Phase (check one)	Type (check one)
□Initial Site Investigation ☑Corrective Action Feasibility Investigation □Corrective Action Plan □Corrective Action Summary Report □Operations & Monitoring Report	□Work Scope □Technical Report □PCF Reimbursement Request □General Correspondence

Corrective Action Feasibility Investigation for Remediation of Soil and Building-Related Contamination

Former Fonda Group Facility
St. Albans, Vermont
SMS #2008-3777

Prepared for:
Northwest Regional Planning Commission
155 Lake Street
St. Albans, Vermont 05478
Contact: Noah Fishman

Prepared By:
The Johnson Company, Inc.
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Montpelier, Vermont 05602
Contact: Rhonda T. Kay
(802) 229-4600

May 15, 2009

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May 15, 2009

Noah Fishman
Northwest Regional Planning Commission
155 Lake Street
St. Albans, VT 05478

Re: Corrective Action Feasibility Investigation for Remediation of Soil, Groundwater, and Building-Related Contamination at the Former Fonda Group Facility
St. Albans, Vermont
JCO #1-1470-13

Dear Noah,

Please find the attached Corrective Action Feasibility Investigation (CAFI) for the referenced Site. Remedial actions are necessary at this Site due to the presence of polychlorinated biphenyls, semi-volatile organic compounds, metals, and chlorinated solvents in some soil above regulatory limits, chlorinated solvents in some groundwater above regulatory limits, polychlorinated biphenyls in some concrete at concentrations that exceed applicable Toxic Substances Control Act standards, and metals above regulatory limits in surface water inside the building. If they are not addressed, these contaminants may present a risk to human health during and following planned redevelopment activities. Please note, the CAFI must be followed by a Corrective Action Plan (CAP) if you wish to conduct a cleanup at the Site.

Should you have any questions or require additional information, please do not hesitate to contact us at 229-4600. We look forward to your response.

Sincerely,

THE JOHNSON COMPANY, INC.

By: Rhonda Kay
Rhonda T. Kay
Project Manager

C. Matt Becker, VTDEC
Dorrie Paar, US EPA
Jane Kiser, St. Albans Community Development

Attachment
K:\1-1470-13\CAFI\051509 Fonda CAFI Draft.doc

Corrective Action Feasibility Investigation

for

Former Fonda Group Facility Part A
15-21 Lower Newton Street, St. Albans, Vermont

Prepared by: _____ Date: 5/15/09
Joel Behrsing, Vermont P.E. #6070

and by: _____ Date: 5/15/09
Rhonda Kay

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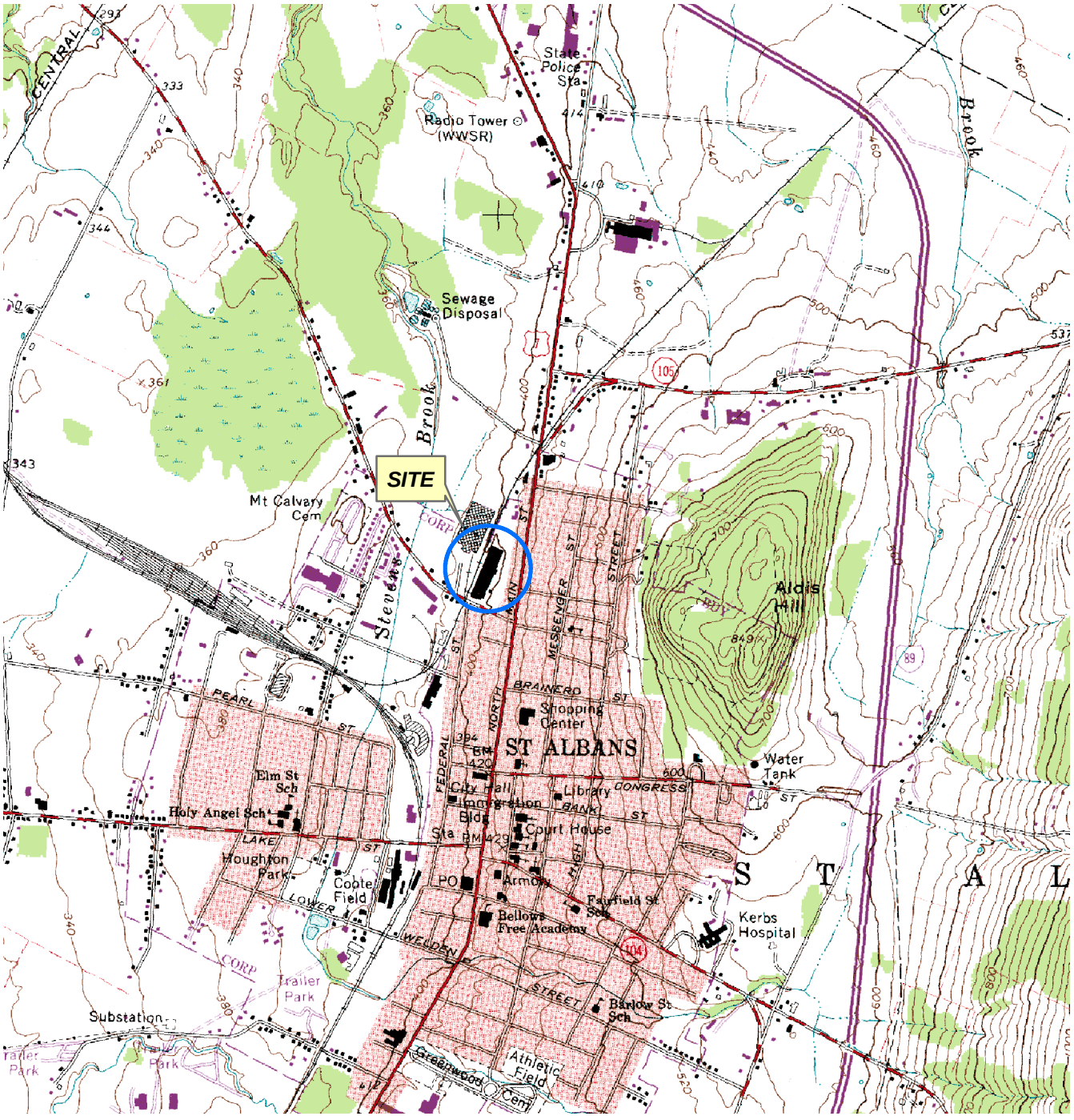
1.0 INTRODUCTION

This Corrective Action Feasibility Investigation (CAFI) was prepared by The Johnson Company, Inc. for the Former Fonda Group Facility located at 15-21 Lower Newton Street in St. Albans, Vermont (the Site; see Figure 1 and Figure 2). The Site is currently owned by the City of St. Albans. The property is composed of a former paper product manufacturing facility, a separate boiler house and storage shed, surrounding parking areas and driveways, and a forested area to the north of the building. Remedial actions are necessary at the Site due to the presence of polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), metals, and chlorinated solvents in some soil above regulatory limits, chlorinated solvents in some groundwater above regulatory limits, PCBs in some concrete at concentrations that exceed applicable Toxic Substances Control Act (TSCA) standards, and metals above regulatory limits in surface water inside the building. At their present concentrations and locations, these contaminants may present a risk to human health during or following planned redevelopment of the Site as a commercial or mixed-use commercial and residential property.

The CAFI includes a discussion of why corrective action is needed, a brief summary of the results of previous investigations, a presentation of potential remedial techniques (including an overview of each technique and discussions of the effectiveness and implementability for the Site), and an analysis of approximate costs associated with each remedial technique.

The objective of the corrective action is to minimize the risk to human health caused by contamination at the Site. The goals of the remediation are as follows: 1) to reduce levels of contamination in soils to below the EPA Region 9 Residential Preliminary Remediation Goals (PRGs) used by the Vermont Department of Environmental Conservation (VT DEC) as soil standards; 2) to reduce levels of dissolved chlorinated solvents to below Vermont Groundwater Enforcement Standards (VGES); 3) to mitigate risk of exposure to concrete with PCB

1-1470-13/GIS/112807 Figure 1.mxd



N

1 0.5 0 1
MILES

1000 0 1000 2000 3000 4000 5000 6000 7000
FEET

CONTOUR INTERVAL = 20 FT

MAP LOCATION

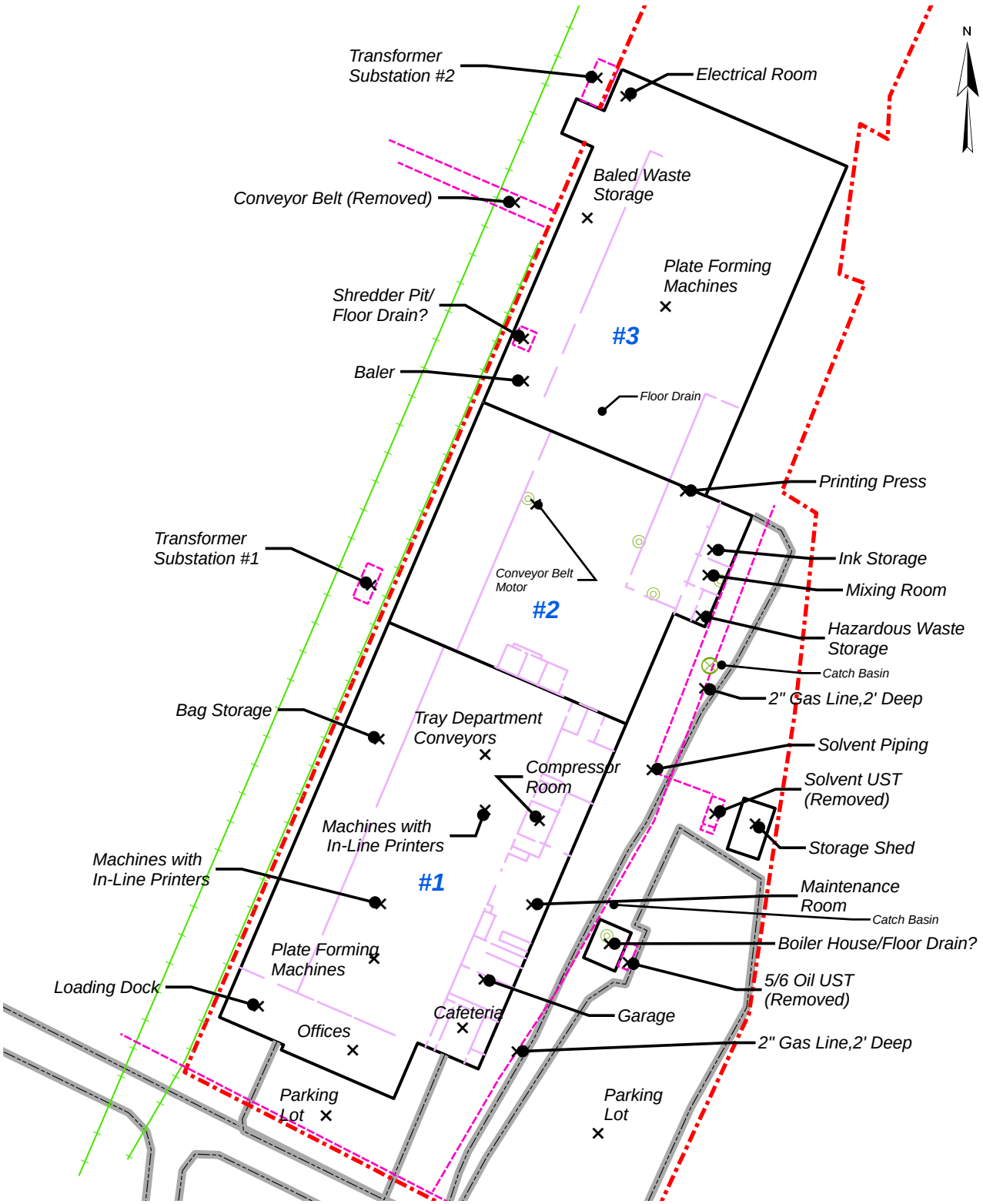
BASE MAP: USGS 7.5 Minute Topographic Quadrangle St. Albans, VT 1987

Figure 1. Site Location Map
Former Fonda Manufacturing
St. Albans, Vermont

The Johnson Company
100 State Street, Suite 600
Montpelier, VT 05602

Drawn by: RTK Date: 04/03/08
Chk'd by: J_B Date: 04/03/08
Scale: 1:24,000 Project: 1-1470-13

1-1470-13/GIS/012208 Site Layout.mxd



Sources: NAIP 2003 Orthophotograph St. Albans NW (4407316_nw) and "Facility Plan: The Fonda Group, Inc., by New England Air Quality Testing, 3/19/01.

Note: All lines are approximate.

Figure 2. Site Layout
Former Fonda Manufacturing
St. Albans, Vermont

The Johnson Company

100 State Street, Suite 600
Montpelier, VT 05602

Drawn by: RTK Date: 01/22/08
Reviewed by: Date:
Scale: 1"=100' Project: 1-1470-13

concentrations that exceed the proposed building use limits under TSCA; and 4) to remove liquids contained in an indoor pit that may contribute to groundwater or soil contamination if released, leaked, or spilled.

Tabular summaries of contaminant concentrations by media and water table elevations are provided in Appendix 2. All sampling locations are shown in Figures 3 and 4. The most recent groundwater elevation contour map is provided as Figure 5.

The sampling data was collected during a single investigation, and, except for one well in the chlorinated solvent release area, could not be used in a time-series summary. In addition, the contaminants at the Site were found in localized areas, and the data points were not sufficiently densely spaced to allow the creation of detailed cross-sections of the contaminant distributions. Consequently, these items have not been included in this CAFI.

Sensitive receptors that are at risk of being affected by existing contamination comprise the following:

- dermal contact with, ingestion and/or inhalation of soil or dust particles impacted by PCBs, PAHs, pentachlorophenol, trichloroethene (TCE), vanadium, and/or lead before, during or after Site redevelopment activities;
- inhalation of soil vapor from VOC contamination beneath the building;
- dermal contact with VOC-contaminated soils and groundwater beneath the building;
- dermal contact with and/or ingestion of cadmium and lead in water contained in the indoor shredder pit.

090308 All PCB Sample Locations.mxd

N

T5-Top
T1-Bott
T2-Bott
MW-11
Pad 2 (N) Soil
Pad 2 (W) Soil
Pad 2 (E) Soil
Pad 2 (S) Soil
MW-7
BUILDING #3
B-2
B-1
MW-6
B-3
MW-5
Ink Stain
Conv-FD
B-5
B-6
B-7
B-8
B-9
B-10
B-11
B-12
B-13
B-14
B-15
PP-FD
LD-2
LD-3
CB-1
MW-2
MW-3
MW-4
MW-10
GW Sample for PCBs
"WH-" Samples
BUILDING #2
BUILDING #1
Storage Shed
"MR-" Samples
MW-1
MW-8
Composited Samples (Map Number shown)
MW-9
Pad 1 (N) Soil
Pad 1 (W) Soil
Pad 1 (E) Soil
Pad 1 (S) Soil

Composited* Bulk Samples (Subslab PCB sample also)
Concrete Wall Sample
Soil PCB Sample
Bulk PCB Sample
PCB Wipe Sample
Estimated Dumping Area

* = Composited sample shown is composed of one sample from each square in the surrounding grid.

Note: All lines are approximate.

80 40 0 80 160
Feet

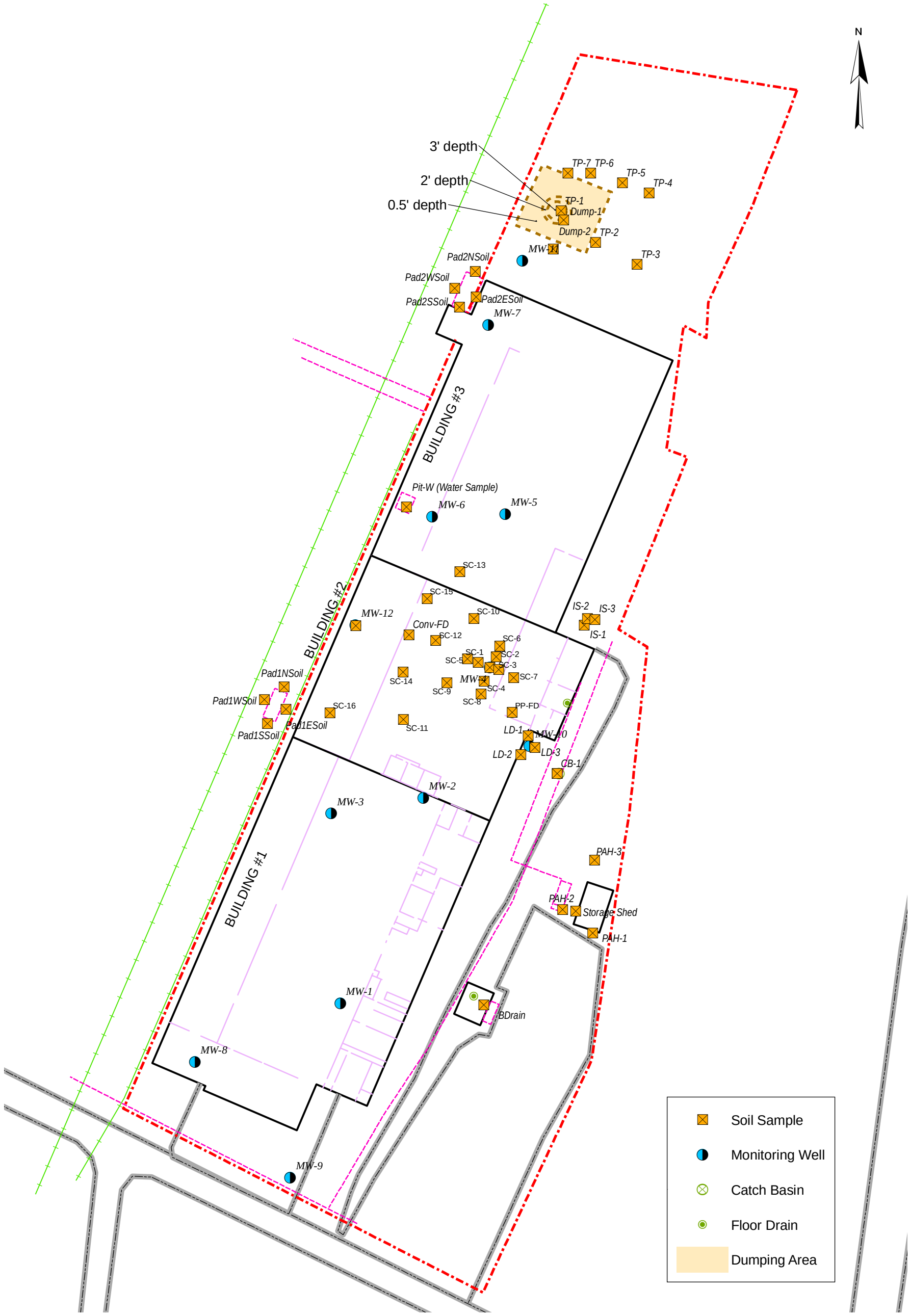
Sources: NAIP 2003 Orthophotograph St. Albans NW (4407316_nw) and "Facility Plan: The Fonda Group, Inc., by New England Air Quality Testing, 3/19/01.

Figure 3. PCB Soil and Concrete Sampling Locations
Former Fonda Manufacturing
St. Albans, Vermont

The Johnson Company
100 State Street, Suite 600
Montpelier, VT 05602
(802) 229-4600

Drawn by: RTK Date: 09/03/08
Chk'd by: Date:
Scale: 1"=80' Project: 1-1470-13

091908 Samplling Locations.mxd



Note: All lines are approximate.

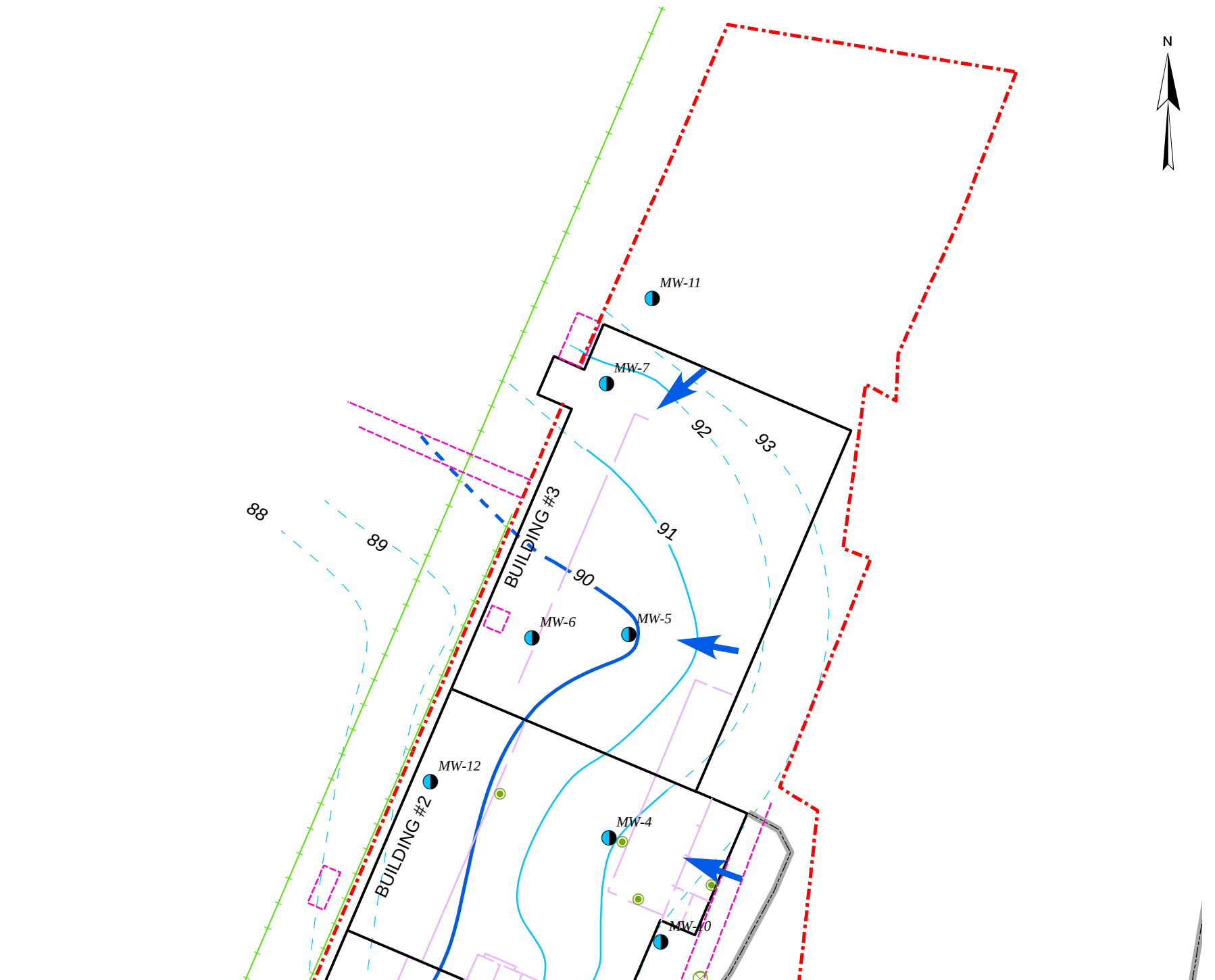
Sources: NAIP 2003 Orthophotograph St. Albans NW (4407316_nw) and "Facility Plan: The Fonda Group, Inc., by New England Air Quality Testing, 3/19/01.
Sample results are preliminary as of 02/05/08.

Figure 4. Sampling Locations (Except PCBs)
Former Fonda Manufacturing
St. Albans, Vermont

The Johnson Company
100 State Street, Suite 600
Montpelier, VT 05602
(802) 229-4600

Drawn by: RTK Date: 09/19/08
Chk'd by: Date:
Scale: 1"=80' Project: 1-1470-13

091808 b GW Contour Map.mxd



Sources: NAIP 2003 Orthophotograph St. Albans NW (4407316_nw) and "Facility Plan: The Fonda Group, Inc., by New England Air Quality Testing, 3/19/01.
Water elevations based on a level survey by The Johnson Company on 02/12/08.

80 40 0 80 160
Feet

Note: All lines are approximate.

Figure 5. Water Table Map- Aug. 2008
Former Fonda Manufacturing
St. Albans, Vermont

The Johnson Company
100 State Street, Suite 600
Montpelier, VT 05602
(802) 229-4600

Drawn by: RTK Date: 09/18/08
Chk'd by: Date:
Scale: 1"=80' Project: 1-1470-13

The Site, which covers approximately 5.5 acres near the northwestern corner of downtown St. Albans, is bounded by Lower Newton Street on the south; residential properties to the east; railroad tracks, the former Fonda warehouse building, and offices to the west; and a commercial property to the north. The building site is level, but the surrounding land slopes down from west to east; as a result, the properties located to the east and a parking lot associated with the Site are situated several feet above the building area. A paved parking lot affords access to the eastern side of the building, and a separate paved area is located along the western side of the building, to the east of the railroad tracks. The building formerly housed the Fonda Group Facility (later Solo Cup), which formed plates from paper stock and printed on the plates. The manufacturing facility closed in late 2005, and the City of St. Albans purchased the property in 2007. The existing building is composed of three parts, each of which is referred to as a building. The southern portion of the facility, called Building #1, is approximately 48,000 square feet, was the first to be constructed and may be subject to a historic preservation agreement if redeveloped using public funding. Buildings #2 and 3, which are approximately 30,300 square feet and 40,000 square feet, respectively, are attached in a line from south to north. Any or all of Buildings #1, 2, or 3 may be renovated or be demolished, depending on the future redevelopment needs. There is also currently a vacant, treed area on the northern end of the property. People using the public parking lot may be affected by the cleanup of contaminated media at the Site. Presently, the building is vacant, and efforts are being made to limit access to the building, and those that do enter, including utility meter readers and firemen who inspect the sprinkler system, are warned of the presence of PCBs in concrete dust on the floor and are asked to wear the supplied Tyvek protective boot covers while inside the building. A list of interested, threatened, or impacted third parties, including contact names, locations, addresses and phone numbers is provided in Appendix 1.

2.0 INVESTIGATION EXECUTIVE SUMMARY

The Johnson Company was contracted by the Northwest Regional Planning Commission (NRPC) of St. Albans, Vermont to perform Phase II Environmental Site Assessment (ESA) activities at the Former Fonda Group Facility site located at 15-21 Lower Newton Street in St.

Albans, Vermont (the Site). The Site is currently owned by the City of St. Albans and formerly housed a paper products manufacturing and printing facility, but the building is now vacant. NRPC is utilizing United States Environmental Protection Agency (EPA) grant money to assess environmental conditions at the Site and thus assist in its redevelopment. The Phase II ESA (JCO, 2008) followed a Phase I ESA report prepared by The Johnson Company on December 11, 2007. The Phase II Environmental Site Assessment included sampling for metals, PCBs, VOCs, and SVOCs. The results of the investigation are summarized below. The areas of concern are illustrated on Figure 6.

2.1 OVERVIEW

The results of the ESA indicate that many of the compounds tested in soil and groundwater at the Site are not of significant concern. These compounds include VOCs in most soil and most groundwater, SVOCs in most soils and all groundwater, and most metals in soils and groundwater. Except for chlorinated solvents in soil and dissolved in groundwater beneath Building #2, no evidence of gross contamination in soils or groundwater was observed during the investigation.

PCBs, some metals, TCE, and some SVOCs were detected above regulatory limits in some media at the Site. These constituents of concern are discussed below. Figure 6 depicts the areas of concern for these analytes.

2.2 PCBS

Inside the building, PCBs were determined to be present above the TSCA regulatory limit of 1 part per million (ppm) in the concrete slab in two general areas: inside the manufacturing area (where some printing presses were used), warehouse, and maintenance room in Building #1; and in the Printing Area on the eastern side of Building #2, which formerly housed a large printing press, ink mixing room, and hazardous waste storage areas.

091908 Summer AOCsl.mxd

Note: All lines are approximate.

Sources: NAIP 2003 Orthophotograph St. Albans NW (4407316_nw) and "Facility Plan: The Fonda Group, Inc., by New England Air Quality Testing, 3/19/01.

Figure 6. All Areas of Concern- Summer 2008
Former Fonda Manufacturing
St. Albans, Vermont

The Johnson Company
100 State Street, Suite 600
Montpelier, VT 05602
(802) 229-4600

Drawn by: RTK Date: 10/30/08
Chk'd by: Date:
Scale: 1"=80' Project: 1-1470-13

2.2.1 *PCBs in Building #1*

These results indicate that there is a total area of approximately 25,000 square feet of concrete slab in Building #1, including the manufacturing floor, Warehouse, and Maintenance Room, that contains surficial PCB concentrations between 1 and 10 ppm. Within this area, approximately 15,000 square feet are located in the manufacturing area, approximately 8,000 square feet are in the Warehouse, and approximately 1,700 square feet are located in the Maintenance Room. In one of the sampling stages, samples were composited from four quadrants and the results were multiplied by four to obtain the most conservative ("adjusted") results. According to the adjusted results, the area of concrete in Building #1 containing PCBs at concentrations between 10 and 50 ppm is approximately 6,200 square feet, and an additional 1,660 square feet contains PCBs at concentrations above 50 ppm. In total, the area of concrete containing more than 1 ppm of PCBs is approximately 32,800 square feet. In Building #1, the average concrete thickness is approximately 0.7 feet; therefore, the total volume of concrete containing more than 10 ppm of PCBs is approximately 204 cubic yards (161 cubic yards between 10 and 50 ppm, and 43 cubic yards above 50 ppm), excluding the Warehouse and the Maintenance Room. In Building #1 the total volume of concrete with PCB concentrations between 1 and 10 ppm, is estimated at 640 cubic yards. Of this total the volume of concrete inside the Warehouse with PCB concentrations between 1 and 10 ppm is estimated at 207 cubic yards and in the Maintenance Room, approximately 44 cubic yards.

2.2.2 *PCBs in Buildings #2 and 3*

The area of concrete associated with the Printing Area containing PCBs at concentrations between 1 ppm and 50 ppm is approximately 9,000 square feet (4,000 square feet outside the Printing Area and 5,000 square feet inside the Printing Area). The average concrete thickness in Buildings #2 and 3 is approximately 0.7 feet, and the thickness inside the Printing Area is approximately 1.2 feet; therefore, the total volume of concrete with concentrations between 1 and 50 ppm that would be disposed of from area associated with the Printing Area in Buildings #2 and #3 (if the entire slab is removed) is approximately 326 cubic yards. There is an additional

1,600 square feet of concrete containing PCBs at concentrations above 50 ppm inside the Printing Area, resulting in a demolition volume of 71 cubic yards.

It is assumed that in the printing room, the entire length of the southern wall and the southern section of the western wall (a total of 78 linear feet) may be contaminated with PCBs between 1 and 50 ppm. Using the 7 foot height, this results in an area of 546 square feet, and a volume of approximately 13 cy (assuming the wall is constructed of standard concrete masonry units), and a mass of 13 tons. It is assumed that all of the walls of the hazardous waste storage room are contaminated with PCBs at concentrations above 50 ppm. These walls have a total linear length of approximately 67 feet, and an area (using a height of 7 feet) of 469 square feet. The resulting volume and mass of the masonry walls contaminated with PCBs above 50 ppm is 11 cubic yards and 11 tons.

PCBs were also present at levels significantly above the EPA Region 9 Residential PRG in the area between the hazardous waste storage area loading platform and the eastern exterior wall of Building #2, in the vicinity of monitoring well MW-10. The estimated area of impacted soil and asphalt is approximately 470 square feet. Assuming an average depth of contamination of 2.5 feet, the corresponding estimated in-place volume of impacted soils is 44 cubic yards. It is assumed that approximately half of these soils contain PCBs at concentrations above 50 ppm.

The floor drain located in the Printing Area's printing press room contained materials with a PCB concentration of 0.8 ppm, which exceeds the Region 9 Residential PRG. It is also anticipated that the floor drain in the ink mixing room, which was filled with sediment but not sampled, also contains PCBs at a similar level. In total, these floor drains are estimated to contain 0.02 cubic yards of sediment.

2.2.3 PCBs in Transformer Areas

Both transformer substations on the western sides of Building #2 (Pad 1) and Building #3 (Pad 2) are currently active with in-service transformers. The transformers at Pad 1 are owned

by CVPS and do contain PCBs, whereas the transformers at Pad 2 are the property of the building owner, and also do not contain PCBs above regulatory limits. According to information in a previous report, the oil in transformers at Pad 2 was replaced with non-PCB containing oil in 2002. The concrete at Pad 1 could not be sampled during this investigation for safety reasons, but the soil surrounding the concrete pad was sampled at both Pads 1 and 2, and since there was more room between the energized transformers and the fence at Pad 2, bulk concrete samples were collected from that concrete pad. PCBs were present above regulatory limits for residential soil in one soil sample collected from the southern edge of Pad 2. The estimated area of PCB impacts is 250 square feet on the southern and eastern side of the Pad 2. If the depth of contamination is estimated at 1 foot, the total in-place volume of PCB-impacted soils in this area is approximately 9 cubic yards.

2.3 METALS

Based on the findings from hand-excavated test pits, the main dump area is estimated to be a 22 by 24 foot oval (approximately 400 square feet, with the wider portion oriented east to west) centered on test pit T-1. The trash in the dump area appeared to be deeper in the center portion (approximately 3-feet below ground surface, b.g.s.) and shallower towards the edges (approximately 2-feet b.g.s.). In addition to the main dump area, a 54 foot by 62 foot area (3,350 square feet) surrounding the main dump area contains scattered surficial solid waste debris, primarily broken glass, bricks and cinder blocks, at a depth of less than 6 inches. Accounting for the various depths across the dump area, the total volume of trash requiring removal is approximately 66 cubic yards. The highest concentration of lead in any of the dump samples was 1,000 mg/kg.

Vanadium was also detected at a concentration that exceeds the Residential PRG in the MW-10 (0-1') sample. As discussed above, this area also contained elevated PCBs, and an initial estimate of the in place vanadium and PCB-affected soils is 470 square feet, or 44 cubic yards.

The floor drain located beneath the conveyor belt in Building #2 contains sediment with a concentration of lead (610 mg/kg), which exceeds the Region 9 Residential PRG. It is also possible that the other floor drain that is located in the manufacturing area of Building #2, on the western side of the Printing Area wall, may also contain an elevated lead concentration (this floor drain was not sampled). In total, it is estimated that the volume of lead-contaminated soils in these floor drains is approximately 0.02 cubic yards.

The standing water in the shredder pit contained cadmium (0.006 mg/L) and lead (0.019 mg/L) concentrations that were above the VGES levels. It is estimated that the shredder pit currently contains approximately 650 gallons of standing water, though this volume may change due to evaporation and/or leaks in the roof.

2.4 VOCS

The area of shallow soils (to a depth of 3.5 feet) impacted by TCE at levels above 0.053 mg/kg (the previous EPA Preliminary Remediation Goal, which is currently used as a soil standard by VT DEC) is estimated at 13,200 square feet, which results in an in-place volume of 1,711 cubic yards, or 2,567 tons (at a density of 1.5 tons/cubic yard). The area of deep soils (between 3.5 and 8 feet b.g.s.) impacted by TCE above the 0.053 mg/kg screening level is approximately 9,800 square feet, which results in an additional soil volume of 1,633 cubic yards, or 2,450 tons. In total, there are 3,344 cubic yards, or 5,017 tons, of soil below Building #2 that contain TCE concentrations above 0.053 mg/kg.

The TCE contamination in soils appears to be impacting groundwater and likely represents a residual source for dissolved contamination in groundwater over time. Although no TCE was reported in the groundwater sample from monitoring well MW-4 collected in the winter, the TCE concentration was above the VGES in the summer round (at 7 ug/L). In addition, a groundwater sample from monitoring well MW-12, which was installed downgradient of the soils containing elevated TCE, contained a TCE concentration of 190 ug/L and a concentration of cis-1,2-dichloroethene (cis-DCE) of 2,100 ug/L. The VGES limits for

TCE and cis-DCE are 5 ug/L and 70 ug/L, respectively. The presence of a TCE breakdown product (cis-DCE) in groundwater indicates that some anaerobic biodegradation is occurring. However, chlorinated solvents in groundwater have the potential to migrate extensively downgradient and can impact the indoor air quality in buildings located near or downgradient of the source area.

2.5 SVOCS

One semi-volatile organic compound (SVOC) in the polynuclear aromatic hydrocarbon (PAH) range, namely benzo(a)pyrene, was detected in the MW-8 (0-1') soil sample at a concentration above the EPA Region 9 Residential PRG. However, the soil at this location is currently covered with asphalt, which may be the source of this elevated PAH concentration, and is currently mitigating contact and dust inhalation/ingestion risks to Site users.

Several PAH compounds were also detected in the sample collected from the floor drain beneath the conveyor (Conv-FD) above their Region 9 Residential PRG levels, including benzo(a)anthracene at 8.0 mg/kg (PRG is 0.62 mg/kg). The estimated volumes of PAH contaminated soils or sediments in the Conv-FD floor drain is 0.01 cubic yard. The sample collected from the soils inside the boiler house (BDrain) contained the next highest concentrations of PAHs, with multiple PAH compounds present above the PRG thresholds, including benzo(a)pyrene at 5.0 mg/kg. There are several low areas inside the boiler house where soil has collected, and it is anticipated that all of this soil (estimated at 6 cubic yards) contains elevated PAH concentrations. The Storage Shed and catch basin (CB-1) samples also contained concentrations of benzo(a)pyrene which, at 0.07 mg/kg and 0.08 mg/kg, respectively, were slightly above the Region 9 Residential PRG of 0.062 mg/kg. Additional Storage Shed area samples PAH-1 through 3 indicated the presence of benzo(a)pyrene at concentrations of 0.16 mg/kg in soil on the southern side of the shed (PAH-1) and at 0.07 mg/kg in the sample collected approximately 13 feet west of the Storage Shed. The total area that is suspected to contain elevated PAH-impacted soils on the western and southern sides of the Storage Shed is estimated at 485 square feet, or about 9 cubic yards in-place volume, assuming a depth of impact

of 0.5 feet. The sump in the catch basin is estimated to contain approximately 0.05 cubic yards of soil and sediment.

The only non-PAH SVOC compound detected in any of the soil or sediment samples was pentachlorophenol, which was reported at 70 mg/kg in the Conv-FD sample. This concentration is many times greater than the Region 9 Residential PRG of 3.0 mg/kg. It is not clear what the source of pentachlorophenol in this floor drain sediment was; though this compound was historically used as a biocide in inks, it was also used as an insecticide and fungicide and, much more commonly, as a wood preservative. It is notable that, despite the composition of the materials in the Printing Area floor drain (PP-FD), which appeared to be foam-like, no typical plasticizers such as phthalates were detected above the laboratory detection limits in the sample.

2.6 ASBESTOS-CONTAINING MATERIALS

In Building #1, asbestos-containing building materials (ACBM) included window glazing on one window, and some roofing materials (some flashing cement and the silver coating). In Building #2, ACBM consisted of caulking material associated with some steel window frames, roof patching material, and lightweight cement on the roof deck. In Building #3, ABCM was present in the built-up roofing on the southwest corner, and in roof patching material. ACBM associated with the boiler house included insulating materials on piping inside the boiler house and in the overhead chase that houses the pipe as it crosses the paved driveway and enters Building #1. The roofing material on the Storage Shed and the wooden fire hydrant shelter also had ACBM.

2.7 LEAD-BASED PAINT

In general, positive lead-based paint results were reported in materials associated with windows in several rooms, some walls, some doors and door jambs, some I-beams and posts, as well as yellow-painted surfaces on the interior and exterior of the building.

2.8 MOLD ISSUES

At the time of the assessment, conditions for mold growth, including excessive moisture as a result of past or current roof leaks and the absence of heating or air conditioning in the

building, were favorable. Multiple mold spore types were identified during the investigation, such as Stachybotrys, Aspergillus and Penicillium. Mold control may be accomplished by removing the water infiltration and removing and/or treating the structural building components that have existing mold growth.

2.9 RECOMMENDATIONS

Based on the findings of the Phase II ESA, The Johnson Company provided the following recommendations:

- A Corrective Action Feasibility Investigation (CAFI) and Corrective Action Plan (CAP) should be developed in accordance with the VT DEC guidelines to address the following issues of concern at the Site:
    - PCB-impacted concrete, soils and sediments
    - Metals-impacted shallow soils
    - VOC-impacted soils and groundwater
    - SVOC impacted soils and sediments
- Although elevated PAH concentrations were detected in the soil sample from the loading dock (MW-8) and in the sediment sample from the catch basin (CB-1), no remedial actions are recommended at these locations. A deed restriction should be used to notify future owners of the need to keep the pavement in place or to further delineate the PAH contamination around MW-8 if the asphalt will be removed.
- Indoor air quality sampling for chlorinated solvents should be conducted inside the Site buildings if they are to be renovated. An investigation to determine downgradient impacts to other properties has been initiated.

Details of the recommendations listed above are provided as follows:

- The concrete slab in several areas in Building #1 contains PCBs at concentrations between 1 and 10 ppm, and consequently is not allowed for use in a high occupancy space (such as a

store, office or residence). Therefore, it must be removed (either by demolishing the full concrete slab in the affected areas or by scarifying the top layer), or be covered with a 6 inch lift of concrete or asphalt. Similarly, concrete in the former Printing Area in Buildings #2 and #3 contained PCB concentrations between 1 ppm and 15.3 ppm.

- All soils that contain concentrations of PCBs, metals, and/or SVOCs that exceed their respective EPA Region 9 Residential Limits should be removed from the Site so that they will not pose a risk for future users, with the exception of the soil beneath the asphalt pavement in the loading bay area, which is not accessible to Site users, and in the catch basin, which is covered with a heavy grate and unlikely to be a contact risk for residential Site users.
- Vacant buildings should not be sampled unless heating and cooling systems are functioning normally; if not, the results will not be reflective of actual exposures to potential occupants. Determining whether Site buildings or downgradient users are adversely affected by the release of chlorinated solvents will allow vapor intrusion measures to be implemented to supplement cleanup activities at the Site.

3.0 CORRECTIVE ACTION FEASIBILITY INVESTIGATION

The Johnson Company has evaluated the feasibility of remediation alternatives for the areas of concern identified in Sections 2.1 through 2.8, above.

In this section, removal, natural attenuation or in-situ remediation options will be considered for discrete areas of concern identified in the Phase II ESA. Although there are two transformer substations associated with the property, only one (Substation 2) is owned by the City of St. Albans. The oil in the transformers at this substation has been changed to non-PCB-containing oil. The transformers at both substations are currently in use. Therefore, transformer removal is not considered as a remedial action in this CAP.

The items or areas of concern at the Site are limited to the following: 1) PCBs in concrete in Building #1; 2) PCBs in concrete in Buildings #2 and 3; 3) near surface soils with

PCB, PAH, and metals contamination; 4) floor drain sediments; 5) soils and groundwater with chlorinated VOC contamination; 6) water in the shredder pit; 7) asbestos-containing materials; 8) lead-based paint; and 9) mold-impacted materials.

3.1 CONCRETE INSIDE BUILDING #1

An estimated 25,000 square feet of the concrete slab in Building #1 appears to contain concentrations of PCBs between 1 and 10 ppm, with the following areas affected: 15,000 square feet in the manufacturing area (390 cubic yards); approximately 8,000 square feet in the Warehouse (207 cubic yards); and 1,700 square feet in the Maintenance Room (44 cubic yards). In addition, the adjusted results indicate that an additional 6,200 square feet in the manufacturing area contain PCBs between 10 and 50 ppm (161 cubic yards), and concentrations above 50 ppm were reported in an additional 1,600 square feet (43 cubic yards). In total, there is approximately 32,800 square feet of concrete in Building #1 that contains more than 1 ppm of PCBs. Although this area has already been included in the concentration ranges above, the area with concentrations between 1 and 25 ppm is approximately 20,600 square feet.

There are six potential alternatives for this area: 1) use this portion of the building for low-occupancy conditions; 2) cut out the full slab and replace with clean concrete; 3) place a concrete cap over the floor; 4) use an alternative coating system to control exposure; 5) replace the concrete containing PCBs above 10 ppm and cap the entire floor with concrete; and 6) replace the concrete containing PCBs above 10 ppm and use an alternative coating system. Removal of the top layer through mechanical means proved to be unsuccessful during pilot testing at a similar Site; therefore, this option has been removed from consideration. Concrete with concentrations between 1 and 50 ppm must be disposed of at a certified landfill, but is not hazardous waste. Concrete with PCB concentrations above 50 ppm must be disposed of at a PCB waste facility or a hazardous waste landfill. If the entire depth of the slab is demolished and removed, the soil beneath the slab must be sampled for PCBs.

3.1.1 Building #1 PCB Contaminated Concrete: Option 1 – Low occupancy use only

Description

This alternative would place an activity and use limitation on the Site through a deed restriction that would limit occupancy for any individual without dermal and respiratory protection to an average of 6.7 hours per week in all locations where PCB concentrations are above 1 ppm but less than 25 ppm. Each successive building owner would be required to comply with these conditions unless the PCB contamination is removed. Monitoring and reporting of compliance with the low-occupancy conditions would be required. Areas where concentrations are between 1 and 25 ppm may be used for low occupancy, provided they are covered with a suitably durable protective covering (for example, multiple coatings of epoxy paint and/or tile if limited to foot traffic, concrete or industrial tiles if subjected to forklift traffic, or a tar and chip coating, asphalt, or concrete if used for vehicular access to the northern portion of the Site). These measures are also required for areas with PCB concentrations between 25 and 50 ppm, with the following additions: the areas must be secured by a fence, marked with a sign, and an institutional control must be implemented. Concrete with concentrations between 50 and 100 ppm may be capped in place with 6 inches of concrete or asphalt and used for low-occupancy purposes. Concrete with concentrations above 100 ppm (approximately 830 square feet, assuming that half of the concrete determined to contain PCBs above 50 ppm actually contains more than 100 ppm) must be removed using a method that will limit dust releases to the remainder of the building.

Effectiveness for the Site

This alternative would be effective in preventing unacceptable exposures only if the coverings are maintained in good condition throughout the life of the building, and the use of the building is limited to foot traffic. If other uses are intended, a protective layer of concrete or industrial tile must be used to prevent exposures. Epoxy paint may be applied using contrasting primer and top coats that would indicate wear of the top coat. There is approximately 2,800 square feet in the manufacturing area with concentrations above 25 ppm where an additional measure (signage, capping, or removal) must be implemented before the area can be used for low

occupancy purposes. Removal of concrete with concentrations above 100 ppm will ensure that no future access to the most heavily contaminated concrete will be possible.

Implementability for the Site

There are certain planned uses of portions of Building #1 where this option is feasible, such as in the former Warehouse, which may be used as a driveway for access to the northern portion of the property. However, in other areas, such as the large manufacturing floor, this option may significantly curtail the opportunities for reuse. Implementing this option would require approval from the TSCA coordinator and would require filing a deed restriction. There are several contractors in the St. Albans area that could perform the preparation, painting, and covering work. The cost to implement this alternative range is estimated at $77,800.

3.1.2 Building #1 PCB Contaminated Concrete: Option 2 – Remove full depth of impacted slab for disposal

Description

This technique entails cutting the concrete at the outer limits of the PCB contamination and removing the full depth of the slab, which is an average of approximately 0.7 feet in this area. The concrete within the contaminated footprint would be cut into pieces and lifted out. The entire depth of the slab would be removed, and the soil beneath the slab would be sampled to determine if PCBs had migrated through the slab. The concrete slab would be disposed of as required based on the concentration, at a lined landfill (if less than 50 ppm) or at a hazardous waste facility (if greater than 50 ppm). A new concrete slab would be placed if use of the building was to continue.

Effectiveness for the Site

Removing the full depth of the slab would eliminate the chance for exposure to PCB-contaminated concrete in this area for future building occupants. If the soil beneath the slab contains no PCBs, or if the concentrations are between 0.74 and 10 ppm, and the new slab thickness was at least 6 inches, the soil cleanup goal would be 10 ppm or less. If soils beneath the concrete slab contain concentrations of PCBs less than 0.74 ppm, non-residential use of the

Site can continue without the replacement of a concrete slab. If elevated PCBs are detected in the subslab soil, the soil could be removed before new concrete is cast.

Implementability for the Site

Concrete cutting firms in Vermont are available to complete this work. In addition, many contractors have the equipment to remove this portion of the slab, though the presence of many steel columns in this area and a ceiling height as low as 10 feet in some areas will preclude the use of large equipment and require the concrete to be cut into relatively small pieces. Due to the presence of some contamination in the concrete, dust control and capture methods would have to be used to ensure that PCB contamination does not spread to unaffected areas of the building. Wet cutting methods are recommended, and captured dust should be disposed of with the concrete as solid waste. Volumes of waste water created are expected to be insignificant and are expected to evaporate. Cleanup verification sampling of the soil beneath the slab may be required, and if the PCB concentrations in soil are between 0.74 and 10 ppm, a deed restriction limiting the area to industrial/commercial use would be required. All soil above 10 ppm must be removed. If desired, a new concrete slab would be cast following the concrete removal, although it is more likely that a full demolition of the building would be implemented with this alternative. The cost to complete this effort would be approximately $627,100. This estimate does not include the cost to replace the concrete, which is estimated at $131,200.

3.1.3. Building #1 PCB Contaminated Concrete: Option 3 – Concrete cap

Description

This option involves applying a vapor barrier composed of 6-mil polyethylene sheeting and a 6 inch lift of concrete over all floor surfaces. Wall surfaces would be painted with two contrasting coats of epoxy paint up to a height of 5 feet, which is greater than the height where PCB splashes from equipment are expected to have occurred. In advance of painting, all exposed walls and ceilings would be pressure washed with the wash water contained, sampled, and properly disposed based on the analytical results. Floors would be cleaned using a vacuum

with a HEPA filter to remove dust. Long-term maintenance and sampling would be required with this option.

Effectiveness

The combination of plastic sheeting and 6 inch lift of concrete would provide a barrier against dermal contact, inhalation, and ingestion. The concrete would provide a very durable, permanent covering. The existing floor slab is in good condition, with no spalling or cracking, therefore, the new floor surface is not expected to significantly shift or crack. The concrete would also allow for the uses inside the building to change over time, as it will withstand forklift traffic and other equipment. Pre-occupancy sampling and on-going sampling would ensure that direct contact risks for PCB exposure are minimized.

Implementability

An application would be submitted to TSCA for a risk-based cleanup in these portions of the building. Review and approval of this application may require up to six months. Several local subcontractors are available to perform all cleaning, painting, and concrete installation at the Site. Retrofitting existing doorways and fixtures would be required. Ongoing inspections and repairs to the concrete could be performed by a maintenance employee at the Site or a subcontractor.

Cost

Pre-occupancy and long term inspections or monitoring may be required. The cost for this remedial action is estimated at $254,300.

3.1.4 Building #1 PCB-Contaminated Concrete: Option 4 – Use an alternative coating system to control exposure

Description

This option would involve proposing an alternative floor covering and continuing monitoring to TSCA. The floor covering would combine a combination of physical barriers, such as two layers of epoxy paint with tile. The two layers of epoxy paint would be of

contrasting colors to show when wear is occurring, but the upper layer of tile or concrete would provide additional protection against wear. Annual wipe sampling of the upper surface and air sampling would be required to show that the covering is sufficiently protective against PCB exposures, and a deed restriction would be required to ensure that the covering is maintained. This remedy is not a standard TSCA-approved alternative, but would be proposed under a Risk-Based cleanup that would require TSCA review and approval. Walls would be painted to a height of 5 feet using contrasting coats of epoxy paint. In advance of painting, all exposed walls and ceilings would be pressure washed with the wash water contained, sampled, and properly disposed based on the analytical results.

Effectiveness for the Site

A properly designed system, coupled with annual monitoring and maintenance, would be sufficiently protective of Site users under low and high occupancy conditions. The tile or thin concrete coating and the top coat of epoxy paint would show when repairs to the top protective surface would be required.

Implementability for the Site

This alternative would require up to 6 months of review time from TSCA before implementation. All disturbances to the concrete would require advance approval from TSCA. Repairs to the protective surface can be completed by local contractors without removing lower layers. The estimated cost to conduct this alternative is $213,600.

3.1.5 Building #1 PCB-Contaminated Concrete: Option 5 – Removal/concrete capping combination

Description

This alternative would comprise a combination of removal and disposal of concrete with PCB concentrations above 10 ppm, which may not be used in any high occupancy application, and capping all concrete where PCB concentrations are between 1 and 10 ppm. All concrete with concentrations above 10 ppm in the manufacturing area would be demolished for disposal. A 6 inch concrete or asphalt cap would be used to permanently cover the remaining concrete

with concentrations between 1 and 10 ppm, in accordance with TSCA regulations. A deed restriction to maintain the cap must be included with this option, but long-term sampling would not be required because this alternative would ultimately fit the definition of a Self-Implementing Cleanup according to TSCA. Soil sampling beneath areas where concrete is removed would be required. Walls would be painted to a height of 5 feet using contrasting coats of epoxy paint. In advance of painting, all exposed walls and ceilings would be pressure washed with the wash water contained, sampled, and properly disposed based on the analytical results.

Effectiveness for the Site

This method would allow for complete removal of concrete with unacceptable levels of PCBs for high occupancy use, and would allow for use of the remaining building where concentrations are between 1 and 10 ppm following installation of the concrete cap.

Implementability for the Site

Demolition of the concrete slab portions where PCBs are present at concentrations above 10 ppm is possible with the building in place and would need to be performed by a hazardous waste contractor. In order to not contaminate other surfaces, containment areas would be erected around work areas, which would be vented with fans using HEPA filters, and all workers inside the containment areas would wear personal protective equipment, including respirators. It is anticipated that suitable subcontractors would be available to complete all required work. In areas where PCBs are present between 1 and 10 ppm, a 6 inch thick concrete cap may necessitate other measures, such as raising the ceiling (if possible). Concrete casting may be completed inside the building with the walls in place, but may be cumbersome. In addition, intrusive work in these areas in the future, such as cutting the floor to install sewer or water piping, would be subject to the approval of TSCA, in accordance with the deed restriction. The estimated cost for this alternative is $374,100.

3.1.6 Building #1 PCB-Contaminated Concrete: Option 6 – Removal/tile covering combination

Description

This option involves cutting out and disposing of all concrete with PCBs above 10 ppm, replacing the concrete, and then applying two contrasting coats of epoxy paint and a layer of sufficiently durable tile as a protective barrier. Additional sampling of the floor would be required to further delineate areas of concrete for disposal purposes, specifically to evaluate if any concrete that will be removed contain PCBs at concentrations above 50 ppm and characterized as hazardous waste. Although the highest concentrations of PCBs would be removed under this alternative, it is likely that long-term maintenance and sampling would be required with this option. In order to not contaminate other surfaces, containment areas would be erected around work areas, which would be vented with fans using HEPA filters, and all workers inside the containment areas would wear personal protective equipment, including respirators. Soil sampling beneath areas where concrete is removed would be required. Walls would be painted to a height of 5 feet using contrasting coats of epoxy paint. In advance of painting, all exposed walls and ceilings would be pressure washed with the wash water contained, sampled, and properly disposed based on the analytical results.

Effectiveness

This option would permanently remove PCBs above 10 ppm. The effectiveness discussion in Section 3.1.4 details the protectiveness of the additional painting and tiling remedial actions.

Implementability

An application would be submitted to TSCA for a risk-based cleanup in these portions of the building. Review and approval of this application may require up to six months. It is anticipated that suitable subcontractors would be available to complete all required work. The paint and tile would likely be continued onto new surfaces but no deed restrictions would be

applied to those areas, unlike those locations where PCBs will be left in place at concentrations above 1 ppm.

Cost

Pre-occupancy and long term inspections or monitoring may be required. The cost for this remedial action is estimated at $431,100.

3.2 CONCRETE INSIDE BUILDINGS #2 AND 3

An estimated 9,000 square feet of concrete slab in and around the Printing Area in Buildings #2 and 3 appears to contain concentrations of PCBs between 1 and 50 ppm. The total volume of concrete with concentrations between 1 and 32 is an estimated 326 cubic yards. An additional volume of 75 cubic yards over an area of 1,600 square feet of floor contains concentrations above 100 ppm (there is no concrete that has concentrations between 32 and 100 ppm). The volume of concrete block wall that is suspected to be contaminated with PCBs at concentrations between 1 and 50 ppm is 13 cubic yards, or 13 tons, while inside the hazardous waste storage area, the volume of wall containing concrete masonry units contaminated with PCBs above 50 ppm is estimated at 11 cubic yards, or 11 tons.

These portions of Buildings #2 and 3 could be demolished and removed from the Site, or they may be renovated and incorporated into a future redevelopment. Due to the high concentrations of PCBs in portions of the floor, risk-based actions without concrete removal will not be discussed for this area. Instead, three potential alternatives for this concrete will be considered: 1) demolish and dispose of the full slab; 2) remove concrete with concentrations above 32 ppm and place a concrete cap over the floor; or 3) remove concrete with concentrations above 32 ppm and use an alternative floor covering. Concrete with concentrations between 1 and 50 ppm must be disposed of at a certified landfill, but is not hazardous waste. Concrete with PCB concentrations above 50 ppm must be disposed of at a PCB waste facility or a hazardous waste landfill. If the entire depth of the slab is demolished and removed, the soil beneath the slab must be sampled for PCBs.

3.2.1 Buildings #2 and 3 PCB Contaminated Concrete: Option 1 – Remove full depth of impacted concrete materials for disposal

Description

This technique entails cutting the concrete at the outer limits of the PCB contamination and removing the full depth of the slab, which is an average of approximately 0.7 feet outside of the Printing Area and approximately 1.2 feet inside the Printing Area. The concrete within the contaminated footprint would be cut away from the unimpacted concrete. A containment structure would be erected around the work area and mechanical means would be used to break the concrete into smaller pieces and lifted out. The entire depth of the slab would be removed, and the soil beneath the slab would be sampled to determine if PCBs had migrated through the slab. The concrete slab and walls would be disposed of as required based on the concentration at a lined landfill (if below 50 ppm) or at a hazardous waste facility (if above 50 ppm).

Effectiveness for the Site

Removing the full depth of the slab would eliminate the chance for exposure to PCB-contaminated concrete in this area. The cleanup level for soils beneath the slab would be 0.21 ppm if residential reuse is planned, and 0.74 ppm if industrial use is planned. If elevated PCBs are detected in the subslab soil, the soil could be removed before additional work is conducted at the Site.

Implementability for the Site

Concrete cutting firms in Vermont are available to complete this work. In addition, many contractors have the equipment to remove this portion of the slab. Due to the presence of some contamination in the concrete, dust control and capture methods would have to be used to ensure that PCB contamination does not spread to unaffected areas of the building. Wet cutting methods are recommended, and captured dust should be disposed of with the concrete as solid waste. Volumes of waste water created are expected to be insignificant and are expected to evaporate. All soil above the applicable regulatory screening levels would need to be removed

or an appropriate deed restriction and/or cover would be required. The cost to complete this effort would be approximately $293,800.

3.2.2 Building #2 and 3 PCB Contaminated Concrete: Option 2 – Removal of some concrete, installation of concrete cap

Description

This alternative would comprise a combination of removal and disposal of concrete with PCB concentrations above 32 ppm, and installing a 6 inch lift of concrete over the slab that will remain in place. The inside of the printing room and storage rooms, which will contain PCB concentrations above 25 ppm, must be used for low occupancy purposes only, whereas the areas outside these rooms have concentrations between 1 and 10, which may be capped and used for high occupancy purposes. A deed restriction to maintain the cap must be included with this option, but long-term sampling would not be required because this alternative would ultimately fit the definition of a Self-Implementing Cleanup according to TSCA. Soil sampling beneath areas where concrete is removed would be required. Walls would be painted to a height of 5 feet using contrasting coats of epoxy paint. In advance of painting, all exposed walls and ceilings would be pressure washed with the wash water contained, sampled, and properly disposed based on the analytical results.

Effectiveness for the Site

This method would effectively limit exposure to PCBs using a method that is acceptable to TSCA.

Implementability for the Site

Demolition of the concrete slab portions where PCBs are present at concentrations above 32 ppm is possible with the building in place and would need to be performed by a hazardous waste contractor. In order to not contaminate other surfaces, containment areas would be erected around work areas, which would be vented with fans using HEPA filters, and all workers inside the containment areas would wear personal protective equipment, including respirators. A 6 inch thick concrete cap may necessitate other measures, such as raising doors and fixtures and

providing a step up from the surrounding manufacturing floor. Concrete casting could be completed inside the building with the walls in place, but may be cumbersome. In addition, intrusive work in these areas in the future, such as cutting the floor to install sewer or water piping, would be subject to the approval of TSCA, in accordance with the deed restriction. The estimated cost for this alternative is $176,600.

3.2.3 Building #2 and 3 PCB Contaminated Concrete: Option 3 – Removal of some concrete, use of alternate floor coverings

Description

This alternative would comprise a combination of removal and disposal of concrete with PCB concentrations above 32 ppm, painting the concrete with two contrasting coats of epoxy paint, and installing a suitably durable floor covering (tile or similar) over all other areas where PCB concentrations are above 1 ppm. The inside of the printing room and storage rooms, which will contain PCB concentrations above 25 ppm, must be used for low occupancy purposes only, whereas the areas outside these rooms have concentrations between 1 and 10, which may be painted, covered, and used for high occupancy purposes. This alternative would require review and approval by TSCA as a risk-based action. A deed restriction to maintain the cap must be included with this option, and long-term sampling would not be required to show that the covering is sufficiently protective. Soil sampling beneath areas where concrete is removed would be required. Walls would be painted to a height of 5 feet using contrasting coats of epoxy paint. In advance of painting, all exposed walls and ceilings would be pressure washed with the wash water contained, sampled, and properly disposed based on the analytical results.

Effectiveness for the Site

This method is expected to effectively limit exposure to PCBs, and its efficacy over time could be quantified by long-term inspections and sampling.

Implementability for the Site

Demolition of the concrete slab portions where PCBs are present at concentrations above 32 ppm is possible with the building in place and would need to be performed by a hazardous

waste contractor. In order to not contaminate other surfaces, containment areas would be erected around work areas, which would be vented with fans using HEPA filters, and all workers inside the containment areas would wear personal protective equipment, including respirators. Use of epoxy paint and tile would likely provide the best fit with other contiguous flooring, as it would not require retrofitting or significant height changes. In addition, intrusive work in these areas in the future, such as cutting the floor to install sewer or water piping, would be subject to the approval of TSCA, in accordance with the deed restriction. The estimated cost for this alternative is $183,600.

3.3 NEAR SURFACE SOILS WITH PCB, PAH, AND METALS CONTAMINATION

PCB-, PAH-, and metals-contaminated soils are present at various locations around the Site, including the areas and volumes summarized in Table 3.3, below.

Table 3.3 Summary of Near Surface Soils containing PCBs, PAHs and/or Metals

Location	Contaminant and Concentration	Volume	Solid Waste or Hazardous Waste
Near hazardous waste storage area loading platform	PCBs- 0.52 ppm to 50 ppm and Vanadium: 95 mg/kg PCBs- above 50 ppm	22 cubic yards 22 cubic yards	Solid waste Hazardous waste
Edge of transformer pad 2	PCBs- maximum of 0.4 ppm (below industrial limits)	9 cubic yards	Solid waste or daily cover
Floor drains in Printing Area	PCBs- 0.8 ppm (above industrial limits)	0.02 cubic yards	Solid waste
Former dump area north of building	Lead- maximum of 1,000 mg/kg (some soils are above industrial limits)	66 cubic yards	Expected to be solid waste, but TCLP analysis for lead required to confirm. Some may be used as daily cover.
Floor drains in Building #2 outside Printing Area	Lead- 610 mg/kg, PAHs- above residential and industrial levels, and Pentachlorophenol- 70 mg/kg	0.02 cubic yards	Expected to be solid waste, but TCLP samples required to confirm
Soils inside Boiler House	PAHs- above residential and industrial levels	6 cubic yards	Solid waste
Storage Shed	PAHs- above residential levels	9 cubic yards	Solid waste or daily cover

The soils with PAH contamination found beneath asphalt near the front loading dock and inside the catch basin to the east of Building #3 have not been included in Table 3.3 or been considered for remedial action because they are not accessible and are not present at sufficient

concentrations to cause significant groundwater or surface water impacts. Since the concentrations of all of the contaminants in the areas listed in Table 3.3 were above residential and/or industrial soil standards and these soils are accessible to any Site visitor or user, the impacted soils cannot be left in-place. Since risks to human health and the environment from these contaminants, which all tend to adsorb to soil, are largely from direct contact, ingestion or inhalation, a feasible alternative may be to consolidate them in one area of the Site and cover them with a cap of soil or asphalt. However, recent rulings by the VT DEC Solid Waste Department have required that contaminated soils be placed only in the footprint of an already contaminated location. However, some recent redevelopment plans have indicated that the area should be used as a storm water retention basin if the rest of the Site is redeveloped, so future excavation is likely. Also, in-situ treatment options for metals and PAH contamination in soils are limited, and generally only feasible where very large volumes of soil require treatment. Therefore, the only alternative that has been considered for all of these soils is removal and proper disposal.

An estimated total of 22 cubic yards of soils are assumed to be hazardous waste, based on their PCB concentrations, but for cost estimating and planning purposes, it has been assumed that the full 44 cubic yards of PCB-impacted soils near the hazardous waste loading dock will be disposed of as hazardous waste. The remaining soils, an estimated 90 cubic yards, will need to be disposed of as solid waste or used as daily cover at a landfill, although soils with concentrations of contaminants above industrial limits may not be used as daily cover. Removal of soils will be performed by HAZWOPER-trained workers. Floor drain and boiler house sediments and soils should be removed either by hand or using a vacuum assisted technique. All other soils may be removed using heavy equipment. Removal and disposal of PCB-contaminated soils will require advance approval from the TSCA PCB Coordinator.

The estimated cost to remove and dispose of all PCB-, PAH-, and metals-contaminated soils is $59,000.

3.4 CHLORINATED SOLVENTS IN SOIL AND GROUNDWATER

Concentrations of TCE above the Region IV PRGs used by Vermont as soil standards were present in an estimated 5,017 cubic yards of soil, and the release to soil has resulted in groundwater impacts. Dissolved phase TCE and cis-DCE were present at concentrations above the VGES in a groundwater monitoring well located near the center of the western property boundary, and TCE was detected just above the VGES limit in a well near the eastern edge of the area of soil contamination. As a result, the soils in this area may be considered a source of on-going chlorinated solvent contamination to groundwater. No soil vapor monitoring was conducted at the Site because previous plans for Building #2, where the TCE contamination is centered, included demolishing the building and constructing a residential building with an underground parking garage. However, based on the concentrations in soil and groundwater of TCE, there is some risk of TCE entering the building through holes or cracks in the floor slab as it volatilizes from the water table and soil. Since construction of a parking garage would have required removal of the soil, excavation was been considered as an option, along with other alternatives to reduce the concentration of chlorinated solvents to below regulatory limits before excavation to reduce disposal costs. Monitored natural attenuation has not been considered as a remedial alternative because the TCE contamination at the Site appears to be impacting downgradient properties and because the time to cleanup is likely to be several decades. Therefore, the following three potential remediation options may be feasible for addressing TCE contamination in soils and groundwater: 1) soil excavation and removal; 2) injection of biodegradation enhancing compounds; and 3) air sparging and SVE.

3.4.1 Chlorinated Solvents in Soil and Groundwater: Option 1 – Soil excavation and disposal

Description

This technique would involve excavating all of the TCE-impacted soils to a total depth of 8 feet below ground surface. Excavation would occur after the building has been demolished and the slab has been removed.

Effectiveness for the Site

Excavation of the contaminated soils would result in permanent removal of the majority of the soils that contain residual TCE. However, since the investigation focused on characterizing soils to the planned excavation depth and only water-table groundwater samples were collected, it is not clear whether excavating to this depth would remove all of the TCE source area, as there may be some residual source present at deeper depths. However, it is likely that this technique would substantially reduce future impacts to groundwater and soil vapor.

Implementability for the Site

There are multiple excavating contractors in or around St. Albans who are HAZWOPER-trained and could complete an excavation to a depth of 8 feet. The excavation would be below the water table, so dewatering would be required, and all water removed during dewatering would need to be contained, sampled, and disposed of properly based on the analytical results or treated on-Site and discharged. Use of the railway to load and transport soils is only possible with upgrades to the tracks, at the expense of the project. However, since very few landfills are capable of receiving rail shipments, the soil containers would need to be moved by truck to their final destination. Since the rail line repairs are expected to be substantial, the cost estimate includes the costs for trucking the soils to appropriate facilities only. Vermont landfills may accept soils with concentrations of VOC contaminants up to industrial limits for use as daily cover, and may accept other soils as solid waste as long as they do not exceed the TCLP limits. For VOCs, a conservative estimate of the TCLP concentration can be derived by dividing the total soil concentration by 20. The results of this calculation indicate that soils with the highest concentration present (15 mg/kg, or 15,000 ug/kg) would be slightly above the TCLP limit of 500 ug/L and classified as hazardous waste, but that the surrounding soils within the TCE-impacted area would not be hazardous. As a result, it is estimated that there are approximately 67 cubic yards of soils that would require disposal as hazardous waste, unless additional TCLP testing indicated otherwise. It should be noted that because TCE is volatile and the concrete slab may be acting as a barrier for volatilization, the near surface TCE concentrations may decline below regulatory limits once the slab is removed. As such, additional sampling should precede

the actual excavation and include TCLP analyses. The cost to implement the excavation and disposal alternative is estimated at approximately $617,900.

3.4.2 Chlorinated Solvents in Soil and Groundwater: Option 2 - Injection of biodegradation enhancing compounds

Description

This approach involves injecting a biodegradation-enhancing compound, such as the commercially available RegenOx™ and Hydrogen Releasing Compound™ (HRC), directly into the area of highest chlorinated solvent concentrations. The RegenOx™ compound is intended to enhance biodegradation in the source area where concentrations are highest, while HRC treats lower, dissolved concentrations. RegenOx™ compounds are injected into groundwater over two cycles, spaced approximately two to four weeks apart, then approximately six weeks after the last injection, HRC compounds are injected. HRC compounds contribute additional hydrogen electrons to maintain an anaerobic environment and aid in the reductive dechlorination process over a period of one to two years per application. Delivery points located in a grid pattern are used to inject the compound into groundwater. The delivery points are temporary injection points. A groundwater monitoring program to measure field parameters for groundwater conditions and analytical sampling to determine the effectiveness of the HRC-enhanced natural attenuation would be required. At some sites that do not have a specific type of naturally occurring bacteria (*dehalococcoides*), the degradation process may stall at cis-1,2-dichloroethene (cis-DCE) and not continue completely to ethene. Because the regulatory levels are higher for cis-DCE than for TCE and PCE, this may be sufficient to end remedial action, but where these levels remain high, the bacteria may be injected into the plume to rapidly continue the dechlorination process.

Effectiveness for the Site

Groundwater conditions in this area appear to be favorable for reductive dechlorination based on the presence of cis-DCE in groundwater. The addition of HRC, therefore, would be expected to accelerate the biodegradation process and achieve lower levels of TCE and related compounds in a shorter timeframe. Therefore, it is likely that treating the source area will

effectively reduce the concentrations of TCE throughout the Site and allow natural attenuation of these compounds to occur where concentrations are not as high. Since the highest concentrations of TCE in soil were present below the water table, this method is expected to reduce the chlorinated VOC concentrations in both saturated soil and groundwater. The long-term effectiveness of this method will depend on if the TCE and cis-DCE will be degraded to less harmful compounds like ethene, which can only occur if sufficient dechlorinating bacteria are present or can be introduced. This method would not reduce the contamination in the unsaturated soils.

Implementability for the Site

This method requires discrete applications, therefore equipment operation and maintenance is not an issue. There are several contractors in the northeast with the direct push drilling equipment required to inject these compounds, and the compounds are readily available. Because heavy equipment is not required to inject the compounds, this process may be initiated with the concrete slab and building in place, though it would require coring a grid of approximately 90 holes through the floor slab. Implementing this alternative after the slab has been removed would be more straightforward and less costly. Existing wells may be used for background, upgradient, in-plume, and downgradient water sampling. Institutional controls that inform future site users of the presence of TCE in soils and near-surface groundwater would be required until the VGES of 5 ug/L for TCE and 70 ug/L for cis-DCE and the regulatory limits for residential or industrial soils are achieved, which is expected to take several years, since although the bulk of the contaminant mass will be reduced significantly over one to two years of treatment, the soil is expected to desorb contaminants into groundwater at low levels over a much longer period of time. The cost to implement these accelerated biodegradation methods is estimated at approximately $165,000 (a contingency of 50 percent has been applied to this option because additional injections or excavation may be required to meet cleanup goals).

3.4.3 Chlorinated Solvents in Soil and Groundwater: Option 3: Air sparging and SVE

Description

Air sparging involves injecting air directly into groundwater at a sufficiently high pressure to cause bubbling. This causes the VOCs to volatilize and move into the unsaturated zone above the water table. A vacuum, placed on a soil vapor extraction (SVE) well, drilled into the soil above the water table, is used to collect soil vapors, which will require treatment before being released to the ambient air. The system requires an electricity supply, a sparge pump, a system of piping to deliver air to and extract soil gas from the ground for the entire treatment duration, a vacuum pump, a moisture knock-out tank to remove liquid contaminants before vapor treatment, and treatment for the extracted soil gas.

Effectiveness for the Site

Air sparging is a commonly used remediation system for treating VOCs in groundwater. The relatively high permeability medium sand and gravel above the water table is ideal for the migration of volatilized compounds, but the less permeable silty fine sand below the water table is not as amenable for distributing air through the groundwater, requiring air injection wells to be closely spaced. This process is expected to take approximately 5 years to achieve the cleanup goals of reducing soil concentrations below residential and/or industrial limits and groundwater concentrations below VGES limits for TCE (5 ug/L) and cis-DCE (70 ug/L). However, the long-term effectiveness would be considered very good, since the mass of contaminants present would be significantly reduced.

Implementability for the Site

Due to the above-ground piping required for the air delivery and vapor capturing processes, and the need for a surface barrier this alternative would be most feasible if the building was intact but vacant, or if it was demolished with the slab in-place, though it could be constructed and piping run under a false floor if the building was occupied. A power supply is present at the Site to run the system. This alternative would require a pilot test to determine the radius of influence of each air sparging point and SVE extraction well. If the slab is removed,

the air delivery and extraction piping may be buried just below the ground surface in order to permit use of the Site while remediation is ongoing, but a shelter or small building will be required to house the electrical equipment and a vapor barrier would be needed to seal off the ground surface. Regular access to this equipment would be required for maintenance during operation. Although the placement of vapor extraction wells will be designed to collect the majority of vapors, it should be noted that due to heterogeneous soil conditions and potential preferential pathways, the migration of vapors to locations beneath Building #1, which is to be renovated, may occur. Indoor air monitoring may be required during operation of the system if Building #1 is occupied. The cost to implement this alternative is estimated at approximately $219,900.

3.5 WATER IN THE SHREDDER PIT

At the time of the investigation, approximately 650 gallons of water with concentrations of cadmium and lead that were above VGES levels was present in the shredder pit. Since this water is contaminated, it should be removed before demolition and treated. The St. Albans water treatment facility and the VT DEC have authorized disposal to the St. Albans Wastewater Treatment Facility as a one-time discharge. The City of St. Albans could perform this work with their pumps and staff and have indicated that there would not be an associated cost for this work.

3.6 ASBESTOS-CONTAINING MATERIALS

To comply with State and Federal regulations, all asbestos-containing materials must be removed from buildings before demolition, and all asbestos-containing materials that will be disturbed during renovations must be removed before renovating. The asbestos assessment was conducted using the former plans for the Site, which included renovation of Building #1, and demolition of Buildings #2 and 3, and the Boiler House and Storage Shed. A detailed cost estimate for asbestos removal activities are provided in Appendix 3. In Building #1, the total estimated cost for abatement activities in advance of or during renovations is $70,180. For all remaining buildings and structures, the total estimated cost to remove asbestos-containing materials before demolition is $43,500. It should be noted that if Building #1 is demolished

rather than renovated, additional sampling may be required and the cost estimate is likely to change.

3.7 LEAD-BASED PAINT

As discussed in the detailed cost estimate in Appendix 3, the current plan for Building #1 is to replace all windows and window components. As such, only paint on interior surfaces not related to windows would need to be stabilized (flaking paint removed, surface primed and repainted) or removed, and exterior surfaces would be stabilized. The cost estimates range from a total of $24,500 (interior non-window surface stabilization and exterior stabilization) to $63,000. However, if lead-based paint on interior window surfaces was stabilized or removed in addition to these items, the total costs would range from $42,500 (stabilization) to $107,000.

3.8 MOLD ISSUES

As detailed in Appendix 3, the office areas of Building #1 will require additional cleaning for mold removal, and fungal growth in the manufacturing area will be curtailed by cleaning under negative pressure conditions, followed by clearance air sampling. The total costs for these activities are estimated at $21,650.

4.0 REFERENCES

The Johnson Company (JCO), 2008. "Phase II Environmental Site Assessment, Former Fonda Group Facility Site, St. Albans, Vermont." October 30, 2008.

APPENDIX 1

LIST OF CONTACTS

List of Contacts		
Party Name	**Contact Name, Address and Phone Number**	**Association with Project**
Interested, Threatened or Impacted Third Parties		
City of St. Albans	Ms. Jane Kiser St. Albans Community Development 100 North Main Street P.O. Box 867 St. Albans, VT 05478 (802) 524-1503	Property owner representative
Northwest Regional Planning Commission	Ms. Catherine Dimitruk, Executive Director Northwest Regional Planning Commission 155 Lake Street St. Albans, VT 05478 (802) 524-5958	Brownfields assessment grant recipient
United States Environmental Protection Agency	Ms. Dorrie Paar U.S. Environmental Protection Agency 1 Congress Street, Suite 1100 (HBT) Boston, MA 02114-2023 (617) 918-1432	EPA Project Manager
United States Environmental Protection Agency, TSCA	Ms. Kimberly Tisa U.S. Environmental Protection Agency 1 Congress Street, Suite 1100 Boston, MA 02114 (603) 918-1527	EPA TSCA PCB Coordinator, Northeast Region
Vermont Department of Environmental Conservation	Mr. Matthew Becker VT DEC Waste Management Division 103 South Main Street, West Office Building Waterbury, VT 05671-0404 (802) 241-3449	VT DEC Project Manager
Vermont State Historic Preservation Office	Eric Gilbertson Deputy State Historic Preservation Officer National Life Building, Floor 2 Montpelier, VT 05602-1201 (802-828-3043	VT SHPO Officer
Contractors and Subcontractors		
The Johnson Company	Rhonda Kay The Johnson Company, Inc. 100 State Street, Suite 600 Montpelier, VT 05060 (802) 229-4600	Environmental consultant, developer of CAFI, oversight of corrective action

Required Permits and Approvals		
Permit or Approval Type	**Items or Issues Covered**	**Contact**
PCB Self-Implementing Cleanup Plan Approval	All solid and liquid wastes with PCB concentrations above 1 ppm. Application must be the form of a notification letter submitted at least 30 days in advance of the proposed cleanup work.	Kimberly Tisa, US EPA TSCA (see above for address)

APPENDIX 2

TABULAR CONTAMINANT CONCENTRATIONS

Table 1a. Analytical Results: Bulk Concrete PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Map Label	Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs	*Total PCBs x # of Composites*
	CONCRETE																						
	BULK SAMPLES																						
	TSCA Regulated Lower Limit: 1 ppm (total PCBs)																						*Composites*
					(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	*(mg/kg)*
B-1	B-1	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.1	U	0.1		0.3		0.1	U	NA	U	NA	0.5	
B-2	B-2	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.1	U	0.1		0.3		0.1	U	NA	U	NA	0.5	
B-3	B-3	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.1	U	0.1		0.1		0.2	U	NA	U	NA	0.4	
B-4	B-4	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.2	U	0.1		0.3		0.1	U	NA	U	NA	0.6	
B-5	B-5	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.1	U	0.1		0.2	<	0.1	U	NA	U	NA	0.4	
B-6	B-6	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.1	U	0.1		0.1	<	0.1	U	NA	U	NA	0.3	
B-7	B-7	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.5	U	0.1		3.8		0.9	U	NA	U	NA	5.2	
B-8	B-8	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.2	U	0.1		14		1.1	U	NA	U	NA	15.3	
	B-8 Duplicate	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.3	U	0.1		10		1	U	NA	U	NA	11.3	
	RPD										*40%*				*33%*		*10%*						
B-9	B-9	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.1	U	0.1		0.2	<	0.1	U	NA	U	NA	0.4	
B-10	B-10	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.3	U	0.1		2.3	<	0.1	U	NA	U	NA	2.7	
B-11	B-11	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2		0.2	U	NA	U	NA	0.4	
B-12	B-12	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2		0.4	U	NA	U	NA	0.6	
B-13	B-13	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.2	U	0.1		6.8		1.4	U	NA	U	NA	8.4	
B-14	B-14	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.2	U	0.1		0.6		0.4	U	NA	U	NA	1.2	
B-15	B-15	0-0.5"	2/25/2008	U	0.1	U	0.1	U	0.1		0.2	U	0.1		0.3		0.3	U	NA	U	NA	0.8	
ad 2 (S) Co	Pad 2 (S) Conc	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0	
ad 2 (N) Co	Pad 2 (N) Conc	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0	
MR-1	MR-1	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.6	
MR-2	MR-2	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.5	
MR-3	MR-3	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.4	
MR-4	MR-4	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.2	
MR-5	MR-5	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.8	
MR-6	MR-6	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.1	
MR-7	MR-7	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.2	
MR-8	MR-8	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.3	
MR-9	MR-9	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.67	
MR-10	MR-10	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.1	
MR-11	MR-11	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.38	
MR-12	MR-12	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.7	
	MR-12 Duplicate (Dup 1	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.7	
MR-13	MR-13	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**	U	0.33	U	0.33	1.2	
MR-14	MR-14	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.66	
MR-15	MR-15	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.0	
MR-16	MR-16	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.4	
	MR-16 Duplicate (Dup 2	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.9	
MR-17	MR-17	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.93	
MR-18	MR-18	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.1	
MR-19	MR-19	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
MR-20	MR-20	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.0	
MR-21	MR-21	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.43	
MR-22	MR-22	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.9	
MR-23	MR-23	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.4	
MR-24	MR-24	0-0.5"	8/8/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.45	
WH-1	WH-1	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.6	U	0.33	U	0.33	U	0.33	0.6	

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds TSCA regulation limits.
RPD = Relative percent difference.
** = Mixture

Table 1b. Analytical Results: Soil PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs
SOIL																					
EPA Region 9 PRGs Resid.			*3.9*		*0.22*		*0.22*		*0.22*		*0.22*		*0.22*		*0.22*						
			(mg/kg)		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		
Pad 1 (N) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (E) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (W) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (S) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (S) Soil Dup	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 2 (N) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 2 (E) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	NA	U	NA	0.2
Pad 2 (W) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 2 (S) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		**0.4**	U	NA	U	NA	0.4
T1-Bott	3'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
T2-Bott	4'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
T5-Top	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
T-5 Dup	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-1	0-1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-2	0-1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-3	0-1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-4	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-4 Duplicate	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-5	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-6	0-1'	2/11/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-7	1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-8	1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-9	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-10	0-1'	2/11/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		**10**		**0.9**	U	NA	U	NA	10.9
MW-11	0-1'	2/11/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
PP-FD	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		**0.8**	U	0.1	U	NA	U	NA	0.8
Conv-FD	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Storage Shed	0.5-1'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
CB-1	0-0.5"	2/25/2008	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	NA	U	NA	0
DUMP 1	0-1'	6/17/2008	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	0
DUMP 2	0-1'	6/18/2008	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	0
IS-1 (0-1.5)	0-1.5'	6/17/2008	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	0
IS-1 (0-1.5)-DUP	0-1.5'	6/17/2008	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	0
IS-2 (1.5-3)	1.5-3'	6/17/2008	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	0
IS-3 (1.5-3)	1.5-3'	6/17/2008	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	0
LD-1 (0-1.5)	0-1.5'	6/17/2008	U	35	U	35	U	35	U	35	U	35		**170**	U	35	U	35	U	35	170
LD-2 (1.5-3)	1.5-3'	6/17/2008	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38		**0.52**	U	0.38	U	0.38	U	0.38	0.52
LD-3 (1.5-3)	1.5-3'	6/17/2008	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	0
SC-7 (1.0-1.5)	1-1.5'	6/17/2008	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	0
SC-7 (3-4.1)	3-4.1'	6/17/2008	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	0

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds Residential PRG .
RPD = Relative percent difference between original and duplicate samples.

Table 1a. Analytical Results: Bulk Concrete PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Map Label	Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs	*Total PCBs x # of Composites*
	CONCRETE																						
	BULK SAMPLES																						
	TSCA Regulated Lower Limit: 1 ppm (total PCBs)																						
					(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	(mg/kg)	
WH-2	WH-2	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-3	WH-3	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-4	WH-4	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-5	WH-5	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-6	WH-6	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-7	WH-7	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.5	
WH-8	WH-8	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-9	WH-9	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-10	WH-10	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.42	
WH-11	WH-11	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.83	
WH-12	WH-12	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.35	
WH-13	WH-13	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.37	
WH-14	WH-14	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.6	
	WH-14 Duplicate (Dup 3	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.8	
WH-15	WH-15	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	3.0	
WH-16	WH-16	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.7	
WH-17	WH-17	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.7	
WH-18	WH-18	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.7	
WH-19	WH-19	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.7	
WH-20	WH-20	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.8	
WH-21	WH-21	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.4	
WH-22	WH-22	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.8	
WH-23	WH-23	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.8	
WH-24	WH-24	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.4	
WH-25	WH-25	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	3.4	
WH-26	WH-26	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.0	
	WH-26 Duplicate (Dup 4	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.9	
WH-27	WH-27	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.35	
WH-28	WH-28	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-29	WH-29	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-30	WH-30	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.40	
	WH-30 Duplicate (Dup 5	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.9	
WH-31	WH-31	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	3.3	
WH-32	WH-32	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-33	WH-33	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.34	
WH-34	WH-34	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.44	
WH-35	WH-35	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.8	
WH-36	WH-36	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.1	
WH-37	WH-37	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	1.3	
	WH-37 Duplicate (Dup 6	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.66	U	0.33	U	0.33	0.66	
WH-38	WH-38	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.4	
WH-39	WH-39	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-40	WH-40	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-41	WH-41	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	0.43	
WH-42	WH-42	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		**		**	U	0.33	U	0.33	2.0	
WH-43	WH-43	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	
WH-44	WH-44	0-0.5"	8/7/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	0	

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds TSCA regulation limits.
RPD = Relative percent difference.
** = Mixture

Table 1a. Analytical Results: Bulk Concrete PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Map Label	Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs	*Total PCBs x # of Composites*
	CONCRETE																						
	BULK SAMPLES																						
	TSCA Regulated Lower Limit: 1 ppm (total PCBs)																						*Composites*
					(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	*(mg/kg)*
	Building #1 Composite Sampling (Results above 10 ppm are in bold)																						
1	B#1-A1,A2,B1,B2	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.8	U	0.33	U	0.33	U	0.33	1.8	7.2
2	B#1-B3,B4,A3,A4	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.8	U	0.33	U	0.33	U	0.33	1.8	7.2
3	B#1-A5,A6,B5,B6	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.6	U	0.33	U	0.33	U	0.33	2.6	**10.4**
4	B#1-A7,A8,B7,B8	0-0.5"	6/18/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		8	U	3.3	U	3.3	U	3.3	8	**32.0**
5	B#1-C3,C4,D3,D4	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.5	U	0.33	U	0.33	U	0.33	1.5	6.0
6	B#1-C5,C6,D5,D6	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.3	U	0.33	U	0.33	U	0.33	1.3	5.2
7	B#1-C7,C8,D7,D8	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.48	U	0.33	U	0.33	U	0.33	0.48	1.9
8	B#1-C9,C10,D9,D10	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.95	U	0.33	U	0.33	U	0.33	0.95	3.8
9	B#1-E1,E2,F1,F2	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.8	U	0.33	U	0.33	U	0.33	1.8	7.2
10	B#1-E3,E4,F3,F4	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.1	U	0.33	U	0.33	U	0.33	1.1	4.4
11	B#1-E5,E6,F5,F6	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.8	U	0.33	U	0.33	U	0.33	1.8	7.2
	B#1-E5,E6,F5,F6-DUP	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.8	U	0.33	U	0.33	U	0.33	1.8	7.2
	RPD														*0%*								
12	B#1-E7,E8,F7,F8	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	ND	ND
13	B#1-G1,G2,H1,H2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.3	U	0.33	U	0.33	U	0.33	2.3	9.2
14	B#1-G3,G4,H3,H4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.7	U	0.33	U	0.33	U	0.33	1.7	6.8
15	B#1-G5,G6,H5,H6	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.6	U	0.33	U	0.33	U	0.33	1.6	6.4
16	B#1-G7,G8,H7,H8	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.39	U	0.33	U	0.33	U	0.33	0.39	1.6
17	B#1-G9,G10,H9,H10*	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.68	U	0.33	U	0.33	U	0.33	0.68	2.7
18	B#1-I1,I2,J1,J2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		3.1	U	0.33	U	0.33	U	0.33	3.1	**12.4**
19	B#1-I3,I4,J3,J4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.8	U	0.33	U	0.33	U	0.33	2.8	**11.2**
20	B#1-I7,I8,J7,J8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.97	U	0.33	U	0.33	U	0.33	0.97	3.9
21	B#1-K1,K2,L1,L2	0-0.5"	6/19/2008	U	16	U	16	U	16	U	16	U	16		47	U	16	U	16	U	16	47	***188.0***
22	B#1-K3,K4,L3,L4	0-0.5"	6/19/2008	U	3.2	U	3.2	U	3.2	U	3.2	U	3.2		11	U	3.2	U	3.2	U	3.2	11	**44.0**
23	B#1-K5,K6,L5,L6	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.2	U	0.33	U	0.33	U	0.33	1.2	4.8
24	B#1-K7,K8,L7,L8	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		0.88	U	0.32	U	0.32	U	0.32	0.88	3.5
25	B#1-K9,K10,L9,L10	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.68	U	0.33	U	0.33	U	0.33	0.68	2.7
26	B#1-M1,M2,N1,N2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.9	U	0.33	U	0.33	U	0.33	2.9	**11.6**
27	B#1-M3,M4,N3,N4	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		2.6	U	0.32	U	0.32	U	0.32	2.6	**10.4**
	B#1-M3,M4,N3,N4-	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.6	U	0.33	U	0.33	U	0.33	2.6	**10.4**
	RPD														*0%*								
28	B#1-M5,M6,N5,N6	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.9	U	0.33	U	0.33	U	0.33	2.9	**11.6**
29	B#1-M7,M8,N7,N8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.7	U	0.33	U	0.33	U	0.33	1.7	6.8
30	B#1-O1,O2,P1,P2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.4	U	0.33	U	0.33	U	0.33	2.4	9.6
31	B#1-O3,O4,P3,P4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.1	U	0.33	U	0.33	U	0.33	1.1	4.4
32	B#1-O5,O6,P5,P6	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		1.4	U	0.32	U	0.32	U	0.32	1.4	5.6
33	B#1-O7,O8,P7,P8	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		1.6	U	0.32	U	0.32	U	0.32	1.6	6.4
34	B#1-O9,O10,P9,P10	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.69	U	0.33	U	0.33	U	0.33	0.69	2.8
35	B#1-Q1,Q2,R1,R2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		3.3	U	0.33	U	0.33	U	0.33	3.3	**13.2**
36	B#1-Q3,Q4,R3,R4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		3.5	U	0.33	U	0.33	U	0.33	3.5	**14.0**
37	B#1-Q5,Q6,R5,R6	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		3.9	U	0.32	U	0.32	U	0.32	3.9	**15.6**
	B#1-Q5,Q6,R5,R6-	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		4	U	0.32	U	0.32	U	0.32	4	**16.0**
	RPD														*3%*								
38	B#1-Q7,Q8,R7,R8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.7	U	0.33	U	0.33	U	0.33	2.7	**10.8**
39	B#1-S1,S2,T1,T2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.6	U	0.33	U	0.33	U	0.33	2.6	**10.4**
40	B#1-S3,S4,T3,T4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.4	U	0.33	U	0.33	U	0.33	1.4	5.6
41	B#1-S5,S6,T5,T6	0-0.5"	6/19/2008	U	6.6	U	6.6	U	6.6	U	6.6	U	6.6		48	U	6.6	U	6.6	U	6.6	48	***192.0***
42	B#1-U1,U2,V1,V2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.8	U	0.33	U	0.33	U	0.33	1.8	7.2

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds TSCA regulation limits.
RPD = Relative percent difference.
** = Mixture

Table 1a. Analytical Results: Bulk Concrete PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Map Label	Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs	*Total PCBs x # of Composites*
	CONCRETE																						
	BULK SAMPLES																						
	TSCA Regulated Lower Limit: 1 ppm (total PCBs)																						*Composites*
					(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	*(mg/kg)*
43	B#1-U3,U4,V3,V4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.5	U	0.33	U	0.33	U	0.33	1.5	6.0
	B#1-U3,U4,V3,V4-DUP	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.4	U	0.33	U	0.33	U	0.33	1.4	5.6
	RPD														*7%*								
44	B#1-U5,U6,V5,V6	0-0.5"	6/19/2008	U	6.5	U	6.5	U	6.5	U	6.5	U	6.5		38	U	6.5	U	6.5	U	6.5	38	***152.0***
45	B#1-U7,U8,V7,V8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.6	U	0.33	U	0.33	U	0.33	2.6	**10.4**
46	B#1-U9,U10,V9,V10	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.99	U	0.33	U	0.33	U	0.33	0.99	4.0
47	B#1-W1,W2,X1,X2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.2	U	0.33	U	0.33	U	0.33	1.2	4.8
48	B#1-W3,W4,X3,X4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.2	U	0.33	U	0.33	U	0.33	2.2	8.8
49	B#1-W5,W6,X5,X6	0-0.5"	6/19/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		14	U	3.3	U	3.3	U	3.3	14	***56.0***
50	B#1-W7,W8,X7,X8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.3	U	0.33	U	0.33	U	0.33	1.3	5.2
51	B#1-Y3,Y4,Z3,Z4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.5	U	0.33	U	0.33	U	0.33	1.5	6.0
52	B#1-Y5,Y6,Z5,Z6	0-0.5"	6/19/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		10	U	3.3	U	3.3	U	3.3	10	**40.0**
	B#1-Y5,Y6,Z5,Z6-DUP	0-0.5"	6/19/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		11	U	3.3	U	3.3	U	3.3	11	**44.0**
	RPD														*10%*								
53	B#1-Y7,Z7,Y8,Z8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.4	U	0.33	U	0.33	U	0.33	2.4	9.6
54	B#1-Y9,Y10,Z9,Z10	0-0.5"	6/18/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.52	U	0.33	U	0.33	U	0.33	0.52	2.1
	Printing Area Composite Sampling (Results above 50 ppm are in bold italics)																						
55	B#2-A1,A2,B1,B2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	ND	ND
56	B#2-A3,A4,B3,B4	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		0.74	U	0.32	U	0.32	U	0.32	0.74	3.0
57	B#2-A5,A6,B5,B6	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		1.5	U	0.32	U	0.32	U	0.32	1.5	6.0
58	B#2-C1,C2,D1,D2	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		0.88	U	0.32	U	0.32	U	0.32	0.88	3.5
59	B#2-C3,C4,D3,D4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		4.2	U	0.33	U	0.33	U	0.33	4.2	**16.8**
60	B#2-C5,C6,D5,D6	0-0.5"	6/19/2008	U	33	U	33	U	33	U	33	U	33		58	U	33	U	33	U	33	58	***232.0***
61	B#2-C8,D8,C7,D7	0-0.5"	6/19/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		6.7	U	3.3	U	3.3	U	3.3	6.7	**26.8**
62	B#2-E1,E2,F1,F2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.6	U	0.33	U	0.33	U	0.33	0.6	2.4
63	B#2-E3,E4,F3,F4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		3.8	U	0.33	U	0.33	U	0.33	3.8	**15.2**
64	B#2-E5,E6,F5,F6	0-0.5"	6/19/2008	U	33	U	33	U	33	U	33	U	33		190	U	33	U	33	U	33	190	***760.0***
65	B#2-E7,E8,F7,F8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.4	U	0.33	U	0.33	U	0.33	2.4	9.6
	B#2-E7,E8,F7,F8-DUP	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.8	U	0.33	U	0.33	U	0.33	2.8	**11.2**
	RPD														*15%*								
66	B#2-G1,G2,H1,H2	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		0.64	U	0.32	U	0.32	U	0.32	0.64	2.6
67	B#2-G3,G4,H3,H4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.6	U	0.33	U	0.33	U	0.33	1.6	6.4
68	B#2-G5,G6,H5,H6	0-0.5"	6/19/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		31	U	3.3	U	3.3	U	3.3	31	***124.0***
69	B#2-G7,G8,H7,H8	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.6	U	0.33	U	0.33	U	0.33	2.6	**10.4**
70	B#2-J1,J2,I1,I2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.76	U	0.33	U	0.33	U	0.33	0.76	3.0
	B#2-J1,J2,I1,I2-DUP	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.7	U	0.33	U	0.33	U	0.33	0.7	2.8
	RPD														*8%*								
71	B#2-I3,I4,J3,J4	0-0.5"	6/19/2008	U	33	U	33	U	33	U	33	U	33		180	U	33	U	33	U	33	180	***720.0***
72	B#2-I5,I6,J5,J6	0-0.5"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32		4.4	U	0.32	U	0.32	U	0.32	4.4	**17.6**
73	B#2-J7,J8,I7,I8**	0-0.5"	6/19/2008	U	1.6	U	1.6	U	1.6	U	1.6	U	1.6		7.8	U	1.6	U	1.6	U	1.6	7.8	**31.2**
74	B#2-K1,K2,L1,L2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.56	U	0.33	U	0.33	U	0.33	0.56	2.2
75	B#2-L3,L4,K3,K4	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.1	U	0.33	U	0.33	U	0.33	2.1	8.4
76	B#2-L5,K5	0-0.5"	6/19/2008	U	3.3	U	3.3	U	3.3	U	3.3	U	3.3		10	U	3.3	U	3.3	U	3.3	10	**20.0**
77	B#2-M1,M2,N1,N2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.6	U	0.33	U	0.33	U	0.33	0.6	2.4
78	B#2-N4,N3,M4,M3	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		3.3	U	0.33	U	0.33	U	0.33	3.3	**13.2**
79	B#2-N5,M5	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.4	U	0.33	U	0.33	U	0.33	1.4	2.8
80	B#2-O1,O2,P1,P2	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.46	U	0.33	U	0.33	U	0.33	0.46	1.8
81	B#2-P5,O5	0-0.5"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.1	U	0.33	U	0.33	U	0.33	1.1	2.2
W-1	W-1	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	ND	

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds TSCA regulation limits.
RPD = Relative percent difference.
** = Mixture

Table 1a. Analytical Results: Bulk Concrete PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Map Label	Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs	*Total PCBs x # of Composites*
	CONCRETE																						
	BULK SAMPLES																						
	TSCA Regulated Lower Limit: 1 ppm (total PCBs)																						
					(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	*(mg/kg)*
W-2	W-2	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	ND	
	W-2-DUP	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	ND	
	RPD	0-0.25"													*0%*								
W-3	W-3	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.75	U	0.33	U	0.33	U	0.33	0.75	
W-4	W-4	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.73	U	0.33	U	0.33	U	0.33	0.73	
W-5	W-5	0-0.25"	6/19/2008	U	33	U	33	U	33	U	33	U	33		120	U	33	U	33	U	33	120	
W-6	W-6	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		1.1	U	0.33	U	0.33	U	0.33	1.1	
W-7	W-7	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		2.4	U	0.33	U	0.33	U	0.33	2.4	
W-8	W-8	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33		0.54	U	0.33	U	0.33	U	0.33	0.54	
W-9	W-9	0-0.25"	6/19/2008	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	U	0.33	ND	
W-10	W-10	0-0.25"	6/19/2008	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	U	0.32	ND	
	NOTES:																						

* = Sample mislabeled as B#1-G9,GH,H9,H10

** = Sample mislabeled as B#2-J8,J8,I8,I7

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds TSCA regulation limits.
RPD = Relative percent difference.
** = Mixture

Table 1b. Analytical Results: Soil PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Location	Depth	Date	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		PCB-1262		PCB-1268		Total PCBs
SOIL																					
EPA Region 9 PRGs Resid.			*3.9*		*0.22*		*0.22*		*0.22*		*0.22*		*0.22*		*0.22*						
			(mg/kg)		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		
Pad 1 (N) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (E) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (W) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (S) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 1 (S) Soil Dup	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 2 (N) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 2 (E) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	NA	U	NA	0.2
Pad 2 (W) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Pad 2 (S) Soil	0-0.5"	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		**0.4**	U	NA	U	NA	0.4
T1-Bott	3'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
T2-Bott	4'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
T5-Top	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
T-5 Dup	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-1	0-1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-2	0-1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-3	0-1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-4	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-4 Duplicate	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-5	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-6	0-1'	2/11/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-7	1'	2/7/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-8	1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-9	0-1'	2/8/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
MW-10	0-1'	2/11/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		**10**		**0.9**	U	NA	U	NA	10.9
MW-11	0-1'	2/11/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
PP-FD	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		**0.8**	U	0.1	U	NA	U	NA	0.8
Conv-FD	0-0.5'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
Storage Shed	0.5-1'	2/6/2008	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	NA	U	NA	0
CB-1	0-0.5"	2/25/2008	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	NA	U	NA	0
DUMP 1	0-1'	6/17/2008	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	U	0.46	0
DUMP 2	0-1'	6/18/2008	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	U	0.44	0
IS-1 (0-1.5)	0-1.5'	6/17/2008	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	0
IS-1 (0-1.5)-DUP	0-1.5'	6/17/2008	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	0
IS-2 (1.5-3)	1.5-3'	6/17/2008	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	0
IS-3 (1.5-3)	1.5-3'	6/17/2008	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U	0.35	0
LD-1 (0-1.5)	0-1.5'	6/17/2008	U	35	U	35	U	35	U	35	U	35		**170**	U	35	U	35	U	35	170
LD-2 (1.5-3)	1.5-3'	6/17/2008	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38		**0.52**	U	0.38	U	0.38	U	0.38	0.52
LD-3 (1.5-3)	1.5-3'	6/17/2008	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	U	0.18	0
SC-7 (1.0-1.5)	1-1.5'	6/17/2008	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	U	0.38	0
SC-7 (3-4.1)	3-4.1'	6/17/2008	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	U	0.36	0

U = Compound was not detected above laboratory reporting limit.
NA = Not Analyzed.
Bold/Shaded= Exceeds Residential PRG .
RPD = Relative percent difference between original and duplicate samples.

Table 2. Analytical Results: Soil- Metals
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	EPA Region 9	T1-Bott		T2-Bott		T5-Top		MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
Sample Depth	**PRGs**	**3'**		**4'**		**0-0.5'**		**0-1'**		**0-1'**		**0-1'**		**0-1'**		**0-1'**		**0-1'**		**0-1'**	
Units	**(mg/kg)**	**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**		**(mg/kg)**	
Sample Date	**Resid.**	**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**		**2/14/2008**	
Aluminum	*76,000*		12000		7300		14000		6200		7700		8400		6200		7500		7500		5700
Antimony	*31*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Arsenic	*0.39 (12*)*		4.1		2.8		**12**		3.7		3.3		4.1		3.8		3.7		3.3		3.9
Barium	*5400*		98		44		110		34		39		6.3		29		38		46		38
Beryllium	*150*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Cadmium	*37*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Chromium	*210*		19		12		21		10		11		13		9.2		11		11		11
Copper	*3,100*		16		11		18		14		12		14		26		18		17		16
Cobalt	*900*		7.3		6.5		7.5		8.7		5.6		6.9		33		7.1		8.3		10
Iron	*23,000*		17,000		12,000		17,000		15,000		13,000		14,000		14,000		15,000		14,000		14,000
Lead	*400*		25		5.2		62		8.7		6.2		19		9.5		8.2		11		18
Manganese	*1800*		320		280		400		400		210		390		370		490		460		430
Mercury	*230*	U	0.1	U	0.1		0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Nickel	*1,600*		17		14		19		15		15		15		17		16		16		19
Selenium	*3,900*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Silver	*390*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	11	U	11	U	11		0.6
Thallium	*5.2*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Tin	*47,000*		22		15		27		12		13		15		9		12		13		9.8
Vanadium	*78*		**82**		30		74		34		34		45		48		44		39		40
Zinc	*23,000*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2

Notes:
* = The VT background concentration is 12 mg/kg
U = Less than Limit of Detection Shown
NA = Not Analyzed
Bold/Shaded = Exceeds EPA Region 9 Residential Soil threshold
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Table 2. Analytical Results: Soil- Metals
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	EPA Region 9	MW-8		MW-9		MW-10		MW-11		PP-FD		Conv-FD		B Drain		Storage Shed		Dump 1		Dump 2	
Sample Depth	PRGs	0-1'		0-1'		0-1'		0-1'		0-0.5'		0-0.5'		0-0.5'		0.5-1'		0-1'		0-1'	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Sample Date	Resid.	2/14/2008		2/14/2008		2/14/2008		2/14/2008		2/6/2008		2/6/2008		2/6/2008		2/6/2008		6/17/2008		6/17/2008	
Aluminum	*76,000*		4600		5900		3700		11000		NA		NA		NA		NA		NA		NA
Antimony	*31*	U	0.5	U	0.5	U	0.5	U	0.5		0.6		0.8		1.3	U	0.5	U	0.5	U	0.5
Arsenic	*0.39 (12*)*		1.8		3		1.9		4.4		1.8		6.9		4.5		3.4		11		9.7
Barium	*5400*		29		33		25		72		NA		NA		NA		NA		NA		NA
Beryllium	*150*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Cadmium	*37*	U	0.5	U	0.5	U	0.5	U	0.5		0.6		17		5.5	U	0.5		5.7		7
Chromium	*210*		21		11		15		16		5.4		100		57		31		71		43
Copper	*3,100*		5.2		15		22		14		310		2700		300		18		270		120
Cobalt	*900*		3.1		4.8		2.4		9.4		NA		NA		NA		NA		NA		NA
Iron	*23,000*		5,600		12,000		6,900		16,000		NA		NA		NA		NA		NA		NA
Lead	*400*		2.9		28		74		9		220		**610**		260		130		**1000**		**910**
Manganese	*1800*		170		310		130		380		NA		NA		NA		NA		NA		NA
Mercury	*230*	U	0.1	U	0.1		0.1	U	0.1	U	0.1		1.6		4.8	U	0.1		0.4		0.7
Nickel	*1,600*		17		13		8.9		18		5.1		76		360		18		24		26
Selenium	*3,900*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.1		0.6
Silver	*390*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.1	U	0.5	U	0.5	U	0.5
Thallium	*5.2*	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Tin	*47,000*		16		12		14		20		NA		NA		NA		NA		NA		NA
Vanadium	*78*		16		44		**95**		40		NA		NA		NA		NA		NA		NA
Zinc	*23,000*	U	2	U	2	U	2	U	2		210		1400		430		270		1500		1600

Notes:
* = The VT background concentration is 12 mg/kg
U = Less than Limit of Detection Shown
NA = Not Analyzed
Bold/Shaded = Exceeds EPA Region 9 Residential Soil threshold
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Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	T1-Bott		T2-Bott		T5-Top		T-5 Dup		MW-1		MW-1		MW-2		MW-2		MW-3		MW-3	
Sample Depth	PRGs	3'		4'		0-0.5'		0-0.5'		2'		27'		0-1'		10'		6.5'		15'	
Sampling Date	Resid.	2/6/2005		2/6/2008		2/6/2008		2/6/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Dichlorodifluoromethane	94	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Chloromethane	4,700	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Vinyl Chloride	0.079 (BLD)	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Bromomethane	4	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Chloroethane	3.0	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Trichlorofluoromethane	390	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Diethyl Ether (Ethyl ether)	1,800	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Acetone	14,000	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,1-Dichloroethene	120	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Methylene chloride	9	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Carbon Disulfide	360	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Methyl-t-Butyl Ether	32	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
trans-1,2-Dichloroethene	69	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1-Dichloroethane	510	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2,2-Dichloropropane	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
cis-1,2-Dichloroethene	43	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2-Butanone (MEK)	22,000	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Bromochloromethane	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Tetrahydrofuran (THF)	9	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Chloroform	0.22	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,1-Trichloroethane	1,200	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Carbon Tetrachloride	0.25	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1-Dichloropropene	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Benzene	0.64	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichloroethane	0.28	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Trichloroethene	0.053	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichloropropane	0.34	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Dibromomethane	67	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Bromodichloromethane	0.82	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
4-Methyl-2-pentanone	5,300	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
cis-1,3-Dichloropropene	0.78	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Toluene	520	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
trans-1,3-Dichloropropene	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,2-Trichloroethane	0.73	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2-Hexanone	None	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Tetrachloroethene	0.48	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,3-Dichloropropane	100	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Dibromochloromethane	1.1	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dibromoethane	0.032 (BLD)	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Chlorobenzene	150	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,1,2-Tetrachloroethane	3.2	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	T1-Bott		T2-Bott		T5-Top		T-5 Dup		MW-1		MW-1		MW-2		MW-2		MW-3		MW-3	
Sample Depth	PRGs	3'		4'		0-0.5'		0-0.5'		2'		27'		0-1'		10'		6.5'		15'	
Sampling Date	Resid.	2/6/2005		2/6/2008		2/6/2008		2/6/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Ethylbenzene	400	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Xylene (m,p)	270	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Xylene (o)	270	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Styrene	1,700	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Bromoform	62	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Isopropylbenzene	670	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Bromobenzene	28	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,2,2-Tetrachloroethane	0.41	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2,3-Trichloropropane	0.034 (BLD)	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
n-Propylbenzene	240	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2-Chlorotoluene	160	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
4-Chlorotoluene	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,3,5-Trimethylbenzene	21	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
tert-Butylbenzene	390	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2,4-Trimethylbenzene	52	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
sec-Butylbenzene	220	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,3-Dichlorobenzene	530	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
4-Isopropyltoluene	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,4-Dichlorobenzene	3.4	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichlorobenzene	600	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
n-Butylbenzene	240	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dibromo-3-Chloropropane	2	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2,4-Trichlorobenzene	62	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Hexachlorobutadiene	6	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Naphthalene	56	U	0.4	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3
1,2,3-Trichlorobenzene	None	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	MW-4		MW-4		MW-5		MW-5		MW-6		MW-6		MW-7		MW-7		MW-8	
Sample Depth	PRGs	0-1'		4.5'		0-1'		7'		5.3'		11.8'		6'		11'		1'	
Sampling Date	Resid.	2/8/2008		2/8/2008		2/8/2008		2/8/2008		2/8/2008		2/8/2008		2/7/2008		2/7/2008		2/8/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Dichlorodifluoromethane	94	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Chloromethane	4,700	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Vinyl Chloride	0.079 (BLD)	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Bromomethane	4	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Chloroethane	3.0	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2
Trichlorofluoromethane	390	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Diethyl Ether (Ethyl ether)	1,800	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Acetone	14,000	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,1-Dichloroethene	120	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Methylene chloride	9	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Carbon Disulfide	360	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Methyl-t-Butyl Ether	32	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
trans-1,2-Dichloroethene	69	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1-Dichloroethane	510	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2,2-Dichloropropane	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
cis-1,2-Dichloroethene	43	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2-Butanone (MEK)	22,000	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Bromochloromethane	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Tetrahydrofuran (THF)	9	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Chloroform	0.22	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,1-Trichloroethane	1,200	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Carbon Tetrachloride	0.25	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1-Dichloropropene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Benzene	0.64	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichloroethane	0.28	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Trichloroethene	0.053		**0.19**		**0.17**	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichloropropane	0.34	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Dibromomethane	67	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Bromodichloromethane	0.82	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
4-Methyl-2-pentanone	5,300	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
cis-1,3-Dichloropropene	0.78	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Toluene	520	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
trans-1,3-Dichloropropene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,2-Trichloroethane	0.73	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2-Hexanone	None	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5
Tetrachloroethene	0.48	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,3-Dichloropropane	100	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Dibromochloromethane	1.1	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dibromoethane	0.032 (BLD)	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Chlorobenzene	150	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,1,2-Tetrachloroethane	3.2	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	MW-4		MW-4		MW-5		MW-5		MW-6		MW-6		MW-7		MW-7		MW-8	
Sample Depth	PRGs	0-1'		4.5'		0-1'		7'		5.3'		11.8'		6'		11'		1'	
Sampling Date	Resid.	2/8/2008		2/8/2008		2/8/2008		2/8/2008		2/8/2008		2/8/2008		2/7/2008		2/7/2008		2/8/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Ethylbenzene	400	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Xylene (m,p)	270	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Xylene (o)	270	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Styrene	1,700	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Bromoform	62	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Isopropylbenzene	670	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Bromobenzene	28	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,1,2,2-Tetrachloroethane	0.41	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2,3-Trichloropropane	0.034 (BLD)	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
n-Propylbenzene	240	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
2-Chlorotoluene	160	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
4-Chlorotoluene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,3,5-Trimethylbenzene	21	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
tert-Butylbenzene	390	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2,4-Trimethylbenzene	52	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
sec-Butylbenzene	220	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,3-Dichlorobenzene	530	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
4-Isopropyltoluene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,4-Dichlorobenzene	3.4	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichlorobenzene	600	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
n-Butylbenzene	240	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dibromo-3-Chloropropane	2	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
1,2,4-Trichlorobenzene	62	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Hexachlorobutadiene	6	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05
Naphthalene	56	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3	U	0.3
1,2,3-Trichlorobenzene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	MW-8		MW-9		MW-9		MW-10		MW-10		MW-11		MW-11		MW-11		B Drain	
Sample Depth	PRGs	5'		5'		10'		1'		6'		2'		6'		6' Duplicate		0-0.5'	
Sampling Date	Resid.	2/8/2008		2/8/2008		2/8/2008		2/11/2008		2/11/2008		2/11/2008		2/11/2008		2/11/2008		2/6/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Dichlorodifluoromethane	94	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.4
Chloromethane	4,700	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.4
Vinyl Chloride	0.079 (BLD)	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2
Bromomethane	4	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.4
Chloroethane	3.0	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.4
Trichlorofluoromethane	390	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2
Diethyl Ether (Ethyl ether)	1,800	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Acetone	14,000	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	4
1,1-Dichloroethene	120	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Methylene chloride	9	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2
Carbon Disulfide	360	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2
Methyl-t-Butyl Ether	32	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2
trans-1,2-Dichloroethene	69	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,1-Dichloroethane	510	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
2,2-Dichloropropane	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
cis-1,2-Dichloroethene	43	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
2-Butanone (MEK)	22,000	U	0.5	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.6	U	0.5	U	0.9
Bromochloromethane	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Tetrahydrofuran (THF)	9	U	0.5	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.6	U	0.5	U	0.9
Chloroform	0.22	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,1,1-Trichloroethane	1,200	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Carbon Tetrachloride	0.25	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,1-Dichloropropene	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Benzene	0.64	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2-Dichloroethane	0.28	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Trichloroethene	0.053	U	0.05	U	**0.06**	U	0.05	U	0.05	U	0.05	U	0.05	U	**0.06**	U	0.05	U	**0.09**
1,2-Dichloropropane	0.34	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Dibromomethane	67	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Bromodichloromethane	0.82	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
4-Methyl-2-pentanone	5,300	U	0.5	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.6	U	0.5	U	0.9
cis-1,3-Dichloropropene	0.78	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Toluene	520	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
trans-1,3-Dichloropropene	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,1,2-Trichloroethane	0.73	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
2-Hexanone	None	U	0.5	U	0.6	U	0.5	U	0.5	U	0.5	U	0.5	U	0.6	U	0.5	U	0.9
Tetrachloroethene	0.48	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,3-Dichloropropane	100	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Dibromochloromethane	1.1	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2-Dibromoethane	0.032 (BLD)	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Chlorobenzene	150	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,1,1,2-Tetrachloroethane	3.2	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	MW-8		MW-9		MW-9		MW-10		MW-10		MW-11		MW-11		MW-11		B Drain	
Sample Depth	PRGs	5'		5'		10'		1'		6'		2'		6'		6' Duplicate		0-0.5'	
Sampling Date	Resid.	2/8/2008		2/8/2008		2/8/2008		2/11/2008		2/11/2008		2/11/2008		2/11/2008		2/11/2008		2/6/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Ethylbenzene	400	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Xylene (m,p)	270	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Xylene (o)	270	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Styrene	1,700	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Bromoform	62	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Isopropylbenzene	670	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Bromobenzene	28	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,1,2,2-Tetrachloroethane	0.41	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2,3-Trichloropropane	0.034 (BLD)	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
n-Propylbenzene	240	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
2-Chlorotoluene	160	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
4-Chlorotoluene	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,3,5-Trimethylbenzene	21	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
tert-Butylbenzene	390	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2,4-Trimethylbenzene	52	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
sec-Butylbenzene	220	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,3-Dichlorobenzene	530	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
4-Isopropyltoluene	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,4-Dichlorobenzene	3.4	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2-Dichlorobenzene	600	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05		0.11
n-Butylbenzene	240	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2-Dibromo-3-Chloropropane	2	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
1,2,4-Trichlorobenzene	62	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Hexachlorobutadiene	6	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09
Naphthalene	56	U	0.3	U	0.4	U	0.3	U	0.3	U	0.3	U	0.3	U	0.4	U	0.3	U	0.5
1,2,3-Trichlorobenzene	None	U	0.05	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05	U	0.06	U	0.05	U	0.09

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	StorageShed		Trip Blank1		Trip Blank2		MW-4 Floor		SC-1		SC-2		SC-2		SC-3		SC-3	
Sample Depth	PRGs	0.5-1'						Drain		0.5-1.5'		0.5-1.5'		3-4.8'		0.5-1.5'		3-3.5'	
Sampling Date	Resid.	2/6/2008		2/6/2008		2/7/2008		6/17/2008		6/17/2008		6/17/2008		6/18/2008		6/17/2008		6/18/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Dichlorodifluoromethane	94	U	0.3	U	0.2	U	0.2	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Chloromethane	4,700	U	0.3	U	0.2	U	0.2	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Vinyl Chloride	0.079 (BLD)	U	0.2	U	0.1	U	0.1	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Bromomethane	4	U	0.3	U	0.2	U	0.2	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Chloroethane	3.0	U	0.3	U	0.2	U	0.2	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Trichlorofluoromethane	390	U	0.2	U	0.1	U	0.1	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Diethyl Ether (Ethyl ether)	1,800	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Acetone	14,000	U	3	U	2	U	2		NA		NA		NA		NA		NA		NA
1,1-Dichloroethene	120	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
Methylene chloride	9	U	0.2	U	0.1	U	0.1	U	0.2	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Carbon Disulfide	360	U	0.2	U	0.1	U	0.1		NA		NA		NA		NA		NA		NA
Methyl-t-Butyl Ether	32	U	0.2	U	0.1	U	0.1		NA		NA		NA		NA		NA		NA
trans-1,2-Dichloroethene	69	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,1-Dichloroethane	510	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
2,2-Dichloropropane	None	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
cis-1,2-Dichloroethene	43	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
2-Butanone (MEK)	22,000	U	0.8	U	0.5	U	0.5		NA		NA		NA		NA		NA		NA
Bromochloromethane	None	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Tetrahydrofuran (THF)	9	U	0.8	U	0.5	U	0.5		NA		NA		NA		NA		NA		NA
Chloroform	0.22	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,1,1-Trichloroethane	1,200	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
Carbon Tetrachloride	0.25	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,1-Dichloropropene	None	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Benzene	0.64	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,2-Dichloroethane	0.28	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
Trichloroethene	0.053	U	**0.08**	U	0.05	U	0.05	U	**0.09**		**0.37**		**0.39**		**0.75**		**0.18**		**0.40**
1,2-Dichloropropane	0.34	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
Dibromomethane	67	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Bromodichloromethane	0.82	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
4-Methyl-2-pentanone	5,300	U	0.8	U	0.5	U	0.5		NA		NA		NA		NA		NA		NA
cis-1,3-Dichloropropene	0.78	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
Toluene	520	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
trans-1,3-Dichloropropene	None	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,1,2-Trichloroethane	0.73	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
2-Hexanone	None	U	0.8	U	0.5	U	0.5		NA		NA		NA		NA		NA		NA
Tetrachloroethene	0.48	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,3-Dichloropropane	100	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Dibromochloromethane	1.1	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,2-Dibromoethane	0.032 (BLD)	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Chlorobenzene	150	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,1,1,2-Tetrachloroethane	3.2	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	StorageShed		Trip Blank1		Trip Blank2		MW-4 Floor		SC-1		SC-2		SC-2		SC-3		SC-3	
Sample Depth	PRGs	0.5-1'						Drain		0.5-1.5'		0.5-1.5'		3-4.8'		0.5-1.5'		3-3.5'	
Sampling Date	Resid.	2/6/2008		2/6/2008		2/7/2008		6/17/2008		6/17/2008		6/17/2008		6/18/2008		6/17/2008		6/18/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Ethylbenzene	400	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Xylene (m,p)	270	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Xylene (o)	270	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Styrene	1,700	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Bromoform	62	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
Isopropylbenzene	670	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Bromobenzene	28	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,1,2,2-Tetrachloroethane	0.41	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,2,3-Trichloropropane	0.034 (BLD)	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
n-Propylbenzene	240	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
2-Chlorotoluene	160	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
4-Chlorotoluene	None	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,3,5-Trimethylbenzene	21	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
tert-Butylbenzene	390	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,2,4-Trimethylbenzene	52	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
sec-Butylbenzene	220	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,3-Dichlorobenzene	530	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
4-Isopropyltoluene	None	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,4-Dichlorobenzene	3.4	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
1,2-Dichlorobenzene	600	U	0.08	U	0.05	U	0.05	U	0.09	U	0.06	U	0.06	U	0.05	U	0.05	U	0.05
n-Butylbenzene	240	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,2-Dibromo-3-Chloropropane	2	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
1,2,4-Trichlorobenzene	62	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Hexachlorobutadiene	6	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA
Naphthalene	56	U	0.5	U	0.3	U	0.3		NA		NA		NA		NA		NA		NA
1,2,3-Trichlorobenzene	None	U	0.08	U	0.05	U	0.05		NA		NA		NA		NA		NA		NA

Notes:
NA = Not Analyzed
Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	SC-4		SC-4-Dup			SC-4		SC-5		SC-6		SC-7		SC-7		SC-8		SC-9	
Sample Depth	PRGs	0.5-1.5'		0.5-1.5'		RPD	3-4.3'		0.5-1.5'		0.5-1.5'		0.5-1.5'		3-4.1'		0.5-1.5'		2.5-3.5'	
Sampling Date	Resid.	6/17/2008		6/17/2008			6/18/2008		6/17/2008		6/17/2008		6/17/2008		6/18/2008		6/17/2008		8/14/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)			(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Dichlorodifluoromethane	94	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Chloromethane	4,700	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Vinyl Chloride	0.079 (BLD)	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Bromomethane	4	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Chloroethane	3.0	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Trichlorofluoromethane	390	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Diethyl Ether (Ethyl ether)	1,800		NA		NA			NA		NA		NA		NA		NA		NA		NA
Acetone	14,000		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,1-Dichloroethene	120	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
Methylene chloride	9	U	0.1	U	0.1	0%	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1
Carbon Disulfide	360		NA		NA			NA		NA		NA		NA		NA		NA		NA
Methyl-t-Butyl Ether	32		NA		NA			NA		NA		NA		NA		NA		NA		NA
trans-1,2-Dichloroethene	69	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,1-Dichloroethane	510	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
2,2-Dichloropropane	None		NA		NA			NA		NA		NA		NA		NA		NA		NA
cis-1,2-Dichloroethene	43	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
2-Butanone (MEK)	22,000		NA		NA			NA		NA		NA		NA		NA		NA		NA
Bromochloromethane	None		NA		NA			NA		NA		NA		NA		NA		NA		NA
Tetrahydrofuran (THF)	9		NA		NA			NA		NA		NA		NA		NA		NA		NA
Chloroform	0.22	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,1,1-Trichloroethane	1,200	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
Carbon Tetrachloride	0.25	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,1-Dichloropropene	None		NA		NA			NA		NA		NA		NA		NA		NA		NA
Benzene	0.64		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,2-Dichloroethane	0.28	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
Trichloroethene	0.053		**0.20**		**0.16**	22%		**0.19**		**2.90**		**0.37**	U	0.05	U	0.05		**0.26**		**0.46**
1,2-Dichloropropane	0.34	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
Dibromomethane	67		NA		NA			NA		NA		NA		NA		NA		NA		NA
Bromodichloromethane	0.82	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
4-Methyl-2-pentanone	5,300		NA		NA			NA		NA		NA		NA		NA		NA		NA
cis-1,3-Dichloropropene	0.78	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
Toluene	520		NA		NA			NA		NA		NA		NA		NA		NA		NA
trans-1,3-Dichloropropene	None	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,1,2-Trichloroethane	0.73	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
2-Hexanone	None		NA		NA			NA		NA		NA		NA		NA		NA		NA
Tetrachloroethene	0.48	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,3-Dichloropropane	100		NA		NA			NA		NA		NA		NA		NA		NA		NA
Dibromochloromethane	1.1	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dibromoethane	0.032 (BLD)		NA		NA			NA		NA		NA		NA		NA		NA		NA
Chlorobenzene	150	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,1,1,2-Tetrachloroethane	3.2		NA		NA			NA		NA		NA		NA		NA		NA		NA

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	SC-4		SC-4-Dup			SC-4		SC-5		SC-6		SC-7		SC-7		SC-8		SC-9	
Sample Depth	PRGs	0.5-1.5'		0.5-1.5'		RPD	3-4.3'		0.5-1.5'		0.5-1.5'		0.5-1.5'		3-4.1'		0.5-1.5'		2.5-3.5'	
Sampling Date	Resid.	6/17/2008		6/17/2008			6/18/2008		6/17/2008		6/17/2008		6/17/2008		6/18/2008		6/17/2008		8/14/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)			(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Ethylbenzene	400		NA		NA			NA		NA		NA		NA		NA		NA		NA
Xylene (m,p)	270		NA		NA			NA		NA		NA		NA		NA		NA		NA
Xylene (o)	270		NA		NA			NA		NA		NA		NA		NA		NA		NA
Styrene	1,700		NA		NA			NA		NA		NA		NA		NA		NA		NA
Bromoform	62	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
Isopropylbenzene	670		NA		NA			NA		NA		NA		NA		NA		NA		NA
Bromobenzene	28		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,1,2,2-Tetrachloroethane	0.41	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,2,3-Trichloropropane	0.034 (BLD)		NA		NA			NA		NA		NA		NA		NA		NA		NA
n-Propylbenzene	240		NA		NA			NA		NA		NA		NA		NA		NA		NA
2-Chlorotoluene	160		NA		NA			NA		NA		NA		NA		NA		NA		NA
4-Chlorotoluene	None		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,3,5-Trimethylbenzene	21		NA		NA			NA		NA		NA		NA		NA		NA		NA
tert-Butylbenzene	390		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,2,4-Trimethylbenzene	52		NA		NA			NA		NA		NA		NA		NA		NA		NA
sec-Butylbenzene	220		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,3-Dichlorobenzene	530	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
4-Isopropyltoluene	None		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,4-Dichlorobenzene	3.4	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
1,2-Dichlorobenzene	600	U	0.06	U	0.05	18%	U	0.06	U	0.07	U	0.06	U	0.05	U	0.05	U	0.05	U	0.05
n-Butylbenzene	240		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,2-Dibromo-3-Chloropropane	2		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,2,4-Trichlorobenzene	62		NA		NA			NA		NA		NA		NA		NA		NA		NA
Hexachlorobutadiene	6		NA		NA			NA		NA		NA		NA		NA		NA		NA
Naphthalene	56		NA		NA			NA		NA		NA		NA		NA		NA		NA
1,2,3-Trichlorobenzene	None		NA		NA			NA		NA		NA		NA		NA		NA		NA

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	EPA Region 9	SC-9		SC-10		SC-10		SC-11		SC-12		SC-12		SC-12 Dup			SC-13	
Sample Depth	PRGs	7-7.8'		2.5-3.5'		7-8'		7-8'		2.5-3.5'		7-8'		7-8'		*RPD*	7-8'	
Sampling Date	Resid.	8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008			8/14/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)			(mg/kg)	
Dichlorodifluoromethane	94	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Chloromethane	4,700	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Vinyl Chloride	0.079 (BLD)	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Bromomethane	4	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Chloroethane	3.0	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Trichlorofluoromethane	390	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Diethyl Ether (Ethyl ether)	1,800		NA		NA		NA		NA		NA		NA		NA			NA
Acetone	14,000		NA		NA		NA		NA		NA		NA		NA			NA
1,1-Dichloroethene	120	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
Methylene chloride	9	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1	*0%*	U	0.1
Carbon Disulfide	360		NA		NA		NA		NA		NA		NA		NA			NA
Methyl-t-Butyl Ether	32		NA		NA		NA		NA		NA		NA		NA			NA
trans-1,2-Dichloroethene	69	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,1-Dichloroethane	510	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
2,2-Dichloropropane	None		NA		NA		NA		NA		NA	U	0.09		NA			NA
cis-1,2-Dichloroethene	43		0.09	U	0.05	U	0.05	U	0.05	U	0.05		0.35		0.17	*0%*	U	0.05
2-Butanone (MEK)	22,000		NA		NA		NA		NA		NA		NA		NA			NA
Bromochloromethane	None		NA		NA		NA		NA		NA		NA		NA			NA
Tetrahydrofuran (THF)	9		NA		NA		NA		NA		NA		NA		NA			NA
Chloroform	0.22	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,1,1-Trichloroethane	1,200	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
Carbon Tetrachloride	0.25	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,1-Dichloropropene	None		NA		NA		NA		NA		NA		NA		NA			NA
Benzene	0.64		NA		NA		NA		NA		NA		NA		NA			NA
1,2-Dichloroethane	0.28	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
Trichloroethene	0.053		**6.6**		**0.33**	U	0.05	U	0.05		**0.59**		**15**		**7.4**	*68%*	U	0.05
1,2-Dichloropropane	0.34	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
Dibromomethane	67		NA		NA		NA		NA		NA		NA		NA			NA
Bromodichloromethane	0.82	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
4-Methyl-2-pentanone	5,300		NA		NA		NA		NA		NA		NA		NA			NA
cis-1,3-Dichloropropene	0.78	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
Toluene	520		NA		NA		NA		NA		NA		NA		NA			NA
trans-1,3-Dichloropropene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,1,2-Trichloroethane	0.73	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
2-Hexanone	None		NA		NA		NA		NA		NA		NA		NA			NA
Tetrachloroethene	0.48	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,3-Dichloropropane	100		NA		NA		NA		NA		NA		NA		NA			NA
Dibromochloromethane	1.1	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,2-Dibromoethane	0.032 (BLD)		NA		NA		NA		NA		NA		NA		NA			NA
Chlorobenzene	150	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,1,1,2-Tetrachloroethane	3.2		NA		NA		NA		NA		NA		NA		NA			NA

Notes:
NA = Not Analyzed
Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	SC-9		SC-10		SC-10		SC-11		SC-12		SC-12		SC-12 Dup			SC-13	
Sample Depth	PRGs	7-7.8'		2.5-3.5'		7-8'		7-8'		2.5-3.5'		7-8'		7-8'		*RPD*	7-8'	
Sampling Date	Resid.	8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008			8/14/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)			(mg/kg)	
Ethylbenzene	400		NA		NA		NA		NA		NA		NA		NA			NA
Xylene (m,p)	270		NA		NA		NA		NA		NA		NA		NA			NA
Xylene (o)	270		NA		NA		NA		NA		NA		NA		NA			NA
Styrene	1,700		NA		NA		NA		NA		NA		NA		NA			NA
Bromoform	62	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
Isopropylbenzene	670		NA		NA		NA		NA		NA		NA		NA			NA
Bromobenzene	28		NA		NA		NA		NA		NA		NA		NA			NA
1,1,2,2-Tetrachloroethane	0.41	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,2,3-Trichloropropane	0.034 (BLD)		NA		NA		NA		NA		NA		NA		NA			NA
n-Propylbenzene	240		NA		NA		NA		NA		NA		NA		NA			NA
2-Chlorotoluene	160		NA		NA		NA		NA		NA		NA		NA			NA
4-Chlorotoluene	None		NA		NA		NA		NA		NA		NA		NA			NA
1,3,5-Trimethylbenzene	21		NA		NA		NA		NA		NA		NA		NA			NA
tert-Butylbenzene	390		NA		NA		NA		NA		NA		NA		NA			NA
1,2,4-Trimethylbenzene	52		NA		NA		NA		NA		NA		NA		NA			NA
sec-Butylbenzene	220		NA		NA		NA		NA		NA		NA		NA			NA
1,3-Dichlorobenzene	530	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
4-Isopropyltoluene	None		NA		NA		NA		NA		NA		NA		NA			NA
1,4-Dichlorobenzene	3.4	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
1,2-Dichlorobenzene	600	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05	*0%*	U	0.05
n-Butylbenzene	240		NA		NA		NA		NA		NA		NA		NA			NA
1,2-Dibromo-3-Chloropropane	2		NA		NA		NA		NA		NA		NA		NA			NA
1,2,4-Trichlorobenzene	62		NA		NA		NA		NA		NA		NA		NA			NA
Hexachlorobutadiene	6		NA		NA		NA		NA		NA		NA		NA			NA
Naphthalene	56		NA		NA		NA		NA		NA		NA		NA			NA
1,2,3-Trichlorobenzene	None		NA		NA		NA		NA		NA		NA		NA			NA

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	SC-14		SC-14		SC-15		SC-16		SCMW-12		CONV-FD		Trip Blank	
Sample Depth	PRGs	2.5-3.5'		7-8'		7-8'		7-8'		7-8'		0-3"			
Sampling Date	Resid.	8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Dichlorodifluoromethane	94	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Chloromethane	4,700	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Vinyl Chloride	0.079 (BLD)	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Bromomethane	4	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Chloroethane	3.0	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Trichlorofluoromethane	390	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Diethyl Ether (Ethyl ether)	1,800		NA		NA		NA		NA		NA		NA		NA
Acetone	14,000		NA		NA		NA		NA		NA		NA		NA
1,1-Dichloroethene	120	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
Methylene chloride	9	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.2	U	0.1
Carbon Disulfide	360		NA		NA		NA		NA		NA		NA		NA
Methyl-t-Butyl Ether	32		NA		NA		NA		NA		NA		NA		NA
trans-1,2-Dichloroethene	69	U	0.05		1.2	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,1-Dichloroethane	510	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
2,2-Dichloropropane	None		NA		NA		NA		NA		NA	U	0.1		NA
cis-1,2-Dichloroethene	43	U	0.05		1.5	U	0.05	U	0.05		0.14	U	0.1	U	0.05
2-Butanone (MEK)	22,000		NA		NA		NA		NA		NA		NA		NA
Bromochloromethane	None		NA		NA		NA		NA		NA		NA		NA
Tetrahydrofuran (THF)	9		NA		NA		NA		NA		NA		NA		NA
Chloroform	0.22	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05
1,1,1-Trichloroethane	1,200	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	1	U	0.05
Carbon Tetrachloride	0.25	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,1-Dichloropropene	None		NA		NA		NA		NA		NA		NA		NA
Benzene	0.64		NA		NA		NA		NA		NA		NA		NA
1,2-Dichloroethane	0.28	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.09	U	0.05
Trichloroethene	0.053		**0.47**		**0.66**	U	0.05	U	0.05		**0.13**	U	0.1	U	0.05
1,2-Dichloropropane	0.34	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
Dibromomethane	67		NA		NA		NA		NA		NA		NA		NA
Bromodichloromethane	0.82	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
4-Methyl-2-pentanone	5,300		NA		NA		NA		NA		NA		NA		NA
cis-1,3-Dichloropropene	0.78	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
Toluene	520		NA		NA		NA		NA		NA		NA		NA
trans-1,3-Dichloropropene	None	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,1,2-Trichloroethane	0.73	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
2-Hexanone	None		NA		NA		NA		NA		NA		NA		NA
Tetrachloroethene	0.48	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,3-Dichloropropane	100		NA		NA		NA		NA		NA		NA		NA
Dibromochloromethane	1.1	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,2-Dibromoethane	0.032 (BLD)		NA		NA		NA		NA		NA		NA		NA
Chlorobenzene	150	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,1,1,2-Tetrachloroethane	3.2		NA		NA		NA		NA		NA		NA		NA

Notes:

NA = Not Analyzed

Bold/Shaded = Exceeds Residential PRG

Table 3. Analytical Results: Soil- VOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	SC-14		SC-14		SC-15		SC-16		SCMW-12		CONV-FD		Trip Blank	
Sample Depth	PRGs	2.5-3.5'		7-8'		7-8'		7-8'		7-8'		0-3"			
Sampling Date	Resid.	8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008		8/14/2008	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Ethylbenzene	400		NA		NA		NA		NA		NA		NA		NA
Xylene (m,p)	270		NA		NA		NA		NA		NA		NA		NA
Xylene (o)	270		NA		NA		NA		NA		NA		NA		NA
Styrene	1,700		NA		NA		NA		NA		NA		NA		NA
Bromoform	62	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
Isopropylbenzene	670		NA		NA		NA		NA		NA		NA		NA
Bromobenzene	28		NA		NA		NA		NA		NA		NA		NA
1,1,2,2-Tetrachloroethane	0.41	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,2,3-Trichloropropane	0.034 (BLD)		NA		NA		NA		NA		NA		NA		NA
n-Propylbenzene	240		NA		NA		NA		NA		NA		NA		NA
2-Chlorotoluene	160		NA		NA		NA		NA		NA		NA		NA
4-Chlorotoluene	None		NA		NA		NA		NA		NA		NA		NA
1,3,5-Trimethylbenzene	21		NA		NA		NA		NA		NA		NA		NA
tert-Butylbenzene	390		NA		NA		NA		NA		NA		NA		NA
1,2,4-Trimethylbenzene	52		NA		NA		NA		NA		NA		NA		NA
sec-Butylbenzene	220		NA		NA		NA		NA		NA		NA		NA
1,3-Dichlorobenzene	530	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
4-Isopropyltoluene	None		NA		NA		NA		NA		NA		NA		NA
1,4-Dichlorobenzene	3.4	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
1,2-Dichlorobenzene	600	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.1	U	0.05
n-Butylbenzene	240		NA		NA		NA		NA		NA		NA		NA
1,2-Dibromo-3-Chloropropane	2		NA		NA		NA		NA		NA		NA		NA
1,2,4-Trichlorobenzene	62		NA		NA		NA		NA		NA		NA		NA
Hexachlorobutadiene	6		NA		NA		NA		NA		NA		NA		NA
Naphthalene	56		NA		NA		NA		NA		NA		NA		NA
1,2,3-Trichlorobenzene	None		NA		NA		NA		NA		NA		NA		NA

Notes:
NA = Not Analyzed
Bold/Shaded = Exceeds Residential PRG

Table 4. Analytical Results: Soil- SVOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	T5-Top		MW-1		MW-4		MW-4		MW-7		MW-8		PP-FD	
Sample Depth	PRGs	0-0.5'		24-28'		0-1'		0-1' Duplicate		0-1'		1'		0-0.5'	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Sample Date	Resid.	2/6/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008		2/8/2008		2/6/2008	
Phenol	18,000	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2-Chlorophenol	63	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,4-Dichlorophenol	120	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,4,5-Trichlorophenol	6,100	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,4,6-Trichlorophenol	6.1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Pentachlorophenol	3.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0
2-Nitrophenol	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4-Nitrophenol	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,4-Dinitrophenol	120	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0
2-Methylphenol	3,100	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
3/4-Methylphenol	310	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,4-Dimethylphenol	1,200	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4-Chloro-3-methylphenol	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4,6-Dinitro-2-methylphenol	None	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0
Benzoic Acid	100,000	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0
N-Nitrosodimethylamine	0.0095*	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
N-Nitroso-di-n-propylamine	0.069*	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
N-nitrosodiphenylamine	99	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
bis (2-Chloroethyl) Ether	0.22	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
bis (2-chloroisopropyl)ether	2.9	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
bis (2-Chloroethoxy) methane	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
1,3-Dichlorobenzene	530	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
1,4-Dichlorobenzene	3.4	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
1,2-Dichlorobenzene	600	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
1,2,4-Trichlorobenzene	62	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2-Chloronaphthalene	4,900	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4-Chlorophenyl-phenylether	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4-Bromophenyl-phenylether	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Hexachloroethane	35	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Hexachlorobutadiene	6.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Hexachlorocyclopentadiene	370	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	5.0
Hexachlorobenzene	0.3	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4-Chloroaniline	240	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0

Notes:

Bold/Shaded = Exceeds Residential PRG

* = Lab reporting limit above PRG.

K:\1-1470-13\Phase II ESA\Data\tables for CAFI 090308 Fonda Data.xls 4 SVOCs- soil

Table 4. Analytical Results: Soil- SVOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	T5-Top		MW-1		MW-4		MW-4		MW-7		MW-8		PP-FD	
Sample Depth	PRGs	0-0.5'		24-28'		0-1'		0-1' Duplicate		0-1'		1'		0-0.5'	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Sample Date	Resid.	2/6/2008		2/7/2008		2/7/2008		2/7/2008		2/7/2008		2/8/2008		2/6/2008	
2-Nitroaniline	180	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
3-Nitroaniline	18	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
4-Nitroaniline	23	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Benzyl Alcohol	18,000	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Nitrobenzene	20	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Isophorone	510	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,4-Dinitrotoluene	120	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2,6-Dinitrotoluene	61	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Benzidine	0.0021*	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	0.4	U	1.0
3,3'-Dichlorobenzidene	1.1	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Pyridine	61	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Azobenzene	4	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Carbazole	24	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Dimethylphthalate	100,000	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Diethylphthalate	49,000	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Di-n-butylphthalate	6,100	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.0
Butylbenzylphthalate	12,000	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
bis(2-Ethylhexyl)phthalate	35	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	6.0
Di-n-octylphthalate	2,400	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Dibenzofuran	150	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Naphthalene	56	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
2-Methylnaphthalene	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Acenaphthylene	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Acenaphthene	3,700	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Fluorene	2,700	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Phenanthrene	None	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		0.4	U	1.0
Anthracene	22,000	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	1.0
Fluoranthene	2,300	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		0.4	U	1.0
Pyrene	2,300	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		0.3	U	1.0
Benzo(a)anthracene	0.62		0.06	U	0.02	U	0.02	U	0.02	U	0.02		0.17	U	0.10
Chrysene	62		0.06	U	0.02	U	0.02	U	0.02	U	0.02		0.16	U	0.10
Benzo(b)fluoranthene	0.62		0.06	U	0.02	U	0.02	U	0.02	U	0.02		0.15	U	0.10
Benzo(k)fluoranthene	6.2		0.04	U	0.02	U	0.02	U	0.02	U	0.02		0.13	U	0.10
Benzo(a)pyrene	0.062		0.06	U	0.02	U	0.02	U	0.02	U	0.02		**0.15**	U	**0.10**
Indeno(1,2,3-cd)pyrene	0.62		0.04	U	0.02	U	0.02	U	0.02	U	0.02		0.09	U	0.10
Dibenz(a,h)anthracene	0.062		0.02	U	0.02	U	0.02	U	0.02	U	0.02		0.05	U	**0.10**
Benzo(g,h,i)perylene	None		0.05	U	0.02	U	0.02	U	0.02	U	0.02		0.09	U	0.10

Notes:

Bold/Shaded = Exceeds Residential PRG

* = Lab reporting limit above PRG.

K:\1-1470-13\Phase II ESA\Data\tables for CAFI 090308 Fonda Data.xls 4 SVOCs- soil

Table 4. Analytical Results: Soil- SVOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	Conv-FD		Storage Shed		CB-1		B Drain		PAH-1		PAH-2		PAH-3	
Sample Depth	PRGs	0-0.5'		0.5-1'		0-0.5'		0-0.5'		0-0.5'		0-0.5'		0-0.5'	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Sample Date	Resid.	2/6/2008		2/6/2008		2/25/2008		2/6/2008		6/17/2008		6/17/2008		6/17/2008	
Phenol	18,000	U	3.0	U	0.2	U	0.2								
2-Chlorophenol	63	U	3.0	U	0.2	U	0.2								
2,4-Dichlorophenol	120	U	3.0	U	0.2	U	0.2								
2,4,5-Trichlorophenol	6,100	U	3.0	U	0.2	U	0.2								
2,4,6-Trichlorophenol	6.1	U	3.0	U	0.2	U	0.2								
Pentachlorophenol	3.0		**70.0**	U	1.0	U	1.0								
2-Nitrophenol	None	U	3.0	U	0.2	U	0.2								
4-Nitrophenol	None	U	3.0	U	0.2	U	0.2								
2,4-Dinitrophenol	120	U	10.0	U	1.0	U	1.0								
2-Methylphenol	3,100	U	3.0	U	0.2	U	0.2								
3/4-Methylphenol	310	U	3.0	U	0.2		0.4								
2,4-Dimethylphenol	1,200	U	3.0	U	0.2	U	0.2								
4-Chloro-3-methylphenol	None	U	3.0	U	0.2	U	0.2								
4,6-Dinitro-2-methylphenol	None	U	10.0	U	1.0	U	1.0								
Benzoic Acid	100,000	U	10.0	U	1.0	U	1.0								
N-Nitrosodimethylamine	0.0095*	U	3.0	U	0.2	U	0.2								
N-Nitroso-di-n-propylamine	0.069*	U	3.0	U	0.2	U	0.2								
N-nitrosodiphenylamine	99	U	3.0	U	0.2	U	0.2								
bis (2-Chloroethyl) Ether	0.22	U	3.0	U	0.2	U	0.2								
bis (2-chloroisopropyl)ether	2.9	U	3.0	U	0.2	U	0.2								
bis (2-Chloroethoxy) methane	None	U	3.0	U	0.2	U	0.2								
1,3-Dichlorobenzene	530	U	3.0	U	0.2	U	0.2								
1,4-Dichlorobenzene	3.4	U	3.0	U	0.2	U	0.2								
1,2-Dichlorobenzene	600	U	3.0	U	0.2	U	0.2								
1,2,4-Trichlorobenzene	62	U	3.0	U	0.2	U	0.2								
2-Chloronaphthalene	4,900	U	3.0	U	0.2	U	0.2								
4-Chlorophenyl-phenylether	None	U	3.0	U	0.2	U	0.2								
4-Bromophenyl-phenylether	None	U	3.0	U	0.2	U	0.2								
Hexachloroethane	35	U	3.0	U	0.2	U	0.2								
Hexachlorobutadiene	6.2	U	3.0	U	0.2	U	0.2								
Hexachlorocyclopentadiene	370	U	10.0	U	1.0	U	1.0								
Hexachlorobenzene	0.3	U	3.0	U	0.2	U	0.2								
4-Chloroaniline	240	U	3.0	U	0.2	U	0.2								

Notes:

Bold/Shaded = Exceeds Residential PRG

* = Lab reporting limit above PRG.

K:\1-1470-13\Phase II ESA\Data\tables for CAFI 090308 Fonda Data.xls 4 SVOCs- soil

Table 4. Analytical Results: Soil- SVOCs

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Sample ID	EPA Region 9	Conv-FD		Storage Shed		CB-1		B Drain		PAH-1		PAH-2		PAH-3	
Sample Depth	PRGs	0-0.5'		0.5-1'		0-0.5'		0-0.5'		0-0.5'		0-0.5'		0-0.5'	
Units	(mg/kg)	(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)		(mg/kg)	
Sample Date	Resid.	2/6/2008		2/6/2008		2/25/2008		2/6/2008		6/17/2008		6/17/2008		6/17/2008	
2-Nitroaniline	180	U	3.0	U	0.2	U	0.2								
3-Nitroaniline	18	U	3.0	U	0.2	U	0.2								
4-Nitroaniline	23	U	3.0	U	0.2	U	0.2								
Benzyl Alcohol	18,000	U	3.0	U	0.2	U	0.2								
Nitrobenzene	20	U	3.0	U	0.2	U	0.2								
Isophorone	510	U	3.0	U	0.2	U	0.2								
2,4-Dinitrotoluene	120	U	3.0	U	0.2	U	0.2								
2,6-Dinitrotoluene	61	U	3.0	U	0.2	U	0.2								
Benzidine	0.0021*	U	3.0	U	0.4	U	0.4								
3,3'-Dichlorobenzidene	1.1	U	3*	U	0.2	U	0.2								
Pyridine	61	U	3.0	U	0.2	U	0.2								
Azobenzene	4	U	3.0	U	0.2	U	0.2								
Carbazole	24	U	3.0	U	0.2	U	0.2								
Dimethylphthalate	100,000	U	3.0	U	0.2	U	0.2								
Diethylphthalate	49,000	U	3.0	U	0.2	U	0.2								
Di-n-butylphthalate	6,100	U	3.0	U	0.5	U	0.5								
Butylbenzylphthalate	12,000		8.0	U	0.2		0.4								
bis(2-Ethylhexyl)phthalate	35		21.0	U	1.0	U	1.0								
Di-n-octylphthalate	2,400	U	3.0	U	0.2	U	0.2								
Dibenzofuran	150	U	3.0	U	0.2	U	0.2								
Naphthalene	56	U	3.0	U	0.2	U	0.2	U	1.0	U	0.2	U	0.2	U	0.2
2-Methylnaphthalene	None	U	3.0	U	0.2	U	0.2	U	1.0	U	0.2	U	0.2	U	0.2
Acenaphthylene	None	U	3.0	U	0.2	U	0.2	U	1.0	U	0.2	U	0.2	U	0.2
Acenaphthene	3,700	U	3.0	U	0.2	U	0.2	U	1.0	U	0.2	U	0.2	U	0.2
Fluorene	2,700	U	3.0	U	0.2	U	0.2	U	1.0	U	0.2	U	0.2	U	0.2
Phenanthrene	None		24.0	U	0.2	U	0.2		4.0		0.2	U	0.2	U	0.2
Anthracene	22,000		6.0	U	0.2	U	0.2	U	1.0	U	0.2	U	0.2	U	0.2
Fluoranthene	2,300		38.0	U	0.2	U	0.2		5.0		0.4	U	0.2	U	0.2
Pyrene	2,300		21.0	U	0.2	U	0.2		5.0		0.3	U	0.2	U	0.2
Benzo(a)anthracene	0.62		**8.00**		0.07		0.11		**2.00**		0.14		0.07		0.05
Chrysene	62		10.00		0.07		0.06		4.00		0.17		0.08		0.04
Benzo(b)fluoranthene	0.62		**10.00**		0.08		0.12		**2.00**		0.30		0.17		0.12
Benzo(k)fluoranthene	6.2		**10.00**		0.06		0.06		2.00		0.08		0.04		0.03
Benzo(a)pyrene	0.062		**7.00**		**0.07**		**0.08**		**5.00**		**0.16**		**0.07**		0.04
Indeno(1,2,3-cd)pyrene	0.62	U	3.00		0.05		0.05		**1.00**		0.09		0.50		0.02
Dibenz(a,h)anthracene	0.062	U	3.00		0.02	U	0.02	U	**1.00**	U	0.02	U	0.02	U	0.02
Benzo(g,h,i)perylene	None		3.00		0.05		0.06		2.00		0.10		0.05		0.03

Notes:

Bold/Shaded = Exceeds Residential PRG

* = Lab reporting limit above PRG.

K:\1-1470-13\Phase II ESA\Data\tables for CAFI 090308 Fonda Data.xls 4 SVOCs- soil

Table 5. Analytical Results: Aqueous- PCBs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13
(All results in ug/L)

Sample ID	*VGES- Total PCBs (ug/L)*	Pit-W		MW-10	
Sample Date		**2/25/2008**		**6/18/2008**	
PCB-1016	*0.5*	U	0.5	U	0.5
PCB-1221	*0.5*	U	0.5	U	0.5
PCB-1232	*0.5*	U	0.5	U	0.5
PCB-1242	*0.5*	U	0.5	U	0.5
PCB-1248	*0.5*	U	0.5	U	0.5
PCB-1254	*0.5*	U	0.5	U	0.5
PCB-1260	*0.5*	U	0.5	U	0.5
PCB-1262	*0.5*	Not analyzed by lab			
PCB-1268	*0.5*	Not analyzed by lab			

Table 6. Analytical Results: Groundwater- VOCs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	*VGES (ug/L)*	Pit-W		MW-1		MW-1 Duplicate		MW-2		MW-3		MW-3		MW-4		MW-4		MW-5		MW-6		MW-6	
Sampling Date		2/25/2008		2/12/2008		2/12/2008		2/12/2008		2/12/2008		8/18/2008		2/12/2008		8/18/2008		2/12/2008		2/12/2008		8/18/2008	
Dichlorodifluoromethane	*1,000*	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
Chloromethane	*3*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Vinyl Chloride	*2*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Bromomethane	*10*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Chloroethane	*None*	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
Trichlorofluoromethane	*2,100*	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
Diethyl Ether	*None*	U	5	U	5	U	5	U	5	U	5		NA	U	5		NA	U	5	U	5		NA
Acetone	*700*	U	10	U	10	U	10	U	10	U	10		NA		50		NA	U	10	U	10		NA
1,1-Dichloroethene	*7*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
Methylene chloride	*5*	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5
Carbon Disulfide	*None*	U	5	U	5	U	5		5	U	5		NA	U	5		NA	U	5	U	5		NA
Methyl-t-Butyl Ether (MTBE)	*40*	U	5	U	5	U	5	U	5	U	5		NA	U	5		NA	U	5	U	5		NA
trans-1,2-Dichloroethene	*100*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,1-Dichloroethane	*70*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
2,2-Dichloropropane	*None*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
cis-1,2-Dichloroethene	*70*	U	2	U	2	U	2	U	2	U	2	U	2	U	2		6	U	2	U	2	U	2
2-Butanone (MEK)	*4,200*	U	10	U	10	U	10	U	10	U	10		NA	U	10		NA	U	10	U	10		NA
Bromochloromethane	*90*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Tetrahydrofuran (THF)	*None*	U	10	U	10	U	10	U	10	U	10		NA	U	10		NA	U	10	U	10		NA
Chloroform	*None*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2		4
1,1,1-Trichloroethane	*200*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Carbon Tetrachloride	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,1-Dichloropropene	*None*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Benzene	*5*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,2-Dichloroethane	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Trichloroethene	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2		**7**	U	2	U	2	U	2
1,2-Dichloropropane	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Dibromomethane	*None*	U	2	U	2	U	2	U	2	U	2		NA	U	2		NA	U	2	U	2		NA
Bromodichloromethane	*90*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
4-Methyl-2-pentanone (MIBK)	*560*	U	10	U	10	U	10	U	10	U	10		NA	U	10		NA	U	10	U	10		NA
cis-1,3-Dichloropropene	*None*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
Toluene	*1,000*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
trans-1,3-Dichloropropene	*None*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
1,1,2-Trichloroethane	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
2-Hexanone	*None*	U	10	U	10	U	10	U	10	U	10		NA	U	10		NA	U	10	U	10		NA
Tetrachloroethene	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,3-Dichloropropane	*1*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Dibromochloromethane	*60*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,2-Dibromoethane (EDB)	*0.05*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
Chlorobenzene	*100*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,1,1,2-Tetrachloroethane	*70*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Ethylbenzene	*700*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA

Table 6. Analytical Results: Groundwater- VOCs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	*VGES (ug/L)*	Pit-W		MW-1		MW-1 Duplicate		MW-2		MW-3		MW-3		MW-4		MW-4		MW-5		MW-6		MW-6	
Sampling Date		2/25/2008		2/12/2008		2/12/2008		2/12/2008		2/12/2008		8/18/2008		2/12/2008		8/18/2008		2/12/2008		2/12/2008		8/18/2008	
Xylene (m,p)	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
Xylene (o)	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
Xylenes (total)	*10,000*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*		*NA*	*U*	*2*		*NA*	*U*	*2*	*U*	*2*		*NA*
Styrene	*100*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
Bromoform	*None*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
Isopropylbenzene (Cumene)	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
Bromobenzene	*None*	U	2	U	2	U	2	U	2	U	2		NA	U	2		NA	U	2	U	2		NA
1,1,2,2-Tetrachloroethane	*70*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,2,3-Trichloropropane	*5*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
n-Propylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
2-Chlorotoluene	*None*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
4-Chlorotoluene	*100*	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2
1,3,5-Trimethylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,2,4-Trimethylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,3,5 + 1,2,4- TMB	*350*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*		*NA*	*U*	*2*		*NA*	*U*	*2*	*U*	*2*		*NA*
tert-Butylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
sec-Butylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,3-Dichlorobenzene	*600*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
4-Isopropyltoluene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,4-Dichlorobenzene	*75*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,2-Dichlorobenzene	*600*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
n-Butylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
1,2-Dibromo-3-Chloropropane (Dibromochloropropane)	*0.2*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
1,2,4-Trichlorobenzene	*70*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1
Hexachlorobutadiene	*1*	U	1	U	1	U	1	U	1	U	1		NA	U	1		NA	U	1	U	1		NA
Naphthalene	*20*	U	5	U	5	U	5	U	5	U	5		NA	U	5		NA	U	5	U	5		NA
1,2,3-Trichlorobenzene	*None*	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1

Table 6. Analytical Results: Groundwater- VOCs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	*VGES (ug/L)*	MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-12 Duplicate		*RPD*	Trip Blank 1		Trip Blank 2		Trip Blank 3	
Sampling Date		2/12/2008		2/12/2008		2/12/2008		2/12/2008		2/25/2008		8/18/2008		8/18/2008			1/25/2008		2/21/2008		8/12/2008	
Dichlorodifluoromethane	*1,000*	U	5	U	5	U	5	U	5	U	5	U	50	U	50	*0%*	U	5	U	5	U	5
Chloromethane	*3*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
Vinyl Chloride	*2*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
Bromomethane	*10*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
Chloroethane	*None*	U	5	U	5	U	5	U	5	U	5	U	50	U	50	*0%*	U	5	U	5	U	5
Trichlorofluoromethane	*2,100*	U	5	U	5	U	5	U	5	U	5	U	5	U	5	*0%*	U	5	U	5	U	5
Diethyl Ether	*None*	U	5	U	5	U	5	U	5	U	5		NA		NA		U	5	U	5		NA
Acetone	*700*	U	10	U	10	U	10		110	U	10		NA		NA		U	10	U	10		NA
1,1-Dichloroethene	*7*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
Methylene chloride	*5*	U	5	U	5	U	5	U	5	U	5	U	50	U	50	*0%*	U	5	U	5	U	5
Carbon Disulfide	*None*	U	5	U	5	U	5	U	5	U	5		NA		NA		U	5	U	5		NA
Methyl-t-Butyl Ether (MTBE)	*40*	U	5	U	5	U	5	U	5	U	5		NA		NA		U	5	U	5		NA
trans-1,2-Dichloroethene	*100*	U	2	U	2	U	2	U	2	U	2		10		10	*0%*	U	2	U	2	U	2
1,1-Dichloroethane	*70*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
2,2-Dichloropropane	*None*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
cis-1,2-Dichloroethene	*70*	U	2	U	2	U	2	U	2	U	2	**2100**		**2200**		*5%*	U	2	U	2	U	2
2-Butanone (MEK)	*4,200*	U	10	U	10	U	10		10	U	10		NA		NA		U	10	U	10		NA
Bromochloromethane	*90*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
Tetrahydrofuran (THF)	*None*	U	10	U	10	U	10	U	10	U	10		NA		NA		U	10	U	10		NA
Chloroform	*None*		7	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
1,1,1-Trichloroethane	*200*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
Carbon Tetrachloride	*5*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
1,1-Dichloropropene	*None*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
Benzene	*5*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,2-Dichloroethane	*5*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
Trichloroethene	*5*	U	2	U	2	U	2	U	2	U	2		**190**		**280**	*38%*	U	2	U	2	U	2
1,2-Dichloropropane	*5*	U	2	U	2	U	2	U	2	U	2	U	10	U	10	*0%*	U	2	U	2	U	2
Dibromomethane	*None*	U	2	U	2	U	2	U	2	U	2		NA		NA		U	2	U	2		NA
Bromodichloromethane	*90*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
4-Methyl-2-pentanone (MIBK)	*560*	U	10	U	10	U	10		10	U	10		NA		NA		U	10	U	10		NA
cis-1,3-Dichloropropene	*None*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
Toluene	*1,000*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
trans-1,3-Dichloropropene	*None*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
1,1,2-Trichloroethane	*5*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
2-Hexanone	*None*	U	10	U	10	U	10	U	10	U	10		NA		NA		U	10	U	10		NA
Tetrachloroethene	*5*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
1,3-Dichloropropane	*1*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
Dibromochloromethane	*60*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
1,2-Dibromoethane (EDB)	*0.05*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
Chlorobenzene	*100*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
1,1,1,2-Tetrachloroethane	*70*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
Ethylbenzene	*700*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA

Table 6. Analytical Results: Groundwater- VOCs
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Sample ID	*VGES (ug/L)*	MW-7		MW-8		MW-9		MW-10		MW-11		MW-12		MW-12 Duplicate			Trip Blank 1		Trip Blank 2		Trip Blank 3	
Sampling Date		2/12/2008		2/12/2008		2/12/2008		2/12/2008		2/25/2008		8/18/2008		8/18/2008		*RPD*	1/25/2008		2/21/2008		8/12/2008	
Xylene (m,p)	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
Xylene (o)	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
Xylenes (total)	*10,000*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*		*NA*		*NA*		*U*	*2*	*U*	*2*		*NA*
Styrene	*100*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
Bromoform	*None*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
Isopropylbenzene (Cumene)	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
Bromobenzene	*None*	U	2	U	2	U	2	U	2	U	2		NA		NA		U	2	U	2		NA
1,1,2,2-Tetrachloroethane	*70*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
1,2,3-Trichloropropane	*5*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
n-Propylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
2-Chlorotoluene	*None*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
4-Chlorotoluene	*100*	U	2	U	2	U	2	U	2	U	2	U	20	U	20	*0%*	U	2	U	2	U	2
1,3,5-Trimethylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,2,4-Trimethylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,3,5 + 1,2,4- TMB	*350*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*	*U*	*2*		*NA*		*NA*		*U*	*2*	*U*	*2*		*NA*
tert-Butylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
sec-Butylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,3-Dichlorobenzene	*600*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
4-Isopropyltoluene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,4-Dichlorobenzene	*75*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,2-Dichlorobenzene	*600*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
n-Butylbenzene	*None*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
1,2-Dibromo-3-Chloropropane (Dibromochloropropane)	*0.2*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
1,2,4-Trichlorobenzene	*70*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1
Hexachlorobutadiene	*1*	U	1	U	1	U	1	U	1	U	1		NA		NA		U	1	U	1		NA
Naphthalene	*20*	U	5	U	5	U	5	U	5	U	5		NA		NA		U	5	U	5		NA
1,2,3-Trichlorobenzene	*None*	U	1	U	1	U	1	U	1	U	1	U	10	U	10	*0%*	U	1	U	1	U	1

Table 7. Water Levels

Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

Monitoring Well	X Coordinate (m, VT SPCS)	Y Coordinate (m, VT SPCS)	TOC Elevation* (ft)	Total Well Depth (ft bTOC)	Depth to Water - 02/25/08 (ft bTOC)	Water Table Elevation 02/25/08 (ft)	Depth to Water - 08/18/08 (ft bTOC)	Water Table Elevation 08/18/08 (ft)
MW-1	453846.14	257912.25	97.12	20.80	6.07	91.05	5.63	91.49
MW-2	453866.80	257963.44	97.16	11.89	6.70	90.46	6.50	90.66
MW-3	453843.92	257959.56	97.12	16.15	7.48	89.64	7.15	89.97
MW-4	453883.36	257995.93	97.10	9.89	4.80	92.3	5.41	91.69
MW-5	453887.11	258034.15	97.03	10.97	7.33	89.7	7.32	89.71
MW-6	453869.02	258033.51	97.06	12.75	7.45	89.61	7.73	89.33
MW-7	453882.89	258081.32	97.07	10.12	5.25	91.82	5.48	91.59
MW-8	453809.95	257897.65	93.90	9.90	7.90	86	7.20	86.70
MW-9[1]	453833.66	257868.68	96.14	12.13	5.20	90.94	5.21	90.93
MW-10	453893.15	257976.41	93.77	9.12	3.81	93	0.72	93.05
MW-11	453891.49	258097.40	100.00	10.06	5.00	95	6.06	93.94
MW-12[2]	453849.94	258006.49	97.10	14.00	Not present	Not present	5.02	92.08

* = Arbitrary elevation of 100 ft amsl assigned to MW-11 TOC

[1] = 2.4 feet of riser pipe cut off on 02/25/08 to install road box

[2] = Not surveyed, TOC elevation estimated from MW-3 and MW-6

Original TOC elevation (96.81), 3.04 ft was cut off on 6/18/08 when road box was installed, therefore new TOC elev. = 93.77

APPENDIX 3

COST ESTIMATION SPREADSHEETS

Itemized Cost Estimate: Concrete in Building #1
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Option 1: Low-occupancy use only

Assumptions:
Cap areas where PCBs are between 50 and 100 ppm
Annual monitoring of cap/low occupancy use for 50 years
Apply 2 layers of epoxy paint to concrete to prevent exposure
Assumes foot traffic only, no equipment
Replace concrete with PCB concentrations >100 ppm
Assumed to be 50% of areas >50 ppm = 830 sq ft = 22 cy

Preparation						
	Oversight	1	hours	$95	per hour	$95
	Oversight, PCB coordinator approval	15	hours	$80	per hour	$1,200
	Coordination	10	hours	$64	per hour	$640
	Communications	1.50%	labor			$29
						$1,964
Concrete Sampling						
	Oversight	2	hours	$95	per hour	$190
	Paperwork, coordinate subcontractors	2	hours	$64	per hour	$128
	On-Site work	8	hours	$64	per hour	$512
	mileage	130	miles	$0.59	per mile	$76
	Drill, generator, equipment	1	days	$200	per day	$200
	PCB samples	30	samples	$66	per sample	$1,980
	Communications	1.50%	labor			$12
						$3,099
Replacement of Concrete with PCBs >100 ppm						
	Concrete demo	830	sf	$5	per unit	$4,150
	Transport & Disposal (>50 ppm)	43	tons	$345	per ton	$14,848
	Cast 0.7 ft concrete	830	sq ft	$4	per sq ft	$3,320
						$22,318
Soil Sampling						
	Engineer II	24	hours	$64	per unit	$1,536
	mileage	130	miles	$0.59	mile	$76
	PCB samples	37	samples	$66	per sample	$2,442
	Sampling equipment	1	day	$50	per day	$50
	Communications	1.50%	labor			$23
						$4,127
Paint floor (except capped and new concrete areas) with epoxy paint						
	Paint and labor	16,170	sq ft	$1	per sq ft	$16,170
					Painting Costs Subtotal	$16,170
Place 6" Concrete Cap where PCB concentrations are between 50 and 100 ppm						
	Cast 0.5 ft concrete	1,600	sq ft	$3	per sq ft	$4,800
	Deed restriction survey	1	unit	$1,600	per unit	$1,600
	Reporting	10	hours	$64	hour	$640
	Communications	1.50%	labor			$10
					Capping Costs Subtotal	$7,050
Annual monitoring and paint repair for 100 years						
	Building owner/employee	18	hours	$25	per hour	$450
	Materials	200	sq ft	$1	per sq ft	$200
	Number of years	100	years			
	Discount rate	4%				
					Present worth of monitoring and maintenance=	$15,928
					Subtotal for low occupancy use with capping	$70,655
					10% contingency	$7,066
					Low occupancy use with capping total cost =	**$77,721**

Itemized Cost Estimate: Concrete in Building #1
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Option 2: Remove entire slab

Assumptions:
- Area of 32,800 square feet to be demolished and disposed of
  - Full depth of 31,200 sq ft slab where 1 >PCBs <50 ppm = 810 cu yds (1620 tons)
  - Full depth of 1,600 sq ft slab where PCBs >50 ppm = 41 cu yds (82 tons)
- Approval from PCB coordinator required
- Additional sampling required to prove concentrations below 1 ppm or below 50 ppm
- Soil sampling required beneath slab, 328 composited samples

Preparation

Oversight	1	hours	$95	per hour	$95	
Oversight, PCB coordinator approval	15	hours	$80	per hour	$1,200	
Coordination, premark	10	hours	$64	per hour	$640	
mileage	130	miles	$0.59	per mile	$76	
Communications	1.50%	labor			$29	
						$2,040

Concrete Sampling

Oversight	2	hours	$95	per hour	$190	
Paperwork, coordinate subcontractors	2	hours	$64	per hour	$128	
On-Site work	8	hours	$64	per hour	$512	
mileage	130	miles	$0.59	per mile	$76	
Drill, generator, equipment	1	days	$200	per day	$200	
PCB samples	30	samples	$66	per sample	$1,980	
Communications	1.50%	labor			$12	
						$3,099

Soil Sampling

Engineer II	24	hours	$64	per unit	$1,536	
mileage	390	miles	$0.59	mile	$228	
PCB samples	328	samples	$66	per sample	$21,648	
Sampling equipment	3	day	$50	per day	$150	
Communications	1.50%	labor			$23	
						$23,585

Demolition of Concrete with PCBs >10 ppm Costs

Concrete demo	32800	sf	$5	per unit	$164,000	
Transport & Disposal (<50 ppm)	1620	tons	$215	per ton	$348,300	
Transport & Disposal (>50 ppm)	82	tons	$345	per ton	$28,290	
						$540,590

Reporting Requirements for EPA TSCA Coordinator

Engineer/Scientist VII	2	hours	$95	per hour	$190	Review
Engineer/ Scientist IV	10	hours	$64	per hour	$640	Reporting
Communications	1.50%	labor			$12	
						$842

Subtotal	$570,156
10% contingency	$57,016
Concrete Removal and Disposal Total Estimated Cost	**$627,172**

Note: This alternative does not include replacement of concrete, which is estimated at **$ 4.00 /sq ft**
Additional cost to replace concrete slab = **$ 131,200**

Option 3: Concrete capping

Assumptions:
- Area of to be capped with concrete = 32,800 sq ft
- Lift of high strength concrete over all surfaces = 6 inches
  - Approval from PCB coordinator required
- Paint walls with contrasting color epoxy paint to 5' = 2000 lin ft = 10000 sq ft
- Survey of capped area required for deed restriction

Preparation

Oversight	1	hours	$95	per hour	$95

Itemized Cost Estimate: Concrete in Building #1
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Oversight, PCB coordinator approval	20	hours	$80	per hour	$1,600
Coordination, premark	8	hours	$64	per hour	$512
mileage	130	miles	$0.59	per mile	$76
Communications	1.50%	labor			$33
					$2,316

Initial cleaning costs

Pressure wash (4 laborers + equip)	2	days	$1,920	per day	$3,839
Air sampling	2	unit	$2,000	unit	$4,000
Water sampling	2	samples	$66	unit	$132
					$7,971

Place 6" Concrete Cap

Cast 6" concrete	32,800	sq ft	$4.18	per sq ft	$137,104
Door and fixture moving, preparation	5	days	$1,300	per day	$6,500
Wall paint	10,000	sf	$1.00	per sf	$10,000
Deed restriction survey	1	unit	$1,600	per unit	$1,600
Reporting	10	hours	$64	hour	$640
Communications	1.50%	labor			$10
				Capping Costs Subtotal	$155,854

Pre-occupancy sampling

Oversight	4	hours	$80	per hour	$320
Sampling, reporting	12	hours	$64	per hour	$768
Communications	1	unit	$12	unit	$12
Mileage	130	miles	$0.59	per mile	$76
Wipe samples	7	samples	$66	per sample	$462
Sample shipping	2	units	$100	per unit	$200
Air sampling	3	unit	$600	unit	$1,800
				Subtotal	$3,638

Annual inspection and maintenance

Building employee	16	hours	$25	per hour	$400
Materials	200	sq ft	$4	per sq ft	$800
	Total inspection and maintenance costs per year				$1,200

Additional sampling (1 per year for first 10 years, 1 per five years thereafter)

Not required if concrete >10 ppm has been removed.

Sampling, reporting	12	hours	$54	per hour	$648
PCB wipe analysis	6	samples	$66	per sample	$396
Sample shipping	1	units	$100	per unit	$100
PCB air sample	2	unit	$600	unit	$1,200
			Total sampling costs per round		$2,344

Annual inspection and maintenance costs

Annual monitoring costs (above)	$1,200	unit	
Interest rate	4%	year	
Duration	100	years	
		Present value	$29,406

Total additional sampling costs

Not required if concrete >10 ppm has been removed.

	Year	Cost
Years 1-10	1/1/2011	$19,012
	1/1/2026	$2,344
	1/1/2031	$2,344
	1/1/2036	$2,344
	1/1/2041	$2,344
	1/1/2046	$2,344
	1/1/2051	$2,344
	1/1/2056	$2,344
	1/1/2061	$2,344
	1/1/2066	$2,344
	1/1/2071	$2,344
	1/1/2076	$2,344
	1/1/2081	$2,344

1/1/2086	$2,344
1/1/2091	$2,344
1/1/2096	$2,344
1/1/2101	$2,344
1/1/2106	$2,344
1/1/2111	$2,344

NPV for sampling	$	32,012
Subtotal		$231,196
10% contingency		$23,120
Concrete Cap Total Estimated Cost		**$254,316**

Option 4: Use an alternative coating system to control exposure

Assumptions:
- Install industrial floor tile with 30 year guarantee
- Annual wipe sampling for 50 years at 10 locations
- Annual air sampling

Preparation

Oversight	1	hours	$95	per hour	$95
Oversight, PCB coordinator approval	60	hours	$80	per hour	$4,800
Coordination	20	hours	$64	per hour	$1,280
Communications	1.50%	labor			$93
					$6,268

Initial cleaning costs

Pressure wash (4 laborers + equip)	2	days	$1,920	per day	$3,839
Air sampling	2	unit	$2,000	unit	$4,000
Water sampling	2	samples	$66	unit	$132
					$7,971

Install floor tile

Paint and labor	32,800	sq ft	$1	per sq ft	$32,800
Floor tile	32,800	sf	$2.50	per unit	$82,000
					$114,800

Pre-occupancy sampling

Oversight	4	hours	$80	per hour	$320
Sampling, reporting	12	hours	$64	per hour	$768
Communications	1	unit	$12	unit	$12
Mileage	130	miles	$0.59	per mile	$76
Wipe samples	7	samples	$66	per sample	$462
Sample shipping	2	units	$100	per unit	$200
Air sampling	3	unit	$600	unit	$1,800
				Subtotal	$3,638

Annual inspection and maintenance

Building employee	16	hours	$25	per hour	$400
Materials	200	sq ft	$4	per sq ft	$800
	Total inspection and maintenance costs per year				$1,200

Additional sampling (1 per year for first 10 years, 1 per five years thereafter)

Not required if concrete >10 ppm has been removed.

Sampling, reporting	12	hours	$54	per hour	$648
PCB wipe analysis	6	samples	$66	per sample	$396
Sample shipping	1	units	$100	per unit	$100
PCB air sample	2	unit	$600	unit	$1,200
		Total sampling costs per round			$2,344

Annual inspection and maintenance costs

Annual monitoring costs (above)	$1,200	unit	
Interest rate	4%	year	
Duration	100	years	
		Present value	$29,406

Itemized Cost Estimate: Concrete in Building #1
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Total additional sampling costs

Not required if concrete >10 ppm has been removed.

	Year	Cost
Years 1-10	1/1/2011	$19,012
	1/1/2026	$2,344
	1/1/2031	$2,344
	1/1/2036	$2,344
	1/1/2041	$2,344
	1/1/2046	$2,344
	1/1/2051	$2,344
	1/1/2056	$2,344
	1/1/2061	$2,344
	1/1/2066	$2,344
	1/1/2071	$2,344
	1/1/2076	$2,344
	1/1/2081	$2,344
	1/1/2086	$2,344
	1/1/2091	$2,344
	1/1/2096	$2,344
	1/1/2101	$2,344
	1/1/2106	$2,344
	1/1/2111	$2,344

NPV for sampling	$	32,012
Subtotal for alternative coating system		$194,094
10% contingency		$19,409
Alternative coating system total cost =		**$213,504**

Option 5: Removal/concrete capping combination

Assumptions:

Area of 32,800 square feet to be capped with concrete

Remove full depth of slab where concrete has PCBs >10 ppm (6200+1600 = 7,800 sq ft)

Approval from PCB coordinator required

Survey of capped area required for deed restriction

Preparation

Oversight	1	hours	$95	per hour	$95
Oversight, PCB coordinator approval	20	hours	$80	per hour	$1,600
Coordination, premark	10	hours	$64	per hour	$640
mileage	130	miles	$0.59	per mile	$76
Communications	1.50%	labor			$35
					$2,446

Concrete Sampling

Oversight	2	hours	$95	per hour	$190
Paperwork, coordinate subcontractors	2	hours	$64	per hour	$128
On-Site work	8	hours	$64	per hour	$512
mileage	130	miles	$0.59	per mile	$76
Drill, generator, equipment	1	days	$200	per day	$200
PCB samples	30	samples	$124	per sample	$3,713
Communications	1.50%	labor			$12
					$4,831

Demolition of Concrete with PCBs >10 ppm Costs

Demo of >10 ppm	7800	sf	$4	per unit	$31,200
Transport & Disposal (<50 ppm)	321	tons	$215	per ton	$69,119
Transport & Disposal (>50 ppm)	83	tons	$345	per ton	$28,622
Replace concrete (0.7 ft)	7800	sf	$4	per unit	$31,200
Communications	1.50%	labor			$468
					$160,609

Soil Sampling

Engineer II	24	hours	$64	per unit	$1,536
mileage	390	miles	$0.59	mile	$228
PCB samples	344	samples	$66	per sample	$22,704

Sampling equipment	3	day	$50	per day	$150
Communications	1.50%	labor			$23
					$24,641

Initial cleaning costs

Pressure wash (4 laborers + equip)	2	days	$1,920	per day	$3,839
Air sampling	2	unit	$2,000	unit	$4,000
Water sampling	2	samples	$66	unit	$132
					$7,971

Place 6" Concrete Cap

Cast 0.5 ft concrete	32,800	sq ft	$4.24	per sq ft	$138,908
Reporting	10	hours	$64	hour	$640
Communications	1.50%	labor			$10
				Capping Costs Subtotal	$139,558
				Subtotal	$340,056
				10% contingency	$34,006
				Concrete Cap Total Estimated Cost	**$374,061**

Option 6: Removal/alternative coating system combination

Assumptions:

Install industrial floor tile with 30 year guarantee
Annual wipe sampling for 50 years at 10 locations
Annual air sampling
Remove full depth of slab where concrete has PCBs >10 ppm (6200+1600 = 7,800 sq ft)
Approval from PCB coordinator required

Preparation

Oversight	1	hours	$95	per hour	$95
Oversight, PCB coordinator approval	60	hours	$80	per hour	$4,800
Coordination	20	hours	$64	per hour	$1,280
Communications	1.50%	labor			$93
					$6,268

Concrete Sampling

Oversight	2	hours	$95	per hour	$190
Paperwork, coordinate subcontractors	2	hours	$64	per hour	$128
On-Site work	8	hours	$64	per hour	$512
mileage	130	miles	$0.59	per mile	$76
Drill, generator, equipment	1	days	$200	per day	$200
PCB samples	30	samples	$124	per sample	$3,713
Communications	1.50%	labor			$12
					$4,831

Soil Sampling

Engineer II	24	hours	$64	per unit	$1,536
mileage	390	miles	$0.59	mile	$228
PCB samples	344	samples	$66	per sample	$22,704
Sampling equipment	3	day	$50	per day	$150
Communications	1.50%	labor			$23
					$24,641

Demolition of Concrete with PCBs >10 ppm Costs

Demo of >10 ppm	7800	sf	$4	per unit	$31,200
Transport & Disposal (<50 ppm)	321	tons	$215	per ton	$69,119
Transport & Disposal (>50 ppm)	83	tons	$345	per ton	$28,622
Replace concrete (0.7 ft)	7800	sf	$4	per unit	$31,200
Communications	1.50%	labor			$468
					$160,609

Initial cleaning costs

Pressure wash (4 laborers + equip)	2	days	$1,920	per day	$3,839
Air sampling	2	unit	$2,000	unit	$4,000
Water sampling	2	samples	$66	unit	$132
					$7,971

Itemized Cost Estimate: Concrete in Building #1
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Install floor tile						
Paint and labor	40,600	sq ft	$1	per sq ft	$40,600	
Floor tile	32,800	sf	$2.50	per unit	$82,000	
						$122,600
Pre-occupancy sampling						
Oversight	4	hours	$80	per hour	$320	
Sampling, reporting	12	hours	$64	per hour	$768	
Communications	1	unit	$12	unit	$12	
Mileage	0	miles	$0.59	per mile	$0	
Wipe samples	7	samples	$66	per sample	$462	
Sample shipping	2	units	$100	per unit	$200	
Air sampling	3	unit	$600	unit	$1,800	
					Subtotal	$3,562
Annual inspection and maintenance						
Building employee	16	hours	$25	per hour	$400	
Materials	200	sq ft	$4	per sq ft	$800	
		Total inspection and maintenance costs per year			$1,200	
Additional sampling (1 per year for first 10 years, 1 per five years thereafter)						
Not required if concrete >10 ppm has been removed.						
Sampling, reporting	12	hours	$54	per hour	$648	
PCB wipe analysis	6	samples	$66	per sample	$396	
Sample shipping	1	units	$100	per unit	$100	
PCB air sample	2	unit	$600	unit	$1,200	
			Total sampling costs per round		$2,344	
Annual inspection and maintenance costs						
Annual monitoring costs (above)				$1,200	unit	
Interest rate				4%	year	
Duration				100	years	
					Present value	$29,406

Total additional sampling costs

Not required if concrete >10 ppm has been removed.

	Year	Cost
Years 1-10	1/1/2011	$19,012
	1/1/2026	$2,344
	1/1/2031	$2,344
	1/1/2036	$2,344
	1/1/2041	$2,344
	1/1/2046	$2,344
	1/1/2051	$2,344
	1/1/2056	$2,344
	1/1/2061	$2,344
	1/1/2066	$2,344
	1/1/2071	$2,344
	1/1/2076	$2,344
	1/1/2081	$2,344
	1/1/2086	$2,344
	1/1/2091	$2,344
	1/1/2096	$2,344
	1/1/2101	$2,344
	1/1/2106	$2,344
	1/1/2111	$2,344

NPV for sampling	$	32,012
Subtotal for alternative coating system		$391,899
10% contingency		$39,190
Alternative coating system total cost =		**$431,089**

Itemized Cost Estimate- Concrete in Buildings #2 and 3
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Option 1: Remove and Dispose of Concrete in Printing Area

Assumptions:

Concrete slab floor:

9,000 square foot slab with 1 ppm<PCBs< 50 ppm, 326 cu yds= 652 tons

1,600 square foot slab with PCBs>50 ppm, 75 cu yds= 150 tons

Concrete block walls up to 3 feet demolished and disposed of

Block walls with PCBs between 1 and 50 ppm = 13 cubic yds=13 tons

Block walls with PCBs>50 ppm = 11 cubic yds= 11 tons

Total concrete with PCBs between 1 and 50 ppm: 339 cu yds = 665 tons

Total concrete with PCBs >50 ppm: 86 cu yds = 161 tons

110 composited confirmation samples from soil beneath slab

Approval from PCB coordinator required

Preparation

Oversight	1	hours	$95	per hour	$95	
Oversight, PCB coordinator approval	15	hours	$80	per hour	$1,200	
Coordination, premark	10	hours	$64	per hour	$640	
mileage	130	miles	$0.51	per mile	$66	
Communications	1.50%	labor			$29	
						$2,030

Concrete Sampling

Oversight	2	hours	$95	per hour	$190	
Paperwork, coordinate subcontractors	2	hours	$64	per hour	$128	
On-Site work	8	hours	$64	per hour	$512	
mileage	130	miles	$0.51	per mile	$66	
Drill, generator, equipment	1	days	$200	per day	$200	
PCB samples	10	samples	$66	per sample	$660	
Communications	1.50%	labor			$12	
						$1,768

Soil Sampling

Engineer II	16	hours	$64	per unit	$1,024	
mileage	260	miles	$0.51	mile	$131	
PCB samples	110	samples	$66	per sample	$7,260	
Sampling equipment	2	day	$50	per day	$100	
Communications	1.50%	labor			$15	
						$8,531

Demolition of Concrete

Concrete demo	11200	sf	$4.50	per unit	$50,400	
Containment, PPE	1	unit	$5,000	per unit	$5,000	
Transport & Disposal (<50 ppm)	665	tons	$215	per ton	$142,975	
Transport & Disposal (>50 ppm)	161	tons	$345	per ton	$55,545	
						$253,920

Reporting Requirements for EPA TSCA Coordinator

Engineer/Scientist VII	2	hours	$95	per hour	$190	Review
Engineer/ Scientist IV	10	hours	$64	per hour	$640	Reporting
Communications	1.50%	labor			$12	
						$842

Subtotal	$267,091
10% contingency	$26,709
Concrete Removal and Disposal Total Estimated Cost	**$293,800**

Itemized Cost Estimate- Concrete in Buildings #2 and 3
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Option 2: Concrete removal, capping and occupancy restrictions

Assumptions:

Area of to be capped with concrete = 10,600 sq ft
Area to be removed = 1600 sq ft = 75 cu yds = 150 tons
Lift of high strength concrete over all surfaces = 6 inches
Approval from PCB coordinator required
Paint walls with contrasting color epoxy paint to 5' = 360 lin ft = 1800 sq ft
Survey of capped area required for deed restriction

Preparation

Oversight	1	hours	$95	per hour	$95
Oversight, PCB coordinator approval	20	hours	$80	per hour	$1,600
Coordination, premark	8	hours	$64	per hour	$512
mileage	130	miles	$0.59	per mile	$76
Communications	1.50%	labor			$33
					$2,316

Initial cleaning costs

Pressure wash (4 laborers + equip)	2	days	$1,920	per day	$3,839
Air sampling	2	unit	$2,000	unit	$4,000
Water sampling	2	samples	$66	unit	$132
					$7,971

Soil Sampling

Engineer II	16	hours	$64	per unit	$1,024
mileage	260	miles	$0.51	mile	$131
PCB samples	71	samples	$66	per sample	$4,686
Sampling equipment	2	day	$50	per day	$100
Communications	1.50%	labor			$15
					$5,957

Demolition of Concrete

Concrete demo	1600	sf	$4.50	per unit	$7,200
Containment, PPE	1	unit	$5,000	per unit	$5,000
Transport & Disposal (>50 ppm)	150	tons	$345	per ton	$51,750
					$63,950

Place 6" Concrete Cap

Cast 6" concrete	10,600	sq ft	$4.18	per sq ft	$44,308
Replace existing concrete (1.26 ft)	1,600	sq ft	$5.00	per sq ft	$8,000
Door and fixture moving, preparation	1	days	$1,300	per day	$1,300
Wall paint	1,800	sf	$1.00	per sf	$1,800
Deed restriction survey	1	unit	$1,000	per unit	$1,000
Reporting	10	hours	$64	hour	$640
Communications	1.50%	labor			$10
				Capping Costs Subtotal	$57,058

Pre-occupancy sampling

Oversight	4	hours	$80	per hour	$320
Sampling, reporting	12	hours	$64	per hour	$768
Communications	1	unit	$12	unit	$12
Mileage	130	miles	$0.59	per mile	$76
Wipe samples	7	samples	$66	per sample	$462
Sample shipping	2	units	$100	per unit	$200
Air sampling	3	unit	$600	unit	$1,800
				Subtotal	$3,638

Annual inspection and maintenance						
Building employee	16	hours	$25	per hour	$400	
Materials	100	sq ft	$4	per sq ft	$400	
Interest rate				4%	year	
Duration				100	years	
					Present value	$19,604
					Subtotal	$160,493
					10% contingency	$16,049
					Concrete Removal and Cap Total Estimated Cost	**$176,542**

Option 3: Concrete removal, alternate covering, and occupancy restrictions

Assumptions:

Area of to be capped with concrete = 10,600 sq ft
Area to be removed = 1600 sq ft = 75 cu yds = 150 tons
Lift of high strength concrete over all surfaces = 6 inches
Approval from PCB coordinator required
Paint walls with contrasting color epoxy paint to 5' = 360 lin ft = 1800 sq ft
Survey of capped area required for deed restriction

Preparation						
Oversight	1	hours	$95	per hour	$95	
Oversight, PCB coordinator approval	20	hours	$80	per hour	$1,600	
Coordination, premark	8	hours	$64	per hour	$512	
mileage	130	miles	$0.59	per mile	$76	
Communications	1.50%	labor			$33	
						$2,316

Initial cleaning costs						
Pressure wash (4 laborers + equip)	2	days	$1,920	per day	$3,839	
Air sampling	2	unit	$2,000	unit	$4,000	
Water sampling	2	samples	$66	unit	$132	
						$7,971

Soil Sampling						
Engineer II	16	hours	$64	per unit	$1,024	
mileage	260	miles	$0.51	mile	$131	
PCB samples	71	samples	$66	per sample	$4,686	
Sampling equipment	2	day	$50	per day	$100	
Communications	1.50%	labor			$15	
						$5,957

Demolition of Concrete						
Concrete demo	1600	sf	$4.50	per unit	$7,200	
Containment, PPE	1	unit	$5,000	per unit	$5,000	
Transport & Disposal (>50 ppm)	150	tons	$345	per ton	$51,750	
Replace existing concrete (1.26 ft)	1,600	sq ft	$5.00	per sq ft	$8,000	
						$71,950

Install floor tile						
Paint and labor	10,600	sq ft	$1	per sq ft	$10,600	
Floor tile	10,600	sf	$2.50	per unit	$26,500	
						$37,100

Pre-occupancy sampling					
Oversight	4	hours	$80	per hour	$320
Sampling, reporting	12	hours	$64	per hour	$768

Itemized Cost Estimate- Concrete in Buildings #2 and 3
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13

Communications	1	unit	$12	unit	$12	
Mileage	130	miles	$0.59	per mile	$76	
Wipe samples	5	samples	$66	per sample	$330	
Sample shipping	2	units	$100	per unit	$200	
Air sampling	3	unit	$600	unit	$1,800	
					Subtotal	$3,506

Annual inspection and maintenance

Building employee	16	hours	$25	per hour	$400	
Materials	100	sq ft	$4	per sq ft	$400	
		Total inspection and maintenance costs per year			$800	

Additional sampling (1 per year for first 10 years, 1 per five years thereafter)

Not required if concrete >10 ppm has been removed.

Sampling, reporting	12	hours	$54	per hour	$648	
PCB wipe analysis	5	samples	$66	per sample	$330	
Sample shipping	1	units	$100	per unit	$100	
PCB air sample	2	unit	$600	unit	$1,200	
			Total sampling costs per round		$2,278	

Annual inspection and maintenance costs

Annual monitoring costs (above)	$800	unit	
Interest rate	4%	year	
Duration	100	years	
		Present value	$19,604

Total additional sampling costs

Not required if concrete >10 ppm has been removed.

	Year	Cost
Years 1-10	1/1/2011	$18,477
	1/1/2026	$0
	1/1/2031	$0
	1/1/2036	$0
	1/1/2041	$0
	1/1/2046	$0
	1/1/2051	$0
	1/1/2056	$0
	1/1/2061	$0
	1/1/2066	$0
	1/1/2071	$0
	1/1/2076	$0
	1/1/2081	$0
	1/1/2086	$0
	1/1/2091	$0
	1/1/2096	$0
	1/1/2101	$0
	1/1/2106	$0
	1/1/2111	$0

NPV for sampling	$	18,477
Subtotal		$166,880
10% contingency		$16,688
Concrete removal and Tile Total Estimated Cost		**$183,568**

Itemized Cost Estimate- Surface Soils
Former Fonda Group Facility, St. Albans, VT
JCO Project #1-1470-13
Only Option: PCB, PAH, Metals Contaminated Soil Removal

Assumptions:

Disposal as solid waste:
Cut trees and excavate 2-3 ft soil and surficial trash north of building (66 cu yds = 100 tons)
Trees to remain in a pile on-site
See below for hazardous disposal
Approval from PCB coordinator required

Disposal as daily cover:
Excavate top 0.5 foot layer of soil from 485 square foot area beside storage shed (9 cu yds = 14 tons)
Excavate top 1 foot of soil from 250 square foot area surrounding transformer pad 2 (9 cu yds = 14 tons)

Disposal as hazardous waste:
Excavate top 2.5 feet of soil and asphalt from 470 square foot area near hazardous waste loading dock (44 cu yds total)
22 cu yds are hazardous (33 tons), but all 44 cu yds will be disposed of as hazardous (66 tons)
Approval from PCB coordinator required

Disposal of soils in Boiler House:
Remove soils from boiler house with Vactor truck, load into roll-off and dispose (6 cu yds = 9 tons)
Remove sediment from 4 floor drain sumps inside building
Approval from PCB coordinator required
Does not include cleaning drain lines after demolition

Sampling:
Collect 6 + 1 duplicate confirmatory metals samples from buried trash area for RCRA 8 metals
Collect 2 samples + 1 duplicate from the transformer area for PCBs
Collect 9 samples + 1 duplicate from the haz waste loading area for PCBs
Collect 2 samples from the storage shed area for PAHs

Preparation						
Oversight	1	hours	$95	per hour	$95	
Oversight, PCB coordinator approval	5	hours	$80	per hour	$400	
Paperwork, coordinate subcontractors	8	hours	$64	per hour	$512	
Pre-mark site	4	hours	$64	per hour	$256	
mileage	130	miles	$0.59	per mile	$76	
Communications	1.50%	labor			$19	
						$1,358

Low Level Shallow Soil Excavation and Disposal Costs							
Tree clearing	15	hrs	$125	hr	$1,875		
Soil excavation	30	hrs	$150	hr	$4,500		
Soil transportation	9	loads	$1,000	load	$9,000		
Soil disposal (solid waste)	100	tons	$66	ton	$6,600		
Soil disposal (daily cover)	28	tons	$33	ton	$924		
Engineer/ Scientist III	20	hours	$64	per hour	$1,280		oversight
mileage	260	miles	$0.59	per mile	$152		
Confirmatory PCB samples	13	samples	$86.63	per sample	$1,126		
Confirmatory RCRA 8 metals samples	7	samples	$124.30	per sample	$870		
Confirmatory PAH samples	2	samples	$132.00	per sample	$264		
Reporting	12	hours	$64.00	per hour	$768		
Communications	1.50%	labor			$31		
		Solid waste/daily cover excavation and disposal subtotal				$27,390	

Hazardous Soil Excavation and Disposal Costs						
Soil excavation	10	hrs	$125	hr	$1,250	
Transport & Disposal (>50 ppm)	33	tons	$345	per ton	$11,385	
Engineer/ Scientist III	8	hours	$64	per hour	$512	oversight

Itemized Cost Estimate- Surface Soils
Former Fonda Group Facility, St. Albans, VT

JCO Project #1-1470-13

mileage	130	miles	$0.51	per mile	$66	
Reporting	3	hours	$64	per hour	$192	
Communications	1.50%	labor			$11	
			Excavation and disposal subtotal			$13,415

Boiler House Soil Removal and Disposal Costs

Boiler house soil removal, disposal	1	job	$9,350	job	$9,350	
Sump cleaning and disposal	1	job	$1,320	job	$1,320	
Engineer/ Scientist III	8	hours	$64	per hour	$512	oversight
mileage	130	miles	$0.59	per mile	$76	
Reporting	2	hours	$64	per hour	$128	
Communications	1.50%	labor			$10	
			Additional costs subtotal			$11,396

Subtotal	$53,559
10% contingency	$5,356
PCB, PAH, Metals Contaminated Soil Disposal Total Estimated Cost	**$58,915**

Itemized Cost Estimate- TCE in Soil and Groundwater
Former Fonda Group Facility, St. Albans, VT
JCO Project #3-1928-5

Option 1: Excavate TCE-Impacted Soil

Assumptions:

Concrete floor cut away from uncontaminated concrete at same time as Printing Area concrete cut
Cutting of concrete into pieces is not required (breaking up is sufficient)
Concrete slab depth = 0.7 feet, 63 feet of cutting required
One sample (SC-12 7-8') above TCLP limits, approx. 400 sq ft, 3.5-8' depth (67 cy = 101 tons)
Concrete floor already removed, soils covered with plastic
Excavate top 3.5 feet of soil from 13,200 square foot area beneath Building #2 (1,711 cu yds = 2,567 tons)
Excavate from 3.5 feet to 8 feet from 9,800 sq ft (1,633 cu yds = 2,450 tons)

Backfill with clean sand
Use portable GC on-site to determine limits of TCE contamination
Collect 10 TCE confirmation laboratory samples

Preparation

Oversight	1	hours	$95	per hour	$95	
Paperwork, coordinate subcontractors	4	hours	$64	per hour	$256	
Premark site	4	hours	$64	per hour	$256	
mileage	130	miles	$0.59	per mile	$76	
TCLP analyses	2	samples	$198.00	per sample	$396	
Concrete cutting	529.2	ft-inch	$1.21	per ft-inch	$640	
Communications	1.50%	labor			$9	
						$1,728

TCE Contaminated Soil Removal and Disposal Costs

Soil excavation	16	hours	$138	hour	$2,200	
Soil transport and disposal (haz soils)	101	tons	$369	ton	$37,219	
Soil transport and disposal (solid waste)	4916	tons	$100	ton	$492,092	
Gas chromatograph	1	day	$350	per day	$350	
GC Chemist (subcontract)	1	day	$550	per day	$550	
GC Mob/Demob	1	day	$150	per day	$150	
TCE Confirmation samples	10	samples	$132	per sample	$1,320	
Dewatering and treatment	1	unit	$25,000	per unit	$25,000	
Engineer/ Scientist III	10	hours	$64	per hour	$640	oversight
mileage	130	miles	$0.59	per mile	$76	
Reporting	6	hours	$62.00	per hour	$372	
Communications	1.50%	labor			$15	
			Additional costs subtotal			$559,983

Subtotal	$561,712
10% contingency	$56,171
TCE Contaminated Soil Removal Total Costs	**$617,883**

Option 2: Injection of Biodegradation-Enhancing Compounds, No Excavation

Assumptions:

45 injection points required
Injection depth 12 feet bgs
Two applications of RegenOx, 2-4 weeks apart, 2nd injection points moved 5 feet from first
First RegenOx application: 10,800 lbs Regenox material + 11,786 gallons water
Second RegenOx application: 8,100 lbs RegenOx material + 10,000 (est.) water
One application of HRC 45-60 days after second RegenOx treatment (depending on monitoring) = 1,440 lbs
+ 500 gal water (est)
RegenOx and HRC costs provided by Regenesis Technical Support
Drilling costs estimated using Eastern Analytical drilling rate sheet
4 wells monitored for field parameters before injection and every 2 weeks with YSI (6 rounds total)
Sample before each injection and 4 weeks after each RegenOx injection for chemical oxidant, total oxidant demand,
chlorinated VOCs, chloride, nitrates, nitrites, sulfate, iron, sodium, cadmium, ferrous iron, methane, ethane, ethene
4 wells sampled 3 additional times during year following HRC injection, average lab cost of $310 for each well

Preparation

Oversight	2	hours	$95	per hour	$190
Paperwork, coordinate subcontractors	4	hours	$64	per hour	$256
Premark site	4	hours	$64	per hour	$256
mileage	130	miles	$0.49	mile	$63

Itemized Cost Estimate- TCE in Soil and Groundwater
Former Fonda Group Facility, St. Albans, VT
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Equipment prep	4	hours	$64	per hour	$256	
Communications	1.50%	labor			$14	
						$1,035
Concrete Coring Costs						
Engineer/Scientist III	16	hours	$64	hour	$1,024	
Coring equipment	90	holes	$70	hole	$6,300	
Communications	1.50%	labor			$15	
						$7,339
HRC Injection Costs						
Geoprobe mobilization	12	hours	$50	hr	$594	
Geoprobe per diem	8	days	$110	day	$880	
Geoprobe labor & equipment	8	days	$1,348	day	$10,780	
Additional equipment, water	3	units	$1,000	unit	$3,000	
Engineer/ Scientist III	85	hours	$64	hour	$5,440	
mileage	1040	miles	$0.49	mile	$504	
RegenOx + HRC Material & Shipping	1	unit	$57,464	unit	$57,464	
Communications	1.50%	labor			$82	
						$78,744
Costs for monitoring only (per round)						
Engineer III	8	hours	$64	hr	$512	
mileage	130	miles	$0.59	mile	$76	
Equipment	1	day	$195	day	$195	
Communications	1.50%	labor			$8	
		Subtotal for monitoring only (per round)			$791	
Costs for sampling and monitoring						
Engineer III	10	hours	$64	hr	$640	
mileage	130	miles	$0.59	mile	$76	
Equipment	1	day	$180	day	$180	
Analytical costs	5	wells	$310	per well	$1,550	1 duplicate
Communications	1.50%	labor			$10	
		Subtotal for sampling and monitoring (per round)			$2,456	
Monitoring and Reporting Costs						
Monitoring between injections	6	rounds	$791	round	$4,744	
GW Sampling costs	7	rounds	$2,456	round	$17,190	
Reporting	15	hours	$64	hour	$960	
Communications	1.50%	labor			$0	
						$22,894
				Subtotal		$110,012
			50% contingency (greater uncertainty)			$55,006
			RegenOx and HRC Injection Total Estimated Cost			**$165,018**

Option 3: Air Sparging and SVE System

Assumptions:

- Slab and building not removed (no insulated installation required)
- 1 vapor recovery well installed for pilot test, use existing wells for monitoring network
- Sample groundwater for chlorinated VOCs 4 times per year
- 1 indoor air sample per year
- Run system for 5 years

Preparation						
Oversight	2	hours	$95	per hour	$190	
Paperwork, coordinate subcontractors	4	hours	$64	per hour	$256	
Premark site	4	hours	$64	per hour	$256	
mileage	170	miles	$0.59	per mile	$99	
Equipment prep	4	hours	$64	per hour	$256	
Communications	1.50%	labor			$14	
						$1,072
SVE Pilot Test						
Sr. Technician	24	hr	$64	hrs	$1,536	
Eng/Sci III	30	hr	$64	hrs	$1,920	
mileage	340	mile	$0.59	miles	$199	

Itemized Cost Estimate- TCE in Soil and Groundwater
Former Fonda Group Facility, St. Albans, VT
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Well installation	1	well	$1,000	per well	$1,000	
well box	1	ea	$55	boxes	$55	
vacuum gauges	1	ea	$50	gauges	$50	
blower rental	1	ea	$200	blower	$200	
PVC piping	1	project	$500	project	$500	
Carbon treatment for off-gas	1	unit	$1,200	per unit	$1,200	
misc supplies	1	project	$200	project	$200	
pitot tube	1	ea	$50	units	$50	
PID	1	day	$75	per day	$75	
Chlorinated VOC GW Sampling	4	samples	$83	sample	$330	
Chlor Compounds TO-15 lab samples	1	sample	$300	per sample	$300	
Communications	1.50%	labor			$56	
			Sub Total for Pilot Test			$7,671

Full Air Sparging and SVE System Installation

Reporting and design	40	hr	$64	per hour	$2,560	
Reporting and design	25	hr	$95	per hour	$2,375	
Electrial installation	1	unit	$10,000	per unit	$10,000	
Well installation	12	wells	$800	well	$9,600	
Engineer/Scientist III	40	hours	$64	per hour	$2,560	
Sr. Technician	40	hours	$64	hour	$2,560	
mileage	850	miles	$0.59	mile	$497	
Equipment (based on Pilot test equip)	10	unit	$2,255	unit	$22,550	
Carbon treatment for off-gas	60	months	$1,200	month	$72,000	
Electrical	60	months	$100	month	$6,000	
Site visits (8 hours per visit, 18 per yr)	90	visits	$512	visit	$46,080	
mileage	60	visits	$99	visit	$5,967	
Chlorinated VOC GW Sampling	20	samples	$83	sample	$1,650	
Chlor Compounds TO-15 Indoor samples	5	sample	$400	per sample	$2,000	
Reporting	60	hours	$64	hour	$3,840	
Communications	1.50%	labor			$900	
						$191,139

Subtotal	$199,882
10% contingency	$19,988
Air Sparge and SVE System Estimated Cost	**$219,870**