration in an above ground horizontal silo.

18. Does the facility accumulate and store any hazardous wastes on site for disposal? If so, identify the substance, the quantity stored, and describe how it is stored.

Prior to closure, used oil was stored onsite. We do not recollect the amount and method of storage.

19. List materials used, stored, or produced on site which require notification under Title III of SARA.

Chemicals which would have been stored onsite were nitric acid, phosphorous acid, nitrates, poneocyacetic acid and ammonia. However, we did not attain the thresholds for reporting a Form R.

III. SURFACE WATER/WATER QUALITY/DISCHARGE

20. How does the facility dispose of sewage (pipe to a municipal treatment plant; on-site septic system; off-site community septic system; or other). Describe in detail.

Prior to closure, the wastewater was discharged into a horizontal pretreatment tank. Chemicals were injected into the tank to control pH and we had an aeration system.

21. Identify all permits at the facility relating to all facility discharges to water, including discharges of waste water, process water, contact or non-contact cooling water, storm water, floor drains, and discharges to underground injection wells.

Prior to closure, authorization to discharge to the Town of Richmond wastewater treatment plant. Pre-treatment discharge permit No. 3-0396, it's currently inactivated.

22. Has anyone analyzed the groundwater at or around its facility? If so, review all analytical results.

No

23. Describe the storm sewer or storm runoff system in use on the subject property.

Cannot recollect.

24. Have any questionnaires have been completed and submitted to any federal, state or local agencies relating to water, including industrial pre-treatment questionnaires? Review questionnaires.

Yes, permit application form WR-82 was submitted to the state on December 22, 1998.

25. Is any waste deposited in or near surface or groundwater? If so, describe in detail, including not only the receiving water's classification, but a description of the type and quantity of the wastes.

N/A

26. Review copies of the Facility's Discharge Monitoring Reports for the last two years, if the facility is required by regulation to complete such reports.

We do not have 2 years of reports on hand.

IV. <u>AIR</u>

27. Are there any air emission sources that emit contaminants from the facility? If so, describe each such source, including whether it is a stationary combustion installation, process source, exhaust or ventilation system, incinerator, or other source.

Prior to closure, the facility operated a boiler.

28. Are any of the emission sources permitted? If so, review each permit.

No

V. SPILLS AND UNDERGROUND STORAGE TANKS

29. List and describe the details and locations of all above and below ground storage tanks used to store petroleum or gasoline products, or other chemicals or wastes, including the contents and capacity of each tank. Include information on former tanks, as well. Distinguish between former (pulled) tanks, existing unused tanks, and existing active tanks.

Tank Characteristics	Tank #	Tank #	Tank #
Owner		ne na ov transfer a mangement i ne oden	
UST/AST	AST	AST	
Location	Outdoors	Outdoors	6
Age	?	~ 20 years	
Volume (gallons)	?	18,000 gallons	
Status (or date removed)	May have been out of use - removed?	May have been removed	
Contents	#6 fuel oil	Propane	
Material of construction	Steel	Steel	
Protection/detection system	No	No	
Test/leak history	?	?	ann dan da mainn an ann an ann an ann ann ann ann an
Distance up/downgradient	?	?	
Photograph numbers and directions	?	?	

Storage Tank Listing, Including Former Tanks

30. List <u>all</u> permit numbers for underground storage tanks on site, even if they are not now in service, and state whether any notification has been filed with the local, state or federal government concerning existence of those tanks.

N/A

31. Have there been any leaks, spills, releases, or other discharges associated with any of these tanks (existing or former)? If so, give full details, including the response taken and all analytical results or reports developed through investigation (whether internal or external), and the agencies which were involved.

Not to my knowledge.

VI. POLYCHLORINATED BIPHENYLS ("PCBs")

32. Review any records the facility has concerning any on-site PCBs or PCB equipment, whether produced as a by-product of a manufacturing process or otherwise. (PCBs are generally associated with transformers, capacitors, circuit breakers, voltage regulators, switches, cables, hydraulic equipment, pneumatic equipment, heat exchange equipment, or hydraulic elevator lifts).

N/A
H&N Interviewer: Wendy Shellito Person being interviewed: Date of Interview: 10/29/02 Page: 6

33. Have there been any known PCB spills, discharges, or other accidents? If so, describe all the circumstances.

N/A

VII. ASBESTOS

34. Does the facility contain any known asbestos containing materials? If so, list and differentiate between friable and non-friable ACMs.

There has not been any investigation to my knowledge for ACMs. However, due to the age of the building, it is likely.

VIII. <u>OTHER</u>

35. Describe the use and disposal of pesticides on the subject property by type.

N/A

36. Describe any pesticide manufacturing which takes place on site.

.

None

 Describe any radioactive materials/wastes, pathogenic wastes, etc., and how they are handled/ disposed of.

None

38. Describe all known utilities on the subject property.

Water:	City water from Richmond
Sewer:	Town of Richmond wastewater treatment plant
Electric:	X
Natural gas:	Cannot recall
Telephone:	X
Other:	

IX. <u>RECORDS</u>

39. Are there plans, drawings, specifications, etc. available which report the configuration of the facility? List locations and describe the accuracy of such documents.

Plant layout attached.

H&N Interviewer: Wendy Shellito Person being interviewed: Date of Interview: 10/29/02 Page: 7

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40. Describe the facility's environmental record retention policy.

At the time, environmental records were kept at the site in the main offices.

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WENDY SHELLITO

Heindel & Noyes

Education

B.A. in Geography, Worcester State College, Worcester, MA 1999

Employment History

Heindel & Noyes (September 1999 - present)

Relevant Experience

Environmental:

- Flood determinations
 - Use of E911 GIS databases and GIS FEMA floodplain data
 - QA/QC of GIS FEMA floodplain data
 - Checking for current and stable E911 data
 - Marketing of GIS flood determination process to lending institutions
- Phase I Environmental Site Assessments
 - Grounds and facility reconnaissance to assess potential environmental hazards in commercial, industrial and residential settings
 - Data interpretation pertaining to site monitoring regarding hazardous waste sites
 - Report writing in accordance with American Society of Testing Materials (ASTM) Standards

Research:

- Data maintenance
 - Hazardous Waste Data and Water Supply Data collection from the State of Vermont to be incorporated into GIS mapping system
 - Historical research capabilities for property ownerships and land use history
 - Research analysis for Phase I ESA report writing
 - Maintenance of in-house library, consisting of all reports and letters of correspondence for the company, and establishing linkage of library to GIS system
- Data collection from various state agencies across New England for data analysis and integration to ArcView GIS system
- Digitizing using ArcView and AutoCad software

Additional Training

Software proficiencies:

ArcView, MS Word, Excel, Access, Adobe Photoshop, Adobe Acrobat Scanning, Adobe Acrobat Exchange, AutoCAD, SPSS Software

Education

M.S., Geology, University of Vermont B.S., Geology, University of Vermont

Additional Advanced Study

- Remediation of Chlorinated and Recalcitrant Compounds, Monterey, California (2002)
- In Situ and On-Site Bioremediation, San Diego, California (2001)
- Petroleum Hydrocarbons and Organic Chemicals In Groundwater, Battelle (1999)
- Monitored Natural Attenuation and In Situ Remediation of Ground Water (1999)
- DNAPLs in Fractured Geologic Media: Behavior, Monitoring and Remediation (1997)
- National Water Well Association Outdoor Action Conference (1997)
- Petroleum Hydrocarbons and Organic Chemicals in Groundwater: Prevent, Detection and Remediation Conference (1996)
- DNAPL Site Diagnosis and Remediation (1995)
- Dissolved Organic Contaminants in Groundwater, Innovative Technologies for Site Characterization in Plume Remediation (1995)
- Petroleum Hydrocarbons and Organic Chemicals in Groundwater, Prevention, Detection, and Remediation Conference (1994)
- Application of Health Risk Assessment for Environmental Decision-Making (1994)
- Understanding Migration, Assessment, and Remediation of Non-Aqueous Phase Liquids (1993)
- Battelle Symposium on Bioremediation Techniques (1993)
- In Situ Soil Remediation Techniques, University of Wisconsin (1992)
- Migration and Remediation of Dissolved Organic Contaminants in Groundwater (1992)
- Petroleum Hydrocarbons and Organic Chemicals in Groundwater, Conference (1991)
- Bioremediation Engineering, General Physics Corp. (1991)
- Battelle Symposium on Bioremediation Techniques (1991)
- Geochemistry of Natural and Contaminated Groundwater (1991)
- Effective Techniques for Contaminated Groundwater Treatment (1990)
- Hazardous Waste Site Workers, Basic Health and Safety Course (40-hour course), New England Consortium (most recent certification: July 1990)
- Design of Water Quality Monitoring Network in the Vadose Zone (1986)
- Modeling Pollutant Movement in Groundwater (1983)
- Aquifer Restoration and Groundwater Monitoring (1982)
- Field Methods in Contaminant Hydrology (1981)
- Groundwater Analysis and Design of Dewatering System (1980)
- Design of Groundwater Monitoring Network (1979)
- Groundwater Pollution Hydrology (1977)

Employment History

- President and Chief Hydrogeologist, Heindel and Noyes (1980-Present)
- Groundwater Hydrologist/Environmental Engineer, State of Vermont (1978-80)
- Lecturer-Hydrology, University of Vermont (1978-80)
- Engineering Geologist, D'Appolonia Consulting Engineers (1975-78)
- Hydrogeologist, Environmental Associates (1972-75)

Relevant Experience

Hydrogeology. Directly involved in the implementation and supervision of over 1,500 geologic, groundwater, water resource, and contaminant hydrology investigations through the northeastern United States (1980-2002).

Instruction. Instructor in graduate level groundwater hydraulics seminar course at the University of Vermont. Course trained practicing professional engineers and graduate students in engineering and geology (1978-80).

Groundwater Hydrology. Groundwater hydrologist for State of Vermont, responsible for research and development activities in high capacity and conventional on-site disposal systems. Responsibilities also included acting as in-house hydrogeologic consultant throughout State government (1979-80).

State of Vermont Landfill/Hazardous Waste Program. Lead technical staff person for State of Vermont landfill/hazardous waste program. Assisted in the development of state and federal landfill regulations. Reviewed and/or direct supervision of hydrology investigations for more than 50 existing landfill/hazardous waste disposal areas. Designed and installed water quality monitoring networks at numerous waste disposal sites (1978-79).

Hazardous Waste Disposal Site. Field supervision of testing on an existing hazardous waste disposal site in West Virginia. Field investigation included installation of multi-staged water quality monitoring network in and adjacent to the waste facility. Aquifer testing with pneumatic and mechanical packers; water budget analysis (1975-78).

Groundwater Studies. Conducted numerous groundwater studies of active and abandoned waste lagoons for the coal industry. Assessed contamination from heavy metals in coal waste. Participated in groundwater investigations to limit water quality problems related to subsurface drainage of old mine shafts that were contaminating surface water resources. Performed groundwater investigations to establish dewatering schemes for deep slab foundation in active and proposed ore yards on the Great Lakes. Studies involved hydrologic evaluations of Midwestern glacial tills. Also, conducted groundwater studies related to slope stability problems in residual soils (1975-78).

Groundwater Manual. Assisted in the development of groundwater manual for U.S. Environmental Protection Agency (1975-78).

Drainage Schemes. Design and layout of a number of surface water/groundwater drainage schemes. Participated in dewatering aquifer study on Caribbean Island to determine feasibility of dewatering coral bedrock for a nuclear power plant foundation (1975-78).

Geophysical and Wastewater Studies. Numerous geophysical studies of glacial deposits using seismic and resistivity surveys. Aquifer analysis and wastewater studies throughout Vermont (1972-75).

Research Grants and Publications

M.S. Thesis. University of Vermont, Evaluation of Hydraulic Conductivity Tests and Data (1975).

Research for State of Vermont. Evaluation of the Impact of On-Site Disposal Systems on Groundwater Quality (1980).

Regional Hydrogeologic Investigation. Evaluation of the Impact of Septic Tanks on Groundwater at Lake Morey, published by the Vermont Department of Water Resources (1982).

United States Forest Service. Groundwater and Surface Water Hydrology of Bedrock Aquifer and Upland Stream Surrounding the Sugarbush Ski Area (1981).

Disposal Systems and Spray Irrigation. Literature Review of the Effect of On-Site Disposal Systems and Spray Irrigation.

Affiliations and Certifications

- Association of Engineering Geologists
- National Water Well Association, Technical Division
- 40-hour Hazardous Waste Site Workers, Basic Health and Safety Course (most recent certification: July 1990).

Heindel and Noyes

Consulting Hydrogeologists
Engineers

Environmental Scientists

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CORPORATE PROFILE OF HEINDEL AND NOYES LLC

*H***^indel and Noyes, LLC** was founded in 1972 (predecessor firms: Wagner, Heindel & Noyes, Inc. and E vironmental Associates). Through the 1970s and early 1980s, the firm operated as a specialty environmental geology consulting firm, offering hydrogeologic, geophysical, and mapping services. In the r 1-1980s, we substantially increased our consulting portfolio, adding wetland ecology, surface water hyJrology, wildlife ecology, professional engineering, hazardous waste management, water supply development, geochemistry, fisheries, and computer science and graphic services. We currently have a staff o 25.

Ir 1987, we founded an EPA-certified lab (*Endyne, Inc.*) which provides environmental testing services the bughout New England and New York. Endyne offers a full complement of environmental testing of water, soil, and waste materials. Endyne is now an independent laboratory providing core support to Heindel and N yes.

In 1990, we launched **New England Air Quality Testing (NEAQT)**, a full-service consulting group comprised of environmental engineers, chemists, and certified industrial hygienists. NEAQT is a wholly-owned subsidiary of H&N, and operates throughout New England and New York offering indoor air quality testing, s ck testing, and ambient air testing.

Information and Visualization Services (IVS) was founded in 1994. It provides geographic information stem (GIS) analyses, high-end graphics, and computer-aided design and programming services, including 3-D visualizations of buildings, landscapes, and environmental phenomena. IVS has developed a 150gl abyte library of environmental databases covering the states of Vermont and New Hampshire, and also ol.ers Property Screening Services (PSS), a low-cost environmental audit protocol. IVS is a wholly owned subsidiary of H&N, and provides essential and seamless support.

Our newest venture is **Specialty Drilling & Investigation (SDI)**, founded in 1997. We currently own a Simco 2 70 drill rig capable of performing both hollow-stem auger and percussion-hammer-probe soil investigations. apabilities include standard geotechnical boring installations such as split-spoon sampling, Shelby tube sampling, groundwater monitor wells, air-sparging wells, and soil-vapor extraction wells. The drill rig is a completely self-supporting platform, which carries a steam cleaner, clean water supply, monitoring well and sampling materials, allowing us to perform many different jobs with one piece of equipment. We also have experience performing pressure grouting, and can collect discrete-interval groundwater, soil, and gas a ples. A geologist operates our drill rig that has greater than ten years of field experience analyzing geologic depositional environments.

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APPENDIX 6

MAP OF NEARBY VERMONT HAZARDOUS SITES



APPENDIX 7

FACTORY LAYOUT







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