

**Partial Corrective Action Plan:
Jones & Lamson Bunker Oil NAPL
Area of Concern**

160 Clinton Street, Springfield, Vermont

July 31, 2026



PROJECT NO.

15-049

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Title and Approval Page

Document Title

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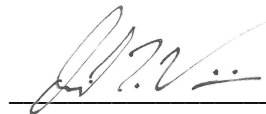
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July 31, 2026

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By my signature, as a Vermont Registered Engineer that I hereby certify that I have reviewed this document.



July 31, 2026

Signature

Date



Executive Summary

Stone Environmental, Inc. (Stone) has prepared this Partial Corrective Action Plan (CAP) on behalf of the Springfield Regional Development Corporation (SRDC) to address contaminated soil and groundwater within the fuel oil non-aqueous phase liquid (NAPL) Area of Concern (AOC) at the former Jones and Lamson (J&L) Property located at 160 Clinton Street in Springfield, Vermont (the Site).

The former J&L Plant #1 was constructed in several stages beginning in the early 1900s through the 1950s and was in operation until 1985, when J&L closed. Various metal manufacturing processes were conducted within the Site building during the time it was in operation, including metal grinding, planing, heat treatment, assembly, and painting (e.g., Nobis, 2014). During its operation, J&L manufactured precision machining equipment including metal lathes and optical comparators. As a result of manufacturing processes, various hazardous materials were released at the Site, including polychlorinated biphenyl (PCB) contaminated cutting fluids, #6 (bunker) fuel oil, various other petroleum fuels and distillates, metals, and chlorinated solvents. In addition to manufacturing processes that resulted in releases to the Site, grinding swarf was disposed of on-Site along the bank of the Black River. Metal shavings produced during manufacturing processes were collected and transferred to the chip shed where PCB contaminated cutting oil was drained onto the underlying ground surface.

Fuel oil NAPL at the Site is the result of a leaking 80,000-gallon underground storage tank (UST) system containing bunker fuel oil. The fuel oil release has comingled with PCB-contaminated cutting oil released from a former chip shed. The total estimated volume of NAPL contaminated soil is 2,700 cubic yards where a larger volume of soil is contaminated (up to 13,800 cubic yards) due to residual and adsorbed phase contamination. The NAPL contamination is within the saturated zone at the Site and migrating from the point of release to the sediment within the Black River. The fuel oil NAPL AOC is the focus of this Partial CAP.

Corrective actions are necessary to prevent unacceptable risks to human health and the environment through various exposure pathways to Site contaminants, specifically:

- Exposure to PCB- and petroleum-impacted soils through dermal absorption (via direct contact), ingestion, or inhalation during intrusive activities.
- Risk to ecological and human health associated with NAPL discharging to basal sediments of the western bank of the Black River.

Corrective actions described in this Partial CAP include installation of additional extraction wells, multi-phase extraction (MPE) within the fuel oil NAPL release area using a co-solvent and surfactant under hydraulic control, and long-term groundwater monitoring. The corrective actions are planned for March 2024 through July 2024, with long-term groundwater monitoring performed semi-annually for two years from October 2024 through April 2026.

A Risk-Based Cleanup Plan (RBCP) for the Site, was approved by EPA Region I TSCA Division on June 22, 2026. .

Assessment of other areas of concern, located within the footprint of the former J&L facility, is ongoing. Once investigation and remedial planning data collection tasks are complete, an Evaluation of Corrective Action Alternatives (ECAA) and CAP will be drafted for the full Site.

Partial Corrective Action Plan: Jones & Lamson Bunker Oil NAPL Area of Concern, 160 Clinton Street, Springfield, Vermont

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1. Introduction

Stone Environmental, Inc. (Stone) has prepared this Partial Corrective Action Plan (CAP) on behalf of the Springfield Regional Development Corporation (SRDC; property owner) to address contaminated soil and groundwater within the non-aqueous phase liquid (NAPL) Area of Concern (AOC) at the former Jones and Lamson (J&L) Property located at 160 Clinton Street in Springfield, Vermont (the Site; Figure 1 in Appendix A).

Fuel oil NAPL at the Site is the result of a leaking underground storage tank (UST) containing bunker fuel oil. The fuel oil release has comeled with PCB-contaminated cutting oil released from a former chip shed. The total estimated volume of NAPL contaminated soil is 2,700 cubic yards where a larger volume of soil is contaminated (up to 13,800 cubic yards) due to residual and adsorbed phase contamination. The NAPL contamination is within the saturated zone at the Site and migrating from the point of release to the sediment within the Black River.

Corrective actions are necessary to prevent unacceptable risks to human health and the environment through various exposure pathways to Site contaminants, specifically:

- Direct contact exposure to PCB- and petroleum-impacted soils through dermal absorption (via direct contact), ingestion, or inhalation during intrusive activities.
- Ecological risk and direct contact risk associated with petroleum-impacted sediment along the western bank of the Black River.

A bench-scale treatability study was completed by EcoVac Services (EcoVac) of Marietta, Georgia and XDD Environmental of Stratham, New Hampshire during Stone's 2021 Supplemental Site Investigation (SSI). EcoVac identified a cosolvent and surfactant that could reduce total petroleum hydrocarbon (TPH) concentrations in soil by 90% and recommended completing a hydraulic strain test in the field. Following completion of the SSI, bench-scale pilot and hydraulic testing within the delineated NAPL AOC was carried out during Stone's 2022 Evaluation of Corrective Action (ECAA) Site Investigation (SI). Pilot testing involved performing multiphase extraction on thirteen wells at the Site and monitoring hydraulic head distribution and presence of separate phase hydrocarbons over a seven-day period. Based on the results of the ECAA, pilot testing demonstrated that the technology should effectively extract NAPL contamination from pore space in the saturated zone. Full-scale implementation of the extraction system is recommended to take place over 30 days using the co-solvent and surfactant blend identified in EcoVac's bench-scale treatability study and various extraction well arrays. Prior to full-scale implementation, additional treatment wells will be installed within the existing well grid to provide proper injection and extraction overlap.

This CAP has been prepared in accordance with the Vermont Department of Environmental Conservation (VT DEC) Investigation and Remediation of Contaminated Properties Rule (IRule). A Risk-Based Cleanup Plan (RBCP) dated April 3, 2026 was approved by EPA Region I TSCA Division on July 22, 2026 and presents PCB Cleanup and Disposal Approval Conditions (Appendix B).

Assessment of other areas of concern, located within the footprint of the former J&L facility, is ongoing. Once investigation and remedial planning data collection tasks are complete, an ECAA and CAP will be drafted for the full Site along with an amendment to the Self Implementing Cleanup Plan for EPA TSCA Division approval.

1.1. Site Description and History

The Site is located at 43.28994° north latitude by 72.47139° west latitude. Until the late fall 2021 to early winter 2022, the former Jones and Lamson (J&L) facility comprised a 270,000-square foot (ft²) former machine manufacturing facility and several outbuildings situated on a 16.9-acre parcel located at 160 Clinton Street in Springfield, Vermont, Windsor County (the Site or Property; Figure 1). Beginning in October 2021, most of the Site building was demolished in accordance with the *Partial Corrective Action Plan – Jones and Lamson Property, 160 Clinton Street, Springfield, Vermont SMS# 77-0122* (Stone, 2018). The northernmost 24,000 square feet of the former J&L facility was left in place to serve as the future location of the Precision Valley Museum and offices for the Site owner, the Springfield Regional Development Corporation (SRDC). The balance of the former J&L facility was razed and removed from the Site for disposal with the concrete slab remaining.

Access to the Site is restricted in accordance with the *Site Stabilization Plan - Jones and Lamson Property, 160 Clinton Street, Springfield, Vermont, SMS# 77-0122* (Stone, 2019). Access is limited using a six-foot chain link fence and signage.

Clinton Street defines the western property boundary while the Black River lies to the east of the Site (Figure 2). The northern property boundary is formed by Bridge Street, with the Edgar May Health and Recreation Center and former Springfield Foundry (former J&L Plant #4) located further to the north. LBL Fabrication, manufacturers of stone and artificial countertops, occupies the southernmost portion of the former J&L Plant #1 building within a separate parcel. Further to the south is the Robert S. Jones Center, formerly referred to as J&L Plant #2.

The Site is depicted on Figure 3, Appendix A. A narrow greenbelt containing grass and a row of trees separates the western side of the Site building slab from Clinton Street. An asphalt parking lot is located immediately north of the remaining Site building and south of bridge Street. The parking lot is currently used by patrons of the Edgar May Health and Recreation Center to the north of the Site. A gated gravel drive accesses the eastern area of the Site from the asphalt parking lot in the north and the LBL Fabrication property to the south. The eastern exterior area of the Site is gravel and generally flat, except for the steeply sloping riverbank at the easternmost extent of the Property. Several small outbuildings were located east of the main facility including the former boiler house, pump house, and powerhouse complex, two exterior transformer houses, a hazardous waste storage building, carpenter's shop, salt shed, lumber storage shed, electrical storage shed; these structures have each been razed and removed.

According to previous historical accounts (e.g., Dufresne-Henry, 1989) the Site is constructed on a former riparian wetland that was backfilled with approximately ten feet of material. Fill material consists of sand, gravel, and foundry waste. The greenbelt west of the building is maintained by SRDC and the Town of Springfield; exterior areas east of the Site building were cleared for the 2021-2022 demolition but are not regularly maintained. A Town of Springfield sewer main traverses the eastern portion of the Site. Two combined sewer overflows (CSOs) were previously located along the sewer main and discharged to the Black River; the CSOs have been terminated, but their subsurface piping remains. Additional remnant buried infrastructure in the fuel oil NAPL area includes storm drains, a former drain line and manhole immediately southwest of the former bunker oil UST, and various pipes of unknown origin or use. An oil water separator

resides south of the fuel oil NAPL area and is allegedly associated with the Bradford Oil property located at 197 Clinton Street.

The Site is situated adjacent to the following hazardous waste sites:

- Edgar May Health and Recreation Center (formerly J&L Plant #4), 140 Clinton Street; SMS# 2009-3906;
- Irving filling station/Jake's Market (formerly Go-Go Gas and Springfield gas, a manufactured gas plant), 197 Clinton Street; SMS# 98-2399;
- LBL Fabrications (formerly Artisan Surfaces) (the southern extent of the J&L Plant #1 building), 200 Clinton Street; SMS# 2013-4373;
- Springfield Police Department (formerly Lucas Industries, a car dealership), 201 Clinton Street; SMS# 2006-3608; and
- Former Bryant Grinder machining plant, 257 Clinton Street; SMS #77-0123.

The Lucas Industries site has been impacted by contaminants from the adjacent Go-Go Gas property but has received a Certificate of Completion through the VTDEC Brownfield Response Program. The remaining adjacent hazardous waste sites are under active VT DEC management.

1.2. Previous Environmental Investigations

Extensive investigations of the Site have occurred since 1989. A summary of previous studies which generated data relevant to characterization of the NAPL is provided below. The historical sample locations and analytical data summary tables are provided in Appendix B.

1.2.1. Dufresne-Henry, Site Assessment Report, 1989

In March of 1989, Dufresne-Henry reported on investigation activities performed at the Site, which at that time encompassed the J&L Plant #1, current LBL Manufacturing property, and the Jones Center property. During this Site Assessment, Dufresne-Henry reported, among other findings, that oil contamination was found in the soil east and south of the Chip Shed (Figure 3), including monitoring wells MW-7A, MW-7B, and MW-7.

1.2.2. Johnson Company, Corrective Action Plan, 2008

Within the January 2008 Corrective Action Plan (CAP), the Johnson Company (J-Co) estimated the swarf¹ to cover an area of approximately 400 ft² with a total volume of 45 cubic yards (yd³). J-Co had assumed that the depth of swarf material did not exceed 3 feet below ground surface (bgs). The CAP indicated the swarf contained elevated levels of iron and a swarf sample analyzed for PCBs had a concentration of 3.8 parts per million (ppm). Based on this limited characterization data J-Co recommended excavating the swarf under a self-implemented cleanup under TSCA (see below).

¹ Swarf is a waste product from metal machining that consists of metal grinding particulate, grinding stone, cuttings, and cutting oil. Once in the environment, the material often fuses together.

1.2.3. Tantara – Nobis, Remedial Action Report, 2014

Tantara Corporation (Tantara) with subcontractor Nobis Engineering, under contract with SRDC, performed remedial action in August to September 2013, which included excavation, transport, and disposal of a portion of the swarf and excavation, transport, and disposal of contaminated soils within a former solid waste disposal area (SWDA), among other remedial activities. Soil underlying the swarf was observed to consist of additional swarf material and black oily soils. Nobis did not report the thickness of the swarf or excavation depths. During the initial effort to remove the swarf, the extent of swarf was found to be much more extensive than expected.

Following the discovery of the extent of swarf, Tantara reportedly excavated a test pit west of the previously documented extent of swarf and reported the presence of black oily soil and grinding “swarf-like” material to depths up to five feet below ground surface. A soil grab sample was collected from the test pit and analyzed for PCBs, total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO). PCBs were detected at a concentration of 22.4 ppm, TPH GRO was detected at 91 ppm, and TPH DRO was detected at 63,000 ppm within the grab sample.

1.2.4. Stone Soil Boring Program, 2015

To evaluate the nature and extent of swarf and petroleum NAPL and evaluate whether swarf soils generated during remedial activities constitute Resource Conservation and Recovery Act (RCRA) wastes, Stone performed five soil borings in the vicinity of a chromium/arsenic hot spot near the former solid waste disposal area. Samples were analyzed for total RCRA 8 metals. The sample with the highest total metals concentration was selected and analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals. Although barium, cadmium, and lead were detectable within leachate, no metal was found more than the RCRA threshold. As such, further delineation of metals in soil was not performed.

To assess the areal and vertical extent of PCB contaminated soil and swarf material, Stone advanced 75 soil borings between July 2 and July 9, 2015. Borings were oriented within a 10 by 10-foot grid and advanced to a depth of up to 19 feet bgs. Soil borings were performed in the center of each 10 by 10-foot area. A total of fourteen composite and fourteen discrete soil samples were initially submitted for PCB analyses.

Strata identified during the soil characterization effort included coarse gravelly sand fill, swarf, native sand, native sand and gravel, and silty clay. Soil logging of the 75 soil cores collected for the Site characterization indicated that the swarf is 1) very recognizable, 2) ranges to four feet thick in areas, and 3) encompasses a much larger footprint than previous environmental investigations had suggested.

During the completion of soil borings, petroleum stained and saturated native sand was found between 1.0 and 14 feet below ground surface and below the swarf unit. In most borings, the oil-stained sands and swarf were not co-located within the same strata of the boring, however in select borings (e.g., SB-D5) the oil was found to be present in overlying fill, swarf, and sand and gravel strata. Based on visual and olfactory evidence, as well as a lack of PCBs within this oil, Stone presumed this oil is derived from the former bunker fuel oil underground storage tank.

1.2.5. Black River Sediment Assessment, November 2015

On November 23, 2015, Stone staff performed reconnaissance of sediments along the western bank of the Black River adjacent the Site. The objective of this assessment was to delineate the location and nature of free phase oil along the bank. Using hand tools, Stone dug approximately 0.5 feet into shallow sediments for the presence/absence of sheen at five-foot increments along the bank for 235 feet of the riverbank. Oil was observed in 20 of the 47 investigation locations – representing a total length of approximately 100 feet of

riverbank with oil contaminated sediments. In many cases, swarf was also found within oil contaminated sediments. Samples collected of sediments were found to contain elevated concentrations of PCBs and found to resemble most closely hydraulic or motor oil.

1.2.6. NAPL Recovery System Installation and Maintenance, 2014-2016

A NAPL recovery system was installed by Nobis Engineering, Inc. in February 2014. The system consisted of a compressed air actuated Magnum Spill Buster™ with self-adjusting recovery pump, air compressor, pump cable reel, and 55-gallon product storage drum. The pump and cable reel were designed to self-adjust to account for fluctuations in the NAPL layer. The 55-gallon drum was outfitted with an automatic shutoff switch to ensure the drum would not overfill. At the time of installation approximately 1-inch of free product was observed in recovery well RW-1. Prior to installation of the recovery system, up to four feet of NAPL had been observed in this area. It is possible that NAPL thickness is affected by seasonal hydraulic head fluctuations. Two weeks following installation of the recovery system there was no observed change in the NAPL thickness. A report, dated March 28, 2014, noted that no product had yet to be recovered since system installation.

Clean Earth Technologies conducted a Site visit on December 15, 2015 to perform NAPL recovery system maintenance, including adjusting the height of the bladder pump and performing any necessary maintenance on the bladder pump and air compressor. The NAPL recovery system did not appear to have recovered any product during subsequent Site visits conducted by Stone.

On May 25, 2016, Stone conducted NAPL recovery system maintenance. Maintenance included installing a 4-inch v-wire screen and riser, wrapped with heat tape, in RW-1. Recovery lines were cleaned and shortened to remove clogs that may have been limiting system performance. The pump and intake valves were also cleaned to improve system performance. NAPL was observed being discharged into the recovery drum following the system improvements and cleanout. On June 23, 2016, Stone returned to the Site to conduct monthly monitoring. At this time, no appreciable additional amount of product had been discharged into the recovery drum. A Stone field technician tested the system and noted it would respond when prompted by the “test system function” in the control box. While on-Site, however, the system’s air compressor turned on and began smoking and emitting sparks. The system was immediately shut off and the air compressor removed. The system was decommissioned as part of the investigation derived waste management task of the subsequent SSI.

1.2.7. EPA Removal Program Preliminary Assessment/Site Investigation, 2016

In June 2016, U.S. Environmental Protection Agency (EPA) Region I On-Scene Coordinator (OSC) Richard Haworth and Weston Solutions, Inc. (WESTON), Superfund Technical Assessment and Response Team IV (START) conducted sampling activities at the Site as part of a Preliminary Assessment/Site Investigation. START collected surface soil, subsurface soil/sediment, oil identification (Oil ID), and bulk asbestos containing material (ACM) samples.

Soil and sediment samples were analyzed for PCBs, metals, and semi-volatile organic compounds (SVOCs). Four PCB Aroclors were detected above reporting limits at the following maximum concentrations: Aroclor-1254 [64.2 milligrams per Kilogram (mg/Kg)], Aroclor-1260 (2.16 mg/Kg), Aroclor-1262 (22.5 mg/Kg), and Aroclor-1268 (8.11 mg/Kg). Aroclors were detected at concentrations exceeding their respective EPA Removal Management Levels (RMLs) for Industrial Soil in two of the soil samples.

Seventeen metals were detected above reporting limits at the following maximum concentrations: aluminum (11,000 mg/Kg), antimony (24 mg/Kg), arsenic (40 mg/Kg), barium (640 mg/Kg), cadmium (8.7 mg/Kg), calcium (10,000 mg/Kg), chromium (1,800 mg/Kg), cobalt (42 mg/Kg), copper (2,600 mg/Kg), iron (340,000

mg/Kg), lead (710 mg/Kg), magnesium (6,000 mg/Kg), manganese (3,000 mg/Kg), nickel (1,400 mg/Kg), silver (3.4 mg/Kg), vanadium (540 mg/Kg), and zinc (470 mg/Kg). One metal (iron) was detected at concentrations exceeding the respective EPA RMLs for Residential Soil.

SVOC analytical results indicated the presence of 25 SVOCs at the following maximum concentrations:

- 1,2,4-trichlorobenzene; 350 micrograms per Kilogram (µg/Kg),
- 1,2-dichlorobenzene; 900 µg/Kg,
- 1-methylnaphthalene; 74,000 µg/Kg,
- 2-methylnaphthalene; 17,000 µg/Kg,
- Acenaphthene; 68,000 µg/Kg,
- Acenaphthylene; 17,000 µg/Kg,
- Acetophenone; 3,500 µg/Kg,
- Anthracene; 56,000 µg/Kg,
- benzo(a)anthracene; 81,000 µg/Kg,
- benzo(a)pyrene; 86,000 µg/Kg,
- benzo(b)fluoranthene; 110,000 µg/Kg,
- benzo(g,h,i)perylene; 43,000 µg/Kg,
- benzo(k)fluoranthene; 88,000 µg/Kg,
- bis(2-Ethylhexyl) phthalate; 3,700 µg/Kg,
- carbazole; 31,100 µg/Kg,
- chrysene; 120,000 µg/Kg,
- di-n-butylphthalate; 4,300 µg/Kg,
- dibenz(a,h)anthracene; 12,000 µg/Kg,
- dibenzofuran; 11,000 µg/Kg,
- fluoranthene; 250,000 µg/Kg,
- fluorene; 41,000 µg/Kg,
- indeno(1,2,3-cd)pyrene; 40,000 µg/Kg,
- naphthalene; 7,800 µg/Kg,
- phenanthrene; 210,000 µg/Kg, and
- pyrene; 190,000 µg/Kg.

START personnel collected 25 bulk ACM samples from the building and analyzed them for asbestos. Laboratory analytical results indicated the presence of three types of asbestos: amosite, chrysotile, and crocidolite.

START collected two surface water samples for PCB, metals, and SVOC analyses. No PCBs or SVOCs were detected above laboratory detection limits. Six metals were detected at the following maximum concentrations: aluminum [140 micrograms per Liter (µg/L)], barium (23 µg/L), calcium (18,000 µg/L), iron (550 µg/L), magnesium (4,200 µg/L), and manganese.

START collected three pore water samples for PCB, metals, and SVOC analyses. No PCBs or SVOCs were detected above laboratory detection limits. Five metals were detected at the following maximum concentrations: barium (100 µg/L) and calcium (140,000 µg/L), iron (2,500 µg/L), magnesium (16,000 µg/L), and manganese (1,400 µg/L).

Three sediment, two water/oil, and one oil sample were collected and analyzed for Oil ID analysis. A variety of oil types were identified in the samples, including cutting oil, bunker oil, motor oil, late hydrocarbons, and hydraulic oil.

1.2.8. U.S. EPA Pollutions/Situation Report, 2017

In September 2017, PCB-contaminated swarf and contaminated, co-mingled soil were excavated from an area along the riverbank not previously excavated by Tantara in 2014. Approximately 990 tons of swarf and soil were excavated and disposed of off-site at a TSCA-approved landfill. Four drums containing hazardous material from inside the boiler room were also shipped off-Site for disposal. The excavation was backfilled. Two additional areas of swarf were observed at one foot and two feet depth below ground surface but were not excavated. Two small deposits of “blue-green, grease-like material” were also noted on-Site.

1.2.9. Stone NAPL Delineation, 2017-2018

Stone completed a Supplemental Site Investigation (SSI) between November 2017 and January 2018 to fill data gaps within the NAPL of the former J&L Property. The goals of the investigation were to:

- Delineate the vertical and horizontal extent of the NAPL plume emanating from the former 70,000-gallon bunker oil UST and the chip shed;
- Characterize the NAPL for physical/chemical parameters so that enough data is available to evaluate removal technologies and assess disposal options;
- Characterize subsurface materials, obstructions, and utilities that may impact the technology or approach used for remediation of the NAPL;
- Determine if dissolved phase contamination may be impacting the Black River.

The following conclusions were from the SSI:

- NAPL extents have been delineated vertically and to the north, south, and west. However, the NAPL plume has not been delineated to the east toward the Black River due to limitations presented by the riverbank and the river itself. The total estimated volume of NAPL contaminated soil is 2,700 cubic yards.
- Based on the following lines of evidence: the presence of NAPL at elevations at or slightly below that of the Black River, the eastern extent of the NAPL plume not being delineated, the Black River gaining with respect to groundwater from most sample locations, and visual evidence of sheens in the Black River; it is likely that the NAPL plume is an on-going source for potential impacts to the Black River.
- PCBs were detected in two of the eight discrete soil samples collected from intervals containing NAPL. PCB contamination within NAPL is associated with fuel oil from the 80,000-gallon UST comingling with PCB contaminated oil associated with the Chip Shed. NAPL has served as a transport mechanism for PCBs through deeper soils. The areal extents of the portion of the NAPL plume assumed to be contaminated with PCBs is approximately 5,000-square feet.
- Based on the data from this effort, PCB contaminated oil has not migrated to the Black River, since PCBs were not found along the downgradient edge of the NAPL plume (Z-07-13.5) nor within pore water samples collected during the 2016 Preliminary Assessment / Site Investigation performed by EPA's Superfund Technical Assistance Response Team (START). However, an old outfall pipe located directly north of Z-07 and adjacent to Y-08, the location with the highest concentration of PCBs, may serve as a preferential pathway for PCB impacted NAPL to the Black River.
- Trichloroethylene (TCE) and its breakdown products were detected in pore water along the western bank of the Black River. Specifically, TCE, 1,1-DCA (dichloroethane), and vinyl chloride were detected at concentrations exceeding Vermont Groundwater Enforcement Standards (VGES) from four of the seven locations sampled (river transect locations R4-A, R5-A, R6-A, and R7-A).
- Chlorinated solvents detected in pore water are likely associated with groundwater contamination identified in the vicinity of the heat treatment and chlorinated solvent storage area. Based on the presence of chlorinated volatile organic compounds (CVOCs) in pore water along the western bank of the Black River, it is likely that the chlorinated solvent plume is discharging to the Black River. The lateral extent of the CVOC plume in Site groundwater is not well understood. Other potential downgradient receptors, such as the bedrock aquifer or private water supply wells, have not been assessed.

1.2.10. Stone NAPL and CVOC Areas of Concern Supplemental Site Investigation, 2021

Stone completed an SSI of the NAPL and CVOC Areas of Concern (AOC) in 2021 to fill the following data gaps:

- Assessment of the extent of impacts to Black River from both bunker oil NAPL and chlorinated solvents;

-
- Determination of the vertical and horizontal extent of chlorinated solvents in groundwater;
 - Evaluate the potential effectiveness of remedial alternatives to address the bunker oil NAPL plume and its potential impacts to the Black River:
 - Performing treatability testing to evaluate the effectiveness of possible in-situ remedial alternatives;
 - Performing waste characteristic profile sampling and analysis to enable the evaluation of excavation and disposal as a remedial alternative;
 - Evaluating a possible no-action alternative supported by risk assessment with ongoing groundwater and sediment quality monitoring.

Stone made the following conclusions based on the results of the SSI:

- The groundwater flow direction within the NAPL and CVOC Areas of Concern appears to be from the former 80,000-gallon UST toward the Black River with a horizontal hydraulic gradient of approximately 0.01 feet/foot. Based on measurements collected at two sets of paired monitoring wells, there appears to be a slight downward gradient in hydraulic head between the upper to lower portion of the aquifer. The vertical hydraulic gradient is approximately -0.003 feet/foot.
- PCBs were detected at concentrations below the VGES in one groundwater sample collected from MW-4-16R. With the removal of swarf and sediment (Tantara, 2014), a significant mass of PCBs has been removed from the riverbank. Contaminated NAPL and dissolved-phase PCBs still present a threat to the Black River.
- Phenanthrene and pyrene concentrations in shallow river bottom sediments collected along the eastern shoreline of the Black River exceeded the Vermont Sediment Quality Guidelines (SQG) Threshold Effect Concentration (TEC) in two locations. Likewise, TPH-DRO concentrations were detected in four of the five sediment samples at levels ranging from 17 milligrams per kilogram (mg/Kg) to 40 mg/Kg. These petroleum-related analytes may be derived from NAPL in sediments below the western half of the river through diffusion or be derived from an unknown upstream source. NAPL was not observed in any of the borings along the eastern shore of the Black River.
- Based on the presence of TCE and its breakdown products in three porewater samples, collected along the western shoreline of the river, at concentrations above the VGES, and the fact that the river is primarily a gaining river, it appears that CVOCs are discharging into the Black River. CVOCs were not detected above laboratory reporting limits in surface water samples likely due to the dilution of discharging groundwater from the river. CVOCs were not identified in shallow soil on the opposite, eastern shoreline of the river, suggesting that the CVOC plume has not reached that side of the river.
- The extent of CVOC impacts (e.g., 1,1-DCA, cis-1,2-dichloroethylene, PCE, TCE, and vinyl chloride) to site groundwater appears to overlap the extent of the delineated #6 fuel oil NAPL while also extending further to the south.
 - The highest concentrations of CVOCs are south of the NAPL plume and extend through the alluvial deposits to the interface with the lacustrine deposits and glacial till.
 - Vertically, concentrations are highest at the alluvial-lacustrine contact and may indicate that dense NAPL TCE was at one time present upgradient and beneath the building.
 - Where CVOCs are detected in groundwater, breakdown products are present in most areas indicating that reductive dechlorination is occurring.
 - In the area of the fuel oil NAPL, breakdown products include cis-1,2-DCE, vinyl chloride (of the PCE/TCE breakdown pathway), and 1,1-DCA and chloroethane (of the 1,1,1-trichloroethane breakdown pathway). It is possible that the additional organic matter of the fuel oil is facilitating breakdown of the CVOCs by serving as additional electron donor material.

- In areas outside the fuel oil NAPL plume (e.g., DP-03), dechlorination appears to be stalled with cis-1,2-DCE. Assessment of inorganic constituents in groundwater serving as potential electron donors, such as nitrate, manganese, and iron would be helpful in evaluating redox conditions. Augmented bioremediation may be an appropriate remedial option in these areas.
- The cosolvent and surfactant applied in the bench-scale treatability test by EcoVac were found to be compatible with site groundwater and tap water, effectively removing NAPL and reducing TPH concentrations in site soil by approximately 90%. These products may therefore be applied on a larger scale to perform extraction testing at site monitoring wells, followed by full-scale implementation.
- Waste characterization of three soil samples identified the following:
 - No analyte exceeded 20 times the TCLP regulatory limit.
 - Pesticides (aldrin), total PCBs, SVOCs (hexachlorobenzene), volatile organic compounds (VOCs) (1,2,3-trichloropropane and 1,2-dibromo-3-chloropropane), and TPH-DRO were identified above the non-resident Vermont Soil Standard (VSS) in at least one soil sample.
 - Because no analyte exceeds 20 times the TCLP regulatory limit, the soil collected during pilot testing is considered non-hazardous; therefore, soil generated during excavation could be disposed of in a Subtitle D landfill.

1.2.11. Stone Bunker Oil NAPL Area of Concern Evaluation of Corrective Action Alternatives, 2022

An ECAA SI was performed to assess hydraulic conditions within the delineated NAPL area to allow for full-scale design of the proposed enhanced multi-phase extraction system. The SI consisted of the following field tasks, performed and overseen by Stone between March 28, 2022 and July 29, 2022:

- Augmentation of the existing well network to include seven additional monitoring/extraction wells to be used for the aquifer test and full-scale remedy;
- Hydraulic strain testing using the augmented monitoring well network; and
- Gauging monitoring wells prior to and following hydraulic testing.

Results of the ECAA SI indicate that full-scale implementation of the extraction system should take place over 30 days using a co-solvent and surfactant blend identified in EcoVac's bench-scale treatability study (Stone, 2021) and various extraction well arrays. An additional four, 4-inch-diameter and two, 6-inch-diameter treatment wells should be installed within the existing well grid prior to treatment to provide proper injection and extraction overlap.

Based on the results of the ECAA SI, the ECAA considered the following remedial alternatives to prevent unacceptable exposure to known Site contaminants:

1. NAPL in Soil
 - a. Alternative 1: No Action,
 - b. Alternative 2: Source Removal, and
 - c. Alternative 3: Implementation of SOLV-IT® Cosolvent and Surfactant
2. NAPL in Sediment
 - a. Alternative 1: No Action,
 - b. Alternative 2: Dredging, and
 - c. Alternative 3: Dredging with a Cap.

Based on the results of the ECAA, the recommended corrective action for NAPL in soil was Alternative 3, implementation of the SOLV-IT® cosolvent and surfactant. Pilot testing demonstrated this technology to be effective in extracting NAPL contamination from pore space in the saturated zone. Based on the volume of

contamination, this corrective action would also be the most efficient and cost-effective alternative to implement. The recommended corrective action for NAPL in sediment was Alternative 1, no action. Prior ecological risk assessments have demonstrated no adverse effects to benthic organisms within the Black River. No remedial actions were recommended for NAPL in sediment.

2. Conceptual Site Model

The following Conceptual Site Model (CSM) provides a set of working hypotheses that describe key aspects of the Site. As with any hypothesis, the CSM may require additional testing to arrive at the desired level of confidence. This version of the CSM presents data that are germane to the LNAPL area of concern, and includes a discussion of the physical, geologic, and hydraulic attributes of the LNAPL area of concern, how chemicals were released at the Site, their transport pathways, fate mechanisms, and potential routes of exposure to ecological and human receptors. The latest version of the full CSM can be found in Stone's 2018 Partial CAP.

2.1. Geology and Hydrogeology

The depositional setting of the Site is that of an alluvial system that, prior to human alterations, was periodically flooded. Native strata observed at the site can be described as a series of upward fining sequences common in point bar-cut bank settings. The sequences begin with channel lag deposits, consisting of poorly sorted coarser materials over the underlying silt strata or bedrock. Above the channel lag deposits, we expect that coarse materials are overlain and possibly interbedded with cross-bedding of sand predominantly in the coarse- to medium-grained range, followed by sand within horizontal laminae and climbing ripples. The final portion of the sequence is a silty mud layer, resulting from slack water events (over bank deposits), and, in some places peat. This sequence – channel lag through silty over bank deposits – will be repeated as the channel meanders and additional point bar/cut bank sequences occur.

Where bedrock is not present, the alluvial deposits overlie glacio-lacustrine fine-grained silty sands, silt, and sandy clay deposited while the area was covered by Glacial Lake Hitchcock following the retreat of glacial ice from this portion of Vermont (~12,000 years ago through approximately 8,000 years ago). Interbedded sandy silts, silt, and clay beginning at approximately 16 to 23 feet bgs are interpreted as representative of the lacustrine period of the depositional history. The contact with the lacustrine unit appears to generally slope down to the east, with some local variations. Laminae within this unit are consistent with varve deposits (i.e., annual couplets of silt or silty sand representing the summer melt and silty-clay to clay during winter months). In Stone's 2021 SSI, silty clay-silt or sandy clay-silt varve couplets were observed in most borings. According to work performed by Johnson Company circa 2008 to define the extent of coal tar NAPL contamination related to the Bradford Oil site in the western portion of the Property, the lacustrine silt-clay unit has been eroded in some areas of the Site due to meanders of the Black River channel, leaving in its place coarse channel bottom deposits. This channel area was determined to be bound further to the west by a reported ridge within the lacustrine unit occurring approximately in a north-south trend in the middle of the former J&L building. We expect that the lacustrine deposits are underlain by glacial till, consisting of poorly sorted sand, gravel, and cobbles in a silt-clay matrix. In select areas, the lacustrine sediments have been eroded exposing the basal till or, as seen in the current river channel, bedrock. It is unknown if alluvial or lacustrine deposits are in direct contact with bedrock beneath the former Site building.

The recent fill material – typically ranging from 2 to 8 feet at the Site – consists of sand, gravel, and some black sands that appear to be foundry waste. Low lying areas near the river, including below the Site, were infilled with fill soils both to initially develop the property and to dispose of wastes generated on Site (e.g.,

swarf) and of nearby industries (e.g., foundry wastes). Based on previous environmental investigations, the geology of the Site includes 2 to 8 feet of artificial fill beneath the former buildings and eastern portion of the Site. Fill consists of medium to coarse sand, gravel, masonry debris, and other solid wastes.

Electrical conductivity (EC) results from Stone's 2017-2018 NAPL Delineation SSI, as a proxy for stratigraphy, and deeper soil borings indicate that there is a relatively prompt transition from coarse grained material to finer silts and clays ranging between 13 and 25 feet bgs. Within the center of the fuel oil NAPL source area, prior attempts to recover product in the early 1980s included the excavation of a basin exists within the lacustrine deposits. It is our understanding that this depression was intended to serve as a collection point for NAPL. When present, NAPL is often found within the coarse-grained materials. Borings performed in the NAPL area of concern (Stone, 2018, 2021, and 2022) indicate that NAPL has migrated into the coarser sandy-silt laminae of the varve couplets in areas where the downcutting of the basin intersects with the layered lacustrine deposits. Historical excavation to create a recovery basin and install subsurface utilities (e.g., drains, combine sewer overflows, etc.) may have facilitated the immediate downward migration of the NAPL, which was then in contact with the coarser laminae within the varve couplets, aiding in its lateral migration at depth. Cross sections of soil lithology are shown on Figure 5 and Figure 6 in Appendix A.

In the area of the fuel oil NAPL plume, buried utilities, including discontinued water supply lines, storm sewer, roof drain inlets – either from the Site building or buildings west of Clinton Street, and the Town of Springfield sanitary sewer, traverse the Site both north to south and east to west. Coarse engineered backfill materials, if in contact with the plume or contaminated groundwater, may facilitate transport in unexpected directions given hydraulic head distribution.

Based on previous and ongoing environmental investigations and monitoring performed for the Bradford Oil site, the direction of groundwater flow is generally east, southeast toward the Black River, immediately adjacent to the Site. Within the CVOC and NAPL Areas of Concern, groundwater flow is east from the former 80,000-gallon UST area to the Black River (Figure 4, Appendix A) and downward from the upper to lower portions of the alluvial aquifer. The horizontal component of hydraulic gradient is estimated to be 0.01 feet/foot while the vertical component of hydraulic gradient is estimated to be -0.003 feet/foot (downward). Following the DPE/MPE pilot test, the horizontal hydraulic gradient was estimated to remain at 0.01 feet/foot.

Preferential flow appears to follow the path of the former river channels resulting in local variations in the groundwater flow direction, with some groundwater flowing northeast, and some southeast. Depths to groundwater range between six feet bgs in the west to 23 feet bgs in the center of the former Jones & Lamson building. Depth to groundwater within the NAPL AOC is approximately 10.5 feet bgs.

2.2. Contaminant Distribution, Fate, and Transport

Numerous historical reports have documented the presence of a fuel oil NAPL plume east of the Site building, with observations of petroleum sheen occasionally emanating from the bank of the Black River (e.g., Weston START, 2016 and Stone, 2015). The NAPL resulted from a leak in the 80,000-gallon, dual compartment bunker fuel UST and co-mingled with machine cutting oils from the chip shed. The UST was closed in place in 2009, but free product remains in the subsurface between the manufacturing building and the river. Attempts to operate a NAPL recovery system have been unsuccessful due to the high viscosity of the oil which impedes pumping. In addition to bunker oil, which is believed to make up the majority of the NAPL plume, samples of oil-soaked sediments collected by Weston and analyzed at EPA's NERL Laboratory were identified as hydraulic oil, cutting oil, motor oil, bunker oil, and "late hydrocarbons".

Based on the results of Stone's 2017-2018 and 2021 SSIs, and 2022 ECAA SI, the extent of fuel oil NAPL has been defined on the Site to occur within sandy alluvial deposits and lacustrine above the transition between the alluvium and lacustrine deposits within the saturated zone. Residual phase contamination, in places, extends into the lacustrine silt/clay in response to density, fluctuations in the groundwater equipotential surface, natural preferential pathways (coarse strata), and historical excavation to create a recovery basin. Based on observed NAPL both along the bank and within river bottom sediments, an unknown volume of NAPL extends beyond the constructed depression and recovery well system to the riverbank and river bottom sediments. Based on results from Stone's 2021 SSI, the fuel oil NAPL does not extend beneath the Black River to the opposite shore – the eastern extent of the NAPL is believed to be within the western third of the river bottom.

Chlorinated solvents, including tetrachloroethylene (PCE), TCE, and their breakdown products were detected at elevated concentrations in groundwater in the vicinity of the heat treatment and chlorinated solvent storage area during previous investigations. The highest concentrations of CVOCs were identified from the JCO-SS monitoring well, indicating a potential source area for the chlorinated solvent contaminant plume. In December of 2015, Environmental Compliance Services (ECS; now ATC) reported CVOCs in their routine monitoring of the Bradford Oil (SMS #98-2399) plume from monitoring wells JL-101, located north of the heat treatment area, NW-4S and -4D, located south of the solvent storage and recycling area, and MW-4-14R, located on the southern edge of the fuel oil NAPL area of concern. CVOCs detected by ECS included cis-1,2-dichloroethene (cis-1,2-DCE), PCE, and TCE.

Assessment of the eastern extent of CVOCs in Stone's 2021 SSI determined that dissolved-phase CVOCs extend past MW-4-14R into the Black River, encompassing approximately the western half of the river bottom. Chlorinated solvents and degradation biproducts (i.e., 1,1-DCA, cis-1,2-dichloroethylene, PCE, TCE, and vinyl chloride) were found in porewater along the western shoreline of the Black River within the area of the known NAPL plume. The chlorinated solvents are likely discharging to the Black River; the river was estimated to be at stasis or gaining with respect to groundwater at 18 of 20 locations. While chlorinated solvents are likely discharging to the Black River, VOCs were not detected in the surface water of the Black River, collected at the same locations as porewater samples with elevated CVOC concentrations, or in shallow soil on the opposite, eastern shoreline. This suggests that eastern migration of CVOCs beyond the Black River is minimal or not occurring.

The competency of the glacial-lacustrine deposits in preventing downward migration of contaminants is uncertain. The thickness of overburden near the Site varies widely from 10 feet – as evidenced by nearby well drillers logs – to over 35 feet. If the lacustrine silt-clay deposits are discontinuous beneath the Site, the bedrock aquifer may be at risk of impact from Site contaminants. To date, no soil coring has revealed coarse deposits in direct contact with bedrock at the Site. However, silt or clay have not been identified in certain borings during previous environmental investigations, indicating that alluvial sediments are thicker in some areas resulting from erosion of the lacustrine deposits, creating troughs that were later infilled by the alluvium. We do not know if lacustrine or glacial till deposits are altogether missing from some areas of the Site as a function of past erosion. Groundwater quality of the bedrock aquifer has not been assessed.

2.3. Sensitive Receptor Evaluation

Based on the current CSM relative to the NAPL source area, potential exposure pathways to human and/or ecological receptors are evaluated below. Additional details related to other potentially impacted receptors from other Site releases are presented in previous reports.

- **Soil** – Exposure pathways for humans through impacted soils include dermal absorption (via direct contact), ingestion, or inhalation during intrusive activities in the NAPL source area. Future remedial and investigation activities should implement adequate engineered controls or personal protective equipment to prevent direct exposure to these impacted soils.
- **Groundwater** – Water supply wells are currently not being used on-Site. Nearby groundwater supply wells have not been directly assessed. Data does suggest that NAPL originating from the 80,000-gallon fuel tank and the chlorinated solvent plume (PCE, TCE, and their breakdown products) is discharging to the Black River through Site groundwater. The bedrock aquifer has not been assessed.
- **Surface Water** – Surface water collected from the western shoreline of the Black River where porewater samples were found to contain elevated CVOC concentrations showed no detections of CVOCs. However, there still may be an ecological risk associated with CVOC-contaminated groundwater discharging to the Black River. Petroleum NAPL sheens have been observed in the Black River as free-phase NAPL, are present in basal sediments, and continue to migrate via advection from the source area. Prior ecological risk assessments have demonstrated no adverse effects to benthic organisms within the Black River.

2.4. Nearby Sensitive Receptors and Abutting Landowners

Using the Vermont Agency of Natural Resources (ANR) Natural Resources Atlas, a qualitative receptor analysis was completed to evaluate the occurrence of potential receptors relative to the Site.

2.4.1. Drinking Water Supply

There are 49 private water supply wells and one public water supply source within a 1-mile radius of the Site. Thirty-seven of the private water supply wells are located up-gradient of the Site, thus are not considered as sensitive receptors. The twelve other private water supply wells and the public water source are all located north or east of the Site on the opposite side of the Black River.

Data suggests that groundwater contamination is semi-confined to the shallow aquifer; however, VOCs detected at depth near MW-102 may suggest the presence of DNAPL beneath the former Site building. Additionally, contamination is discharging to the Black River. Nonetheless, it is unlikely that wells east of the Site have the potential to be impacted by groundwater contamination in the shallow aquifer as groundwater flowing west from the highlands toward the Black River will likely impede easterly groundwater flow. The condition of the bedrock aquifer remains a data gap.

Table 1, below, provides an inventory of private and public groundwater drinking water sources within one mile of the Site.

Table 1: Groundwater Drinking Water Supplies within 1 Mile of Jones and Lamson

Well Report Number	Private Groundwater Sources			Distance (ft)	Direction
	Well ID	Owner	Well Depth (ft bgs)		
397	30	Robert Farnsworth	505	400	northeast
11		Bishop Farms Inc.	155	4500	east
33045	33045	Paragon Homes	125	2685	west
385	16	Stephen Matush	250	2500	west
491	28	Henry Rounds Builders	240	1400	east
224		Harry Farnum	100	3000	west
282		Stephen Ankuda	450	4100	west
6926	1398	Christopher Bishop	160	3700	east

Private Groundwater Sources					
Well Report Number	Well ID	Owner	Well Depth (ft bgs)	Distance (ft)	Direction
20114	20114	Mike & Heidi Dolloff	425	4100	northeast
105		Brian Merrick	171	3800	north
40932	40932	Roger Wheeler	305	4100	south
325		Spencer Knight	300	2300	southwest
388	17	Robert Shea	150	3200	west
221		John W. Nute	275	2900	west
45929	45929	Rick Aldrich	440	4600	east
27706	27706	Dan Gray	180	3900	west
466	45	Bishop Farms Inc.	420	3700	east
44385	44385	Mr. O'Donnell	185	4700	southwest
49748	49748	David Bateman	345	3500	west
403	2909	Mountain View Associates	205	4900	west
33046	33046	Paragon Homes	145	3000	west
4477	1	GTE Telephone	0	3900	northwest
380		Robert Hobbs	150	3700	west
34974	34974	Rick & Cindy Pulsisec	200	2000	west
49864	49864	Charles Dikeman	500	4300	south
22665	22665	Gene Siliski	380	2900	south
56767	56767	Richard Skute	245	830	northwest
464	62	Roy Hill	200	4600	southwest
34862	34862	Jason Snow	220	4700	west
121		Elizabeth Bean	246	4700	north
338		Gordon Pyper	100	4200	southwest
381		David Kesek	275	3700	northwest
41366	41366	Bruce Tucker	205	3300	southwest
398	14	Mattheu Aiello	205	3600	west
404	686	Harry Lasell	115	4400	southwest
335		Paul Ruse, Jr.	350	3700	west
393	84	Margaret York	150	3800	west
260		Tree Farm's Camp Grounds	340	4800	east
19		Connecticut Valley Broadcasting	271	4800	southwest
32039	32039	Highland Holsinfa LLC	140	2800	southwest
12071	12071	Larry Keefe	365	3200	east
33044	33044	Paragon Homes	145	3000	west
30086	30086	Roger Owen	325	440	west
215		Edward J. Malco	230	4800	southwest
382		Paul Olson	160	4000	west
270		David Lovell	298	5000	southwest
35956	35956	Frank Racynski	185	5200	southwest
283		Thomas Koledo	126	5250	southwest
47225	47225	David Foit	160	3400	east
Public Sources					
Report Number	Water System ID	System Name	Well Depth (ft bgs)	Distance (ft)	Direction
3612	VT0008168	Tree Farm Campground	340 FT	2300	east

2.4.2. Surface Water Source Protection Areas

There are no surface water protection areas identified within 1.0 miles of the Site.

2.4.3. Groundwater Source Protection Areas

There are no groundwater protection areas identified within 1.0 miles of the Site.

2.4.4. Buildings with Basements

No data was available for buildings with basements on the Environmental Interest Locator. Nearby remaining buildings do not have basements, based on Stone's professional experience.

2.4.5. Wetlands

There are several wetlands within a 1.0-mile radius of the Site, however, these wetlands are either up-gradient of the Site or located to the east, on the opposite side of the Black River to the Site. These wetlands are not considered as sensitive receptors relative to the Site.

2.4.6. Sensitive Ecological Areas

Mapped sensitive ecological areas, including deer wintering yards, habitat blocks, significant natural communities, VT Fish and Wildlife managed lands, and Indiana Bat hibernacula within 1 mile are limited to six habitat blocks surrounding the Site. All listed habitat blocks are located up-gradient of the Site except for an 859-acre habitat block that includes a portion of the Black River downgradient of the Site.

2.4.7. Rare, Threatened, and Endangered Species

There are no rare, threatened, or endangered species habitats within a 1.0-mile radius of the Site.

2.4.8. Adjoining Property Owners

Adjoining property owners, as identified using the State of Vermont Open Geodata Portal, are summarized in Table 2, below, and depicted on Figure 2. A templated Notice to Abutters is provided in Appendix C

Table 2: Adjoining Property Owner Information

Property Address	Direction	Owner	Contact Information
140 CLINTON STREET REC CENTER Commercial	Northwest	SPRINGFIELD MED CARE SYS INC	25 RIDGEWOOD ROAD SPRINGFIELD, VT 05156
14 RIDGEWAY ST Residential	West	ENGLISH DUANE ENGLISH-MESSER KELLY	172 KEVADUS CIRCLE CHESTER, VT 05143
16 RIDGEWAY ST Residential	West	16 RIDGEWAY STREET LLC	172 KEVADUS CIRCLE CHESTER, VT 05143
123 Commonwealth Ave. Residential	East	Hood, Donald M. Jr. and Vickie M.	123 Commonwealth Ave. Springfield, VT 05156

Property Address	Direction	Owner	Contact Information
125 Commonwealth Ave. Residential	East	Farrar, Justin B. and Jennifer A.	125 Commonwealth Ave. Springfield, VT 05156
129 Commonwealth Ave. Residential	East	Gregory Jordan Jr. and David Shambo	129 Commonwealth Ave. Springfield, VT 05156
131 Commonwealth Ave. Residential	East	Martin Linda Life Estate	131 Commonwealth Ave. Springfield, VT 05156
157 Commonwealth Ave. Residential	East	Whalen, Tom and Cheryl	157 Commonwealth Ave. Springfield, VT 05156
165 Commonwealth Ave. Residential	East	Sadlowski, Lester K. Sadlowski, Angela J.	165 Commonwealth Ave. Springfield, VT 05156
175 Commonwealth Ave. Residential	East	Underwood, Karla Rev Living Trust Karen Campbell	846 Evelynton Loop The Village, FL 32162-2669
179 Commonwealth Ave.	East	Jennings Annette C. Trustee Trust Company of Vermont	Box 1280 Brattleboro, VT 05302
77 Hartness Ave. Municipal	North	Town of Springfield	96 Main St. Springfield, VT 05156
132 Bridge St. Commercial	North	HB Energy Solutions Inc.	P.O. Box 945 Springfield, VT 05156
140 Clinton St. Commercial	North	Southern VT Health and Rec Center	P.O. Box 2003 Springfield, VT 05156
197 CLINTON ST Commercial	West	BRADFORD OIL COMPANY INC	C/O JAKES MARKET 227 MECHANIC STREET LEBANON, NH 03766
200 CLINTON ST Industrial	South	200 CLINTON STREET OZF LLC	PO BOX 795 MANCHESTER CENTER, VT 05255
201 CLINTON ST Commercial Police Station	West	SPRINGFIELD TOWN OF	96 MAIN STREET SPRINGFIELD, VT 05156

3. Partial Corrective Action Plan

This section describes the recommended design elements for remediation of the fuel oil NAPL release associated with the former 80,000-gallon UST and chip shed via multi-phase extraction (MPE) with use of co-solvent and surfactant under hydraulic control, and long-term groundwater monitoring with institutional controls. All corrective actions described within this Partial CAP will be performed by contractors under the supervision of a Qualified Environmental Professional (QEP). All personnel directly involved with field cleanup activities are required to have a current 40-hour HAZWOPER certification in accordance with Occupational Health and Safety Administration (OSHA) 29 CFR 1910.120.

3.1. Performance Standards

Regulatory guidelines applicable to contaminated media identified at the Site include:

- Soils:
 - Vermont Soil Standards (VSS) for resident and non-resident properties published in the Vermont Department of Environmental Conservation's (VT DEC) Investigation and Remediation of Contaminated Properties Rule (IRule; effective July 6, 2019) as Appendix A - § 35-APX-A1.
 - Analytes that do not have a VSS will be compared to current (May 2023) United States Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) for resident and industrial soil.
 - Cleanup and disposal criteria for PCB remediation waste presented in Chapter 40 of the Code of Federal Regulations, Subsection 761.61 (40 CFR §761.61).
- Groundwater:
 - Vermont Groundwater Rule and Strategy dated July 6, 2019, Groundwater Enforcement Standards (VGES).

To evaluate effectiveness of the proposed surfactant-cosolvent flush, Stone will assess pre and post remediation PCB and petroleum concentrations in soil and NAPL volume. Refer to Section 3.5 for details relating to remedial efficacy sampling.

3.2. Corrective Action Objectives

Corrective action objectives described within this Partial CAP are designed to mitigate exposure to the following known Site contaminants and exposure pathways in the NAPL source area:

1. Exposure to PCB- and petroleum-impacted soils through dermal absorption (via direct contact), ingestion, or inhalation during intrusive activities.
2. Ecological risk associated with petroleum-impacted groundwater discharging to the Black River.
3. Ecological risk associated with petroleum-impacted sediment along the western bank of the Black River.

The remedial strategy is expected to remove up to 90% of the total petroleum hydrocarbon (TPH) mass in soil and remove mobile NAPL from the plume. Removing the contaminant mass in soil and recoverable NAPL

will remove much of the source of groundwater contamination. This will help prevent NAPL and dissolved phase contamination from migrating to the Black River allowing the remediation to meet the Corrective Action Objectives of mitigating the ecological risks associated with petroleum-impacted groundwater discharging to the Black River and from petroleum-impacted sediment along the western bank of the Black River. MPE will also significantly lower concentrations of contaminants in groundwater with the objective to meet the VGES more quickly than if the contaminant mass and NAPL were not remediated. Removing contaminant mass from soils will also meet the stated Corrective Action Objective to reduce the exposure to PCB- and petroleum-impacted soils through dermal absorption (via direct contact), ingestion, or inhalation during any future intrusive activities.

3.3. Supplemental Extraction Well Installation

Based on the results of pilot testing, Stone and EcoVac determined that the performance of the remedy would benefit from additional extraction wells. The existing monitoring well network will be augmented by installing six additional extraction wells to provide proper injection and extraction overlap (Figure 7). Wells will be installed to a target depth of 24 feet bgs, corresponding to the depth of the lacustrine or glacial till deposits encountered during previous environmental assessment. Four wells will be constructed using 4-inch diameter, and two wells will be constructed using 6-inch diameter, continuously wound, V-slot polyvinyl chloride (PVC) well screen to 10 feet bgs and sufficient riser to reach the surface. Wells will be completed with stick up steel protective casings and locks. Wells will be installed within 4.25- or 6.25-inch hollow-stem augers advanced using a track-mounted drill rig. Filter sand packs will consist of 2/0 silica well sand installed from the bottom of the screen interval to 1 foot above top of screen. Sand packs will be sealed from surface water infiltration using hydrated bentonite. Any remaining annular space will be backfilled using shallow soil cuttings generated from the installation. Drilling services will be subcontracted to Platform Environmental Drilling and Remediation Services (Platform) of North Fayston, Vermont.

In addition to the extraction wells proposed above, an additional monitoring well (MW-115; Figure 7) will be installed midway between MW-04-14R and MW-103R to provide an additional monitoring point along the downgradient edge of the plume. If needed, the well could also be used as an extraction point if migration of the plume is observed. To serve as a multipurpose well, MW-115 will be constructed with a target depth of 24 feet with continuous screen to the water table. The well will be constructed using 2-inch outer diameter, continuously wound, V-slot PVC well screen to at least 1 foot above the water table. A sand pack will be installed using 2/0 silica well sand and a bentonite plug. The upper annular space will be backfilled with cuttings. Two-inch diameter riser will extend the well to the surface and the well will be completed with a steel protective casing and lock.

Once installed, wells will be developed using a Waterra inertial pump equipped with a 3/4-inch check valve and high-density polyethylene (HDPE) tubing. Purge water will be contained within 55-gallon drums and transferred to a 250-gallon polyethylene tote for on-Site treatment (see Section 3.53.5). Well development will continue until purge water is visibly clear of sediment.

Wells will be surveyed for horizontal and vertical position versus an assumed Site datum using a total station.

3.4. Permits

Stone anticipates the following permits will be required for corrective actions:

- Hydrant use permit from the Springfield Fire Department;
- General Permit 3-9016 to discharge petroleum related remediation activities including treated formation water to the municipal sewer.

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- Confined Space Entry Permit for frac tank cleaning.

3.5. Remedial Implementation

Remedial implementation will be conducted by EcoVac Services of Marietta Georgia under direction of Stone. The process will begin with a two-day testing period of the extraction well network, including the newly installed wells. High-vacuum MPE and dewatering for gradient control and directional emplacement control will occur at this time, followed by a six-day injection phase of EcoVac's formulated cosolvent (EFC) to reduce the viscosity of the NAPL and one day to allow in-situ residence of the injectates.

Following testing and solvent injection, extraction and emplacement of EcoVac's formulated surfactant solution (EFS-B) will occur to remove the NAPL. Capture and recovery will occur over a 21-day period. Final treatment will be accomplished by multiple days of MPE to rinse and vertically flush the treatment area by extracting groundwater to induce a strong hydraulic gradient to capture the contaminants. The extraction well network has been designed such that groundwater drawdowns radii (i.e., cones of depression) overlap to provide a high extraction efficiency (Figure 8). Groundwater will not be reinjected once extracted; extracted groundwater will be contained in frac tanks for treatment, as described below. Makeup water for injectant will be sourced from the municipal water supply system. Capture and recovery will be followed by two days of final extraction.

MPE will use different extraction and injection arrays each day depending on field observations and recovery yields. It is expected that a total of 60,000 gallons of contaminated groundwater will be extracted at a daily rate of up to 4,000 gallons per day. The concentration of the EFS-B surfactant is expected to be 0.21% and the concentration of the EFC cosolvent is expected to be 2.8% of the total capture volume. A high percentage of the cosolvent will partition into the NAPL upon contact as it is 100% miscible in the NAPL.

The MPE will use different extraction and injection arrays each day depending on field observations and recovery yields. It is expected that a total of 60,000 gallons of contaminated groundwater will be extracted at a daily rate of up to 4,000 gallons per day. The concentration of the EFS-B surfactant is expected to be 0.21% and the concentration of the EFC cosolvent is expected to be 2.8% of the total capture volume. A high percentage of the cosolvent will partition into the NAPL upon contact as it is 100% miscible in the NAPL.

The following phases are planned to help control the injected co-solvent and surfactant movement and capture the resulting fluids. Figure 9 presents depictions of proposed injection/extraction phasing. The proposed phasing, shown in the bullets below, provides a general scenario based on the documented extent of the plume and existing knowledge of hydraulic conductivities from the existing well network.

- Phase I:
 - Extract from R-1, MW-110, MW-111, and MW-112 (2 days)
 - Inject into MW-101R, MW-106, MW-107, MW-108, and MW-109 (1st day)
- Phase 2:
 - Extract from MW-04-16R, MW-114, and new well A (2 days)
 - Inject into R-1, MW-110, MW-111, MW-112 (1st day)
- Phase 3:
 - Extract from R-2, MW-7B, MW-102R, and three new wells B-D (2 days)
 - Inject into MW-04-16R, MW-114, and new well A (1st day)
- Phase 4:
 - Extract from MW-04-14R, MW-103R, MW-105R, MW-113, and MW-115 (2 days)
 - Inject into R-2, MW-7B, MW-102R, and three new wells B-D (1st day)

-
- Phase 5: alternating extractions of three well sets (~21 days)
 - Set 1: R-1, MW-110, MW-111, and MW-112
 - Set 2: MW-04-16R, MW-114, and new well A
 - Set 3: R-2, MW-7B, MW-102R, and three new wells B-D

The phasing plan will likely be modified in the field based on hydraulic head and recovery effectiveness observations.

Extraction may also be performed from MW-101R, MW-106, MW-107, MW-108, and MW-109 depending on the movement of NAPL and capture rates observed at R-1, MW-110, MW-111, and MW-112.

During the testing, cosolvent injection, extraction, and surfactant emplacement phases of the project, Stone will gauge liquid levels in the groundwater monitoring well network to assess NAPL movement. Monitoring wells MW-04-14R, MW-103R, MW-105R, MW-113, and MW-115 will be monitored continuously during the project; extraction from these downgradient wells may occur, if needed.

Stone will also perform inspections of the riverbank several times a day. Sorbent booms will be on hand if breakthrough to the Black River is observed, however the remedial technology, using hydraulic control, should prevent any uncontrolled migration of NAPL and can be altered dynamically to account for unforeseen changes in NAPL distribution.

The schedule for remediation is provided in Section 3.16. EcoVac's proposal, figures depicting remedial treatment, and safety data sheets (SDSs) for the cosolvent and surfactant are provided as Appendix E.

Liquid wastes generated during the remedial implementation will be contained in two, 18,000-gallon frac tanks equipped with weirs to segregate NAPL from groundwater (see Section 3.6).

3.5.1. Remedial Efficacy Sampling

To evaluate pre- and post-remediation conditions and reductions of contaminant mass, Stone will oversee the advancement of three soil borings (SB-101 through -103 on Figure 7) in the center of the plume prior to implementing the remedy and following the completion of the remedy. Specifically, soil borings will be installed at locations SB-101 through 103 during the mobilization to expand the extraction well network. A second drilling mobilization will occur after the completion of the remedy; post-remedial soil borings will be collected at an offset not to exceed 3 feet from the pre-remedial borings.

Soil borings will be collected continuously from the ground surface to ~24 feet bgs and logged for texture, moisture, and presence of visual or olfactory indications of contamination. PID measurements will be recorded from every one-foot vertical interval. Discrete samples will be collected from three intervals from each boring, targeting the intervals exhibiting the highest degree of contamination. One field duplicate sample will be collected for each round of borings (two samples). Discrete samples will be submitted under chain of custody for TPH via EPA Method 8015 and PCBs by EPA Method 8082 with manual Soxhlet extraction.

Stone will use these data to compare pre and post remediation concentrations.

3.6. Waste Management

Transport and disposal of investigation derived wastes (IDW) will be subcontracted to Brighter Horizons Environmental (BHE) of Ayer, Massachusetts. Purged groundwater will be treated on-Site with a water treatment system subcontracted to Lockwood Remediation Technologies LLC (LRT) of Leominster, Massachusetts. IDW generated during this phase of work will include:

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1. Soil cuttings
 2. Contaminated purged groundwater
 3. Frac tank bottoms sludge
 4. EcoVac's proprietary surfactant and cosolvent
 5. PCB contaminated Petroleum NAPL
 6. Personal protective equipment
 7. Consumables (tubing, polyethylene, etc.)
 8. Decontamination liquids.
 9. Water treatment system filters and granular activated carbon (GAC).

Excess soil cuttings will be contained within 55-gallon drums or a roll-off dumpster for disposal at Republic Services' Wayne, Michigan facility permitted in accordance with 40 CFR Part §761.75. Based on the proposed scope of work, we expect approximately 27, 55-gallon drums of soil will be generated from the well installation.

Solid waste, including personal protective equipment, polyethylene, and tubing, will be contained in a cubic yard box or drums for disposal as TSCA remediation waste in accordance with 40 CFR Part §761(a)(5)(v) or based on the results of waste characterization analyses, as appropriate.

Waste characterization samples will be collected of all wastes leaving the Site for disposal at the following frequency:

- 1 composite sample per ten 55-gallon drum containing common material (e.g., soil, NAPL, sludge);
- 1 sample per cubic yard box; and
- 1 sample per 250-gallon poly cube tank of NAPL or liquid waste, as appropriate.

Samples for waste characteristics will be submitted under chain of custody for VOC, SVOC, PCBs, RCRA Metals, sulfide and cyanide reactivity, flammability/ignitability, pH/corrosivity, and herbicides/pesticides.

3.6.1. On-Site Water Treatment

Purge water generated during well development and remedial implementation will be contained temporarily within 250-gallon polyethylene totes until the water treatment system is brought online. Once available, two 18,000-gallon frac tanks equipped with weirs will contain untreated water from well development and from the MPE. The fracs will be plumbed to discharge alternately to an oil-water separator with skimmer. Skimmed NAPL will be contained within 55-gallon drums for characterization, transport, and disposal. Effluent from the oil-water separator will be routed through a canister bag filter skid, then three vessels containing 1,000 pounds of liquid phase reactivated carbon each. Effluent from the carbon vessels will pass through a VOC cartridge filter skid for final polishing before discharging to a 21,000-gallon frac tank. Both the bag filter and the cartridge filter skids are equipped with filter housings in parallel such that treatment can proceed while changing out filters and cartridges. A totalizing flow meter will be positioned between the cartridge filter skid and 21,000-gallon frac tank. A schematic of the treatment system is provided as Figure 10 in Appendix A.

A sample will be collected of pre-treatment formation water to confirm treatment design parameters. The sample will be submitted under chain of custody to Eurofins New England Environmental Laboratory of North Kingston, Rhode Island for analysis of VOCs, SVOCs, and PCBs.

Purge water will be treated on-Site by Lockwood under Stone's oversight. MPE-generated liquids will be treated alternating between influent frac tanks to allow one to fill while the other is treated. Following treatment, purge water will be contained in a third frac tank until a confirmation sample can be collected and

analyzed for VOCs, SVOCs, and PCBs proving that treatment was effective; samples will be submitted for rapid laboratory turn-around to maintain productivity. In the event that treatment system confirmation samples show PCBs in liquid above $0.50 \mu\text{g/L}$, the treatment system design will be modified by LRT and confirmation samples re-collected and submitted for laboratory analysis until PCB concentrations are below the action limit.

Once the effectiveness is demonstrated, purge water will be discharged to the municipal sewer system under the General Permit 3-9016. A totalizing flow meter will be used to measure total volume discharged to the sewer system. We estimate treating approximately 60,000 gallons of water with a maximum flow rate of 50 gallons per minute (gpm); the final rate of discharge will be subject to the General Permit conditions. Additional confirmation samples will be collected for analysis following treatment of 15,000 gallons, 30,000 gallons, 45,000 gallons and following completion of the treatment. An additional pre-treatment sample will be collected at the end of the treatment.

Following the completion of water treatment, the frac tanks, GAC vessel, and filter housings will be cleaned by BHE using the triple rinse procedure with successive steps of steam pressure washing, D-limonene rinse and wipe, and steam pressure washing under a confined space entry permit (CSE). A sample will be collected of the GAC for disposal characterization. Spent GAC will be contained in 55-gallon drums for disposal. Rinsate from decontamination of the treatment system will be contained in 55-gallon drums and characterized for disposal.

Decontamination wipe samples will be collected by BHE from each frac tank and treatment equipment while under the CSE permit and managed by Stone. Stone will submit the samples under chain of custody protocols for laboratory analysis of PCBs to demonstrate cleanliness. A total of 36 decontamination wipes – 8 per frac, 2 per vessel, 1 per cartridge/bag filter housing, 2 for the oil water separator – will be collected. If a result comes back with PCBs of an individual Aroclor above $10 \mu\text{g/m}^3$, additional cleaning of that piece of equipment will be performed and another wipe sample collected. Field duplicate samples will be collected at 5% frequency. Relevant equipment will be re-cleaned by BHE or LRT and wipe samples re-collected and submitted for laboratory analysis.

Liquid petroleum NAPL and sorbent materials will be contained for disposal as TSCA-regulated liquid in accordance with 40 CFR §761.60(a) and remediation waste in accordance with 40 CFR §761.61(a)(5)(i), respectively. Based on extraction rates observed during the 2023 pilot testing, we expect to generate between 1,600 and 3,200 gallons of NAPL-Solvent/Surfactant waste.

Solid waste, including personal protective equipment, polyethylene, and tubing, will be contained in a cubic yard box or drums for disposal as TSCA remediation waste.

3.6.2. Spill Prevention, Control, and Countermeasures

As the remedial implementation will generate more than 1,320 gallons of petroleum and the Site is situated alongside a navigable waterway (i.e., the Black River), in accordance with 40 CFR part 112, a Spill Prevention, Control, and Countermeasure plan (SPCC Plan) will be prepared and will be made available upon request. The SPCC Plan will be certified by a licensed professional engineer and include:

- Facility diagram and description,
- Oil discharge predictions,
- Plan for appropriate secondary containment or diversionary structures,
- Diagram of topography and facility drainage,
- Site security plan,

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- Facility inspections,
 - Transfer procedures and equipment (including piping)
 - Requirements for qualified oil-filled operational equipment
 - Loading/unloading rack requirements and procedures
 - Personnel training and oil discharge prevention briefings
 - Recordkeeping requirements
 - Five-year Plan review
 - Management approval

The waste storage area, water treatment vessels, and co-solvent/surfactant areas will be established with secondary containments (Figure 11). Transfer hosing for untreated fluids will be underlain by reinforced polyethylene sheeting. Spill kits will be available on Site and Stone Staff and EcoVac will be trained to the SPCC and serve as primary response in the event of a spill.

3.7. Contingency Plan

If NAPL thicknesses in downgradient monitoring wells are noted, signifying migration towards the Black River, EcoVac will increase the extraction rates and decrease the injection rates within the network such that NAPL migration toward the Black River ceases. This may include increasing the rates of extraction in the middle or downgradient portions of the plume or decreasing the injection rates of the surfactant.

In the event of breakthrough to the Black River, Stone will immediately deploy sorbent booms and contact the VT DEC.

Extraction will occur using a 3,000-gallon vacuum trucks equipped with two pumps; a primary and backup, secondary pump. In the event the primary pump fails, the secondary pump will be used to maintain groundwater drawdown.

3.8. Institutional Controls

An institutional control is required to ensure future Site activities do not result in mobilization of contaminated media remaining on-Site, that these media are managed properly during future Site work, and long-term monitoring is completed to assess whether additional cleanup is required. The Certificate of Completion (COC) to be emplaced on the Site Property deed under the Brownfields Reuse and Environmental Liability Limitation (BRELLA) program once all of the long-term monitoring is completed, or if the property changes hands to a new owner who enrolls as a prospective purchaser.

To serve as an institutional control under this Partial CAP, the COC shall, at a minimum, require the following:

- A legal description of the Site property,
- A description of the release of corrective action, and statement of the need for land use restrictions on the property,
- Restrictions on future uses of the property or portions of the property to prevent receptors from exposure to residual contamination that remains on the property and to ensure the effectiveness of any corrective action, and
- A map including the most recent parcel boundary survey depicting the area of the parcel to which the restrictions apply.

VT DEC shall be notified prior to any future excavation on the Site that is anticipated to disturb contaminated soil. Excavation of contaminated soils shall be performed under a health and safety plan

prepared by personnel trained in accordance with the requirements of the OSHA HAZWOPER regulations (29 CFR 1910.120).

Within one week of receipt, the Site owner is responsible for recording the COC in the City of Springfield land records and providing the VT DEC with a proof that the COC was filed, including the land record book and page number. Stakeholders proposing future Site work that requires disturbance of contaminated media will be responsible for notifying and receiving approval from the VT DEC. This work must either be completed in accordance with this Partial CAP, a CAP amendment, or new CAP. The VT DEC will be responsible for ensuring that monitored natural attenuation is completed in accordance with the long-term monitoring plan (Appendix F).

3.9. Long-Term Monitoring and Operations and Maintenance

Long-term monitoring is required in perpetuity as long as residual groundwater contaminant concentrations exceed the VGES in compliance wells adjacent to the Black River, specifically monitoring wells MW-04-14D, MW-103, MW-105S/D, MW-113, MW-115. The scope and frequency of groundwater monitoring is subject to change based on monitoring results and VT DEC approval. A long-term groundwater monitoring plan is provided as Appendix F.

Additional long-term monitoring, operations, and maintenance activities are anticipated for the broader Site and will be submitted under separate cover.

3.10. Redevelopment and Reuse

At this time, redevelopment plans are still under development, however future developments are expected to include construction of two commercial/light industrial buildings within the footprint of the former J&L plant. The area of the NAPL AOC will be used for exterior parking, landscaping, and a portion of the Springfield Bike Path.

Details related to the construction of the Springfield Bike Path are provided within the “*Partial Corrective Action Plan – Jones and Lamson Property, 160 Clinton Street, Springfield, Vermont, SMS#77-0122, August 9, 2018*”.

3.11. Quality Assurance/Quality Control

Cleanup activities detailed herein will be completed in accordance with the following Stone Standard Operating Procedures (SOPs), which are available in their entirety upon request.

- SEI-4.2.7: Chain of Custody Procedures,
- SEI-5.1.5: Maintenance and Decontamination of Field Equipment,
- SEI-5.32.7: Liquid Level Measurement: Use, Maintenance and Calibration of Electronic Water Level Indicators and Oil-Water Interface Probes,
- SEI-5.34.6 Installation, Development, and Decommissioning of Monitoring Wells and Observation Wells,
- SEI-5.41.4: Handling, Collection and Transportation of Samples,
- SEI-5.44.1: Observation and Monitoring Well Surveying for Elevations,
- SEI-5.49.1 Procedure for Sampling Groundwater Monitoring Wells Using Low Stress (Low Flow) Technique,
- SEI-5.56.2 Geologic Description of Unconsolidated Deposits Using the Wentworth Grain Size Scale,
- SEI-5/61/1: GeoMax Zoom 30 Total Station Methods for Topographic Survey, and

- SEI-5.63.0: Use, Maintenance and Calibration of the Ion Science Tiger Photoionization Detector (PID).

A summary of proposed cleanup verification and quality control samples is summarized in Table 3, below. Treated purge water and formation water will be contained such that confirmation samples can be collected to show treatment effectiveness prior to being discharged to the municipal sewer.

Following completion of remediation, treatment system equipment will be cleaned by BHE. Decontamination wipe samples will be collected from each wall and floor of the weir and frac tanks and submitted to Eurofins Analytical to demonstrate cleanliness.

Stone will coordinate with BHE to ensure proper waste disposal (see Section 3.6).

Table 3: Proposed Cleanup Verification and Quality Control Samples

Description	Media	Number of Samples	Quality Control Samples	Analysis
Treatment Water	Groundwater	Pre: 1 Post: 4	1 FD	PCBs by 8082 VOCs by 8260 SVOCs by 8270
Decontamination	Non-Porous ¹	36	2 FD	8082 w/3540C

Notes: $\mu\text{g}/100\text{ cm}^2$ – micrograms per one hundred square centimeters; $\mu\text{g}/\text{l}$ – micrograms per liter; NA – not applicable; FD: Field Duplicate. ¹ Non-porous media include the treatment system components, such as the frac, carbon vessels, and filter housings.

3.12. Health and Safety

Due to the presence of contaminated media at the Site, cleanup activities should be performed using appropriate health and safety precautions. Contractors selected for cleanup activities shall perform those services under the auspices of their own site-specific health and safety plan, to be developed for the project. The contractors must make their own determinations as to the appropriate level of health and safety protection required for each of the activities described in this Partial CAP.

3.13. Reporting

A Corrective Action Construction Completion Report (CACCR) will be prepared in accordance with §35-507 of the IRule and submitted to the VT DEC Sites Management Section following completion of cleanup activities. The completion report will include a description of cleanup activities including dates of work, field notes, figures, a discussion, and tables of cleanup verification sample results.

Annual long-term groundwater monitoring reports shall be submitted to the VT DEC detailing annual groundwater monitoring results. Furthermore, reporting would be required by the VT DEC if future Site renovations or maintenance could potentially mobilize remaining Site contaminants.

3.14. Schedule

A proposed project schedule is summarized in Table 3, below. The following schedule is subject to change based on regulatory review and approval of the CAP and RBCP, subcontractor availability, and weather.

Table 4: Proposed Schedule

Task	Duration	Anticipated Start Date	Anticipated Completion Date	Deliverable
Partial CAP				
Revised Partial CAP	1 week		July 31, 2026	Revised Partial CAP
Public Comment Period	30 days	July 31, 2026	August 31, 2026	Comments
Final Partial CAP	1 week	August 31, 2026	September 4, 2026	Final Partial CAP
Well Installation/Pre Remedy Borings	1 week	September 8, 2026	September 11, 2026	Well Logs
Remedial Implementation				
Extraction Network Testing	2 days	September 14, 2026	September 15, 2026	Field Notes, Trip Report
Injection	4 days	September 16, 2026	September 20, 2026	
Capture and Recovery	24 days	September 21, 2026	October 14, 2026	
RBCP				
Draft RBCP			Complete	Draft RBCP
EPA Review			Complete	Comments
Final RBCP, CAP Addendum			Complete	Response to Comments, Final RBCP
Water Treatment	1 week	October 15, 2026	October 21 2026	Field Notes
Waste Characterization	1 day	October 22, 2026	October 22, 2026	Field Notes
Analytical Turn-Around	3 weeks	October 23, 2026	November 13, 2026	Laboratory Report
IDW Management	3 weeks	November 16, 2026	December 4, 2026	Waste Manifests
CACCR				
Draft CACCR / RAP	4 weeks	December 7, 2026	January 1, 2027	Draft CACCR / RAP
VT DEC/EPA Review	30 days	January 4, 2027	February 4, 2027	Comments
Final CACCR / RAP	1 week	February 5, 2027	February 11, 2027	Final CACCR / RAP
Long-Term Groundwater Monitoring – Sampling	1 day, Semi-annually for two years	November 2026	May 2028	Field Notes
Long-Term Groundwater Monitoring – Analysis	3 weeks	December 2026	June 2028	Laboratory Report
Long-Term Groundwater Monitoring - Reports	4 weeks	January 2027	July 2029	LTM Reports

*If needed, based on EPA TSCA review of the RBCP. ¹RAP: TSCA Remedial Action Plan

3.15. Proposed Contractors/Subcontractors

Site cleanup will be completed by the contractors summarized in Table 4, below.

Table 5: Proposed Subcontractors

Address	Contact	Title	Phone	Email
Corrective Action Planning, Oversight, Cleanup Verification Sampling, and Reporting: Stone Environmental, Inc.				
535 Stone Cutters Way Montpelier, VT 05602	Daniel Voisin	Project Manager	802-279-8174	dvoisin@stone-env.com
Supplemental Well Installation: Platform Environmental Drilling				
563 Big Basin Road North Fayston, VT 05660	Michael Jordan	Owner	802-498-3828	mjordan@platform-env.com
Remedial System: EcoVac Services, Inc.				
356 Nottingham Drive, Suite 100 Marietta, GA 30066	David Goodrich	President	770-592-1001 x102	dave.goodrich@ecovacservice.com
Frac Tank Cleaning: Brighter Horizons Environmental Corporation				

Address	Contact	Title	Phone	Email
201 West Main Street Ayer, MA 01432	Jennifer Laramie	Strategic Account Manager	603-520-4647	jlaramie@bhenv.com
Groundwater Treatment System: Lockwood Remediation Technologies, LLC				
89 Crawford Street Leominster, MA 01453	Mike Deso	Vice President	774-450-7177	mdeso@lrt-llc.net
Analytical Laboratory: Eurofins Environment Testing New England				
646 Camp Avenue North Kingstown, RI 02852	Mara Ploch	Regional Account Manager	203-767-9894	mara.ploch@et.eurofins.com

3.16. Costs

Table 5, below, presents estimated costs to perform the corrective actions detailed above. A detailed cost estimate is provided as Appendix G. Costs for extraction well installation, surfactant flushing and MPE, and remediation water treatment were gained through quotations from proposed subcontractors, specifically Platform Environmental Drilling and Remediation, EcoVac Services, BHE, and Lockwood Remediation Technologies. Their quotes are provided in Appendix G.

Table 6: Estimated Costs

Task	Professional Services	Consultants/ Subcontractors	Expenses	Sub Total	PCF (75%)	Non-PCF (25%)
1 - Supplemental Well Installation, Pre-Remedial Soil Borings	\$14,730	\$51,616	\$8,023	\$74,369	\$55,777	\$18,592
2- Remedial Implementation and Permitting	\$61,500	\$651,753	\$23,216	\$736,468	\$552,351	\$184,117
3- Contingent Water Treatment System Re-Cleaning	\$5,705	\$38,824	\$2,777	\$47,306		\$47,306
4 - Long-Term Monitoring - 2 Years	\$19,590	\$15,264	\$7,304	\$42,158	\$31,618	\$10,539
5 - CACCR	\$15,360	\$0	\$0	\$15,360	\$11,520	\$3,840
6 - Project Management, RBCP/CAP Revisions	\$10,956	\$0	\$0	\$10,956	\$8,217	\$2,739
			TOTAL	\$926,617	\$659,484	\$267,134

¹Costs associated with a contingent additional frac decontamination are not considered PCF reimbursable.

3.16.1. Assumptions

The estimated costs are based on quantities provided in the Detailed Cost Estimate (Appendix G) and the following assumption:

- Costs include contingent decontamination of the frac tanks pending the results of wipe verification samples.
- Work will proceed in non-winter months.
- Work will be reimbursed using the Vermont Petroleum Cleanup Fund and Mount Ascutney Regional Commission's Revolving Loan Fund for Brownfield Cleanup. PCF provisions for reimbursement rates for labor and subcontractor markup are applied to the full budget.
- Wastes will be disposed of as TSCA, F-listed Wastes

4. References

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Weston Solutions, Inc. (WESTON), EPA Region I START, 2016, Removal Program Preliminary Assessment/Site Investigation Report for the Jones and Lamson Site, Springfield, Windsor County, Vermont, 27 through 30 June 2016.

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Stone Environmental, 2021, Supplemental Site Investigation Report, Former Jones and Lamson Property, 160 Clinton Street, Springfield, Vermont.

Stone Environmental, 2022, Evaluation of Corrective Action Alternatives: Jones & Lamson Bunker Oil NAPL Area of Concern, 160 Clinton Street, Springfield, Vermont.

Appendix A: Figures

Figure 1: Location Map

Figure 2: Vicinity Map

Figure 3: Site Map

Figure 4: Groundwater Contour Map

Figure 5: Cross Section A-A'

Figure 6: Cross Section B-B'

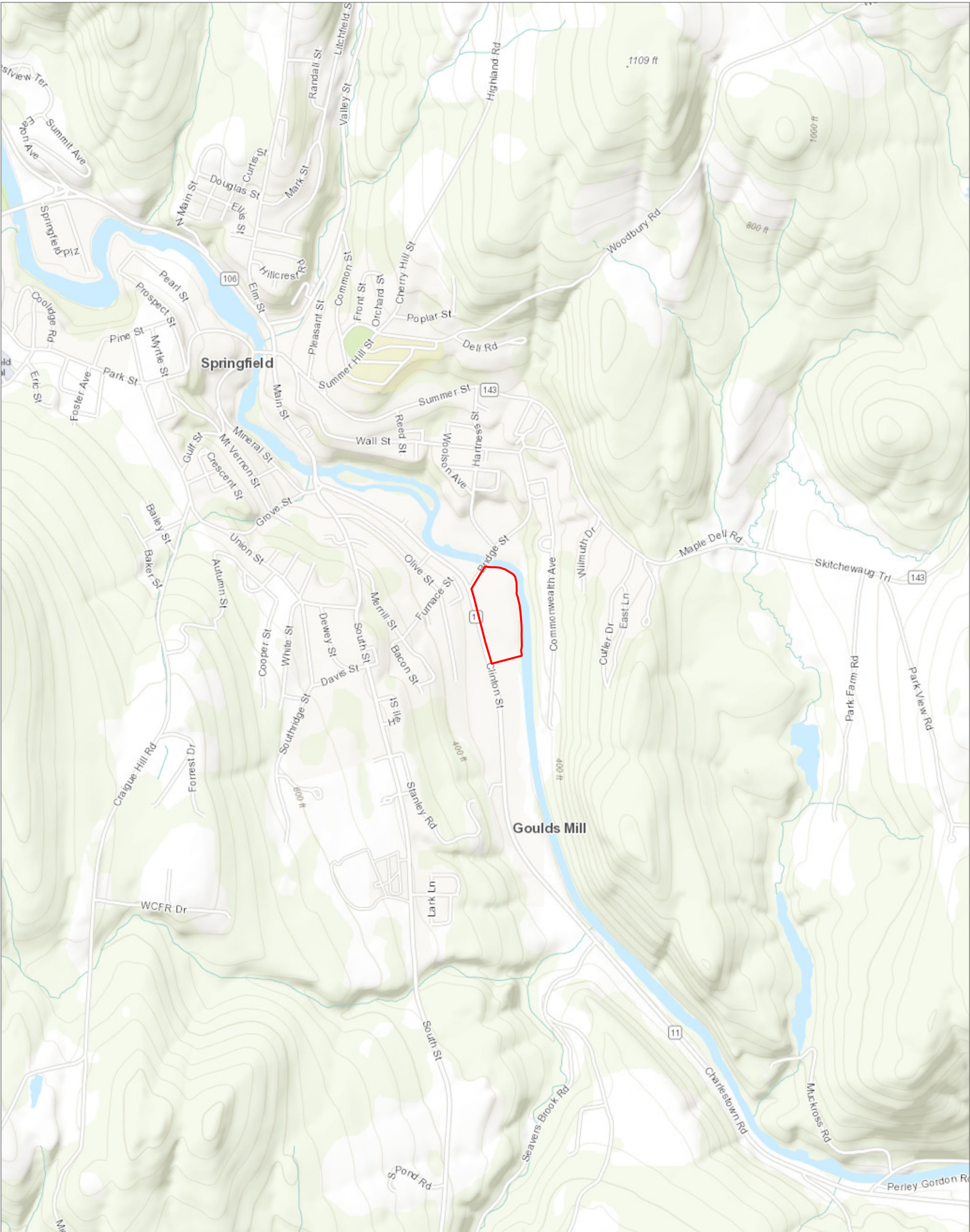
Figure 7: Existing and Proposed Extraction and Monitoring Well Locations

Figure 8: Extraction Wells Radii of Influence

Figure 9: Proposed Phasing for Injection and Extraction

Figure 10: Water Treatment System

Figure 11: Waste Management Layout



LEGEND

 Site Boundary

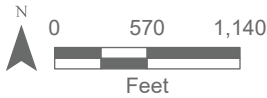
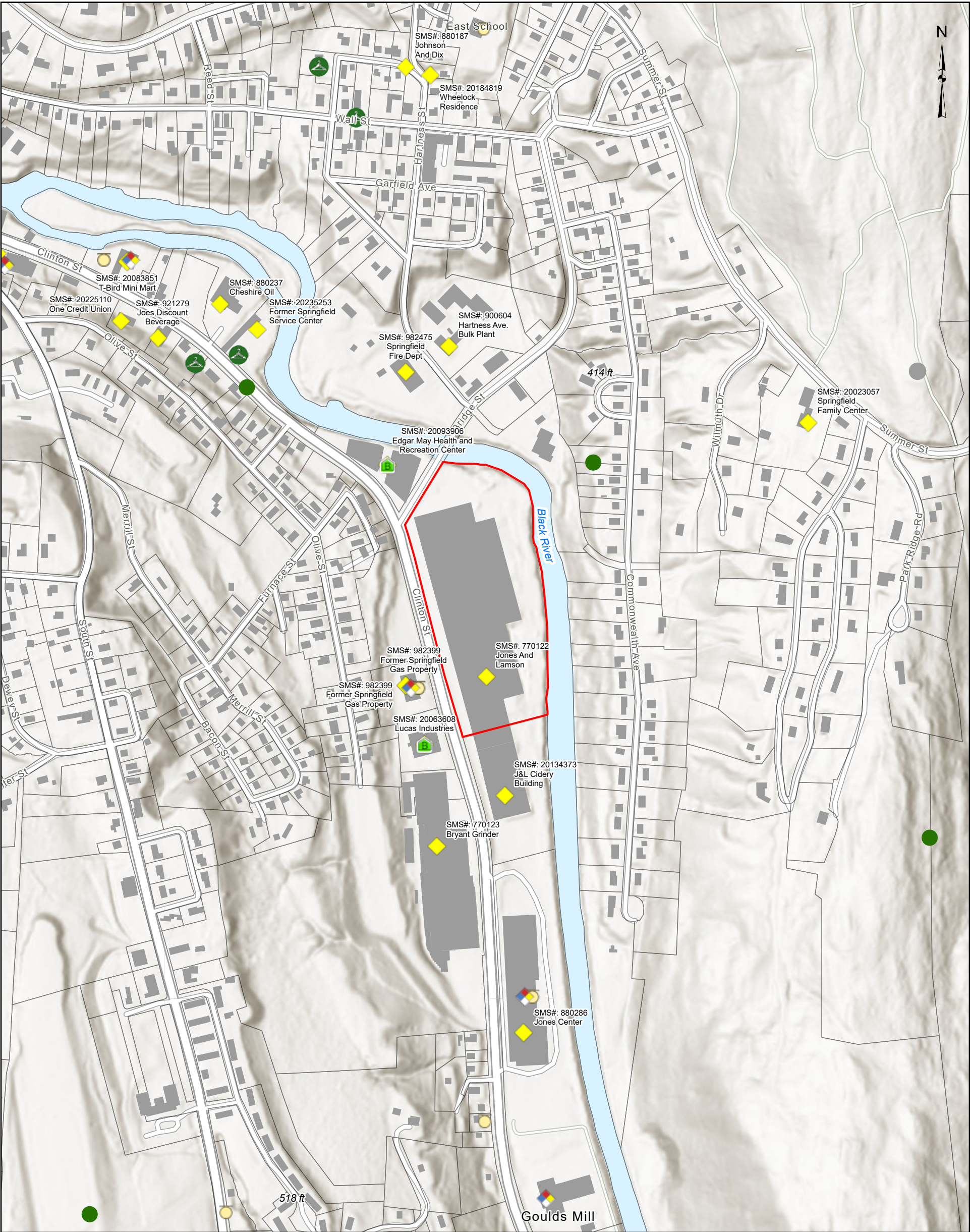


Figure 1: Location Map

Former Jones & Lamson Plant

160 Clinton Street
Springfield, Vermont



LEGEND

- Site Boundary
- Parcel Boundary
- Dry Cleaner
- Brownfields
- Hazardous Waste Sites
- Hazardous Waste Generators
- Underground Storage Tank (working)
- Private Wells
- Buildings footprints

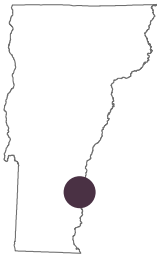
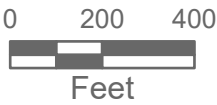
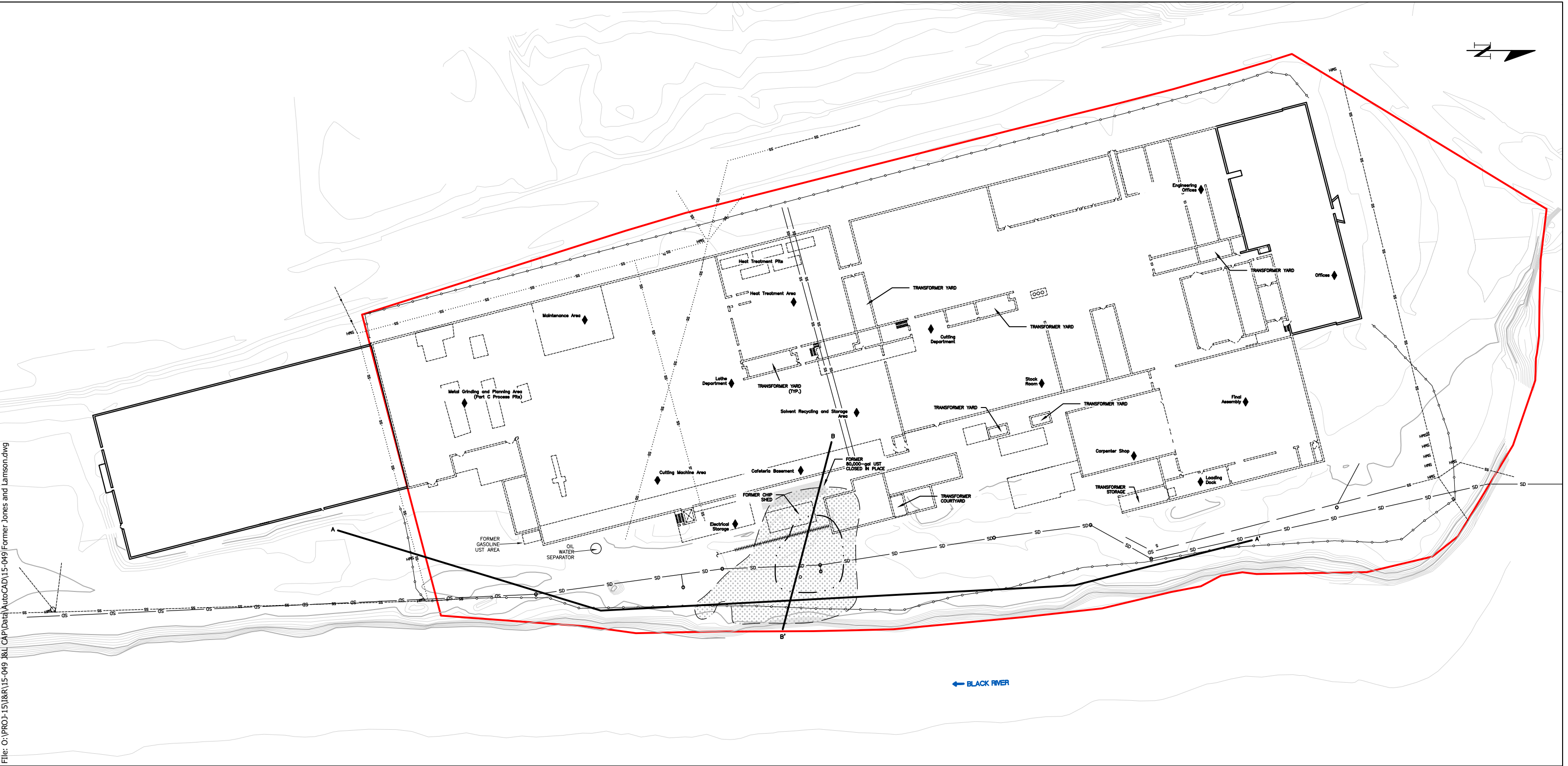


Figure 2: Vicinity Map

Former Jones & Lamson Plant

Prepared for Springfield Regional Development Corporation

File: O:\PROJ-15\1&R\15-049 - 1&L CAP Data\AutoCAD\15-049 Former Jones and Lamson.dwg

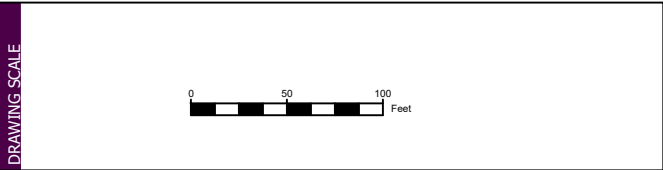


LEGEND

	EXISTING BUILDINGS		SITE BOUNDARY
	FORMER BUILDING OUTLINE		STORM DRAIN LINE
	AREA FEATURES		SEWER LINE
	NAPL PLUME		SURFACE CONTOUR (2')
			FENCE
			SEWER MANHOLE

Sources:
1. Building layout based on a plan entitled "existing conditions, abatement and demolition of former Jones and Lamson buildings - 160 Clinton Street," prepared by Weston & Sampson, December 30, 2016, scale 1"=50'.
2. Select site features derived from ECS Site Plan with Air Photo, December 2005.

DRAWING CREDITS	Drawn On: 7/30/2026	#	Date	Drwn	Chk'd	App'd	Description
	Drawn By: LBR						
	Checked On: 7/30/2026						
	Checked By: DTV						
	Project No.: 15-049						
REVISIONS							



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SITE MAP
FORMER JONES & LAMSON PLANT
160 CLINTON STREET
SPRINGFIELD, VT



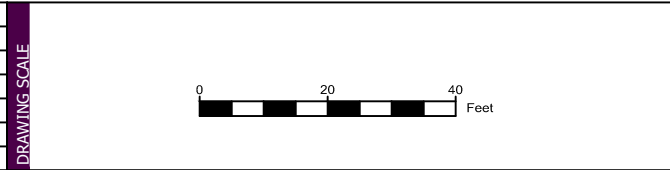
LEGEND

- MONITORING WELL
- GROUNDWATER ELEVATION (ft) - 05/06/22
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER CONTOUR (0.1 ft)
- FENCE
- SEWER LINE

Monitoring well locations surveyed by Stone Environmental Inc
05/06/2022 using a local site datum. Initial benchmark coordinates
were set to 5000, 5000, 100

Imagery Source: Vermont Center for Geographic Information

DRAWING CREDITS	#	Date	Drwn	Chk'd	App'd	Description
	1	7/30/2026				
	2					
	3	7/30/2026				
	4					
Drawn On:	7/30/2026					
Drawn By:	LBR					
Checked On:	7/30/2026					
Checked By:	DTV					
Project No.:	15-049					



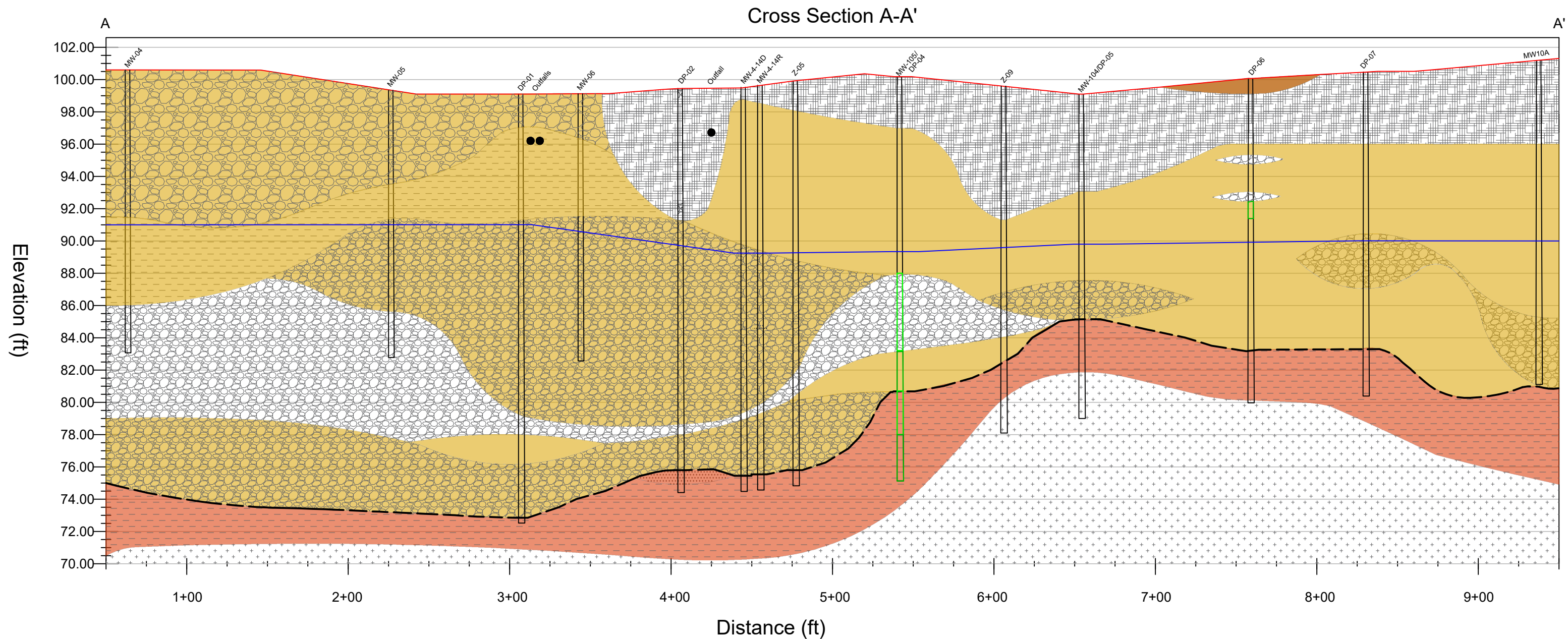
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GROUNDWATER CONTOUR MAP
FORMER JONES & LANSOM PLANT

160 CLINTON STREET SPRINGFIELD, VT

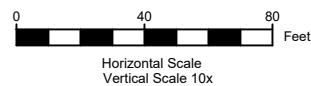
FIGURE NO. 4

File: O:\PROJ-15\15-049 1&L CAP\Data\AutoCAD\15-049 Former Jones and Lamson.dwg



Sources:
Ground surface elevation surveyed by Stone Environmental April 28, 2020 using a local datum.
DP-## and MW-103 - MW-105 from Stone Environmental, Supplemental MW-04 - MW-06 from Dufresne-Henry, Soil Boring Logs, 06/01/88.
MW-10 From Environmental Complicane Services, Inc. Soil Boring and Monitoring Well Installation Log, 03/15/2005.
Z-## from Stone Environmental Targost Investigation, 01/11/2018.

DRAWING CREDITS	#	Date	Drwn	Chk'd	App'd	Description
	1	6/16/2020	LBR			Drawn On: 6/16/2020
	2	6/18/2020	DTV			Checked On: 6/18/2020
	3					Checked By: DTV
	4					Project No.: 15-049
REVISIONS	1					
	2					
	3					
	4					
	5					



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CROSS SECTION A-A'
FORMER JONES & LAMSON PLANT

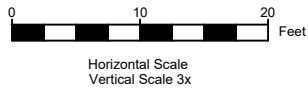
160 CLINTON STREET
SPRINGFIELD, VT

FIGURE NO. **5**

File: O:\PROJ-15\15-049 J&L CAP\Data\AutoCAD\15-049 Former Jones and Lamson.dwg



DRAWING CREDITS	#	Date	Drwn	Chk'd	App'd	Description
	1	6/16/2020	LBR			Drawn On:
	2	6/18/2020	DTV			Checked On:
	3					Checked By:
	4					Project No.:
	5					



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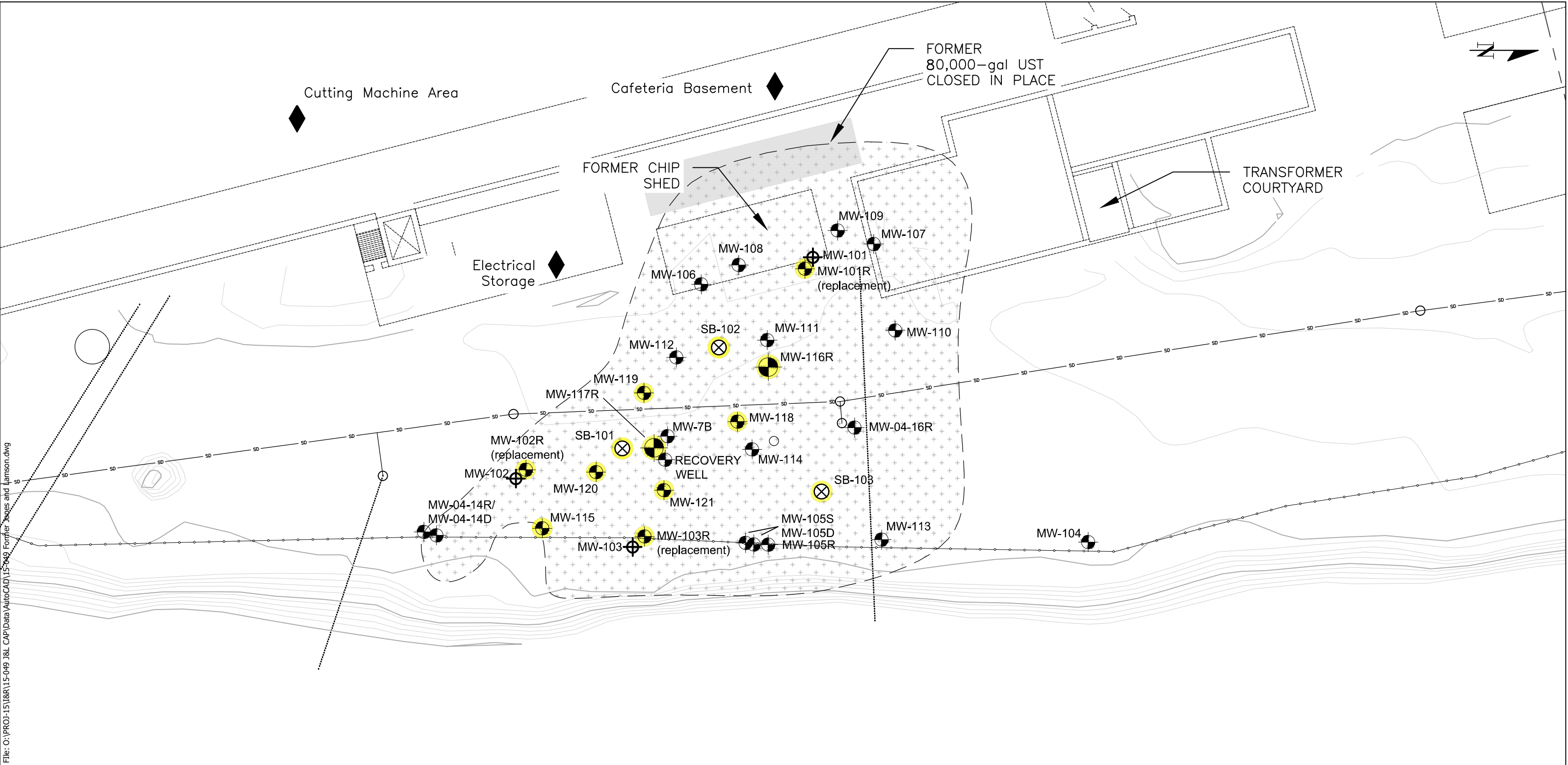
CROSS SECTION B-B'
FORMER JONES & LANSOM PLANT

160 CLINTON STREET

SPRINGFIELD, VT

FIGURE NO. **6**

File: O:\PROJ-15\18R\15-049 J&L CAP\DATA\AutoCAD\15-049 Former Jones and Lamson.dwg



DRAWING CREDITS

#	Date	Drwn	Chk'd	App'd	Description
1	7/15/24	LBR	7/16/24	DTV	Added remedial efficacy soil borings and moved proposed locations
2	12/10/25	LBR	12/10/25	DTV	Changed symbol for proposed locations, updated title block
3	4/2/26	LBR	4/2/26	DTV	Added labels for proposed locations

Drawn On: 11/21/2023

Drawn By: LBR

Checked On: 11/21/2023

Checked By: SYR

Project No.: 15-049

DRAWING SCALE



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EXISTING & PROPOSED EXTRACTION & MONITORING WELL
NAPL AREA OF CONCERN - FORMER JONES & LAMSON PLANT
160 CLINTON STREET

SPRINGFIELD

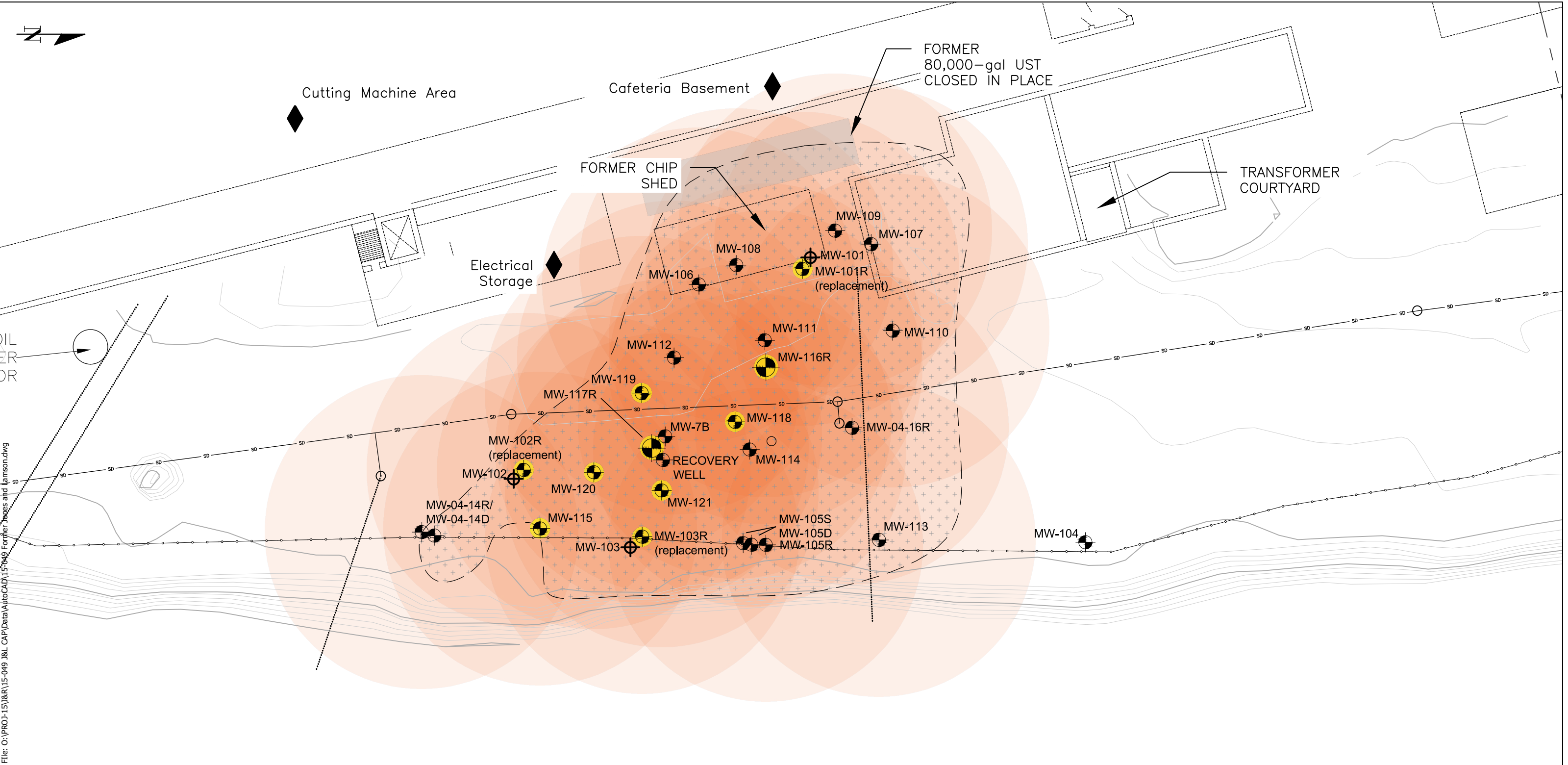
VERMONT

FIGURE NO.

7

Sources:

- Building layout based on a plan entitled "existing conditions, abatement and demolition of former Jones and Lamson buildings - 160 clinton street," prepared by Weston & Sampson, December 30, 2016, scale 1"=50'.
- Select site features derived from ECS Site Plan with Air Photo, December 2005.



File: O:\PROJ-15\1&R\15-049 1&L CAP Data\AutoCAD\15-049 Former Jones and Lamson.dwg

FORMER BUILDING OUTLINE

AREA FEATURES

NAPL PLUME

50' RADIUS OF INFLUENCE

STORM DRAIN LINE

SEWER LINE

SURFACE CONTOUR (2')

PCB-CONTAMINATED SOILS

SEWER MANHOLE

MONITORING/EXTRACTION WELL

HISTORICAL MONITORING WELL

PROPOSED 4-INCH TREATMENT WELL

PROPOSED 6-INCH TREATMENT WELL

LEGEND

Sources:

1. Building layout based on a plan entitled "existing conditions, abatement and demolition of former Jones and Lamson buildings - 160 clinton street," prepared by Weston & Sampson, December 30, 2016, scale 1"=50'.

2. Select site features derived from ECS Site Plan with Air Photo, December 2005.

DRAWING CREDITS

Drawn On:	4/2/2026
Drawn By:	LBR
Checked On:	4/2/2026
Checked By:	DTV
Project No.:	15-049

REVISIONS

#	Date	Drwn	Chk'd	App'd	Description

DRAWING SCALE

0

40

80

Feet

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EXTRACTION WELLS RADII OF INFLUENCE

NAPL AREA OF CONCERN - FORMER JONES & LAMSON PLANT

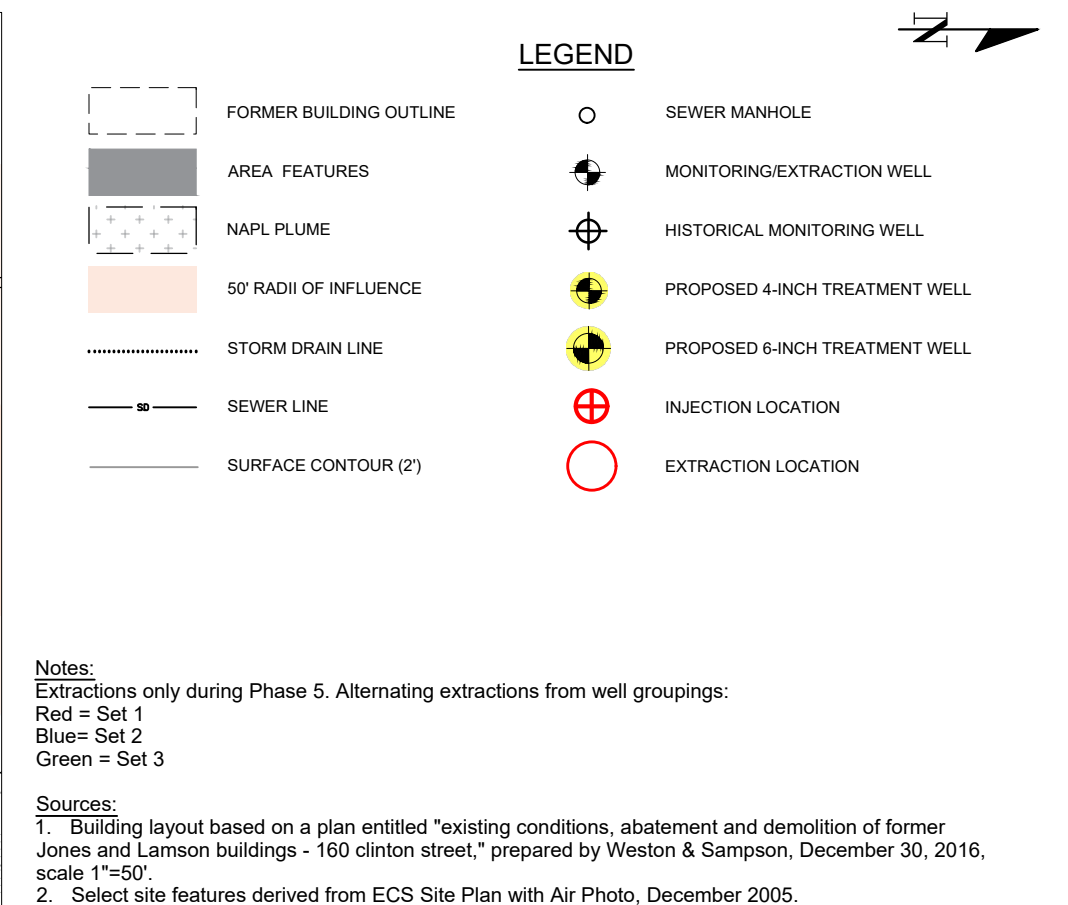
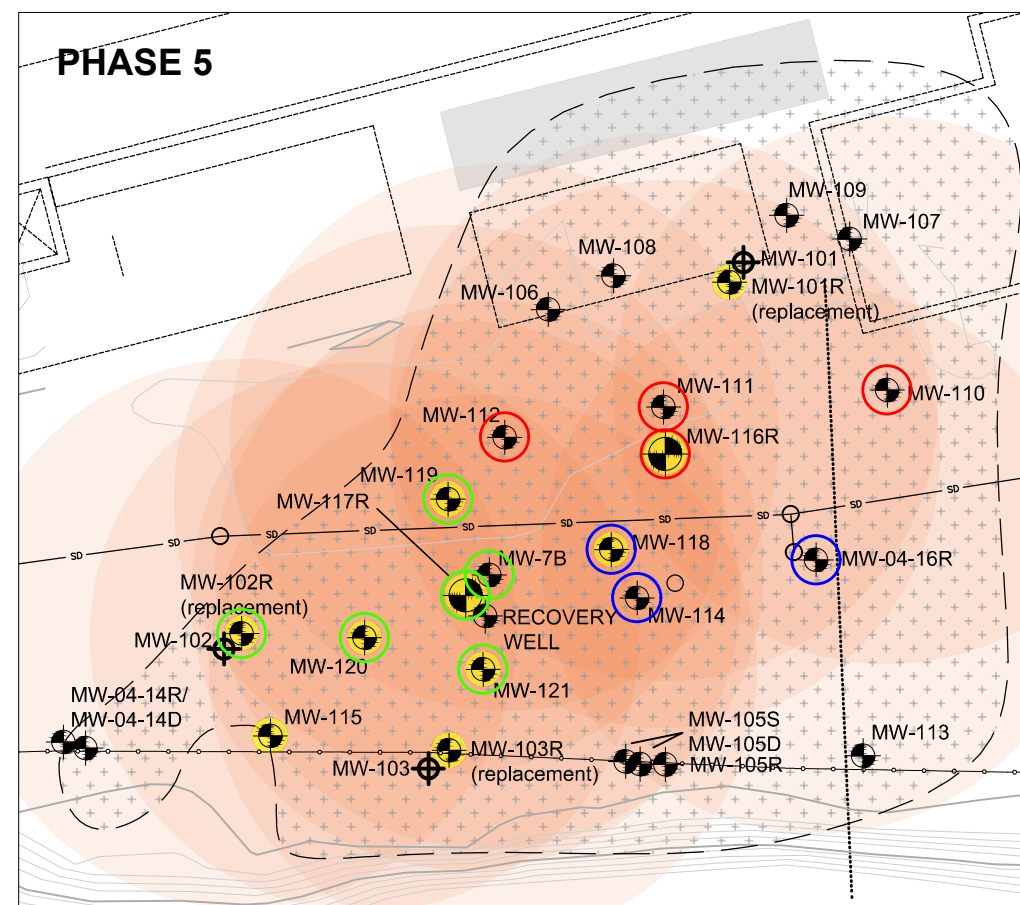
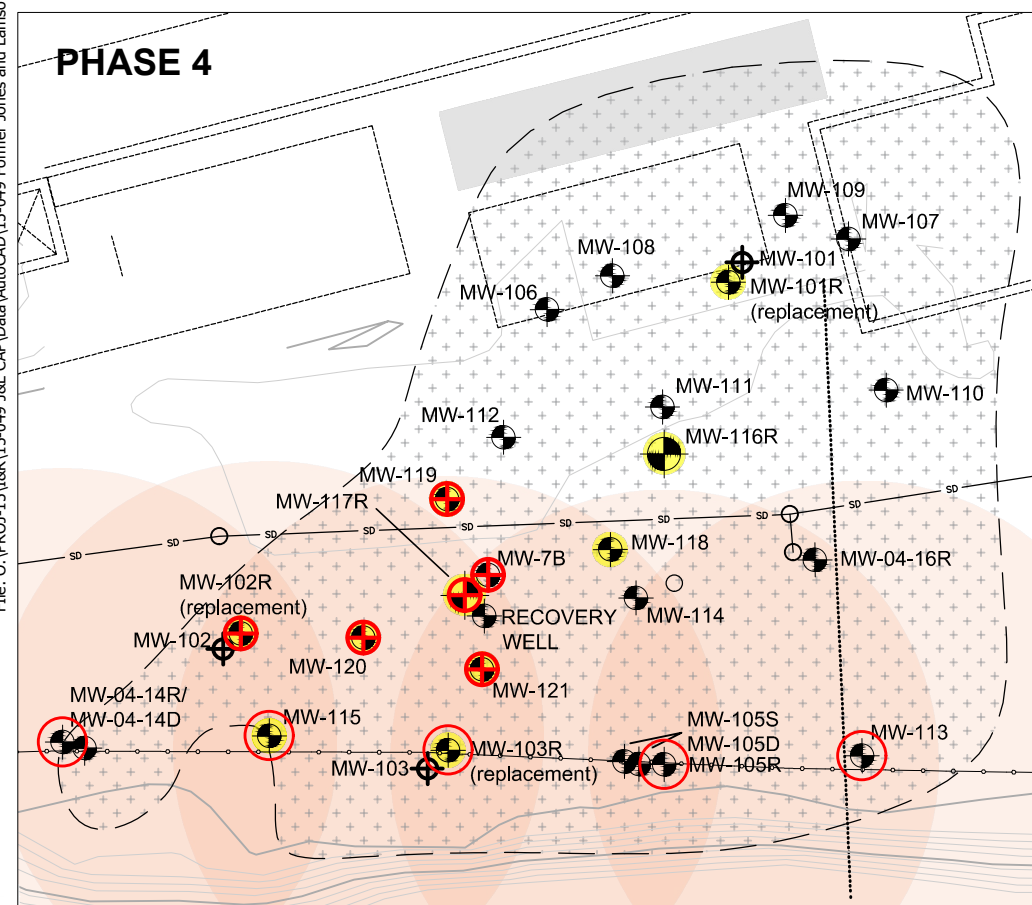
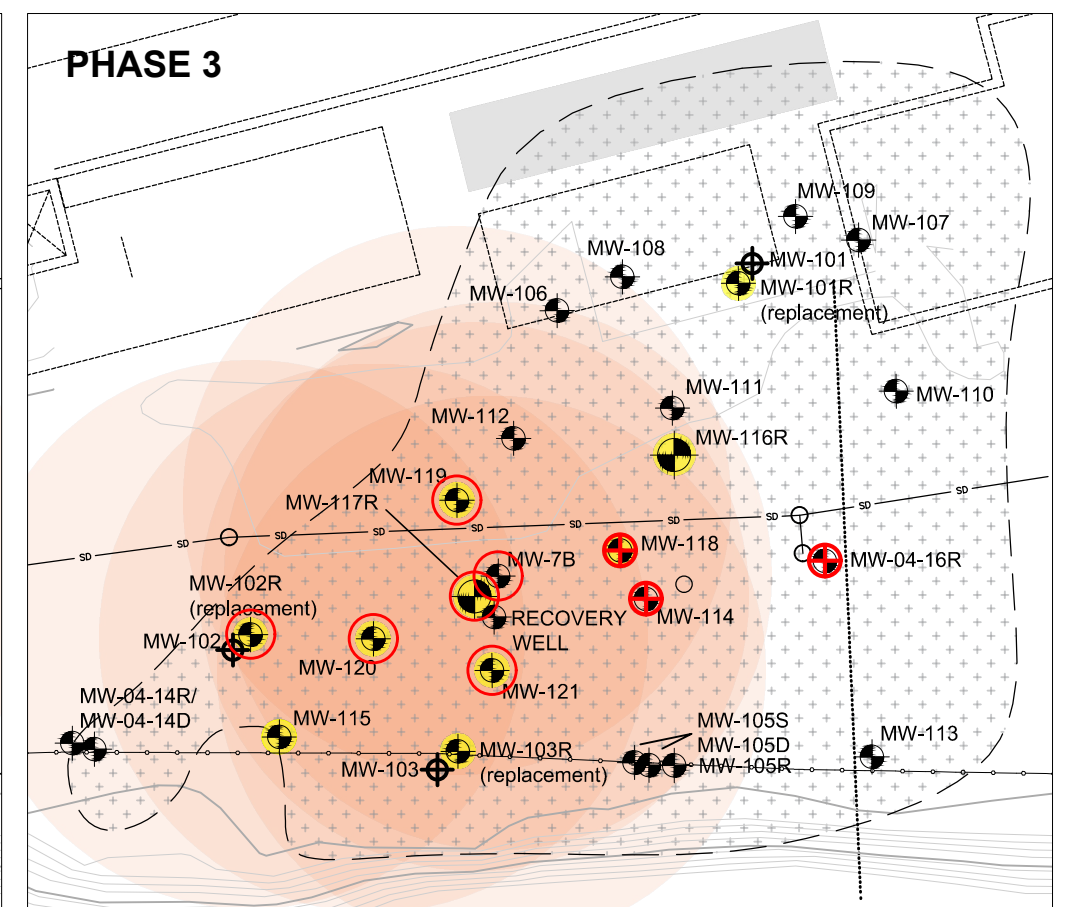
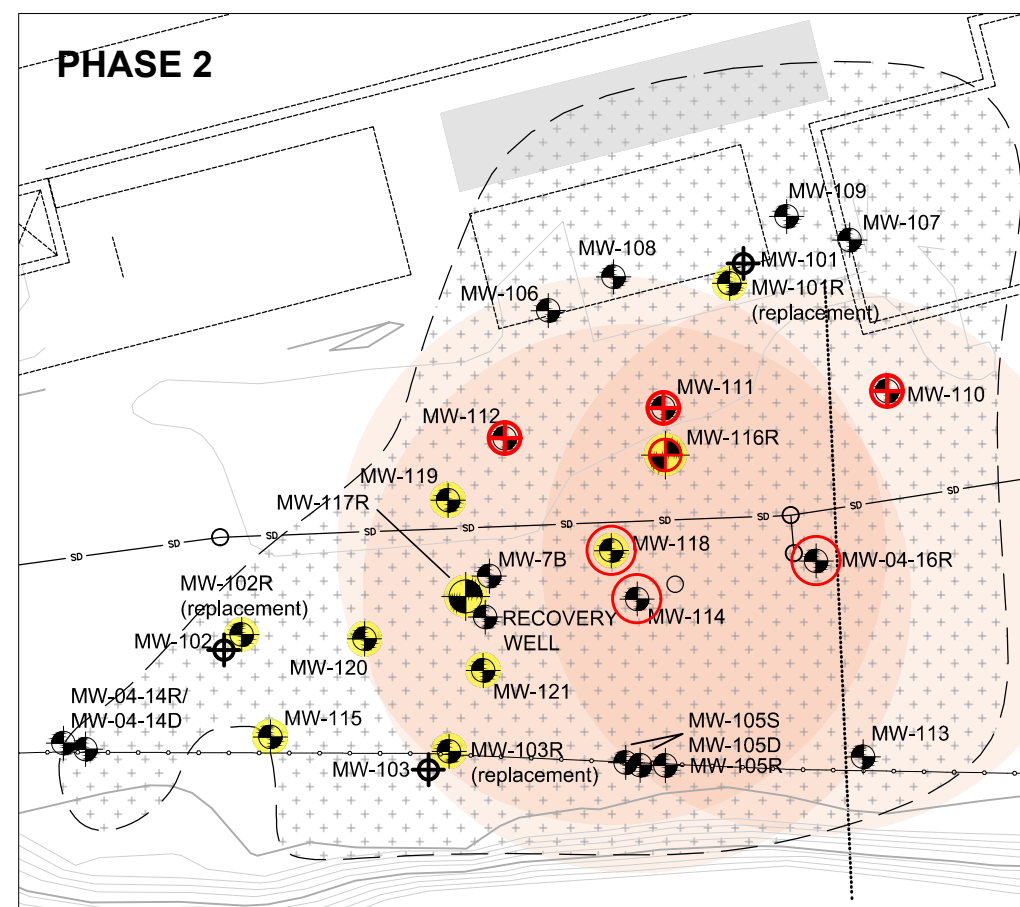
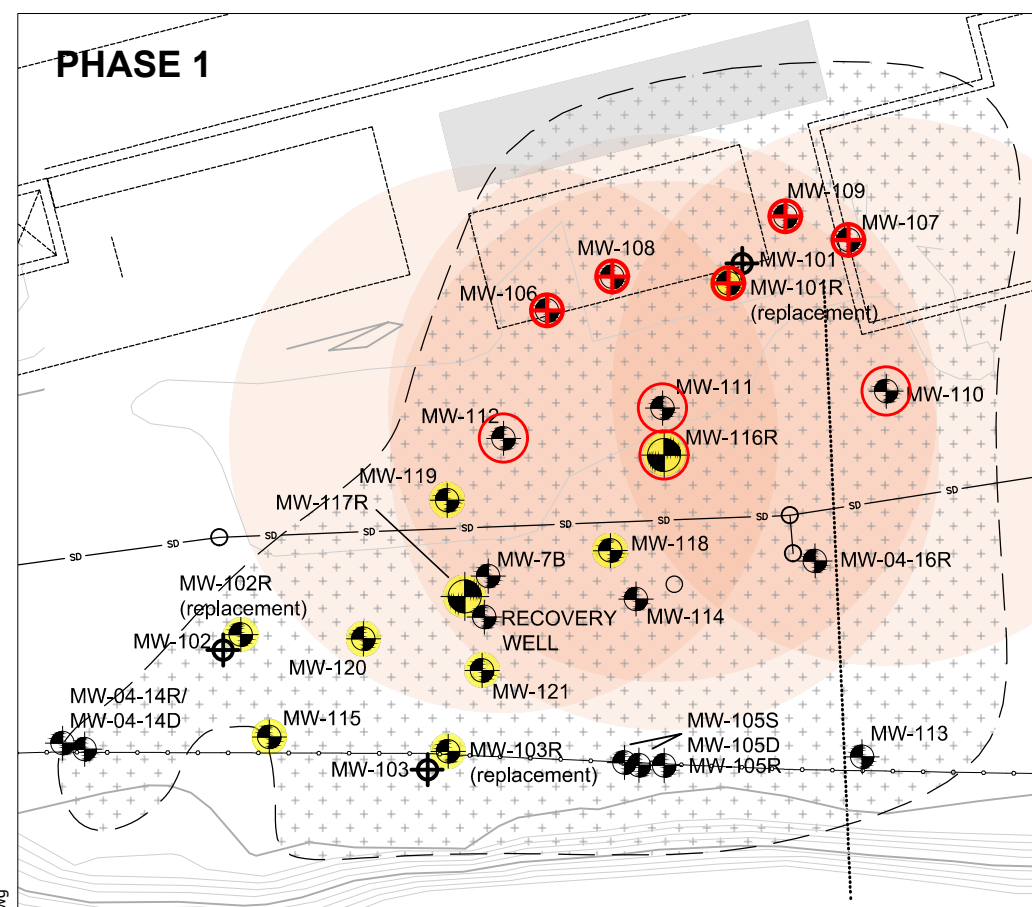
160 CLINTON STREET

SPRINGFIELD

VERMONT

FIGURE NO.

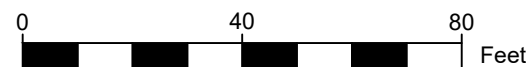
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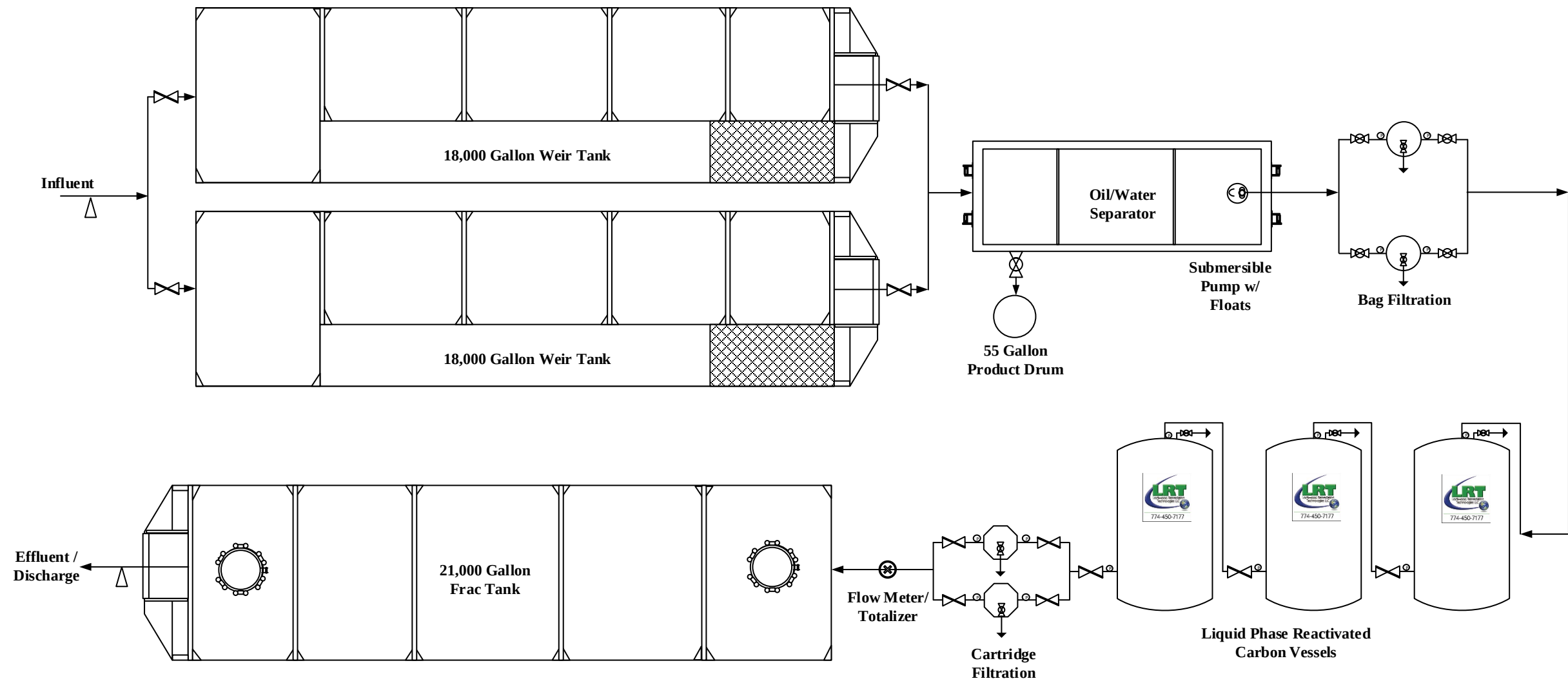


Notes:
Extractions only during Phase 5. Alternating extractions from well groupings:
Red = Set 1
Blue= Set 2
Green = Set 3

Sources:
1. Building layout based on a plan entitled "existing conditions, abatement and demolition of former Jones and Lamson buildings - 160 clinton street," prepared by Weston & Sampson, December 30, 2016, scale 1"=50'.
2. Select site features derived from ECS Site Plan with Air Photo, December 2005.

DRAWING CREDITS	Drawn On: 4/2/2026	REVISIONS	#	Date	Drwn	Chk'd	App'd	Description	DRAWING SCALE
	Drawn By: LBR								
	Checked On: 4/2/2026								
	Checked By: DTV								
	Project No.: 15-049								





Notes:

- 1.) Figure is not to scale
- 2.) System rated for 50 GPM

Key:	
Piping/Hose	→
Sample Port	○
Ball Valve	⊗
Butterfly Valve	⊘
Pressure Gauge	⊙



Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
Office: 774-450-7177

DESIGNED BY: LRT

DRAWN BY: JHJ

CHECKED BY:

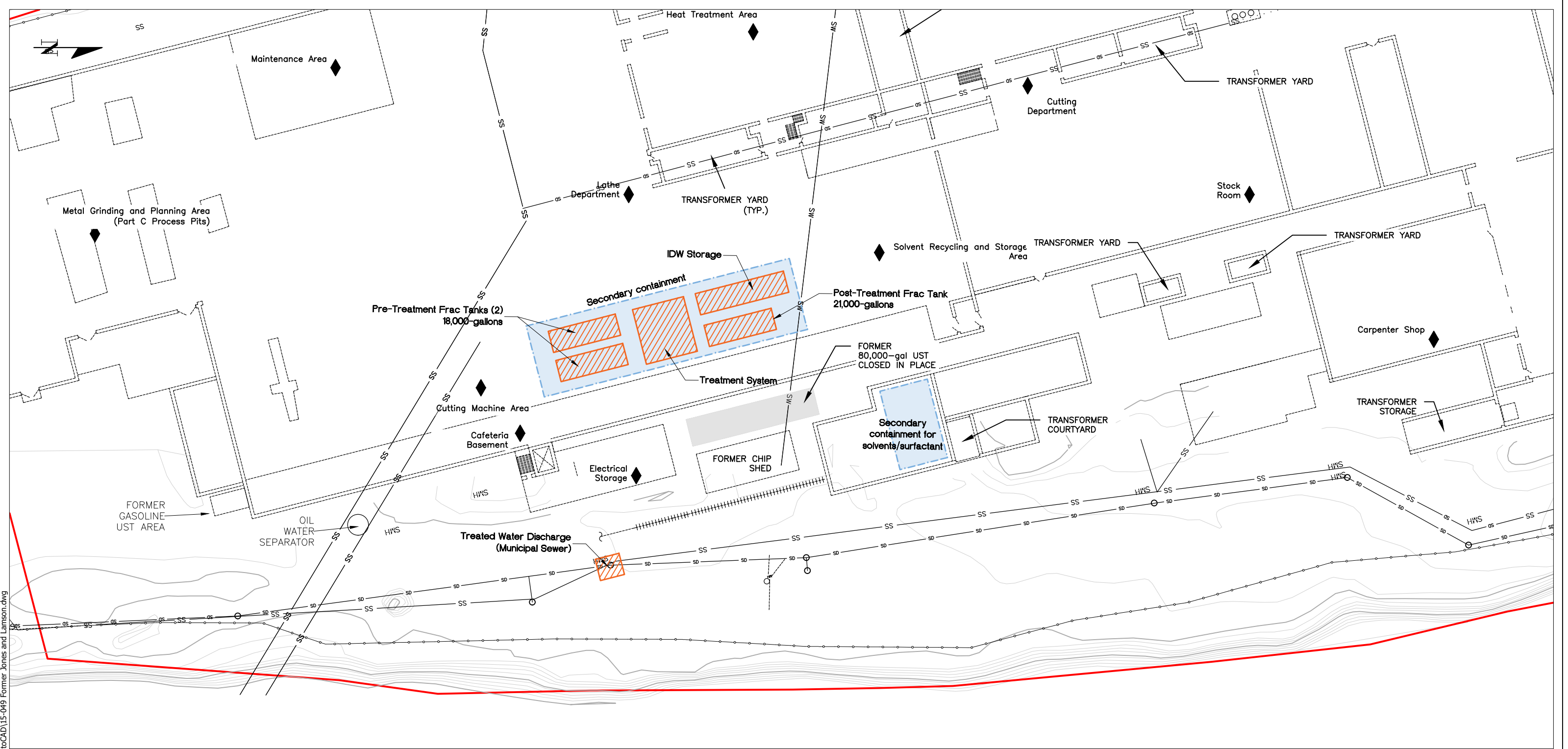
DATE: 4/26/2023

Water Treatment System Schematic

Former Jones and Lamson Property
Springfield, VT

PROJECT No.
5671

FIGURE No.
10



File: O:\PROJ-15\18R\15-049 J&L CAP\Data\AutoCAD\15-049 Former Jones and Lamson.dwg

LEGEND

- EXISTING BUILDINGS
- FORMER BUILDING OUTLINE
- SECONDARY CONTAINMENT AREAS
- WASTE MANAGEMENT LOCATIONS
- PROPERTY BOUNDARY
- SURFACE CONTOUR (2')
- FENCE
- SEWER LINE
- SEWER MANHOLE

NOTES:
UTILITIES UNDER THE CONCRETE SLAB WERE UPDATED BASED ON VERMONT UNDERGROUND LOCATORS
GPR SURVEY ON OCTOBER 26, 2022.

DRAWING CREDITS						
Drawn On:	7/30/2026					
Drawn By:	LBR					
Checked On:	7/30/2026					
Checked By:	DTV					
Project No.:	15-049					

#	Date	Drwn	Chk'd	App'd	Description



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WASTE MANAGEMENT LAYOUT
FORMER JONES & LAMSOM PLANT
160 CLINTON STREET
SPRINGFIELD VERMONT

Appendix B: PCB Cleanup and Disposal
Approval under 40 CFR § 761.61(c) and 40
CFR § 761.79(h)
Former Jones & Lampson NAPL AOC



TRANSMITTED VIA ELECTRONIC MAIL

Mr. Bob Flint, Executive Director
Springfield Regional Development Corporation
14 Clinton Street #7
Springfield, Vermont
bobf@springfielddevelopment.org

Re: PCB Cleanup and Disposal Approval under 40 CFR § 761.61(c) and 40 CFR § 761.79(h)
Former Jones & Lampson NAPL AOC

Dear Mr. Flint:

This is in response to the Notification¹ by the Springfield Regional Development Corporation (the "SRDC") to address PCB remediation waste (e.g., PCB contaminated non-aqueous phase liquid ("NAPL")) found on the former Jones & Lampson property (the "Site", **see Attachment 2**), located at 160 Clinton Street in Springfield, Vermont. PCB concentrations are present on the Site at levels that exceed the unrestricted use level specified under 40 CFR § 761.61(a)(4), promulgated under the authority of Section 6(e) of the Toxic Substances Control Act, 15 USC § 2605(e).

SRDC is proposing the following PCB cleanup and disposal activities at the Site:

- Install six additional extraction wells to a target depth of 24 feet below ground surface ("ft bgs").
- Using multiphase extraction ("MPE") and EcoVac's SOLV-IT® co-solvent and surfactant with the parameters determined in the bench and pilot- scale treatability studies, extract PCB-contaminant mass. Substantial completion will be indicated by 90% reduction in contaminated mass.
- Treat groundwater in an onsite water treatment facility and collect confirmation samples prior to disposal in the municipal sewer system under General Permit 3-9016.

¹ The Notification was prepared by Stone Environmental, Inc on behalf of Springfield Regional Development Corporation ("SRDC") to satisfy the requirements under 40 CFR § 761.61(c) and § 761.79(h). Information was submitted dated November 7, 2022 (Evaluation of Corrective Action Alternatives: Jones & Lampson Bunker Oil NAPL Area of Concern); August 8, 2024 (Risk-Based Cleanup and Disposal Plan Update: Jones & Lampson Bunker Oil NAPL Area of Concern); March 16, 2026 (Risk-Based Cleanup and Disposal Plan Update: Jones & Lamson Bunker Oil NAPL Area of Concern); and June 4, 2026 (Email response to EPA request for 761.61(a)(3)(E) certificate). These submittals together shall be referred to as the "Notification".

- Dispose of PCB-contaminated NAPL in accordance with 40 CFR 761.60(a).
- Collect soil samples as described in the Notification to confirm the effectiveness of the remediation.
- Conduct long-term monitoring and maintenance on the groundwater.
- Place a deed notice, which may be in the form of a Certificate of Completion (“COC”), on the Site.

The information provided in the Notification for the Site meets the requirements under 40 CFR § 761.61(c). Given the characterization sampling data, and the proposed cleanup and long-term site monitoring, EPA concludes that the alternative treatment for removal of PCB-contaminated NAPL will not pose an unreasonable risk to health or the environment. EPA applies this “no unreasonable risk” standard in accordance with the PCB regulations at 40 CFR § 761.61(c) and 761.79(h), and the Toxic Substances Control Act, at 15 USC § 2605(e).

This proposed project may proceed in accordance with 40 CFR §§ 761.61(c) and 761.79(h), the Notification, and this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA may require additional investigation, or mitigation measures should it find that the implemented plan is not protective and that PCB contamination remaining at the Site poses an unreasonable risk of injury to health and/or the environment.

This Approval does not release the Owner from any other applicable requirements of federal, state or local law, including those requirements related to other contaminants under the Vermont Department of Environmental Conservation (“VTDEC”) regulations.

Questions and correspondence regarding this Approval should be directed to: R1PCBs@epa.gov

EPA shall consider this project to be complete when it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with the 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

Stephanie Carr, Director
Land, Chemicals and Redevelopment Division

cc:

Kimberly Caldwell, VTDEC kimberly.caldwell@vermont.gov
Daniel Voisin, Stone Environmental dvoisin@stone-env.com
Kayin Bankole, US EPA, Brownfields Bankole.Kayin@epa.gov

- Attachment 1: PCB Cleanup and Disposal Approval Conditions
- Attachment 2: Site Description

ATTACHMENT 1

**PCB RISK-BASED CLEANUP AND DISPOSAL CONDITIONS
FORMER JONES & LAMPSON-NAPL AOC
160 CLINTON STREET
SPRINGFIELD, VERMONT**

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the PCB remediation waste (e.g., PCB-contaminated non-aqueous phase liquid (“NAPL”)) located at the former Jones & Lampson non-aqueous phase liquid area of concern (“NAPL AOC”) (the “Site”) as identified in Attachment 2.
 - a. If Springfield Regional Development Corporation (“SRDC”) identifies other PCB-contaminated wastes (i.e., PCB waste not identified in the Notification) subject to cleanup and disposal under the PCB regulations, SRDC will be required to notify EPA and clean up the PCB-contaminated wastes in accordance with 40 CFR Part 761.
 - a. SRDC may submit a separate plan to address PCB contamination or may propose to modify the Notification to incorporate cleanup of the PCBs under this Approval in accordance with Condition 21.
2. SRDC shall conduct on-site activities in accordance with the conditions of this Approval, with the Notification, and the PCB regulations at 40 CFR Part 761.
3. If the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.
4. The terms and abbreviations used herein shall have the meanings defined in 40 CFR § 761.3 unless otherwise defined within this Approval.
5. SRDC must comply with all applicable federal, state and local regulations regarding the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items, and decontamination wastes generated under this Approval. In the event of a new spill during response actions, SRDC shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.
6. SRDC is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time SRDC has or receives information indicating that SRDC or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by SRDC are authorized to conduct the activities set forth in the Notification. SRDC is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.
8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release SRDC from compliance with any applicable requirements of TSCA or of other federal, state or local law; or, 3) release SRDC from liability for, or otherwise resolve, any violations of TSCA or of any other federal, state or local law.
9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in 40 CFR § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from SRDC of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. SRDC shall notify EPA in writing of the scheduled date of commencement of on-site activities at least 1 business day prior to conducting any work under this Approval. Such notification shall include an estimated schedule for completion of the PCB cleanup and disposal actions authorized under this Approval.
12. Prior to initiation of work authorized under this Approval, SRDC shall submit the following information to EPA:
 - a. a certification signed by its selected remediation contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval; and,
 - b. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

CLEANUP AND DISPOSAL CONDITIONS

13. PCB remediation waste removal (e.g., PCB contaminated NAPL) shall continue until at least 90% of the contaminated mass is removed.
 - a. Verification samples from soil shall be collected on a bulk basis (i.e., mg/Kg) and PCB analytical results shall be reported on a dry-weight basis. Samples shall be collected in accordance with the frequency identified in the Notification.

- b. Chemical extraction for PCBs shall be conducted using Methods 3500B/3540 of SW-846 for solid matrices and Method 3500B/3510C of SW-846 for aqueous matrices; and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction and/or analytical method(s) is validated according to Subpart Q.
 - c. If PCBs are greater than (“>”) 10 parts per million (“ppm”) in verification samples from soil, SRDC shall contact EPA to determine whether such PCBs should be addressed under the Risk-Based Cleanup and Disposal Approval dated June 6, 2013.
14. To the maximum extent practical, engineering controls shall be utilized to minimize the potential for PCB releases during work within the Site. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
15. All PCB waste (regardless of concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61(a)(5), unless otherwise specified below.
- a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g).
 - b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).
 - c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under 40 CFR § 761.60.

DEED NOTICE AND USE CONDITIONS

16. Within sixty (60) days of completing the activities described in the Notification and authorized in the Approval, the SRDC shall submit for EPA review and approval, a draft deed notice for the Site. The deed notice shall include: a description of the extent and levels of contamination at the Site following abatement; a description of the actions taken at the Site; and a description of the use restrictions for the Site. Within seven (7) days of receipt of EPA’s approval of the draft deed notice, the SRDC shall record the deed restriction. A copy of this Approval shall be attached to the deed notice.
17. Within ten (10) business days of recording the notation on the deed, the SRDC shall submit to EPA a certification as required under 40 CFR § 761.61(a)(8)(i)(B), that it has recorded the notation on the deed with a copy of the executed deed notice.

PROPERTY SALE, LEASE OR TRANSFER CONDITIONS

18. SRDC and any future transferees of the Site will be subject to, and have the benefit of the following in connection with any subsequent sale, lease, or transfer of the Site:
- a. SRDC shall notify the EPA of the sale, lease or transfer of any real estate interest in the Site that has an effect of allocating or sharing any responsibility for complying with the Approval to or with a different person. Such notice shall be in writing no later than sixty (60) days prior to such action. This notification shall include the name, address, and telephone number of the new entity acquiring such an interest in the affected property. If the SRDC sells, leases or transfers such real estate interest, the SRDC shall continue to be bound by all the terms and conditions of this Approval, unless EPA approves the allocation of some or all the Approval's responsibilities to the new owner(s), lessee or transferee. The notification procedures shall be as follows:
 - i. The new owner(s), lessee or transferee must request, in writing, that the EPA allocate some or all obligations and responsibilities under the Approval to the new owner(s), lessee or transferee;
 - ii. The EPA reviews the request, and determines whether to allocate some or all the obligations and responsibilities under the Approval to the new owner(s), lessee, or transferee; and,
 - iii. The new owner(s), lessee or transferee provides written notification to the EPA of its acceptance of and intention to comply with the terms and conditions of the Approval or new approval, should EPA deem a new approval is necessary. The Approval or new approval may be withdrawn if the EPA does not receive written notification from the new owner(s), lessee or transferee of its acceptance of, and intention to comply with, the terms and conditions of the Approval or new approval within thirty (30) days of its receipt of the Approval or the new approval. Under such circumstances, all terms and conditions of this Approval will continue to be binding on the SRDC.
 - b. In the event that the sale, lease or transfer of a real estate interest in the Site will involve or result in a change in the use that was not considered under the Approval, EPA may revoke, suspend, and/or modify the Approval or the new approval if it finds, due to the change in use, that the PCB risk-based disposal action will pose an unreasonable risk of injury to health or the environment. The SRDC or the current Site owner shall record any amendment to the deed notice, resulting from any approved modification(s), within sixty (60) days of such change(s).

- c. In any sale, lease or transfer of a real estate interest in the property, the SRDC shall retain sufficient access rights to enable it to continue to meet the obligations under the Approval for maintenance and monitoring of the compliant caps, except as provided above.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

- 19. Within 30 days of completion of the work authorized under this Approval, the SRDC shall submit for EPA's review and concurrence, a detailed monitoring and maintenance plan ("MMP") for groundwater monitoring. The SRDC shall incorporate any changes to the MMP required by EPA.
 - a. The MMP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria, as applicable; and reporting requirements.
 - b. The MMP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including building users, other on-site workers, and interested stakeholders, if requested.
 - c. The MMP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could mobilize the PCB-contaminated NAPL.
 - d. The SRDC shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMP is necessary to monitor and/or evaluate the long-term effectiveness of the cap(s).
 - e. Activities required under the MMP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.
- 20. SRDC shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by SRDC to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.
- 21. Any modification(s) in the plan, specifications, and information submitted by SRDA, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. SRDC shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification in writing. The EPA may request additional information in order to determine whether to approve the modification.

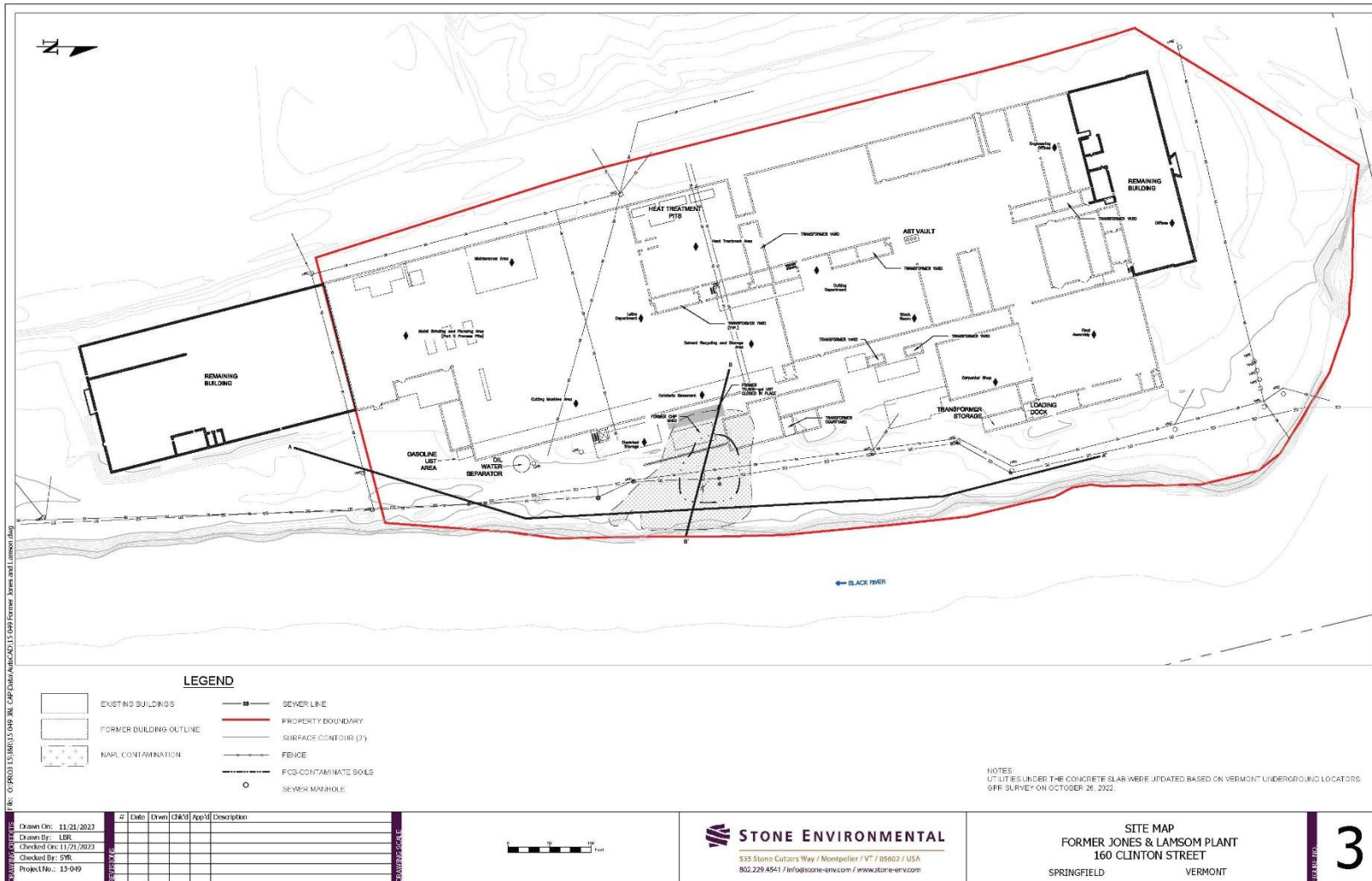
22. If such modification involves a change in the use of the Site which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based cleanup and disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from SRDC to make a determination regarding potential risk.
23. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
24. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.
25. Approval for these activities may be revoked, modified or otherwise altered: if EPA finds a violation of the conditions of this Approval or of 40 CFR Part 761, including EPA's PCB Spill Cleanup Policy, or other applicable rules and regulations; or, if EPA finds that these activities present an unreasonable risk of injury to health or the environment.

RECORDKEEPING AND REPORTING CONDITIONS

26. SRDC shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and disposal and the analytical sampling shall be established and maintained by SRDC in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.
27. SRDC shall submit a PCB completion report as an electronic version to the EPA within 60 days of completion of the activities authorized under this Approval. At a minimum, this completion report shall include: a short narrative of the project activities with photographic documentation; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of; copies of manifests and bills of lading; copies of certificates of disposal or similar certifications issued by the disposer.
28. Required submittals shall be emailed to: R1PCBS@epa.gov
29. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

END OF ATTACHMENT

Attachment 2, Former Jones & Lamson, Springfield, Vermont
Site Description



Appendix C: Historical Sample Locations and Analytical Data Summary Tables

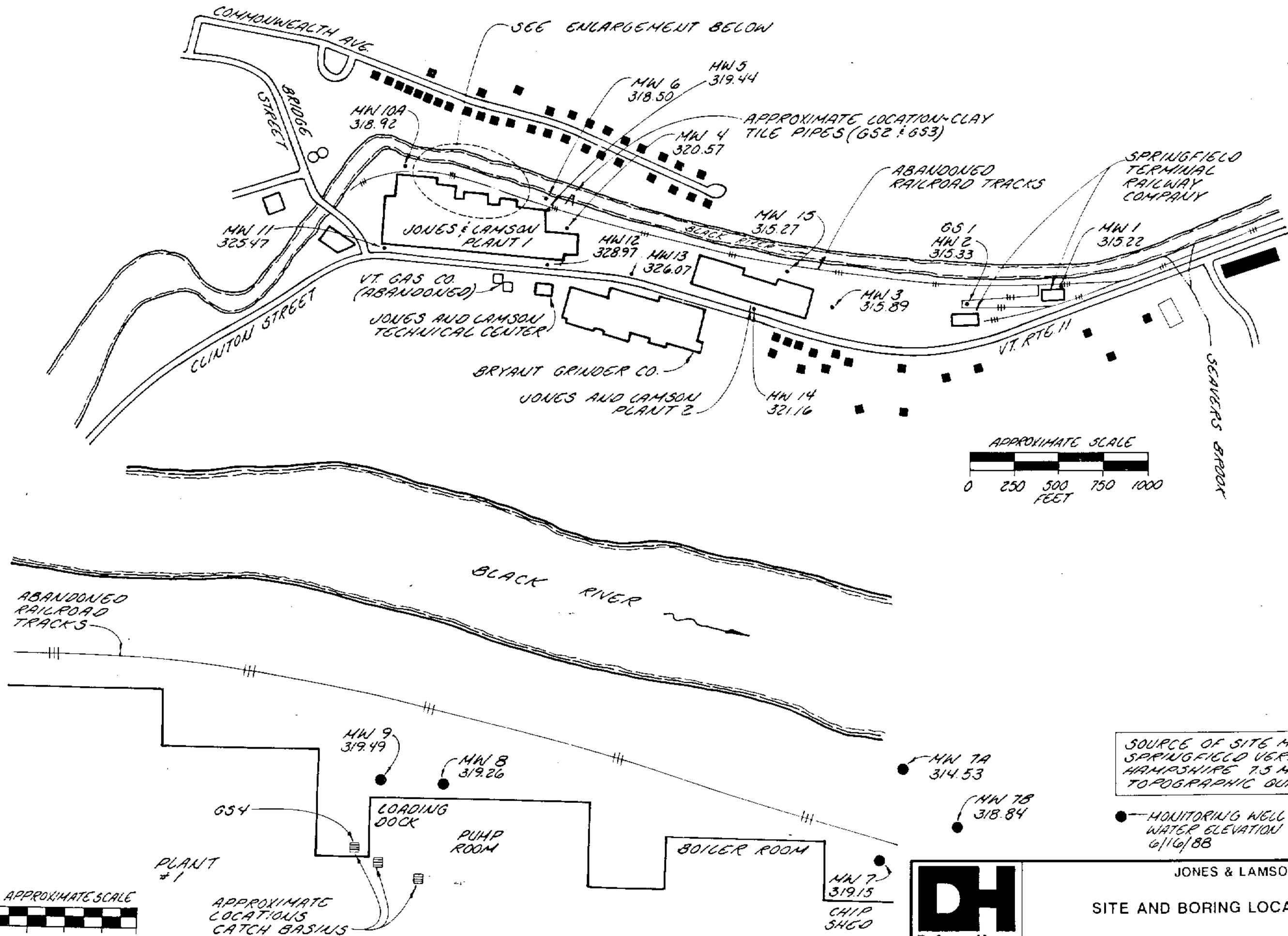


FIGURE 2

Dufresne-Henry Inc. Precision Park No. Springfield	JONES & LAMSON		
	SITE AND BORING LOCATION PLAN		
	SPRINGFIELD, VERMONT		
	Client No. 438009	Proj. Mgr. F.D.D.	Date 7 88
		B 6671	

SUMMARY OF VOLATILE ORGANIC COMPOUNDS

Jones & Lamson Site Assessment

June • 1988

Values without an "a" following are adopted drinking water standards or Primary Ground Water Quality Standards, whichever is more conservative.

Values with an "a" are Health Advisory Levels which are in use until other standards are adopted.

Circled values exceed the State Standards.

CONCENTRATION (PARTS PER BILLION)

COMPOUND	MW 4	MW 5	MW 6	MW 7	MW 7A	MW 7B	MW 8	MW 9	MW 10A	MW 14	MW 15	GS #2	GS #3	GS #4		VT. STD.
1,1-Dichloroethene											15					7
1,1-Dichloroethane			3	7	2	8					26		14	(190)		70a
Trans-1,2-Dichloroethane	4	42	5	8		3							7			70
Cis-1,2-Dichloroethane	33	(180)	(140)	(71)	17	(380)				6	4	55	(130)			70
1,1,1-Trichloroethane			11				14	4	3		90	2		(2000)		200
Trichloroethane	5	2	(54)	(260)	(18)	(51)	4			(15)	(7)	(18)	(220)			5
Tetrachloroethane					(3)	(4)	(13)			(6)	(65)	(4)	(32)			0.7
Benzene												(9)	(32)			5
Toluene													11			2000
Ethylbenzene												2	140			680a
Total Xylenes												7	60			400a
Others (Not on HSL)				500	50	200						100	2000			NA

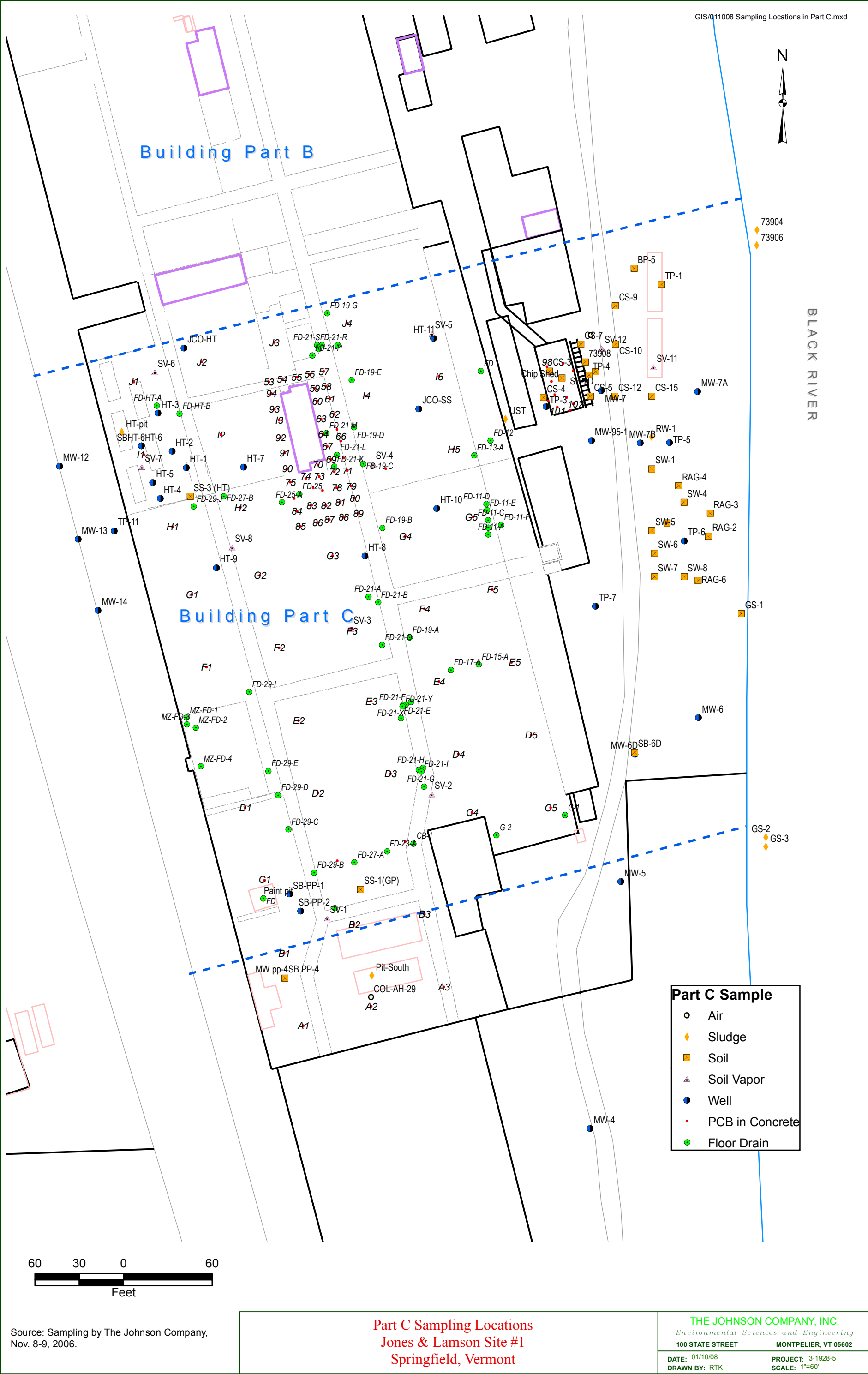


Table 1. Groundwater Quality Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	x	y	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes, total (ug/L)	Total BTEX (ug/L)	n-Propylbenzene (ug/L)	n-Butylbenzene (ug/L)	sec-Butylbenzene (ug/L)	Isopropylbenzene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	PCE (ug/L)	TCE (ug/L)	1,1,1-TCA (ug/L)
VGES		(m)	(m)	5	1000	700	10000						5	4	5	5	200
MW-10A	Jun-88	502356.87	87837.14	0	0	0	0	0							0	0	3
MW-4	Jun-88	502356.18	87533.75	0	0	0	0								0	5	0
MW-5	Jun-88	502362.53	87584.72	0	0	0	0								0	2	0
MW-6	Jun-88	502378.56	87618.58	0	0	0	0								0	54	11
MW-7	Jun-88	502358.50	87686.07	0	0	0	0	0							0	260	0
MW-7A	Jun-88	502378.37	87685.90	0	0	0	0	0							6	18	0
MW-7B	Jun-88	502366.56	87675.29	0	0	0	0	0							4	51	0
MW-8	Jun-88	502350.13	87735.05	0	0	0	0	0							13	4	14
MW-9	Jun-88	502342.30	87754.00	0	0	0	0	0							0	0	4
MW-10A	May-89	502356.87	87837.14	0	0	0	0	0							0	0	0
MW-4	May-89	502356.18	87533.75	0	0	0	0								0	2	0
MW-5	May-89	502362.53	87584.72	0	0	0	0								0	0	0
MW-6	May-89	502378.56	87618.58	0	0	0	0								0	32	4
MW-7	May-89	502358.50	87686.07	3	3	0	0	0							3	88	2
MW-7A	May-89	502378.37	87685.90	0	0	0	0	0							0	7	0
MW-7B	May-89	502366.56	87675.29														
MW-8	May-89	502350.13	87735.05	0	0	0	0	0							10	2	7
MW-9	May-89	502342.30	87754.00	0	0	0	0	0							0	0	0
MW-10A	Jun-94	502356.87	87837.14	0	0	0	0	0							0	0	0
MW-4	Jun-94	502356.18	87533.75	0	0	0	0								0	0	0
MW-5	Jun-94	502362.53	87584.72	0	0	0	0								0	5	0
MW-6	Jun-94	502378.56	87618.58	0	0	0	0								0	31	0
MW-7	Jun-94	502358.50	87686.07	0	0	0	0	0							0	0	0
MW-7A	Jun-94	502378.37	87685.90	0	0	0	0	0							9	0	0
MW-7B	Jun-94	502366.56	87675.29	0	0	0	0	0					0	0	0	3.8	0
MW-8	Jun-94	502350.13	87735.05	0	0	0	0	0							0	0	0
MW-9	Jun-94	502342.30	87754.00	0	0	0	0	0							0	0	0
MW-CSO	Mar-00	502323.76	87892.87						5	9	8	3					
MW-10A	Aug-00	502356.87	87837.14														
MW-4	Aug-00	502356.18	87533.75	0	0	0	0	0					0	0	0	0	0
MW-5	Aug-00	502362.53	87584.72	0	0	0	0	0					0	0	0	0	0
MW-6	Aug-00	502378.56	87618.58	0	0	0	0	0					0	0	0	7.7	0
MW-7	Aug-00	502358.50	87686.07	8.1	0	0	0	8.1					6.9	0	0	0	0
MW-7A	Aug-00	502378.37	87685.90	0	0	0	0	0					0	0	5.9	18.2	0
MW-7B	Aug-00	502366.56	87675.29	0													
MW-8	Aug-00	502350.13	87735.05	0	0	0	0	0					0	0	6.2	1	0
MW-9	Aug-00	502342.30	87754.00														
MW-CSO	Aug-00	502323.76	87892.87	0	0	0	0	0		1.2	2.5		0	0	0	0	0
MW-10A	9/18/2003	502356.87	87837.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MW-13	9/18/2003	502250.52	87655.40	1.5	0	0	0	1.5	0	0	0	0	0	0	0	0	0
MW-4	9/18/2003	502356.18	87533.75	0	0	0	0	0					0	0	0	0	0
MW-5	9/18/2003	502362.53	87584.72	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 1. Groundwater Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	x	y	Benzene (ug/L)	Toluene (ug/L)	Ethylbenz ene (ug/L)	Xylenes, total (ug/L)	Total BTEX (ug/L)	n- Propylbe zene (ug/L)	n- Butylben zene (ug/L)	sec- Butylbenz ene (ug/L)	Isopropyl benzene (ug/L)	1,2,4- Trimethylb enzene (ug/L)	1,3,5- Trimethylb enzene (ug/L)	PCE (ug/L)	TCE (ug/L)	1,1,1- TCA (ug/L)
VGES		(m)	(m)	5	1000	700	10000						5	4	5	5	200
MW-6	9/18/2003	502378.56	87618.58	0	0	0	0	0	0	0	0	0	0	0	0	3.9	0
MW-6D	9/18/2003	502365.48	87611.05	0	0	0	0	0	0	0	0	0	0	0	0	2.4	0
MW-7	9/18/2003	502358.50	87686.07	5.5	0	0	0	5.5	0	0	0	0	0	0	1.6	1.9	0
MW-7A	9/18/2003	502378.37	87685.90	dry	dry	dry	dry	dry					dry	dry	dry	dry	dry
MW-7D	9/18/2003	502357.41	87689.80	6.4	0	0	0	6.4	0	0	0	0	0	0	0	0	0
MW-8	9/18/2003	502350.13	87735.05	0	0	0	0	0	0	0	0	0	0	0	17.8	1.6	1.5
MW-8D	9/18/2003	502353.21	87736.31														
MW-9	9/18/2003	502342.30	87754.00	0	0	0	0	0	0	0	0	0	0	0	1.7	0	0
MW-CSO	9/18/2003	502323.76	87892.87	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HT-1	3/31/2005	502272.86	87670.14	0	0	0	0	0					1	0	0	91.8	
HT-2	3/31/2005	502269.93	87673.61	21	11.3	170	78.2	280.5					57.4	17	0	0	
HT-3	3/31/2005	502267.00	87681.43	0	0	224	123	347					81.5	0	0	0	
HT-4	3/31/2005	502267.47	87663.80	4.6	0	2.8	3.2	10.6					0	0	0	4.5	
HT-5	3/31/2005	502265.89	87667.14	0	0	2.1	2.9	5					0	0	1	5	
HT-6	3/31/2005	502263.59	87674.65	1.9	4	3.6	1.2	10.7					1.9	0	1.1	2.1	
HT-7	3/31/2005	502284.70	87670.29	30.5	0	136	46	212.5					73.8	29.4	0	0	
MW-7	3/31/2005	502358.50	87686.07	8.1	0	0	0	8.1		0	0		0	0	0	0	
MW-9	3/31/2005	502342.30	87754.00	0	0	0	0	0		0	0		0	0	0	0	
MW-95-1	3/31/2005	502356.48	87675.76														
SB-PP-1	3/31/2005	502294.17	87582.17	0	0	0	0	0		0	0		0	0	0	0	
SB-PP-2	3/31/2005	502296.46	87578.67	0	0	0	0	0		0	0		0	0	0	0	
TP-2	3/31/2005	502328.41	87766.27	0	0	0	0	0					0	0	0	0	
TP-5	3/31/2005	502372.57	87675.38	0	0	0	0	0					0	0	0	0	
TP-6	3/31/2005	502375.61	87655.07	1.5	0	1.8	16.7	20					3.2	1.4	4.5	25.3	
TP-7	3/31/2005	502357.27	87641.56	2.7	0	0	2.9	5.6					0	0	1.4	18.1	
TP-11	4/1/2005	502257.98	87657.13	4.5	2.3	7.5	22.3	36.6					23.8	5.6	0	0	
TP-3	4/1/2005	502347.12	87682.81	3.4	11.4	2.3	1.2	18.3					1.2	0	0	0	
SBHT-6	9/13/2005	502263.59	87674.65														
HT-10	9/19/2005	502324.58	87661.78	6	3	11	20	40					0	0	58.8	73.8	
HT-11	9/19/2005	502323.89	87696.90	0	0	0	0	0					0	0	183	238	
HT-9	9/19/2005	502279.05	87649.52	2.2	0	11.7	4.8	18.7					0	0	0	4.8	
MW pp-4	9/19/2005	502293.20	87564.82	0	0	0	0	0					0	0	0	0	
MW-12	9/19/2005	502246.70	87670.48	7.7	22.8	411	595	1037					413	135	0	0	
MW-13	9/19/2005	502250.52	87655.40	2	7.4	3.6	0	13					6.3	0	0	0	
MW-14	9/19/2005	502254.65	87640.73	0	0	0	0	0					0	0	0	0	
HT-8	9/22/2005	502309.73	87651.95	0	0	0	0	0					0	0	10.5	56.9	
MW pp-4	9/22/2005	502293.20	87564.82														
JCO-HT	6/29/2006	502272.37	87694.89	0	0	0	0	0	0	0	0	0	0	0	12	190	3
JCO-LS	6/29/2006	502350.97	87769.98	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JCO-NE	6/29/2006	502353.63	87810.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JCO-SS	6/29/2006	502320.85	87682.31	0	0	0	0	0	0	0	0	0	0	0	1900	4700	80

Table 1. Groundwater Quality Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	cis-1,2-DCE (ug/L)	trans-1,2-DCE (ug/L)	Chloroethane (ug/L)	1,1-DCE (ug/L)	1,1-DCA (ug/L)	Vinyl Chloride (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Acenaphthalene (ug/L)	Anthracene (ug/L)	Benzo(a)anthracene (ug/L)	Chrysene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(g,h,i)perylene (ug/L)	Fluoranthene (ug/L)
VGES		70	100		7	70	2	20			2100					0.2		280
MW-10A	Jun-88	0	0		0	0												
MW-4	Jun-88	33	4		0	0												
MW-5	Jun-88	180	42		0	0												
MW-6	Jun-88	140	5		0	3												
MW-7	Jun-88	71	8		0	7												
MW-7A	Jun-88	17	0		0	7												
MW-7B	Jun-88	380	3		0	8												
MW-8	Jun-88	0	0		0	0												
MW-9	Jun-88	0	0		0	0	0											
MW-10A	May-89	0	0		0	0												
MW-4	May-89	12	0		0	0												
MW-5	May-89	150	29		0	0												
MW-6	May-89	130	5		0	8												
MW-7	May-89	120	5		0	5												
MW-7A	May-89	5	0		0	5												
MW-7B	May-89																	
MW-8	May-89	0	0		0	0												
MW-9	May-89	0	0		0	0	0											
MW-10A	Jun-94	0	0	0	0	0												
MW-4	Jun-94	0	0	0	0	0												
MW-5	Jun-94	25	25	0	0	0												
MW-6	Jun-94	98	98	0	0	5												
MW-7	Jun-94	0	0		0	0												
MW-7A	Jun-94	0	0	0	0	0												
MW-7B	Jun-94	109	0	40	0	149	24.7											
MW-8	Jun-94	0	0	0	0	0												
MW-9	Jun-94	0	0	0	0	0	0											
MW-CSO	Mar-00											13	11	6	6	7	4	43
MW-10A	Aug-00																	
MW-4	Aug-00	0	0	0	0	0	4											
MW-5	Aug-00	5.8	0	0	0	0	0											
MW-6	Aug-00	46.9	0	0	0	0	14.3											
MW-7	Aug-00	0	0	301	0	83.6	14.3											
MW-7A	Aug-00	67.9	0	0	4.3	0	2.3											
MW-7B	Aug-00																	
MW-8	Aug-00	0	0	0	0	0	0											
MW-9	Aug-00																	
MW-CSO	Aug-00	0	0		0	0	0	0	0	0	0	0	0			0	0	0
MW-10A	9/18/2003	0	0	0	0	0	0											
MW-13	9/18/2003	0	0	0	0	0	21.5	0										
MW-4	9/18/2003	0	0	0	0	0	4.2											
MW-5	9/18/2003	2.6	0	0	0	0	0											

Table 1. Groundwater Quality Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	cis-1,2-DCE (ug/L)	trans-1,2-DCE (ug/L)	Chloroethane (ug/L)	1,1-DCE (ug/L)	1,1-DCA (ug/L)	Vinyl Chloride (ug/L)	Naphthalene (ug/L)	Acenaphthene (ug/L)	Acenaphthalene (ug/L)	Anthracene (ug/L)	Benzo(a)anthracene (ug/L)	Chrysene (ug/L)	Benzo(b)fluoranthene (ug/L)	Benzo(k)fluoranthene (ug/L)	Benzo(a)pyrene (ug/L)	Benzo(g,h,i)perylene (ug/L)	Fluoranthene (ug/L)
VGES		70	100		7	70	2	20			2100					0.2		280
MW-6	9/18/2003	9.4	0	0	0	1.9	30.4											
MW-6D	9/18/2003	21.2	0	0	0	0	9.5	0										
MW-7	9/18/2003	2.1	0	1630	0	574	3.1											
MW-7A	9/18/2003	dry	dry	dry	dry	dry	dry											
MW-7D	9/18/2003	1.6	0	3220	0	995	5	0										
MW-8	9/18/2003	0	0	0	0	0	0											
MW-8D	9/18/2003																	
MW-9	9/18/2003	0	0	0	0	0	0											
MW-CSO	9/18/2003	0	0	0	0	0	0											
HT-1	3/31/2005	70						4.9										
HT-2	3/31/2005	19.9						1330										
HT-3	3/31/2005	0						1720										
HT-4	3/31/2005	285						17.7										
HT-5	3/31/2005	0						20.6										
HT-6	3/31/2005	7.6						13.4	0	0								0
HT-7	3/31/2005	0						666	0	0								0
MW-7	3/31/2005	1.3						0	0	0	0							0
MW-9	3/31/2005	0						0	0	0	0							0
MW-95-1	3/31/2005																	
SB-PP-1	3/31/2005	0						0										
SB-PP-2	3/31/2005	0						0										
TP-2	3/31/2005	0						0	0	0								0
TP-5	3/31/2005	184						0	0	0								0
TP-6	3/31/2005	8						0	0	0								0
TP-7	3/31/2005	11.4						1.7	18.1	0								0
TP-11	4/1/2005	0						39.2	27.9	0								0
TP-3	4/1/2005	0						23	0	0								0
SBHT-6	9/13/2005																	
HT-10	9/19/2005	29.2					46.5	15.9	18.9	0	0							0
HT-11	9/19/2005	168					0	0	0	0	0							0
HT-9	9/19/2005	0					0	59.1	7.38	0	0							0
MW pp-4	9/19/2005	0					0	0	0	0	0							0
MW-12	9/19/2005						0	2900	106	16.6	17.5							0
MW-13	9/19/2005						0	21.2	17.7	7.24	6.62							3.95
MW-14	9/19/2005						0	0	0	0	0							0
HT-8	9/22/2005	27.7					0	0										
MW pp-4	9/22/2005																	
JCO-HT	6/29/2006	5	0	0	0	0	15	0	2	0	0	0	0	0	0	0	0	0
JCO-LS	6/29/2006	0	0	0	0	0	0											
JCO-NE	6/29/2006	0	0	0	0	0	0											
JCO-SS	6/29/2006	2900	20	0	0	0	0											

Table 1. Groundwater Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	Fluorene (ug/L)	1- methylnap htthalene (ug/L)	2- Methylnap htthalene (ug/L)	Phenant hrene (ug/L)	Pyrene (ug/L)	TPH (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Berylliu m (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Mangan ese (mg/L)
VGES		280						0.2	0.01	2.00	0.004	0.01	0.10		1.30	0.30	0.015	0.84
MW-10A	Jun-88																	
MW-4	Jun-88																	
MW-5	Jun-88																	
MW-6	Jun-88																	
MW-7	Jun-88						570											
MW-7A	Jun-88						10											
MW-7B	Jun-88						590											
MW-8	Jun-88																	
MW-9	Jun-88																	
MW-10A	May-89																	
MW-4	May-89																	
MW-5	May-89																	
MW-6	May-89																	
MW-7	May-89																	
MW-7A	May-89																	
MW-7B	May-89																	
MW-8	May-89																	
MW-9	May-89																	
MW-10A	Jun-94																	
MW-4	Jun-94																	
MW-5	Jun-94																	
MW-6	Jun-94																	
MW-7	Jun-94																	
MW-7A	Jun-94																	
MW-7B	Jun-94																	
MW-8	Jun-94																	
MW-9	Jun-94																	
MW-CSO	Mar-00				180	46	200											
MW-10A	Aug-00																	
MW-4	Aug-00																	
MW-5	Aug-00																	
MW-6	Aug-00																	
MW-7	Aug-00																	
MW-7A	Aug-00																	
MW-7B	Aug-00																	
MW-8	Aug-00																	
MW-9	Aug-00																	
MW-CSO	Aug-00	2.5	6.5	0	0	0												
MW-10A	9/18/2003							38	0.006	0.282		0.004	0.058	0.052	0.142	66.7	0.045	1.76
MW-13	9/18/2003							21.2	0.01	0.992		0.018	0.041	0	0.173	83.2	0.005	1.25
MW-4	9/18/2003							7.15	0.05	0.143		0	0	0	0.111	23.1	0.037	2.01
MW-5	9/18/2003							0.889	0.012	0.138		0	0	0	0.032	18.5	0	1.12

Table 1. Groundwater Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	Fluorene (ug/L)	1- methylnap htalene (ug/L)	2- Methylnap htalene (ug/L)	Phenant hrene (ug/L)	Pyrene (ug/L)	TPH (mg/L)	Aluminum (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Berylliu m (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Mangan ese (mg/L)
VGES		280						0.2	0.01	2.00	0.004	0.01	0.10		1.30	0.30	0.015	0.84
MW-6	9/18/2003							2.38	0.038	0.145		0	0	0	0.019	41.6	0.008	1.79
MW-6D	9/18/2003							9.4	0.005	0.158		0	0	0	0.025	20.7	0.007	1.59
MW-7	9/18/2003							14.3	0.004	0.144		0	0.024	0.016	0.139	42.2	0.062	1.81
MW-7A	9/18/2003																	
MW-7D	9/18/2003							0.134	0.002	0.093		0	0	0	0	19.3	0	1.92
MW-8	9/18/2003							1.8	0.005	0.055		0	0	0	0.027	5.86	0.006	0.289
MW-8D	9/18/2003							0.13	0	0.062		0	0	0	0	0.16	0	0.187
MW-9	9/18/2003							8.08	0.003	0.094		0	0	0	0.039	1.41	0.016	2.79
MW-CSO	9/18/2003							0.442	0	0.037		0	0	0	0	1.34	0.004	0.624
HT-1	3/31/2005						2.6	0	0	0.0959		0	0	0	0	0.466	0	0.243
HT-2	3/31/2005						3	0.464	0	0.0158		0	0	0	0	10.5	0	1.53
HT-3	3/31/2005						2	0.28	0	0.0426		0	0	0	0	11.6	0	1.83
HT-4	3/31/2005						0.8	6.77	0	0.069		0	0.0096	0.0065	0.0221	65	0.016	1.8
HT-5	3/31/2005						1.5	3.78	0	0.0674		0	0.0044	0.0055	0.0086	13.7	0.011	0.453
HT-6	3/31/2005	0	0	0	0	0	44.7	6.66	0	0.626		0	0.0116	0.009	0.017	29	0.014	1.41
HT-7	3/31/2005	0	0	0	0	0	13.8											
MW-7	3/31/2005	0	0	0	0	0	5.8											
MW-9	3/31/2005	0	0	0	0	0	0	0	0	0.0435		0	0	0	0	0.0927	0	0.257
MW-95-1	3/31/2005						10.4											
SB-PP-1	3/31/2005						0	32.2	0.0089	0.0208		0.0025	0.0378	0.0294	0.0752	82.3	0.072	1.41
SB-PP-2	3/31/2005						0	76.6	0.0158	0.497		0.068	0.0928	0.071	0.195	230	0.031	5.05
TP-2	3/31/2005	0	0	0	0	0	0.3											
TP-5	3/31/2005	0	0	0	0	0	4.6	0	0	0.152		0	0	0	0.0028	0.187	0	0.423
TP-6	3/31/2005	0	0	0	0	0	10.3	0	0	0.142		0	0	0.0037	0.0156	0.448	0	1.2
TP-7	3/31/2005	0	13.1	0	0	0	0.6	0	0	0.082		0	0	0	0	0.262	0	1.09
TP-11	4/1/2005	6.95	0	0	6.69	0	0.9											
TP-3	4/1/2005	0	0	0	0	0	3.2	0	0	0.121		0.0026	0	0.0249	0.0268	1.9	0	2.32
SBHT-6	9/13/2005						100000											
HT-10	9/19/2005	3.4	51.1	0	0	0											0	
HT-11	9/19/2005	0	0	0	0	0											0.02	
HT-9	9/19/2005	0	15.6	0	0	0											0	
MW pp-4	9/19/2005	0	0	0	0	0												
MW-12	9/19/2005	37.2	428	410	41.2	15.4	172000										0	
MW-13	9/19/2005	15.7	25.6	0	6.69	4.8											0	
MW-14	9/19/2005	0	0	0	0	0											0.014	
HT-8	9/22/2005																0	
MW pp-4	9/22/2005								0	4.34		0	1.3	0.872	2.53	3420	0	29.5
JCO-HT	6/29/2006	0		0	0	0	0											
JCO-LS	6/29/2006						0	0	0		0					0	0	0.022
JCO-NE	6/29/2006						0	0.23	0		0					0	0.037	0.17
JCO-SS	6/29/2006																	

Table 1. Groundwater Quality Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	Mercury (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Thallium (mg/L)	Tin (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Cyanide (mg/L)
VGES		0.002	0.10	0.05	0.10	0.002			5.00	0.20
MW-10A	Jun-88									
MW-4	Jun-88									
MW-5	Jun-88									
MW-6	Jun-88									
MW-7	Jun-88									
MW-7A	Jun-88									
MW-7B	Jun-88									
MW-8	Jun-88									
MW-9	Jun-88									
MW-10A	May-89									
MW-4	May-89									
MW-5	May-89									
MW-6	May-89									
MW-7	May-89									
MW-7A	May-89									
MW-7B	May-89									
MW-8	May-89									
MW-9	May-89									
MW-10A	Jun-94									
MW-4	Jun-94									
MW-5	Jun-94									
MW-6	Jun-94									
MW-7	Jun-94									
MW-7A	Jun-94									
MW-7B	Jun-94									
MW-8	Jun-94									
MW-9	Jun-94									
MW-CSO	Mar-00									
MW-10A	Aug-00									
MW-4	Aug-00									
MW-5	Aug-00									
MW-6	Aug-00									
MW-7	Aug-00									
MW-7A	Aug-00									
MW-7B	Aug-00									
MW-8	Aug-00									
MW-9	Aug-00									
MW-CSO	Aug-00									
MW-10A	9/18/2003		0.073				0	0.095	0.364	
MW-13	9/18/2003		0.023				0	0.061	1.31	
MW-4	9/18/2003		0				0	0.091	0.343	
MW-5	9/18/2003		0				0	0	0.131	

Table 1. Groundwater Quality Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Date	Mercury (mg/L)	Nickel (mg/L)	Selenium (mg/L)	Silver (mg/L)	Thallium (mg/L)	Tin (mg/L)	Vanadium (mg/L)	Zinc (mg/L)	Cyanide (mg/L)
VGES		0.002	0.10	0.05	0.10	0.002			5.00	0.20
MW-6	9/18/2003		0				0	0	0.244	
MW-6D	9/18/2003		0				0	0	0.036	
MW-7	9/18/2003		0.025				0	0.06	0.236	
MW-7A	9/18/2003									
MW-7D	9/18/2003		0				0	0	0	
MW-8	9/18/2003		0				0	0	0.126	
MW-8D	9/18/2003		0				0	0	0	
MW-9	9/18/2003		0				0	0	0.096	
MW-CSO	9/18/2003		0				0	0	0	
HT-1	3/31/2005		0				0	0	0	0
HT-2	3/31/2005		0				0	0	0	0
HT-3	3/31/2005		0				0	0	0	0.0413
HT-4	3/31/2005		0.0101				0	0.0113	0	0
HT-5	3/31/2005		0.0074				0	0.007	0	0
HT-6	3/31/2005		0.014				0	0.0124	0	0.0124
HT-7	3/31/2005									0.119
MW-7	3/31/2005									0
MW-9	3/31/2005		0				0	0	0	0
MW-95-1	3/31/2005									
SB-PP-1	3/31/2005		0.0594				0	0.0516	0.13	
SB-PP-2	3/31/2005		0.14				0	0.116	0.318	
TP-2	3/31/2005									
TP-5	3/31/2005		0.0034				0	0.0046	0	
TP-6	3/31/2005		0.013				0	0	0	
TP-7	3/31/2005		0				0	0	0	
TP-11	4/1/2005									
TP-3	4/1/2005		0.118				0	0	0.868	
SBHT-6	9/13/2005									
HT-10	9/19/2005									
HT-11	9/19/2005									
HT-9	9/19/2005									
MW pp-4	9/19/2005									
MW-12	9/19/2005									
MW-13	9/19/2005									
MW-14	9/19/2005									
HT-8	9/22/2005									
MW pp-4	9/22/2005		1.8				0	2.01	3.04	
JCO-HT	6/29/2006									
JCO-LS	6/29/2006	0		0	0	0				
JCO-NE	6/29/2006	0		0	0	0				
JCO-SS	6/29/2006									

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	x	y	Benzene	Toluene	Ethylbenzene	Xylenes, total	Total BTEX	n-Propylbenzene	n-Butylbenzene	sec-Butylbenzene	Cumene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride
Indust PRG					1400	520000	400000	420000		240000	240000	220000	2300000	170000	70000	750
			(m)	(m)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
73908		11/9/1988	502355.2	87691.99						400	1800	1000	100			
73909		11/9/1988	502341.47	87740.76												
SS-1(GP)	subslab	9/5/2000	502308.81	87583.12	0	0	0	0	0	0	0	0	0	0	0	0
SS-2 (SR)	subslab	9/5/2000	502322.96	87711.3	0	0	0	0	0	0	0	0	0	0	0	0
SS-3 (HT)	subslab	9/5/2000	502273.64	87664.27	0	0	0	0	0	0	0	0	0	0	0	0
SB-6D	21-22'	8/13/2003	502365.38	87611.4	0	0	0	0	0		0	0	0	0	0	0
SB-7D	14-16'	8/13/2003	502357.36	87689.99	0	0	0	0			15	42.3	20.1	0	0	0
SB-8D	20-22'	8/13/2003	502353.21	87736.31	0	0	0	0	0		0	0	0	0	0	0
Chip Shed	0-1'	11/11/2004	502350.39	87688.71	0	0	0	0	0	0	0	0	0	0	0	0
SBHT-1	0-2'	3/14/2005	502272.82	87669.96												
SBHT-1	14-16'	3/14/2005	502272.82	87669.96	0	0	1990	0	1990	1050	1510	1290	1160	2230	0	0
SBHT-2	0-2'	3/14/2005	502269.83	87673.53												
SBHT-2	14-16'	3/14/2005	502269.83	87673.53	0	0	6460	5460	11920	2160	2030	1770	1940	10300	3520	0
SB-PP-1	8-10'	3/14/2005	502294.17	87582.17												
SB-PP-2	6-8'	3/14/2005	502296.46	87578.67												
TP-1	4-5'	3/14/2005	502370.95	87708												
TP-2	15-17'	3/14/2005	502328.41	87766.27	0	0	0	0	0	0	0	0	0	0	0	0
TP-2	6-8'	3/14/2005	502328.41	87766.27												
TP-4	4'	3/14/2005	502356	87689.3												
TP-4	8'	3/14/2005	502356	87689.3	0	243	307	307	857	618	763	537	515	511	0	
TP-4	13'	3/14/2005	502356	87689.3	40.2	49.9	46.6	102.4	239.1	91	104	72	83	103	29.6	
TP-6	2'	3/14/2005	502375.61	87655.07	463	1020	5670	496000	503153	2490	3680	2580	1430	35700	11600	
TP-6	12'	3/14/2005	502375.61	87655.07												
TP-7	12'	3/14/2005	502357.27	87641.56												
SBHT-3	2-4'	3/15/2005	502266.91	87681.48												
SBHT-3	4-6'	3/15/2005	502266.91	87681.48												
SBHT-3	14-16'	3/15/2005	502266.91	87681.48	0	0	1750	1265	3015	560	844	568	628	2100	758	0
SBHT-4	2-4'	3/15/2005	502267.3	87663.68												
SBHT-4	14-16'	3/15/2005	502267.3	87663.68	322	53.5	1490	1407	3272.5	98.2	0	0	58.7	565	224	0
SBHT-5	2-4'	3/15/2005	502265.75	87667.22												
SBHT-5	14-16'	3/15/2005	502265.75	87667.22	0	0	225	424.8	649.8	0	0	0	0	32.6	0	0
SBHT-6	0-2'	3/15/2005	502263.32	87674.62												
SBHT-6	2-4'	3/15/2005	502263.32	87674.62												
SBHT-6	14-16'	3/15/2005	502263.32	87674.62	0	0	24.3	0	24.3	0	0	0	0	32.5	0	0
SBHT-7	14-16'	3/15/2005	502284.7	87670.27	0	0	832	303	1135	856	1440	899	865	2680	1390	0
TP-11	7-8'	3/15/2005	502257.93	87657.16	0	0	86.8	102.8	189.6	26.8	61.6	0	0	334	64.3	
RAG-2	5'	9/7/2005	502380.67	87656.05	0	0	0	0	0					0	0	0
RAG-3	4-5'	9/7/2005	502381.02	87660.75	0	0	0	0	0					0	0	0
RAG-4	4-5'	9/7/2005	502374.47	87666.42	0	0	0	0	0					0	0	0
RAG-5	5'	9/7/2005	502372.1	87658.78	0	0	0	0	0					0	0	0
RAG-6	4'	9/7/2005	502378.49	87646.87	0	0	0	0	0					0	0	0
SBHT-10	15-18'	9/7/2005	502324.34	87661.36	0	0	0	0	0					0	0	0
SBHT-10	18-21'	9/7/2005	502324.34	87661.36	0	0	0	0	0					0	0	0
SBHT-11	15-18'	9/7/2005	502323.99	87696.75	0	0	0	0	0					0	0	0

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	x	y	Benzene	Toluene	Ethylbenzene	Xylenes, total	Total BTEX	n-Propylbenzene	n-Butylbenzene	sec-Butylbenzene	Cumene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride
Indust PRG					1400	520000	400000	420000		240000	240000	220000	2300000	170000	70000	750
			(m)	(m)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SBHT-11	18-21'	9/7/2005	502323.99	87696.75	0	0	0	0	0					0	0	0
SBHT-12	8-10'	9/7/2005	502246.78	87670.61	0	0	900	1288	2188					3900	1430	0
SBHT-13	6-8'	9/7/2005	502250.46	87655.43	0	0	0	0	0					0	0	0
SBHT-14	10-12'	9/7/2005	502254.85	87640.67	0	0	0	0	0					0	0	0
SBHT-8	14-16'	9/7/2005	502309.51	87651.95	0	0	0	0	0					0	0	0
SBHT-9	6-9'	9/7/2005	502278.97	87649.4	0	0	0	0	0					0	0	0
SBHT-9	12-15'	9/7/2005	502278.97	87649.4	0	0	0	0	0					0	0	0
Transf	0-2"	9/7/2005	502360.42	87787.88	0	0	0	0	0					0	0	0
Transf	2"	9/7/2005	502346.72	87722.87												
A1	0-3"	9/13/2005	502419.47	87111.72												
B4	6-12"	9/13/2005	502396.83	87099.45												
B5	0-3"	9/13/2005	502389.83	87097.76												
Backgrnd1	0-6"	9/13/2005	502268.65	87897.06												
Backgrnd2	0-6"	9/13/2005														
SB PP-4	2-4'	9/13/2005	502293.2	87564.82	0	0	0	0	0					0	0	0
A3	0.5-1.5'	6/6/2006	502403.16	87107.64												
A5	.5-1.5'	6/6/2006	502387.48	87103.72												
C3	0-0.5'	6/6/2006	502407.08	87096.67												
M10-BP	Surficial	6/6/2006	502348.55	87859.68												
BP-5	Surficial	6/15/2006	502365.26	87711.32	0	0	0	0	0	0	0	0	0	0	0	0
BP-8	Surficial	6/15/2006	502357.1	87806.75												
CS-15	6"-4'	6/15/2006	502368.92	87684.91												
CS-3	0-0.5'	6/15/2006	502347.79	87690.12												
CS-4	0.5'-2'	6/15/2006	502346.56	87684.65												
CS-4	12"-16"	6/15/2006	502346.56	87684.65												
GS-1	Surficial	6/15/2006	502387.42	87640.03												
LF-E	6"-12"	6/15/2006	502414.92	87106.86	0	0	0	0	0	0	0	0	0	0	0	0
LF-W	6"-12"	6/15/2006	502395.79	87095.26	0	0	0	0	0	0	0	0	0	0	0	0
SW-1	11'	6/15/2006	502368.94	87669.95	0	0	0	0	0	0	0	0	0	0	0	0
SW-4	16"-18"	6/15/2006	502375.56	87663.01	0	420	450	3000	3870	300	990	490	220	4600	2200	0
SW-4	0.5'-2'	6/15/2006	502375.56	87663.01												
SW-4	3-6'	6/15/2006	502375.56	87663.01												
SW-5	0-0.5'	6/15/2006	502368.94	87657.18												
SW-5	6'-9'	6/15/2006	502368.94	87657.18												
SW-6	6'-4'	6/15/2006	502369.53	87652.51												
SW-7	12"-14"	6/15/2006	502369.53	87647.64	0	0	0	0	0	0	0	0	0	0	0	0
SW-8	12'-15'	6/15/2006	502375.62	87647.64												
CS-10	0.5'-2'	6/16/2006	502361.46	87695.66												
CS-12	0.5'-2'	6/16/2006	502361.3	87684.91												
CS-5	3'-6'	6/16/2006	502356.27	87684.91												
CS-7	9'-12'	6/16/2006	502354.3	87695.66												
CS-9	6'-4'	6/16/2006	502361.46	87703.58												

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	PCE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	Chloroethane	1,1-DCE	1,1-DCA	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Chrysene
Indust PRG			1300	110	1200000	150000	230000	6500	1700000	1700000	190000	29000000		100000000	2100	210000
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
73908		11/9/1988												1300	800	700
73909		11/9/1988														
SS-1(GP)	subslab	9/5/2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SS-2 (SR)	subslab	9/5/2000	42.1	54.7	0	0	0	0	0	0	0	0	0	0	0	0
SS-3 (HT)	subslab	9/5/2000	0	131	0	0	0	0	0	0	0	0	0	0	0	0
SB-6D	21-22'	8/13/2003	0	0		0	0			0	0					
SB-7D	14-16'	8/13/2003	0	0		0	0			102	0					
SB-8D	20-22'	8/13/2003	0	0		0	0			0	0					
Chip Shed	0-1'	11/11/2004	210	0	0	0	0	0	0	0	0					
SBHT-1	0-2'	3/14/2005														
SBHT-1	14-16'	3/14/2005	0	0		0	0			0	19100	1790		1090	651	684
SBHT-2	0-2'	3/14/2005														
SBHT-2	14-16'	3/14/2005	0	0		0	0			0	57500	782		340	279	274
SB-PP-1	8-10'	3/14/2005														
SB-PP-2	6-8'	3/14/2005														
TP-1	4-5'	3/14/2005														
TP-2	15-17'	3/14/2005	0		0	0			0	0	0	0		0	0	0
TP-2	6-8'	3/14/2005										0		69.8	0	88.4
TP-4	4'	3/14/2005														
TP-4	8'	3/14/2005	281		0	0			0	4550	814	1560		2290	1370	1850
TP-4	13'	3/14/2005	0		99	69			33	3790	411	1060		2170	924	1290
TP-6	2'	3/14/2005	0		0	0			0	0	6160	618		939	1510	3400
TP-6	12'	3/14/2005														
TP-7	12'	3/14/2005														
SBHT-3	2-4'	3/15/2005														
SBHT-3	4-6'	3/15/2005														
SBHT-3	14-16'	3/15/2005	0	0		0	0			0	18800	23200		550000	21300	87900
SBHT-4	2-4'	3/15/2005														
SBHT-4	14-16'	3/15/2005	0	960		5580	2150			64.9	8780	618		272	94.7	93
SBHT-5	2-4'	3/15/2005														
SBHT-5	14-16'	3/15/2005	0	0		0	0			0	209	0		105	0	0
SBHT-6	0-2'	3/15/2005														
SBHT-6	2-4'	3/15/2005														
SBHT-6	14-16'	3/15/2005	0	0		0	0			0	232	80		81.5	0	0
SBHT-7	14-16'	3/15/2005	0	0		0	0			0	6970	0		217	161	164
TP-11	7-8'	3/15/2005	43.9		0	0			0	0	555					
RAG-2	5'	9/7/2005	0	614		0	0			0	0	0	84.7	40.7	154	156
RAG-3	4-5'	9/7/2005	0	881		0	0			0	0	6.43	45.6	37.9	195	197
RAG-4	4-5'	9/7/2005	283	2110		0	0			0	0	51.1	75.9	142	293	311
RAG-5	5'	9/7/2005	0	0		0	0			0	0	0	0	0	9	0
RAG-6	4'	9/7/2005	0	17801		0	0			0	0	88	81.3	326	796	782
SBHT-10	15-18'	9/7/2005	0	0		0	0			0	0	0	0	0	8.03	0
SBHT-10	18-21'	9/7/2005	0	0		0	0			0	0	13.9	0	0	7.71	0
SBHT-11	15-18'	9/7/2005	0	0		0	0			0	0	0	0	0	8.26	0

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	PCE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	Chloroethane	1,1-DCE	1,1-DCA	Naphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Chrysene
Indust PRG			1300	110	1200000	150000	230000	6500	1700000	1700000	190000	29000000		100000000	2100	210000
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SBHT-11	18-21'	9/7/2005	0	0	0	0	0	0	0	0	0	0	0	0	8.71	0
SBHT-12	8-10'	9/7/2005	0	0	0	0	0	0	0	0	40100	9020	834	4500	2580	2320
SBHT-13	6-8'	9/7/2005	0	0	0	0	0	0	0	0	0	164	2820	936	3040	3090
SBHT-14	10-12'	9/7/2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SBHT-8	14-16'	9/7/2005	0	0	0	0	0	0	0	0	0	12.7	0	0	10.9	0
SBHT-9	6-9'	9/7/2005	0	0	0	0	0	0	0	0	0	0	0	0	11.3	0
SBHT-9	12-15'	9/7/2005	0	0	0	0	0	0	0	0	0	504	160	210	162	104
Trans Stain	0-2"	9/7/2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transf	2"	9/7/2005														
A1	0-3"	9/13/2005														
B4	6-12"	9/13/2005														
B5	0-3"	9/13/2005														
Backgrnd1	0-6"	9/13/2005														
Backgrnd2	0-6"	9/13/2005														
SB PP-4	2-4'	9/13/2005	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A3	0.5-1.5'	6/6/2006														
A5	.5-1.5'	6/6/2006														
C3	0-0.5'	6/6/2006														
M10-BP	Surficial	6/6/2006														
BP-5	Surficial	6/15/2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BP-8	Surficial	6/15/2006														
CS-15	6"-4'	6/15/2006														
CS-3	0-0.5'	6/15/2006														
CS-4	0.5'-2'	6/15/2006														
CS-4	12"-16"	6/15/2006									0	0	0	2000	8000	11000
GS-1	Surficial	6/15/2006														
LF-E	6"-12"	6/15/2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LF-W	6"-12"	6/15/2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SW-1	11'	6/15/2006	0	90	0	70	0	0	0	0	0	0	0	0	0	0
SW-4	16"-18"	6/15/2006	0	100	0	0	0	0	0	0	0	0	0	0	0	0
SW-4	0.5'-2'	6/15/2006														
SW-4	3-6'	6/15/2006									0	0	0	0	0	0
SW-5	0-0.5'	6/15/2006														
SW-5	6'-9'	6/15/2006														
SW-6	6"-4'	6/15/2006									0	0	0	0	400	400
SW-7	12"-14"	6/15/2006	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SW-8	12'-15'	6/15/2006														
CS-10	0.5'-2'	6/16/2006														
CS-12	0.5'-2'	6/16/2006														
CS-5	3'-6'	6/16/2006														
CS-7	9'-12'	6/16/2006														
CS-9	6"-4'	6/16/2006														

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(g,h,i)perylene	Fluoranthene	Fluorene	1-methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	TPH	Aluminum	Antimony	Arsenic
Indust PRG			2100	21000	210		22000000	26000000				29000000		100000	410	1.6
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
73908		11/9/1988	500	500	500		2400				6100	2400	5300			
73909		11/9/1988														
SS-1(GP)	subslab	9/5/2000	0	0	0	0	0	0	0	0	0	0				2.13
SS-2 (SR)	subslab	9/5/2000	0	0	0	0	0	0	0	0	0	0				2.05
SS-3 (HT)	subslab	9/5/2000	0	0	0	0	0	0	0	0	0	0				3.66
SB-6D	21-22'	8/13/2003												11800		0
SB-7D	14-16'	8/13/2003												4480		0
SB-8D	20-22'	8/13/2003												10500		0
Chip Shed	0-1'	11/11/2004											42200			4.56
SBHT-1	0-2'	3/14/2005												10000		2.63
SBHT-1	14-16'	3/14/2005	253	241	410	152	1550	2940	21600	1280	6450	1850		3500		2.22
SBHT-2	0-2'	3/14/2005												6940		3.14
SBHT-2	14-16'	3/14/2005	0	105	150	0	597	2450	15600	9710	3310	662		4590		1.52
SB-PP-1	8-10'	3/14/2005											0	10600		2.01
SB-PP-2	6-8'	3/14/2005											0	12900		2.54
TP-1	4-5'	3/14/2005														
TP-2	15-17'	3/14/2005	0		0	0	0	0	0	0	0	0	3150	3150		1.62
TP-2	6-8'	3/14/2005	0		0	0	0	0	0	61.3	334	62.7	5860	5860		1.95
TP-4	4'	3/14/2005											839	839		3.25
TP-4	8'	3/14/2005	0		0	0	3170	5050	5080	256	9710	8600	5350	5350		16.3
TP-4	13'	3/14/2005	0		0	0	1820	2980	7300	5020	8060	5010	8230	8230		2.63
TP-6	2'	3/14/2005	0		0	0	1910	1860	3890	4820	9430	5180	1100	1100		0
TP-6	12'	3/14/2005														68.2
TP-7	12'	3/14/2005														1.68
SBHT-3	2-4'	3/15/2005														
SBHT-3	4-6'	3/15/2005												9760		5.81
SBHT-3	14-16'	3/15/2005	10700	9720	8870	2440	66100	83000	10600	21700	143000	29800		8130		0
SBHT-4	2-4'	3/15/2005												7840		2.37
SBHT-4	14-16'	3/15/2005	0	0	0	0	0	159	2070	581	287	0		6580		3.58
SBHT-5	2-4'	3/15/2005												11600		2.82
SBHT-5	14-16'	3/15/2005	0	0	0	0	67.6	65.9	0	0	190	0		7050		1.6
SBHT-6	0-2'	3/15/2005														
SBHT-6	2-4'	3/15/2005												7600		7.38
SBHT-6	14-16'	3/15/2005	0	0	0	0	0	0	145	59.4	133	0		5280		0
SBHT-7	14-16'	3/15/2005	0	0	81.3	0	346	1390	11400	13600	1970	348		5740		0
TP-11	7-8'	3/15/2005														3.41
RAG-2	5'	9/7/2005	170	59.6	163	188	245	10.2	0	0	119	247				0
RAG-3	4-5'	9/7/2005	246	87.4	207	193	396	10.9	0	0	194	370				0
RAG-4	4-5'	9/7/2005	423	136	317	388	736	60.7	20.7	20.7	623	681				0
RAG-5	5'	9/7/2005	0	0	0	0	0	0	0	0	0	0				0
RAG-6	4'	9/7/2005	828	275	732	571	1900	101	20.8	18.8	1490	1630				0
SBHT-10	15-18'	9/7/2005	0	0	0	0	0	0	0	0	0	0				
SBHT-10	18-21'	9/7/2005	0	0	0	0	0	0	17	18.5	22.4	0				
SBHT-11	15-18'	9/7/2005	0	0	0	0	0	0	0	0	0	0				

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(g,h,i)perylene	Fluoranthene	Fluorene	1-methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Pyrene	TPH	Aluminum	Antimony	Arsenic
Indust PRG			2100	21000	210		22000000	26000000				29000000		100000	410	1.6
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SBHT-11	18-21'	9/7/2005	0	0	17.4	0	0	0	0	0	0	0				
SBHT-12	8-10'	9/7/2005	1370	461	1890	808	5760	4250	11600	3900	16300	9310	835			
SBHT-13	6-8'	9/7/2005	3330	1250	4510	3220	4840	328	57.3	126	607	6120	521			
SBHT-14	10-12'	9/7/2005	0	0	0	0	0	0	0	0	0	0				
SBHT-8	14-16'	9/7/2005	0	0	0	0	0	0	0	0	0	0				
SBHT-9	6-9'	9/7/2005	0	0	0	0	0	0	0	0	0	0				
SBHT-9	12-15'	9/7/2005	103	30.2	178	42.5	363	679	661	42.5	905	293	2180			
Trans Stain	0-2"	9/7/2005														
Transf	2"	9/7/2005														
A1	0-3"	9/13/2005											2380			
B4	6-12"	9/13/2005											2740			
B5	0-3"	9/13/2005											2380			
Backgrnd1	0-6"	9/13/2005														5.28
Backgrnd2	0-6"	9/13/2005														0
SB PP-4	2-4'	9/13/2005												6890		0
A3	0.5-1.5'	6/6/2006												11,000	0	2.4
A5	.5-1.5'	6/6/2006												8,200	0	2.1
C3	0-0.5'	6/6/2006												6,800	0	2.7
M10-BP	Surficial	6/6/2006												5,100	0	2.4
BP-5	Surficial	6/15/2006											320			
BP-8	Surficial	6/15/2006											120			
CS-15	6"-4'	6/15/2006											210			
CS-3	0-0.5'	6/15/2006												5,700	0	6.9
CS-4	0.5'-2'	6/15/2006												5,600	0	1.7
CS-4	12"-16"	6/15/2006	12000	4000	8000	2000	17000	0		0	9000	25000				
GS-1	Surficial	6/15/2006											290	3,600	1.7	21
LF-E	6"-12"	6/15/2006														
LF-W	6"-12"	6/15/2006														
SW-1	11'	6/15/2006														
SW-4	16"-18"	6/15/2006														
SW-4	0.5'-2'	6/15/2006												4,700	0.5	7.3
SW-4	3-6'	6/15/2006	0	0	0	0	300	0		0	0	200				
SW-5	0-0.5'	6/15/2006												5,400	0	3.7
SW-5	6'-9'	6/15/2006												1,900	0	4.3
SW-6	6'-4'	6/15/2006	500	0	400	200	700	0		0	400	500				
SW-7	12"-14"	6/15/2006														
SW-8	12'-15'	6/15/2006												5,900	0	2.3
CS-10	0.5'-2'	6/16/2006												7,100	0	5.4
CS-12	0.5'-2'	6/16/2006												6,000	0	8.1
CS-5	3'-6'	6/16/2006											3200			
CS-7	9'-12'	6/16/2006											2600			
CS-9	6'-4'	6/16/2006											100			

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium
Indust PRG			67000	1900	450	450	1900	41000	100000	800	19000	310	20000	5100	5100	67
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)
73908		11/9/1988														
73909		11/9/1988														
SS-1(GP)	subslab	9/5/2000			0	6.55		10.5		6.16			10.4			
SS-2 (SR)	subslab	9/5/2000			0	8.1		8.97		8.34			13.2			
SS-3 (HT)	subslab	9/5/2000			0.56	7.78		49.4		2160			12.3			
SB-6D	21-22'	8/13/2003	37		0	9.61	6.41	13	20900	3.54	395		12.1			
SB-7D	14-16'	8/13/2003	18.1		0	6.54	3.24	13.9	8050	3.87	88.6		8.54			
SB-8D	20-22'	8/13/2003	49		0	13.9	8.68	13.2	17900	4.55	556		16.1			
Chip Shed	0-1'	11/11/2004	26		0.875	10.9				70.3						
SBHT-1	0-2'	3/14/2005	162		0.19	18.8	8.25	32.5	21400	281	16.1		351			
SBHT-1	14-16'	3/14/2005	8.26		0	5.42	3.49	6.74	7680	71.3	6.24		1.73			
SBHT-2	0-2'	3/14/2005	55.7		0.158	12.5	6.38	20.2	17000	213	14.9		36.3			
SBHT-2	14-16'	3/14/2005	14.1		0.0646	6.5	4.33	5.26	9130	81.9	6.66		3.43			
SB-PP-1	8-10'	3/14/2005	45.1		0.196	13.1	9.76	19.3	22100	7.18	414		17			
SB-PP-2	6-8'	3/14/2005	49.2		0.213	16.7	12	21.4	24500	6.89	366		21.3			
TP-1	4-5'	3/14/2005														
TP-2	15-17'	3/14/2005	90.4		0.14	9.5	5.32	10.5	7810	3.81	6710		8.83			
TP-2	6-8'	3/14/2005	29		0.09	6.8	5.71	12.3	15600	15	258		9.19			
TP-4	4'	3/14/2005	199		0.29	30.7	9.91	76.8	57400	68.9	326		29.2			
TP-4	8'	3/14/2005	23		0.22	8.38	5.11	24.1	12600	11.9	114		17			
TP-4	13'	3/14/2005	28		0.1	22	7.21	16.3	20000	6.02	138		19.9			
TP-6	2'	3/14/2005	182		3.47	1820	74.9	3770	554000	560	3730		1050			
TP-6	12'	3/14/2005	13.5		0.08	9.66	4.33	14.4	13600	7.92	126		9.33			
TP-7	12'	3/14/2005														
SBHT-3	2-4'	3/15/2005								90.2						
SBHT-3	4-6'	3/15/2005	40.9		0.226	23.4	10.6	53.6	36400	435	30.1		55.4			
SBHT-3	14-16'	3/15/2005	29.2		0	11.2	6.37	6.49	14100	118	10.7		4.95			
SBHT-4	2-4'	3/15/2005	30		0.116	10.2	7	14.4	16900	295	14		9.49			
SBHT-4	14-16'	3/15/2005	32.1		0.206	9.67	4.79	16.2	28200	689	8.42		10.9			
SBHT-5	2-4'	3/15/2005	79.8		0.198	15.4	10.6	28	23000	335	19.6		191			
SBHT-5	14-16'	3/15/2005	34.4		0.06	9.85	5.32	6.76	12000	96.6	8.69		4.63			
SBHT-6	0-2'	3/15/2005								47.5						
SBHT-6	2-4'	3/15/2005	644		0.37	41.9	11.7	77.3	40800	377	466		1150			
SBHT-6	14-16'	3/15/2005	20.7		0.1	8.24	4.59	4.91	8730	73.7	7.36		3.64			
SBHT-7	14-16'	3/15/2005	16.7		0.07	10.1	5.1	8.17	14400	104	11		3.71			
TP-11	7-8'	3/15/2005	19.3		0.34	9.51	6.26	19.5	11500	92.9	109		9.42			
RAG-2	5'	9/7/2005				6.15			7730	26.4	80.4					
RAG-3	4-5'	9/7/2005				8.5			9480	19.9	123					
RAG-4	4-5'	9/7/2005				8			11800	38.4	180					
RAG-5	5'	9/7/2005				12			4330	12.5	27.1					
RAG-6	4'	9/7/2005				10.6			13200	35.5	198					
SBHT-10	15-18'	9/7/2005								1.66						
SBHT-10	18-21'	9/7/2005								1.72						
SBHT-11	15-18'	9/7/2005								1.75						

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium
Indust PRG			67000	1900	450	450	1900	41000	100000	800	19000	310	20000	5100	5100	67
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)		(mg/kg)
SBHT-11	18-21'	9/7/2005								2.58						
SBHT-12	8-10'	9/7/2005								8.5						
SBHT-13	6-8'	9/7/2005								2.71						
SBHT-14	10-12'	9/7/2005								3.92						
SBHT-8	14-16'	9/7/2005								4.15						
SBHT-9	6-9'	9/7/2005								3.32						
SBHT-9	12-15'	9/7/2005								1.41						
Trans Stain	0-2"	9/7/2005														
Transf	2"	9/7/2005														
A1	0-3"	9/13/2005														
B4	6-12"	9/13/2005														
B5	0-3"	9/13/2005														
Backgrnd1	0-6"	9/13/2005														
Backgrnd2	0-6"	9/13/2005														
SB PP-4	2-4'	9/13/2005	39.1		0	9.78	7.17	17.6	18000	1.94	153		12.8			
A3	0.5-1.5'	6/6/2006		0					16,000	12	430	0.2		0	1.2	0
A5	.5-1.5'	6/6/2006		0					13,000	8.7	390	0		0	0	0
C3	0-0.5'	6/6/2006		0					17,000	36	380	1.7		0	3.4	0
M10-BP	Surficial	6/6/2006		0					11,000	12	310	0		0	0	0
BP-5	Surficial	6/15/2006														
BP-8	Surficial	6/15/2006														
CS-15	6"-4'	6/15/2006														
CS-3	0-0.5'	6/15/2006		0					12,000	89	220	0.2		0	0.6	0
CS-4	0.5'-2'	6/15/2006		0					10,000	26	230	0		0	0	0
CS-4	12"-16"	6/15/2006														
GS-1	Surficial	6/15/2006		0					290,000	160	2,800	0		0	2	0
LF-E	6"-12"	6/15/2006														
LF-W	6"-12"	6/15/2006														
SW-1	11'	6/15/2006														
SW-4	16"-18"	6/15/2006														
SW-4	0.5'-2'	6/15/2006		0					44,000	100	500	8.8		0	0	0
SW-4	3-6'	6/15/2006														
SW-5	0-0.5'	6/15/2006		0					15,000	31	380	0.9		0	0	0
SW-5	6'-9'	6/15/2006		0					9,500	23	240	0.5		0	0	0
SW-6	6"-4'	6/15/2006														
SW-7	12"-14"	6/15/2006														
SW-8	12'-15'	6/15/2006		0					12,000	30	220	0.2		0	0	0
CS-10	0.5'-2'	6/16/2006		0					13,000	28	290	0		0	0	0
CS-12	0.5'-2'	6/16/2006		0					19,000	61	390	0.3		0	0	0
CS-5	3'-6'	6/16/2006														
CS-7	9'-12'	6/16/2006														
CS-9	6"-4'	6/16/2006														

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	Tin	Vanadium	Zinc	Cyanide
Indust PRG			100000	1000	100000	12000
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
73908		11/9/1988				
73909		11/9/1988				
SS-1(GP)	subslab	9/5/2000			28.8	
SS-2 (SR)	subslab	9/5/2000			55.1	
SS-3 (HT)	subslab	9/5/2000			166	50
SB-6D	21-22'	8/13/2003	0	20	31	
SB-7D	14-16'	8/13/2003	0	10.9	18.7	
SB-8D	20-22'	8/13/2003	0	24.8	41.5	
Chip Shed	0-1'	11/11/2004				
SBHT-1	0-2'	3/14/2005	3.86	23.2	96.1	1.2
SBHT-1	14-16'	3/14/2005	2.92	7.04	18.9	
SBHT-2	0-2'	3/14/2005	3.2	15.3	45.5	0
SBHT-2	14-16'	3/14/2005	2.83	9	27.7	
SB-PP-1	8-10'	3/14/2005	3.24	17.2	48.5	
SB-PP-2	6-8'	3/14/2005	4.34	21.2	59.4	
TP-1	4-5'	3/14/2005				
TP-2	15-17'	3/14/2005	2.83	6.8	22.3	
TP-2	6-8'	3/14/2005	3.3	11.4	35.1	
TP-4	4'	3/14/2005	8.68	32	87	
TP-4	8'	3/14/2005	4.06	31.1	61.5	
TP-4	13'	3/14/2005	3.63	18.2	60.6	
TP-6	2'	3/14/2005	196	446	488	
TP-6	12'	3/14/2005	3.38	9.29	26.4	
TP-7	12'	3/14/2005				
SBHT-3	2-4'	3/15/2005				0
SBHT-3	4-6'	3/15/2005	5.71	21.3	55.7	0.99
SBHT-3	14-16'	3/15/2005	3.57	13.5	47.2	
SBHT-4	2-4'	3/15/2005	2.73	12.7	36.4	0
SBHT-4	14-16'	3/15/2005	3.41	13	40	
SBHT-5	2-4'	3/15/2005	3.67	18.8	65.3	6.94
SBHT-5	14-16'	3/15/2005	3.1	11.4	47.4	
SBHT-6	0-2'	3/15/2005				0
SBHT-6	2-4'	3/15/2005	8.53	19.2	79.5	11.2
SBHT-6	14-16'	3/15/2005	2.93	9.01	29.6	
SBHT-7	14-16'	3/15/2005	3.47	22.9	27.5	0
TP-11	7-8'	3/15/2005	9.88	19.1	46.5	
RAG-2	5'	9/7/2005		7.69		
RAG-3	4-5'	9/7/2005		9.35		
RAG-4	4-5'	9/7/2005		8.76		
RAG-5	5'	9/7/2005		3.26		
RAG-6	4'	9/7/2005		12.6		
SBHT-10	15-18'	9/7/2005				
SBHT-10	18-21'	9/7/2005				
SBHT-11	15-18'	9/7/2005				

Table 2. Soil Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

	Depth	Date	Tin	Vanadium	Zinc	Cyanide
Indust PRG			100000	1000	100000	12000
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SBHT-11	18-21'	9/7/2005				
SBHT-12	8-10'	9/7/2005				
SBHT-13	6-8'	9/7/2005				
SBHT-14	10-12'	9/7/2005				
SBHT-8	14-16'	9/7/2005				
SBHT-9	6-9'	9/7/2005				
SBHT-9	12-15'	9/7/2005				
Trans Stain	0-2"	9/7/2005				
Transf	2"	9/7/2005				
A1	0-3"	9/13/2005				
B4	6-12"	9/13/2005				
B5	0-3"	9/13/2005				
Backgrnd1	0-6"	9/13/2005				
Backgrnd2	0-6"	9/13/2005				
SB PP-4	2-4'	9/13/2005	0	13.2	36.8	
A3	0.5-1.5'	6/6/2006				
A5	.5-1.5'	6/6/2006				
C3	0-0.5'	6/6/2006				
M10-BP	Surficial	6/6/2006				
BP-5	Surficial	6/15/2006				
BP-8	Surficial	6/15/2006				
CS-15	6"-4'	6/15/2006				
CS-3	0-0.5'	6/15/2006				
CS-4	0.5'-2'	6/15/2006				
CS-4	12"-16"	6/15/2006				
GS-1	Surficial	6/15/2006				
LF-E	6"-12"	6/15/2006				
LF-W	6"-12"	6/15/2006				
SW-1	11'	6/15/2006				
SW-4	16"-18"	6/15/2006				
SW-4	0.5'-2'	6/15/2006				
SW-4	3-6'	6/15/2006				
SW-5	0-0.5'	6/15/2006				
SW-5	6'-9'	6/15/2006				
SW-6	6"-4'	6/15/2006				
SW-7	12"-14"	6/15/2006				
SW-8	12'-15'	6/15/2006				
CS-10	0.5'-2'	6/16/2006				
CS-12	0.5'-2'	6/16/2006				
CS-5	3'-6'	6/16/2006				
CS-7	9'-12'	6/16/2006				
CS-9	6"-4'	6/16/2006				

Table 3. Miscellaneous Data Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	x (m)	y (m)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenz ene (ug/kg)	Xylenes, total (ug/kg)	Total BTEX (ug/kg)	Chloroform (ug/kg)	2- Butanone (MEK) (ug/kg)	n- Propylben zene (ug/kg)	n- Butylbenz ene (ug/kg)	sec- Butylbenz ene (ug/kg)
Sludge														
73907	Disch pipe	11/9/1988	502390.58	87716.135										
Grinding-1	sludge	9/19/2005	502339.58	87611.52										
Sediment					(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
73905	River	11/9/1988	502395.41	87716.135										
RB-1	south dc pipe	9/5/2003			0	0	0	0	0	0		0	0	0
CB-1	beside catch ba	9/5/2003			0	0	0	0	0	0		0	0	0
TP-11	pipe	3/15/2005	502255.01	87644.27										
Breakout1	0-6"	10/13/2004	502388.94	87637.18										
Breakout1	0-6"	11/11/2004	502388.94	87637.18										
Breakout1	6-12"	3/31/2005	502388.94	87637.18										
Upstream	0-3"	9/13/2005	502329.41	87914.09										
Upstream	10-12"	9/13/2005	502329.41	87914.09										
Midstream	0-3"	9/13/2005	502391.7	87721.449										
Midstream	5-10"	9/13/2005	502391.7	87721.449										
Downstream	0-3"	9/13/2005	502392.61	87435.482										
Downstream	5-10"	9/13/2005	502392.61	87435.482										
FD-21 B&C	Floor drain	9/13/2005	502312.40	87642.40	0	0	0	0	0	0		0	0	0
FD-21 F	Floor drain	9/13/2005	502317.52	87621.189	0	0	0	0	0	0		0	0	0
FD-13-B	Sump	6/20/2006	502317.82	87721.554										
FD-19-G	Sump	6/20/2006	502301.84	87702.066										
Water					(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VGES					5	1000	700	10000			4200			
73904	River	11/9/1988	502390.63	87719.31	0	0	0	0	0	0				
73906	Disch pipe	11/9/1988	502390.58	87716.135	0	0	0	0	0	1				
GS-2	South dc pipe	6/17/1988	502392.47	87593.973										
GS-3	North dc pipe	6/17/1988	502392.47	87592.009										
GS-4	Catch basin	6/17/1988	502326.87	87743.144										
RW-1	product	3/31/2005	502368.89	87676.634										
UST	product	3/31/2005	502338.72	87680.308										
Paint pit	container	9/13/2005	502288.70	87581.26	0	0	0	0	0			0		
HT-pit	container	9/13/2005	502259.52	87677.59	0	0	0	0	0			0		
Pit-South	pit contents	9/6/2006	502311.11	87565.44										

Table 3. Miscellaneous Data Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	Cumene (ug/kg)	1,2,4- Trimethylb enzene (ug/kg)	1,3,5- Trimethylb enzene (ug/kg)	Vinyl Chloride (ug/kg)	PCE (ug/kg)	TCE (ug/kg)	1,1,1- TCA (ug/kg)	cis-1,2- DCE (ug/kg)	trans-1,2- DCE (ug/kg)	Chloroeth ane (ug/kg)	1,1-DCE (ug/kg)	1,1-DCA (ug/kg)	Naphthale ne (ug/kg)
Sludge															
73907	Disch pipe	11/9/1988													
Grinding-1	sludge	9/19/2005													
Sediment			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
73905	River	11/9/1988													
RB-1	south dc pipe	9/5/2003	0	0	0	0	0	36.5	0	0	0	0	0	0	0
CB-1	beside catch ba	9/5/2003	0	0	0	0	24.3	62.1	76.4	0	0	0	0	0	0
TP-11	pipe	3/15/2005													
Breakout1	0-6"	10/13/2004													
Breakout1	0-6"	11/11/2004													
Breakout1	6-12"	3/31/2005													
Upstream	0-3"	9/13/2005													
Upstream	10-12"	9/13/2005													
Midstream	0-3"	9/13/2005													
Midstream	5-10"	9/13/2005													
Downstream	0-3"	9/13/2005													
Downstream	5-10"	9/13/2005													
FD-21 B&C	Floor drain	9/13/2005	0	845	1370		0	0		0					310
FD-21 F	Floor drain	9/13/2005	0	0	0		0	0		0					0
FD-13-B	Sump	6/20/2006													
FD-19-G	Sump	6/20/2006													
Water			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VGES				5	4	2	5	5		70	100				
73904	River	11/9/1988				0	0	0				0	0	0	
73906	Disch pipe	11/9/1988				0	0	0				0	0	0	
GS-2	South dc pipe	6/17/1988													
GS-3	North dc pipe	6/17/1988													
GS-4	Catch basin	6/17/1988													
RW-1	product	3/31/2005													
UST	product	3/31/2005													
Paint pit	container	9/13/2005	0	0	0	0	0	0		0					0
HT-pit	container	9/13/2005	0	0	0	0	0	0		0					0
Pit-South	pit contents	9/6/2006													

Table 3. Miscellaneous Data Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	Acenapht hene (ug/kg)	Acenapht hylene (ug/kg)	Anthracen e (ug/kg)	Benzo(a)a nthracene (ug/kg)	Chrysene (ug/kg)	Benzo(b)fl uoranthene (ug/kg)	Benzo(k)fl uoranthene (ug/kg)	Benzo(a)p yrene (ug/kg)	Benzo(g,h ,i)perylene (ug/kg)	Fluoranth ene (ug/kg)	Fluorene (ug/kg)	1- methylnap thalene (ug/kg)
Sludge														
73907	Disch pipe	11/9/1988												
Grinding-1	sludge	9/19/2005												
Sediment			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
73905	River	11/9/1988												
RB-1	south dc pipe	9/5/2003												
CB-1	beside catch ba	9/5/2003												
TP-11	pipe	3/15/2005												
Breakout1	0-6"	10/13/2004												
Breakout1	0-6"	11/11/2004												
Breakout1	6-12"	3/31/2005												
Upstream	0-3"	9/13/2005	58.2	85.8	178	617	455	905	233	998	424	1570	64.8	42.9
Upstream	10-12"	9/13/2005	0	18.1	30.1	142	96.5	168	85.3	224	75.8	233	9.47	0
Midstream	0-3"	9/13/2005	21.3	37.2	65.6	234	140	268	119	363	133	417	23	0
Midstream	5-10"	9/13/2005	30.6	125	0	393	306	299	117	454	197	559	184	17.9
Downstream	0-3"	9/13/2005	36.1	179	224	914	677	1430	400	1590	230	2480	62.7	28.2
Downstream	5-10"	9/13/2005	0	42.7	33.9	155	95.7	190	66.2	238	82.4	255	7.36	0
FD-21 B&C	Floor drain	9/13/2005	607	173	1300	5280	3280	5060	1680	5800	153	9030	1010	187
FD-21 F	Floor drain	9/13/2005	43.3	59	51.1	177	206	242	70.8	191	2060	380	250	51.1
FD-13-B	Sump	6/20/2006												
FD-19-G	Sump	6/20/2006												
Water			(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VGES					2100					0.2		280	280	
73904	River	11/9/1988												
73906	Disch pipe	11/9/1988												
GS-2	South dc pipe	6/17/1988												
GS-3	North dc pipe	6/17/1988												
GS-4	Catch basin	6/17/1988												
RW-1	product	3/31/2005												
UST	product	3/31/2005												
Paint pit	container	9/13/2005	0	0	3.95	0	0	0	0	0	0	0	0	0.25
HT-pit	container	9/13/2005	0	0	0.325	1.4	0.725	1.55	0.65	1.8	0.7	2.5	0	0
Pit-South	pit contents	9/6/2006												

Table 3. Miscellaneous Data Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	2-Methylnaphthalene (ug/kg)	Phenanthrene (ug/kg)	Pyrene (ug/kg)	TPH (mg/kg)	Aluminum (mg/kg)	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Cobalt (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Iron (mg/kg)
Sludge																
73907	Disch pipe	11/9/1988							0	0		0	0	0	2000	
Grinding-1	sludge	9/19/2005				6660										
Sediment																
73905	River	11/9/1988														
RB-1	south dc pipe	9/5/2003														
CB-1	beside catch ba	9/5/2003														
TP-11	pipe	3/15/2005														
Breakout1	0-6"	10/13/2004				979										
Breakout1	0-6"	11/11/2004				403			13.9					1090		
Breakout1	6-12"	3/31/2005					3840		0	29.5		0	5.54	23.4	85	16900
Upstream	0-3"	9/13/2005	48.6	905	985				0					10.7		
Upstream	10-12"	9/13/2005	0	102	214				0					20.5		
Midstream	0-3"	9/13/2005	0	166	285				0					7.82		
Midstream	5-10"	9/13/2005	12.8	0	506				2.33					24.5		
Downstream	0-3"	9/13/2005	21.9	843	1500				0					10.4		
Downstream	5-10"	9/13/2005	0	75.1	183				0					10.8		
FD-21 B&C	Floor drain	9/13/2005	224	5680	6650		12600		0	128		0	69	213	3100	267000
FD-21 F	Floor drain	9/13/2005	53.1	442	364		13800		0	902		0	14.6	137	744	297000
FD-13-B	Sump	6/20/2006					6,000	1.2	14		0					99,000
FD-19-G	Sump	6/20/2006				2600										
Water																
VGES																
73904	River	11/9/1988					0.2		0.01	2.00		0.01	0.10		1.30	0.30
73906	Disch pipe	11/9/1988														
GS-2	South dc pipe	6/17/1988				0										
GS-3	North dc pipe	6/17/1988				0										
GS-4	Catch basin	6/17/1988				18										
RW-1	product	3/31/2005														
UST	product	3/31/2005														
Paint pit	container	9/13/2005	0.325	3.05	0		17.1		0	4.87		0.0608	0.162	3.32	4.49	478
HT-pit	container	9/13/2005	0	0.9	1.48		0.394		0	0.0834		0	0.0038	0.0132	0.05	8.36
Pit-South	pit contents	9/6/2006												0.007		16

Table 3. Miscellaneous Data Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc	Cyanide
Sludge			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
73907	Disch pipe	11/9/1988	0	0		0				80	0	0	
Grinding-1	sludge	9/19/2005											
Sediment			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
73905	River	11/9/1988											
RB-1	south dc pipe	9/5/2003											
CB-1	beside catch ba	9/5/2003											
TP-11	pipe	3/15/2005											
Breakout1	0-6"	10/13/2004											
Breakout1	0-6"	11/11/2004	511										
Breakout1	6-12"	3/31/2005	29.2	103		17.6				6.9	19.4	47.3	
Upstream	0-3"	9/13/2005	17.7										
Upstream	10-12"	9/13/2005	61										
Midstream	0-3"	9/13/2005	16.1										
Midstream	5-10"	9/13/2005	102										
Downstream	0-3"	9/13/2005	15.8										
Downstream	5-10"	9/13/2005	13.2										
FD-21 B&C	Floor drain	9/13/2005	1280	1440		169				164	39	9590	
FD-21 F	Floor drain	9/13/2005	718	656		98.3				26.4	16.4	2930	
FD-13-B	Sump	6/20/2006	510	710	6.6		1.7	8.9	0				
FD-19-G	Sump	6/20/2006											
Water			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
VGES			0.015	0.84		0.10						5.00	0.20
73904	River	11/9/1988											
73906	Disch pipe	11/9/1988											
GS-2	South dc pipe	6/17/1988											
GS-3	North dc pipe	6/17/1988											
GS-4	Catch basin	6/17/1988											
RW-1	product	3/31/2005											
UST	product	3/31/2005											
Paint pit	container	9/13/2005	16	5.35		1.46				0.153	0.0792	5.58	
HT-pit	container	9/13/2005	0.0981	0.129		0.0712				0	0.0124	0.302	
Pit-South	pit contents	9/6/2006	0.05	0.21									

Table 3. Miscellaneous Data Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	x	y	Benzene (ppbv)	Toluene (ppbv)	Ethylbenz ene (ppbv)	Xylenes, total (ppbv)	Total BTEX (ppbv)	Chloroform (ppbv)	2- Butanone (MEK) (ppbv)	n- Propylben zene (ppbv)	n- Butylbenz ene (ppbv)	sec- Butylbenz ene (ppbv)
Air														
Background	Outdoor	8/8/2003	502356.4	87697.535	0	0	0	0	0	0	0			
COL-AH-29		8/8/2003	502311.01	87560.943	0	0	0	0	0	0	0			
COL-M-29		8/8/2003	502273.91	87733.923	0	8	0	0	8	0	0			
Soil Vapor					(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)
SV-1	1.5-2.5'	6/9/2006	502301.92	87577.193	5.8	34	5.2	25	70	3.5	13			
SV-2	1.5-2.5'	6/9/2006	502323.53	87602.785	0	0	0	0	0	0	620			
SV-3	1.5-2.5'	6/9/2006	502306.82	87636.909	0	0	0	0	0	0	0			
SV-4	1.5-2.5'	6/8/2006	502311.39	87670.879	0	0	0	0	0	0	0			
SV-5	1.5-2.5'	6/8/2006	502323.56	87697.855	0	75	0	0	75	0	0			
SV-6	1.5-2.5'	6/8/2006	502266.34	87689.903	0	340	0	0	340	0	0			
SV-7	1.5-2.5'	6/8/2006	502263.67	87670.363	0	0	0	0	0	0	0			
SV-8	1.5-2.5'	6/8/2006	502282.3	87653.789	0	0	0	0	0	0	0			
SV-11	2.5-3.5'	6/9/2006	502369.33	87690.94	48	130	17	61	256	0	0			
SV-12	2.5-3.5'	6/9/2006	502358.6	87694.82	15	60	10	40	125	0	38			
SV-14	1.5-2.5'	6/8/2006	502295.34	87723.742	13	49	0	0	62	0	0			
SV-15	1.5-2.5'	6/8/2006	502258.57	877029.11	26	150	0	74	250	0	0			
SV-16	1.5-2.5'	6/8/2006	502256.92	87760.893	29	250	28	130	437	0	16			
SV-17	1.5-2.5'	6/8/2006	502277.52	87774.736	42	340	29	150	561	0	14			
SV-18	1.5-2.5'	6/8/2006	502277.52	87790.55	25	170	13	65	273	4.7	13			
SV-19	1.5-2.5'	6/8/2006	502270.13	87809.11	28	200	200	78	506	0	10			
SV-20	1.5-2.5'	6/8/2006	502249.3	87782.198	32	260	260	110	662	0	12			
SV-21	1.5-2.5'	6/8/2006	502246.52	87814.337	32	260	260	110	662	0	18			
SV-22	1.5-2.5'	6/8/2006	502242.55	87854.662	77	450	450	180	1157	0	0			

Table 3. Miscellaneous Data Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	Cumene (ppbv)	1,2,4- Trimethylb enzene (ppbv)	1,3,5- Trimethylb enzene (ppbv)	Vinyl Chloride (ppbv)	PCE (ppbv)	TCE (ppbv)	1,1,1- TCA (ppbv)	cis-1,2- DCE (ppbv)	trans-1,2- DCE (ppbv)	Chloroeth ane (ppbv)	1,1-DCE (ppbv)	1,1-DCA	Naphthale ne
Air															
Background	Outdoor	8/8/2003		0	0	0	0	0	0	0	0	0	0		
COL-AH-29		8/8/2003		0	0	0	0	0	0	0	0	0	0		
COL-M-29		8/8/2003		0	0	0	0	0	0	0	0	0	0		
Soil Vapor			(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)	(ug/m3)
SV-1	1.5-2.5'	6/9/2006		0	0	0	320	320	200	6.7	0	0	0	0	6.3
SV-2	1.5-2.5'	6/9/2006		0	0	0	3200	70000	3300	110	0	0	0	0	0
SV-3	1.5-2.5'	6/9/2006		0	0	0	280	26000	190	380	150	0	0	0	0
SV-4	1.5-2.5'	6/8/2006		0	0	0	210000	170000	1300	21000	0	0	0	0	0
SV-5	1.5-2.5'	6/8/2006		0	0	0	26000	18000	330	1000	0	0	0	0	0
SV-6	1.5-2.5'	6/8/2006		0	0	0	3200	25000	650	0	0	0	0	0	0
SV-7	1.5-2.5'	6/8/2006		0	0	0	1200	3200	17000	0	0	0	0	0	0
SV-8	1.5-2.5'	6/8/2006		0	0	0	3500	26000	320	1200	0	0	0	0	0
SV-11	2.5-3.5'	6/9/2006		0	0	11	330	640	37	1300	6.3	0	6.7	0	26
SV-12	2.5-3.5'	6/9/2006		0	0	0	750	910	870	13	0	0	0	0	0
SV-14	1.5-2.5'	6/8/2006		0	0	0	3600	1300	240	0	0	0	0	0	0
SV-15	1.5-2.5'	6/8/2006		0	0	0	140	540	2200	0	0	0	0	0	0
SV-16	1.5-2.5'	6/8/2006		0	7.4	0	52	0	710	0	0	0	0	0	22
SV-17	1.5-2.5'	6/8/2006		0	7.9	0	12	0	33	0	0	0	0	0	11
SV-18	1.5-2.5'	6/8/2006		0	3.3	0	58	64	220	0	0	0	0	0	8.4
SV-19	1.5-2.5'	6/8/2006		0	3.6	0	14	26	76	0	0	0	0	0	4.7
SV-20	1.5-2.5'	6/8/2006		0	4.9	0	11	3.6	140	0	0	0	0	0	6.3
SV-21	1.5-2.5'	6/8/2006		0	5.4	0	10	0	8.7	0	0	0	0	0	5.2
SV-22	1.5-2.5'	6/8/2006		0	0	0	0	0	0	0	0	0	0	0	2800

Table 3. Miscellaneous Data Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	Acenapht hene	Acenapht hylene	Anthracen e	Benzo(a)a nthracene	Chrysene	Benzo(b)fl uoranthene	Benzo(k)fl uoranthene	Benzo(a)p yrene	Benzo(g,h ,i)perylene	Fluoranth ene	Fluorene	1- methylnap thalene
Air														
Background	Outdoor	8/8/2003												
COL-AH-29		8/8/2003												
COL-M-29		8/8/2003												
Soil Vapor														
SV-1	1.5-2.5'	6/9/2006												
SV-2	1.5-2.5'	6/9/2006												
SV-3	1.5-2.5'	6/9/2006												
SV-4	1.5-2.5'	6/8/2006												
SV-5	1.5-2.5'	6/8/2006												
SV-6	1.5-2.5'	6/8/2006												
SV-7	1.5-2.5'	6/8/2006												
SV-8	1.5-2.5'	6/8/2006												
SV-11	2.5-3.5'	6/9/2006												
SV-12	2.5-3.5'	6/9/2006												
SV-14	1.5-2.5'	6/8/2006												
SV-15	1.5-2.5'	6/8/2006												
SV-16	1.5-2.5'	6/8/2006												
SV-17	1.5-2.5'	6/8/2006												
SV-18	1.5-2.5'	6/8/2006												
SV-19	1.5-2.5'	6/8/2006												
SV-20	1.5-2.5'	6/8/2006												
SV-21	1.5-2.5'	6/8/2006												
SV-22	1.5-2.5'	6/8/2006												

Table 3. Miscellaneous Data Summary

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

		Date	2-Methylnaphthalene	Phenanthrene	Pyrene	TPH	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Iron
Air																
Background	Outdoor	8/8/2003														
COL-AH-29		8/8/2003														
COL-M-29		8/8/2003														
Soil Vapor																
SV-1	1.5-2.5'	6/9/2006														
SV-2	1.5-2.5'	6/9/2006														
SV-3	1.5-2.5'	6/9/2006														
SV-4	1.5-2.5'	6/8/2006														
SV-5	1.5-2.5'	6/8/2006														
SV-6	1.5-2.5'	6/8/2006														
SV-7	1.5-2.5'	6/8/2006														
SV-8	1.5-2.5'	6/8/2006														
SV-11	2.5-3.5'	6/9/2006														
SV-12	2.5-3.5'	6/9/2006														
SV-14	1.5-2.5'	6/8/2006														
SV-15	1.5-2.5'	6/8/2006														
SV-16	1.5-2.5'	6/8/2006														
SV-17	1.5-2.5'	6/8/2006														
SV-18	1.5-2.5'	6/8/2006														
SV-19	1.5-2.5'	6/8/2006														
SV-20	1.5-2.5'	6/8/2006														
SV-21	1.5-2.5'	6/8/2006														
SV-22	1.5-2.5'	6/8/2006														

Table 3. Miscellaneous Data Summary**Jones and Lamson Plant #1 Part C, Springfield, VT** JCO Project 3-1928-5

		Date	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Thallium	Tin	Vanadium	Zinc	Cyanide
Air													
Background	Outdoor	8/8/2003											
COL-AH-29		8/8/2003											
COL-M-29		8/8/2003											
Soil Vapor													
SV-1	1.5-2.5'	6/9/2006											
SV-2	1.5-2.5'	6/9/2006											
SV-3	1.5-2.5'	6/9/2006											
SV-4	1.5-2.5'	6/8/2006											
SV-5	1.5-2.5'	6/8/2006											
SV-6	1.5-2.5'	6/8/2006											
SV-7	1.5-2.5'	6/8/2006											
SV-8	1.5-2.5'	6/8/2006											
SV-11	2.5-3.5'	6/9/2006											
SV-12	2.5-3.5'	6/9/2006											
SV-14	1.5-2.5'	6/8/2006											
SV-15	1.5-2.5'	6/8/2006											
SV-16	1.5-2.5'	6/8/2006											
SV-17	1.5-2.5'	6/8/2006											
SV-18	1.5-2.5'	6/8/2006											
SV-19	1.5-2.5'	6/8/2006											
SV-20	1.5-2.5'	6/8/2006											
SV-21	1.5-2.5'	6/8/2006											
SV-22	1.5-2.5'	6/8/2006											

Table 4. PCB Data Summary- Soil and Water

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

Sample	Depth	Date	X	Y	Arochlor-1016	Arochlor-1221	Arochlor-1232	Arochlor-1242	Arochlor-1248	Arochlor-1254	Arochlor-1260	Arochlor-1268
			(m)	(m)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
<i>Indust Reg 9 PRG</i>					2100	740	740	740	740	740	740	740
CY3 A	0-4"	8/15/2000	502298.38	87678.17	0	0	0	0	0	537	0	0
CY3 B	0-4"	8/15/2000	502295.87	87681.97	0	0	0	0	0	754	0	0
CY3 C	0-4"	8/15/2000	502294.1	87679.99	0	0	0	0	0	4370	0	0
CY5	0-4"	8/15/2000	502348.22	87719.72	0	0	0	0	0	5110	0	0
C3 B3	0-6"	9/20/2000	502295.5	87684.16	0	0	0	0	0	0	4700	0
C4 A1	0-6"	9/20/2000	502273.9	87706.79	0	0	0	0	0	0	0	0
SB-6D	21-22'	8/13/2003	502365.38	87611.4	0	0	0	0	0	0	0	0
SB-7D	14-16'	8/13/2003	502357.36	87689.99	0	0	0	0	0	237	0	0
SB-8D	20-22'	8/13/2003	502353.21	87736.31	0	0	0	0	0	0	0	0
C1B3	surficial	9/5/2003	502260.19	87822.98	0	0	0	0	0	0	50.4	0
C1A1	surficial	9/5/2003	502259.84	87830.57	0	0	0	0	0	0	64.3	0
C2A2	surficial	9/5/2003	502279.22	87754.58	0	0	0	0	0	0	0	0
C3B2	surficial	9/5/2003	502296.3	87679.72	0	0	0	0	0	0	0	0
C4B1	surficial	9/5/2003	502270.04	87708.3	0	0	0	0	0	0	0	0
C5A1	surficial	9/5/2003	502342.5	87720.38	0	0	0	0	0	0	1390	0
CY3-SB3	1-2'	10/8/2003	502296.03	87683.89	0	0	0	0	0	0	176	14.2
CY4-SB2	0-1'	10/8/2003	502279.27	87710.42	0	0	0	0	0	0	0	0
Chip Shed	0-1'	11/11/2004	502350.39	87688.71	0	0	0	0	0	7330	2740	0
Breakout1	0-6"	11/11/2004	502388.94	87637.18	0	0	0	0	0			0
TrHou A	soil on floo	3/15/2005	502314.22	87770.82						0	214	
TrHou B	soil on floo	3/15/2005	502318.99	87755.94						0	12900	
Trans 5		3/31/2005								0	0	
Transf	2'	9/7/2005	502346.72	87722.87						0	1160	
MW PP-4	2-4'	9/13/2005	502293.2	87564.82						0	0	
Upstream	0-3"	9/13/2005	502329.41	87914.09						0	0	
Upstream	10-12"	9/13/2005	502329.41	87914.09						0	0	
Midstream	0-3"	9/13/2005	502391.7	87721.45						0	0	
Midstream	5-10"	9/13/2005	502391.7	87721.45						0	0	
Downstrea	0-3"	9/13/2005	502392.61	87435.48						0	0	
Downstrea	5-10"	9/13/2005	502392.61	87435.48						0	0	
FD-21 B&C	Floor drain	9/13/2005	502312.40	87642.40						44300	12600	
FD-21 F	Floor drain	9/13/2005	502317.52	87621.19						2870	925	
Grinding-1	sludge	9/19/2005	502339.58	87611.52						0	0	

Table 4. PCB Data Summary- Soil and Water

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

Sample	Depth	Date	X	Y	Arochlor-1016	Arochlor-1221	Arochlor-1232	Arochlor-1242	Arochlor-1248	Arochlor-1254	Arochlor-1260	Arochlor-1268
AST Prev	oil	6/12/2006	502271.52	87769.17	0	0	0	0	0	0	0	
CS-2	6"-4'	6/15/2006	502349.3	87694.83	0	0	0	0	0	170000	900	
GS-1	Surficial	6/15/2006	502387.42	87640.03	0	0	0	0	0	0	3800	
SW-11	6"-4'	6/15/2006	502375.56	87651.42	0	0	0	0	0	0	9000	
CS-6	6"-4'	6/16/2006	502353.45	87691.31	0	0	0	0	0	9000	0	
FD-21-A	Floor drain	6/20/2006	502310.43	87643.55	0	0	0	0	0	20000	0	
BP-1	Surficial	6/26/2006	502356.05	87566.05	0	0	0	0	0	0	0	
					(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
MW-4	GW	9/18/2003	502356.18	87533.75	0	0	0	0	0	0	0	0
MW-5	GW	9/18/2003	502362.53	87584.72	0	0	0	0	0	0	0	0
MW-6	GW	9/18/2003	502378.56	87618.58	0	0	0	0	0	0	0	0
MW-6D	GW	9/18/2003	502365.48	87611.05	0	0	0	0	0	0	0	0
MW-7	GW	9/18/2003	502358.50	87686.07	0	0	0	0	0	0	0	0
MW-7D	GW	9/18/2003	502357.41	87689.80	0	0	0	0	0	0	0	0
MW-8	GW	9/18/2003	502350.13	87735.05	0	0	0	0	0	0	0	0
MW-8D	GW	9/18/2003	502353.21	87736.31	0	0	0	0	0	0	0	0
MW-9	GW	9/18/2003	502342.30	87754.00	0	0	0	0	0	0	0	0
MW-10A	GW	9/18/2003	502356.87	87837.14	0	0	0	0	0	0	0	0
MW-13	GW	9/18/2003	502250.52	87655.40	0	0	0	0	0	0	0	0
MW-CSO	GW	9/18/2003	502323.76	87892.87	0	0	0	0	0	0	0	0
Paint pit	container	9/13/2005	502288.70	87581.26						0	0.5	
HT-pit	container	9/13/2005	502259.52	87677.59						0	0	

Table 5. PCB Data Summary- Concrete

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

Sample ID	Date	Units	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		Total PCBs
Phase I Bulk Samples																	
A1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.3	0.8
A2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.1	0.1
A3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3		0.2	0.5
B1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.5	1
B2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
B3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3		0.2	0.5
C1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.6		0.5	1.1
C2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1.2		1.3	2.5
C3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4	U	0.1	0.4
C4	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2		0.2	0.4
C5	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.9		0.8	1.7
CC1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1	U	0.1	1
DUP-4 (CC-1)	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.9	U	0.1	0.9
CC2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
CSNFloor	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1.7		0.3	2
CSSFloor	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		2.1	U	0.1	2.1
CSSWall	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
CSWall	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
D1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.7		0.6	1.3
D2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.6	U	0.1	0.6
D3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4	U	0.1	0.4
D4	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.7		0.4	1.1
D5	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
DD1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3	0.3
DD2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2		0.2	0.4
E1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1.6		0.7	2.3
E2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.8	U	0.1	0.8
E3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4	U	0.1	0.4
E4	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.9	U	0.1	0.9
DUP-1 (E4)	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1	U	0.1	1
E5	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1	U	0.1	1
EE1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4	U	0.1	0.4
EE2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.7	U	0.1	0.7
F1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2		0.2	0.4
F2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.9		0.5	1.4

Table 5. PCB Data Summary- Concrete

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

Sample ID	Date	Units	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		Total PCBs
F3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		3	U	0.1	3
F4	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
DUP-2 (F4)	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
F5	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.7	U	0.1	0.7
FF1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
FF2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
FF3	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
FF4	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
G1	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.7		0.1	0.8
G2	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		8	U	0.1	8
G3	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1.6		0.8	2.4
DUP-3 (G3)	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1.2		0.5	1.7
G4	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.6		0.3	0.9
G5	11/8/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3		0.2	0.5
GG1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
GG2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
GG3	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	ND
H1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3		0.3	0.6
H2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		3	U	0.1	3
H3	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		17		10	27
H4	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3	U	0.1	0.3
H5	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.6	U	0.1	0.6
I1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.1	U	0.1	0.1
I2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1	U	0.1	1
I3	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		10	U	0.1	10
I4	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.5	1
I5	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3		0.2	0.5
J1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.3	0.8
J2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.9	U	0.1	0.9
J3	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.4	0.9
J4	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2		0.1	0.3
J5	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.4	0.9
K1	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4		0.7	1.1
K2	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4		0.5	0.9
K4	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3	U	0.1	0.3
K5	11/9/2006	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.3	U	0.1	0.3

Table 5. PCB Data Summary- Concrete

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

Sample ID	Date	Units	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		Total PCBs
Phase II Bulk Samples																	
46	2/28/2007	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.2	0.7
47	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		3		2	5
48	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		5		2	7
49	2/28/2007	ppm	U	2	U	2	U	2	U	2	U	2		12		2	14
50	2/28/2007	ppm	U	10	U	10	U	10	U	10	U	10		20	U	10	20
51	2/28/2007	ppm	U	10	U	10	U	10	U	10	U	10		10	U	10	10
52	2/28/2007	ppm	U	8	U	8	U	8	U	8	U	8		11	U	8	11
53	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		3		1	4
54	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		4		2	6
55	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		4.2		1.1	5.3
Dup-C (55)	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		3.8		1	4.8
56	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		3.1		1.8	4.9
57	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		3.9		2.1	6
58	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		4.5		2.4	6.9
59	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		0.7		0.5	1.2
60	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.2		0.8	2
61	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		4		2	6
62	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		3.5		1.6	5.1
63	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		4		2	6
64	2/28/2007	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.4		0.2	0.6
65	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		4		3	7
66	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		3.6		1.6	5.2
67	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		1.5		0.6	2.1
68	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		2.8		1.8	4.6
Dup-B (68)	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		4.6		1.7	6.3
D-68	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		1.3		0.5	1.8
69	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.2		0.7	1.9
70	2/28/2007	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		1	U	0.1	1
71	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		5		3	8
72	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		1.6		0.9	2.5
73	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		0.8		0.5	1.3
74	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.2	U	0.5	1.2
75	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		2.5		0.8	3.3
76	2/28/2007	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.5		0.2	0.7
77	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.4		0.6	2

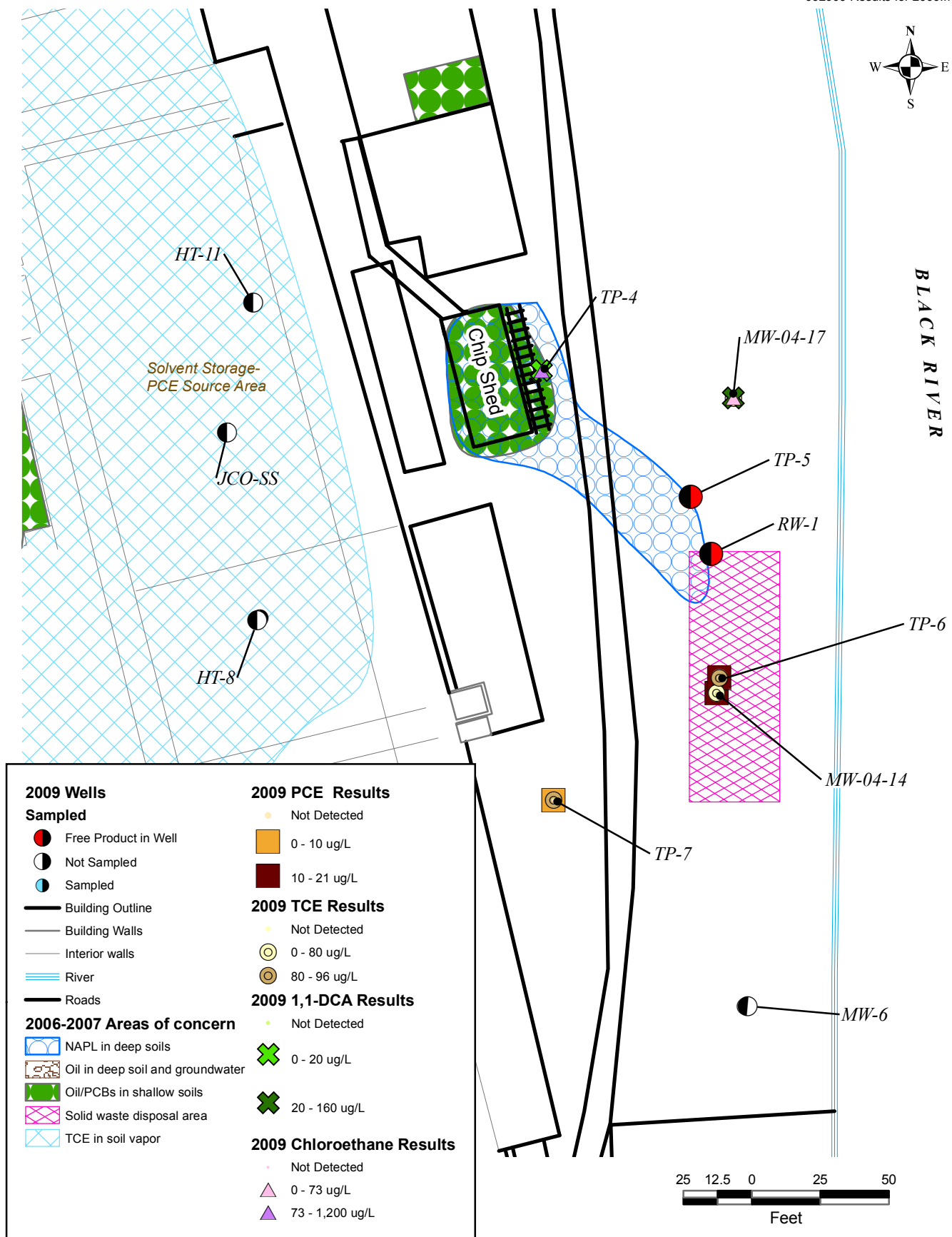
Table 5. PCB Data Summary- Concrete

Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1928-5

Sample ID	Date	Units	PCB-1016		PCB-1221		PCB-1232		PCB-1242		PCB-1248		PCB-1254		PCB-1260		Total PCBs
78	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		3.7		1.4	5.1
79	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		4.1		1.9	6
80	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		2		1.2	3.2
81	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		2.2		0.5	2.7
Dup-A (81)	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		3.6		0.8	4.4
D-81	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		1	U	0.2	1
82	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		1		0.2	1.2
83	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		1.1		0.4	1.5
84	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		8		2	10
85	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		1.9		0.5	2.4
86	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		1.6	U	0.6	1.6
87	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		0.9	U	0.5	0.9
88	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		2	U	1	2
89	2/28/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		1.8		0.7	2.5
90	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		10		2	12
91	2/28/2007	ppm	U	0.8	U	0.8	U	0.8	U	0.8	U	0.8		8		1.1	9.1
92	2/28/2007	ppm	U	20	U	20	U	20	U	20	U	20		80	U	20	80
93	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		1.2	U	0.5	1.2
94	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		5	U	1	5
95	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		9		2	11
96	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		7		1	8
Dup-K (96)	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		6		3	9
97	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		3	U	1	3
98	2/28/2007	ppm	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5		3.4		0.8	4.2
99	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		4	U	1	4
100	2/28/2007	ppm	U	20	U	20	U	20	U	20	U	20		40	U	20	40
Dup-J (100)	2/28/2007	ppm	U	20	U	20	U	20	U	20	U	20		30	U	20	30
101	2/28/2007	ppm	U	1	U	1	U	1	U	1	U	1		8	U	1	8
102	2/28/2007	ppm	U	0.6	U	0.6	U	0.6	U	0.6	U	0.6		3.3	U	0.6	3.3
D-H3	2/28/2007	ppm	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1		0.2	U	0.1	0.2
TH-N	5/30/2007	ppm	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2		0.9	0.9
TH-S	5/30/2007	ppm	U	1	U	1	U	1	U	1	U	1	U	1		7	7



BLACK RIVER



**Figure 1. Groundwater Sampling Results
Jones & Lamson Plant #1
Springfield, Vermont**

Table 1. Groundwater Elevations: September 17, 2009

Jones and Lamson Plant #1 ESA, Springfield, VT JCO Project 3-1929-4

Location	GPS Coordinates (m, VT State Plane)		TOC* Elevation (ft AMSL)	Depth to Groundwater BTOC (ft)	Groundwater Elevation (ft AMSL)	NAPL? 9/17/2009
	Easting	Northing		9/17/2009	9/17/2009	
JCO-LS	502350.966	87769.977	98.19	Not located		
JCO-NE	502353.63	87810.05	98.65	Not located		
MW-04-14	502375.46	87653.55	96.35	11.62	84.73	No
MW-04-16	502363.618	87694.586	96.29	Not located		
MW-04-17	502377.195	87686.454	96.72	12.57	84.15	No
MW-5	502362.529	87584.722	97.45	Not located		
MW-6	502378.559	87618.581	96.50	Not located		
MW-8	502350.127	87735.047	98.07	Not located		
RW-1				12.42		Black, strong odor
TP-4	502355.997	87689.296	98.37	12.75	85.62	Sheen
TP-5	502372.569	87675.38	95.63	13.30	82.33	Black, odor
TP-6	502375.613	87655.073	99.67	15.02	84.65	No
TP-7	502357.297	87641.716	96.17	12.84	83.33	No

* Previously surveyed TOC elevations used for existing wells, new wells surveyed by The Johnson Company

GPS coordinates determined where possible by The Johnson Company using a sub-meter GPS, other coordinates determined using previously mapped information, coordinates are in VT SPCS, meters

Table 2. Analytical Results: Groundwater- VOCs

Jones and Lamson Plant #1 ESA, Springfield, VT JCO Project #: 3-1929-4

(all results in ug/L)

Sample ID	VGES (ug/L)	MW-04-14	MW-04-17	MW-04-17 Duplicate	Relative Percent Difference	TP-4	TP-6	TP-7	Trip Blank
Sample Date		9/17/2009	9/17/2009	9/17/2009		9/17/2009	9/17/2009	9/17/2009	8/31/2009
Dichlorodifluoromethane	1000	U	5	U	5	U	5	U	5
Chloromethane	3	U	2	U	2	U	2	U	2
Vinyl Chloride	2		6		6	U	20		8
Bromomethane	10	U	2	U	2	U	20	U	2
Chloroethane	None	U	5		73		74	1%	
Trichlorofluoromethane	2100	U	5	U	5	U	5	U	5
Diethyl Ether	None	U	5	U	5	U	5	U	5
Acetone	700	U	10	U	10	U	10	U	10
1,1-Dichloroethene	7	U	1		2	U	10	U	1
Methylene chloride	5	U	5	U	5	U	5	U	5
Carbon Disulfide	None	U	5	U	5	U	5	U	5
Methyl-t-Butyl Ether	40	U	5	U	5	U	10	U	5
trans-1,2-Dichloroethene	100	U	2	U	2	U	10	U	2
1,1-Dichloroethane	70	U	2		160		170	6%	
2,2-Dichloropropane	None	U	2	U	2	U	10	U	2
cis-1,2-Dichloroethene	70		33		47		48	2%	
2-Butanone	4200	U	10	U	10	U	10	U	10
Bromochloromethane	90	U	2	U	2	U	10	U	2
Tetrahydrofuran	None	U	10	U	10	U	10	U	10
Chloroform	None	U	2	U	2	U	10	U	2
1,1,1-Trichloroethane	200	U	2	U	2	U	10	U	2
Carbon Tetrachloride	5	U	2	U	2	U	10	U	2
1,1-Dichloropropene	None	U	2	U	2	U	10	U	2
Benzene	5	U	1	U	1	U	10	U	1
1,2-Dichloroethane	5	U	2	U	2	U	10	U	2
Trichloroethene	5		75		3		3	0%	
1,2-Dichloropropane	5	U	2	U	2	U	10	U	2
Dibromomethane	None	U	2	U	2	U	10	U	2
Bromodichloromethane	90	U	1	U	1	U	10	U	1
4-Methyl-2-pentanone	None	U	10	U	10	U	10	U	10
cis-1,3-Dichloropropene	None	U	1	U	1	U	10	U	1
Toluene	1000	U	1	U	1	U	10	U	1
trans-1,3-Dichloropropene	None	U	1	U	1	U	10	U	1
1,1,2-Trichloroethane	5	U	2	U	2	U	10	U	2
2-Hexanone	None	U	10	U	10	U	10	U	10
Tetrachloroethene	5		17		< 2		< 2	0%	
1,3-Dichloropropane	None	U	2	U	2	U	10	U	2
Dibromochloromethane	None	U	2	U	2	U	10	U	2

Notes:

U= Compound was not detected above laboratory Practical Quantitation Limit

Bold/Shaded= Exceeds Vermont Groundwater Enforcement Standard

Table 2. Analytical Results: Groundwater- VOCs**Jones and Lamson Plant #1 ESA, Springfield, VT** JCO Project #: 3-1929-4

(all results in ug/L)

Sample ID	VGES (ug/L)	MW-04-14	MW-04-17	MW-04-17 Duplicate	Relative Percent Difference	TP-4	TP-6	TP-7	Trip Blank
Sample Date		9/17/2009	9/17/2009	9/17/2009		9/17/2009	9/17/2009	9/17/2009	8/31/2009
1,2-Dibromoethane	None	U	1	U	1	U	1	U	1
Chlorobenzene	100	U	2	U	2	U	10	U	2
1,1,1,2-Tetrachloroethane	70	U	2	U	2	U	10	U	2
Ethylbenzene	700	U	1	U	1	U	10	U	1
Xylene (m,p)	None	U	1	U	1	U	10	U	1
Xylene (o)	None	U	1	U	1	U	10	U	1
Styrene	100	U	1	U	1	U	10	U	1
Bromoform	None	U	2	U	2	U	20	U	2
Isopropylbenzene	None	U	1	U	1	U	10	U	1
Bromobenzene	None	U	2	U	2	U	10	U	2
1,1,2,2-Tetrachloroethane	70	U	2	U	2	U	10	U	2
1,2,3-Trichloropropane	5	U	2	U	2	U	10	U	2
n-Propylbenzene	None	U	1	U	1	U	10	U	1
2-Chlorotoluene	None	U	2	U	2	U	10	U	2
4-Chlorotoluene	None	U	2	U	2	U	10	U	2
1,3,5-Trimethylbenzene	4	U	1	U	1	U	10	U	1
tert-Butylbenzene	None	U	1	U	1	U	10	U	1
1,2,4-Trimethylbenzene	5	U	1	U	1	U	10	U	1
sec-Butylbenzene	None	U	1	U	1	U	10	U	1
1,3-Dichlorobenzene	None	U	1	U	1	U	10	U	1
4-Isopropyltoluene	None	U	1	U	1	U	10	U	1
1,4-Dichlorobenzene	None	U	1	U	1	U	10	U	1
1,2-Dichlorobenzene	None	U	1	U	1	U	10	U	1
n-Butylbenzene	None	U	1	U	1	U	10	U	1
1,2-Dibromo-3-Chloropropane	None	U	1	U	1	U	10	U	1
1,2,4-Trichlorobenzene	70	U	1	U	1	U	10	U	1
Hexachlorobutadiene	1	U	1	U	1	U	10	U	1
Naphthalene	20	U	5	U	5	U	50	U	5
1,2,3-Trichlorobenzene	None	U	1	U	1	U	10	U	1

Notes:

U= Compound was not detected above laboratory Practical Quantitation Limit

Bold/Shaded= Exceeds Vermont Groundwater Enforcement Standard

Table 3. Analytical Results: Groundwater- PCBs**Jones and Lamson Plant #1 ESA, Springfield, VT** JCO Project #: 3-1929-4

Sample ID	VGES (ug/L)	MW-04-17		MW-04-17 Duplicate		TP-4*	
Sample Date		9/17/2009		9/17/2009		9/17/2009	
PCB-1016	0.5	U	0.5	U	0.5	U	0.9
PCB-1221	0.5	U	0.5	U	0.5	U	0.9
PCB-1232	0.5	U	0.5	U	0.5	U	0.9
PCB-1242	0.5	U	0.5	U	0.5	U	0.9
PCB-1248	0.5	U	0.5	U	0.5	U	0.9
PCB-1254	0.5	U	0.5	U	0.5	U	0.9
PCB-1260	0.5	U	0.5	U	0.5	U	0.9

* = Dilution factor and reporting levels are elevated due to the low volume of sample collected (recharge was sampled)

Notes:

U= Compound was not detected above laboratory Practical Quantitation Limit

Bold/Shaded= Exceeds Vermont Maximum Contaminant Level

Table 4. Historical Groundwater Quality Summary
Jones and Lamson Plant #1 Part C, Springfield, VT JCO Project 3-1929-4

Name	Date	x	y	Benzene	Toluene	Ethylbenzene	Xylenes, total	Total BTEX	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Naphthalene	PCE	TCE	1,1,1-TCA	cis-1,2-DCE	trans-1,2-DCE	Chloroethane	1,1-DCE	1,1-DCA	Vinyl Chloride
				(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
VGES		(m)	(m)	5	1000	700	10000	None	5	4	20	5	5	200	70	100	None	7	70	2
HT-8	9/22/2005	502309.73	87651.95	0	0	0	0	0	0	0	0	10.5	56.9		27.7					0
HT-11	9/19/2005	502323.89	87696.90	0	0	0	0	0	0	0	0	183	238		168					0
JCO-SS	6/29/2006	502320.85	87682.31	0	0	0	0	0	0	0		1,900	4,700	80	2,900	20	0	0	0	0
MW-04-14	9/17/2009	502375.46	87653.55	0	0	0	0	0	0	0	0	17	75	0	33	0	0	0	0	6
MW-04-17	9/17/2009	502377.20	87686.45	0	0	0	0	0	0	0	0	0	3	0	47	0	73	2	160	6
MW-6	Jun-88	502378.56	87618.58	0	0	0	0	0				0	54	11	140	5		0	3	
MW-6	May-89	502378.56	87618.58	0	0	0	0	0				0	32	4	130	5		0	8	
MW-6	Jun-94	502378.56	87618.58	0	0	0	0	0				0	31	0	98	98	0	0	5	
MW-6	Aug-00	502378.56	87618.58	0	0	0	0	0	0	0		0	7.7	0	46.9	0	0	0	0	14.3
MW-6	9/18/2003	502378.56	87618.58	0	0	0	0	0	0	0		0	3.9	0	9.4	0	0	0	1.9	30.4
TP-4	9/17/2009	502356.00	87689.30	0	0	0	0	0	0	0	0	0	0	0	0	0	1,200	0	20	0
TP-5	3/31/2005	502372.57	87675.38	0	0	0	0	0	0	0	0	0	0		184					
TP-5	9/17/2009	502372.57	87675.38	Free product																
TP-6	3/31/2005	502375.61	87655.07	1.5	0	1.8	16.7	20	3.2	1.4	0	4.5	25.3		8					
TP-6	9/17/2009	502375.61	87655.07	0	0	0	0	0	0	0	0	21	96	0	110	0	0	0	0	25
TP-7	3/31/2005	502357.27	87641.56	2.7	0	0	2.9	5.6	0	0	1.7	1.4	18.1		11.4					
TP-7	9/17/2009	502357.27	87641.56	2	0	0	2	4	0	0	0	8	18.1	0	18	0	0	0	0	8

0 = Not detected

Blank cell = not sampled

Black cell = Above VGES

Italics = 2009 Sample

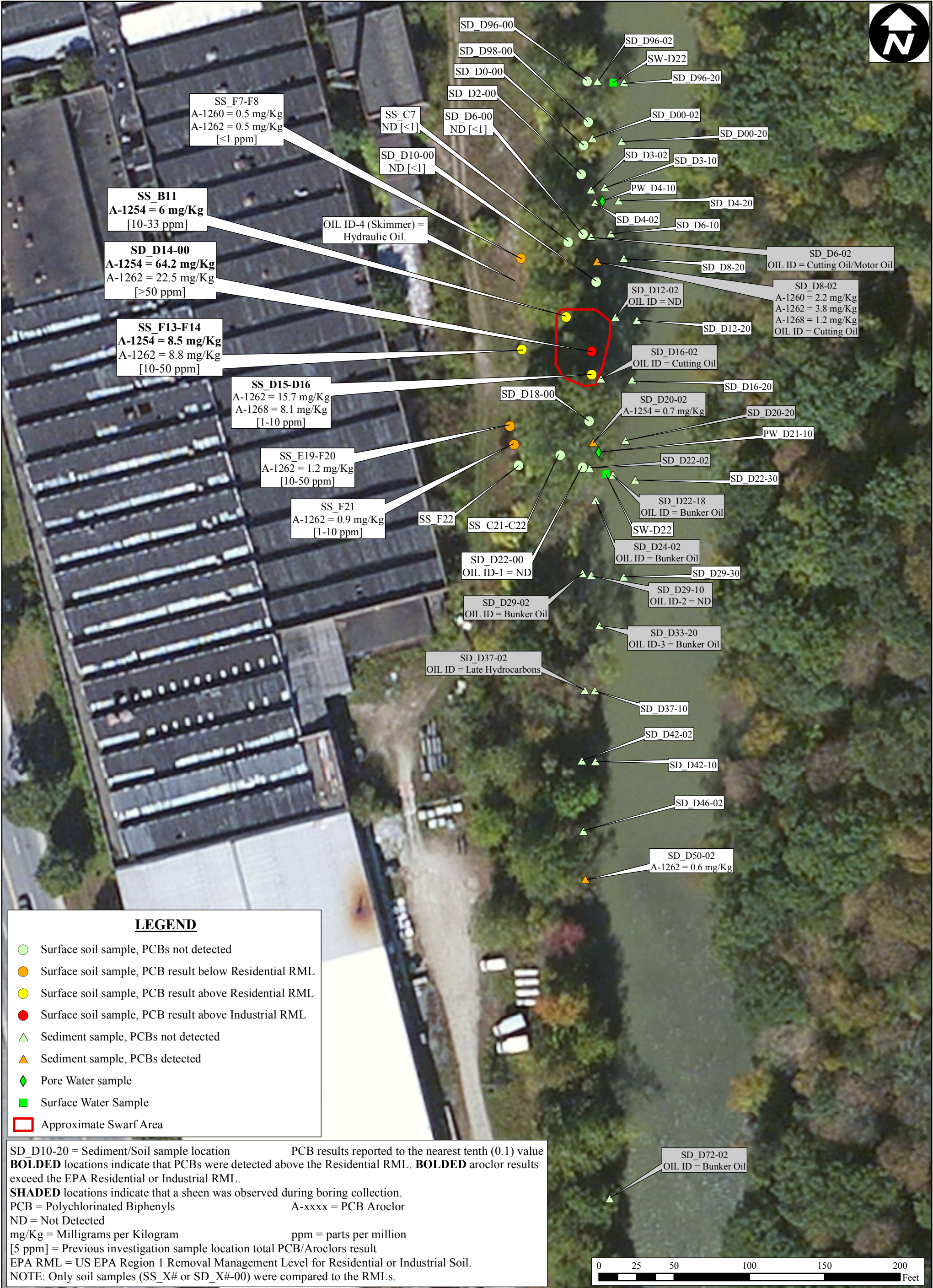


Figure 3

Surface Soil and Sediment Sample Location and PCB Results Map

Jones and Lamson Site
160 Clinton Street
Springfield, Vermont

EPA Region I
Superfund Technical Assessment and Response Team (START) IV
Contract No. EP-S3-15-01

TDD Number: TO1-01-16-04-0007

Created by: B. Mace

Created on: 22 April 2016

Modified by: C. Dupree

Modified on: 7 October 2016

Data Sources:
Imagery: ESRI, i-cubed, USDA FSA, USGS
AEX, GeoEye, Getmapping, Aerogrid, IGP
Topos: MicroPath
All other data: START

WESTON SOLUTIONS

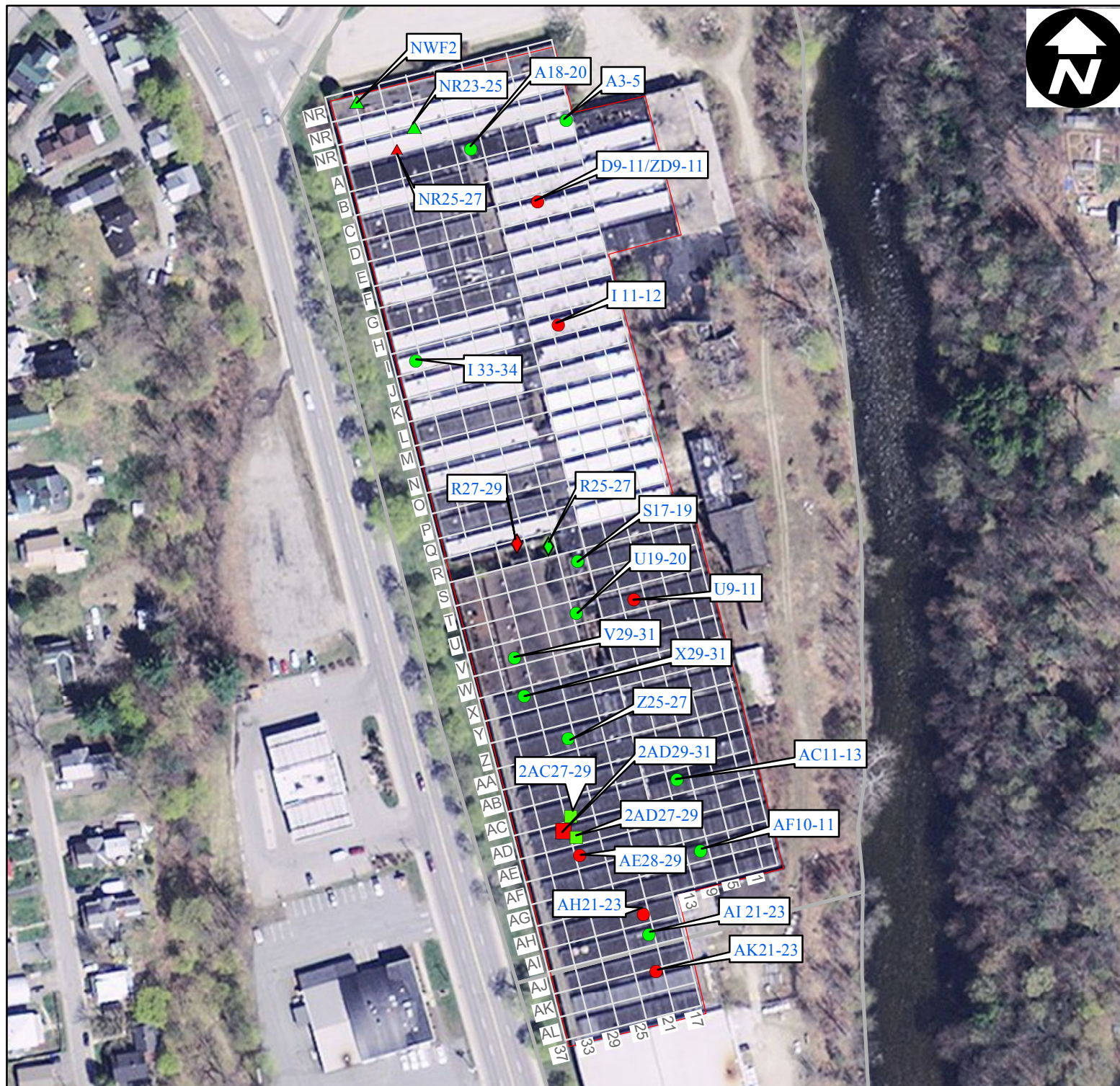


Figure 4
Bulk Asbestos Sample
Location Map

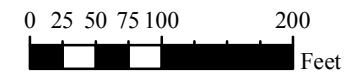
Jones and Lamson
160 Clinton Street
Springfield, Vermont

EPA Region I
Superfund Technical Assessment and
Response Team (START) IV
Contract No. EP-S3-15-01
TDD Number: TO1-01-16-04-0007
Created by: B. Mace
Created on: 22 April 2016
Modified by: B. Mahany
Modified on: 18 October 2016

LEGEND

- △ Sample collected from the northern room/office area
 - ◇ Sample collected from a courtyard
 - Sample collected from the second floor loft
 - Sample collected from the main manufacturing areas
- Green Symbol indicates asbestos <1%.
 Red Symbol indicates asbestos >1%.

- Building Grid
- Building
- Approx. Site Boundary



Data Sources:

Imagery: ESRI, i-cubed, USDA FSA, USGS
 AEX, GeoEye, Getmapping, Aerogrid, IGP
 Topos: MicroPath
 All other data: START, VT GIS



TABLE 1
SAMPLE DESCRIPTIONS, SURFACE SOIL SAMPLES
JONES AND LAMSON
SPRINGFIELD, VERMONT

Sample Location	Sample Number	Depth (inches)	Collection Date	Sample Type	Sample Description*	Comments
SD_D96-00	0114RH-0038	0 - 6	6/27/2016	Grab	Gray-brown-black medium-to-coarse SAND, some gravel, rock fragments.	
SD_D14-00	0114RH-0044	0 - 6	6/27/2016	Grab	Red-brown medium-to-coarse SAND and SILT, trace coarse gravel (swarf).	Oil odor
SD_D18-00	0114RH-0045	0 - 6	6/27/2016	Grab	Dark gray SILT and fine-to-coarse SAND.	Oil odor
SD_D22-00	0114RH-0046	0 - 6	6/27/2016	Grab	Dark gray SILT and fine SAND.	
SD_D98-00	0114RH-0039	0 - 6	6/27/2016	Grab	Brown medium-to-coarse SAND and SILT, some coarse gravel, rock fragments.	Slight sheen observed
SD_D0-00	0114RH-0040	0 - 6	6/27/2016	Grab	Gray SILT and fine SAND, some coarse-to-fine gravel.	Faint oil odor
SD_D6-00	0114RH-0042	0 - 6	6/27/2016	Grab	Light gray-brown SILT and fine SAND, some coarse-to-fine gravel.	Oil odor
SD_D10-00	0114RH-0043	0 - 6	6/27/2016	Grab	Gray-black fine SAND and SILT, little coarse gravel, trace oil.	
SD_D2-00	0114RH-0041	0 - 6	6/27/2016	Grab	SILT and fine SAND, some coarse-to-fine gravel.	Sheen and oil odor
SS_B11	0114RH-0029	0 - 3	6/27/2016	Grab	Brown SILT and fine-to-coarse SAND, little medium-to-fine gravel, trace organics.	
SS_D15-D16	0114RH-0032	0 - 3	6/27/2016	Composite	Black fine-to-coarse SAND, little silt.	Oil coating
SS_F21	0114RH-0036	0 - 3	6/27/2016	Grab	Light brown SILT and fine SAND, some gravel, trace organics, dry.	
SS_F22	0114RH-0037	0 - 3	6/27/2016	Grab	Light brown SILT and fine SAND, some gravel, trace organics, dry.	
SS_E19-F20	0114RH-0033	0 - 3	6/27/2016	Composite	Light brown SILT and fine SAND, some gravel, trace organics, dry.	
SS_F7-F8	0114RH-0034	0 - 3	6/27/2016	Grab	Brown SILT and medium-to-coarse SAND, trace medium gravel, trace organics.	
SS_F13-F14	0114RH-0035	0 - 3	6/27/2016	Composite	Brown SILT and fine-to-coarse SAND, little medium-to-fine gravel, trace organics.	
SS_C7	0114RH-0030	0 - 3	6/27/2016	Grab	Brown fine-to-coarse SAND, little coarse-to-fine gravel, trace silt.	
SS_C21-C22	0114RH-0031	0 - 3	6/27/2016	Composite	Light brown fine-to-coarse SAND, some gravel, trace organics.	

TABLE 2
SUMMARY OF POLYCHLORINATED BIPHENYL RESULTS
SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0029	0114RH-0030	0114RH-0031	0114RH-0032	0114RH-0033	0114RH-0034	0114RH-0035	0114RH-0036	0114RH-0037	0114RH-0038	0114RH-0039
Sample Location			SS_B11	SS_C7	SS_C21-C22	SS_D15-D16	SS_E19-F20	SS_F7-F8	SS_F13-F14	SS_F21	SS_F22	SD_D96-00	SD_D98-00
Sample Date			6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial											
POLYCHLORINATED BIPHENYLS			mg/Kg										
Aroclor-1254	3.5	44	6.03	ND	ND	ND	ND	ND	8.5	ND	ND	ND	ND
Aroclor-1260	24	99	ND	ND	ND	ND	ND	0.53	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	15.7	1.18	0.54	8.8	0.92	ND	ND	ND
Aroclor-1268	NL	NL	ND	ND	ND	8.1	ND	ND	ND	ND	ND	ND	ND
Total PCBs*	23*	94*	6.03	ND	ND	23.8	1.18	1.07	17.3	0.92	ND	ND	ND

ANALYTICAL METHODS

Samples analyzed by U.S.
EPA Portable High-throughput
Integrated Laboratory
Identification System (PHILIS)
PCBs By Method 8082A.

Only soil samples were
compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in **YELLOW** exceed the Residential RML.

Bolded soil analytical results shaded in **RED** exceed the Industrial RML.

TABLE 2
SUMMARY OF POLYCHLORINATED BIPHENYL RESULTS
SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0040	0114RH-0041	0114RH-0042	0114RH-0043	0114RH-0044	0114RH-0080	0114RH-0045	0114RH-0046	0114RH-0047	0114RH-0048
Sample Location			SD_D0-00	SD_D2-00	SD_D6-00	SD_D10-00	SD_D14-00	SD_D514-00	SD_D18-00	SD_D22-00	SD_D96-02	SD_D96-20
Sample Date			6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/28/2016	6/28/2016
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial										
POLYCHLORINATED BIPHENYLS			mg/Kg									
Aroclor-1254	3.5	44	ND	ND	ND	ND	64.2	44.2	ND	ND	ND	ND
Aroclor-1260	24	99	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	ND	22.5	20.8	ND	ND	ND	ND
Aroclor-1268	NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs*	23*	94*	ND	ND	ND	ND	86.7	65	ND	ND	ND	ND

ANALYTICAL METHODS

Samples analyzed by U.S.
EPA Portable High-throughput
Integrated Laboratory
Identification System (PHILIS)
PCBs By Method 8082A.

Only soil samples were
compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.
RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.
* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.
mg/Kg = Milligrams per Kilogram.
ND = Not Detected
NL = Not Listed - No RML exists for this aroclor.
PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

TABLE 2
SUMMARY OF POLYCHLORINATED BIPHENYL RESULTS
SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0049	0114RH-0050	0114RH-0051	0114RH-0052	0114RH-0053	0114RH-0054	0114RH-0055	0114RH-0056	0114RH-0060
Sample Location			SD_D00-02	SD_D00-20	SD_D4-02	SD_D4-20	SD_D8-02	SD_D8-20	SD_D12-02	SD_D12-20	SD_D3-02
Sample Date			6/28/2016	6/28/2016	6/28/2016	6/28/2016	6/28/2016	6/28/2016	6/28/2016	6/28/2016	6/30/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial									
POLYCHLORINATED BIPHENYLS			mg/Kg								
Aroclor-1254	3.5	44	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1260	24	99	ND	ND	ND	ND	2.16	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	ND	3.77	ND	ND	ND	ND
Aroclor-1268	NL	NL	ND	ND	ND	ND	1.17	ND	ND	ND	ND
Total PCBs*	23*	94*	ND	ND	ND	ND	7.10	ND	ND	ND	ND

ANALYTICAL METHODS

Samples analyzed by U.S.
EPA Portable High-throughput
Integrated Laboratory
Identification System (PHILIS)
PCBs By Method 8082A.

Only soil samples were
compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

TABLE 2
SUMMARY OF POLYCHLORINATED BIPHENYL RESULTS
SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0061	0114RH-0062	0114RH-0063	0114RH-0064	0114RH-0065	0114RH-0066	0114RH-0067	0114RH-0068	0114RH-0057
Sample Location			SD_D3-10	SD_D6-02	SD_D6-10	SD_D16-02	SD_D16-20	SD_D20-02	SD_D20-20	SD_D22-02	SD_D22-18
Sample Date			6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/28/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial									
POLYCHLORINATED BIPHENYLS			mg/Kg								
Aroclor-1254	3.5	44	ND	ND	ND	ND	ND	0.71	ND	ND	ND
Aroclor-1260	24	99	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1268	NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs*	23*	94*	ND	ND	ND	ND	ND	0.71	ND	ND	ND

ANALYTICAL METHODS

Samples analyzed by U.S.
EPA Portable High-throughput
Integrated Laboratory
Identification System (PHILIS)
PCBs By Method 8082A.

Only soil samples were
compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in **YELLOW** exceed the Residential RML.

Bolded soil analytical results shaded in **RED** exceed the Industrial RML.

TABLE 2
SUMMARY OF POLYCHLORINATED BIPHENYL RESULTS
SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0079	0114RH-0058	0114RH-0069	0114RH-0070	0114RH-0071	0114RH-0059	0114RH-0072	0114RH-0081	0114RH-0073
Sample Location			SD_D22-118	SD_D22-30	SD_D24-02 (MS/MSD)	SD_D29-02	SD_D29-10	SD_D29-30	SD_D33-20	SD_D533-20	SD_D37-02
Sample Date			6/28/2016	6/28/2016	6/30/2016	6/30/2016	6/30/2016	6/28/2016	6/30/2016	6/30/2016	6/30/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial									
POLYCHLORINATED BIPHENYLS			mg/Kg								
Aroclor-1254	3.5	44	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1260	24	99	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1268	NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total PCBs*	23*	94*	ND	ND	ND	ND	ND	ND	ND	ND	ND

ANALYTICAL METHODS

Samples analyzed by U.S.
EPA Portable High-throughput
Integrated Laboratory
Identification System (PHILIS)
PCBs By Method 8082A.

Only soil samples were
compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

TABLE 2
SUMMARY OF POLYCHLORINATED BIPHENYL RESULTS
SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0074	0114RH-0075	0114RH-0082	0114RH-0076	0114RH-0077	0114RH-0078
Sample Location			SD_D37-10	SD_D42-02	SD_D42-10	SD_D46-02	SD_D50-02	SD_D72-02
Sample Date			6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial						
POLYCHLORINATED BIPHENYLS			mg/Kg					
Aroclor-1254	3.5	44	ND	ND	ND	ND	ND	ND
Aroclor-1260	24	99	ND	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	ND	0.64	ND
Aroclor-1268	NL	NL	ND	ND	ND	ND	ND	ND
Total PCBs*	23*	94*	ND	ND	ND	ND	0.64	ND

ANALYTICAL METHODS

Samples analyzed by U.S.
EPA Portable High-throughput
Integrated Laboratory
Identification System (PHILIS)
PCBs By Method 8082A.

Only soil samples were
compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

TABLE 3
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUND AND METAL RESULTS, SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0038	0114RH-0039	0114RH-0040	0114RH-0041	0114RH-0042	0114RH-0043	0114RH-0044	0114RH-0080
Sample Location			SD_D96-00	SD_D98-00	SD_D0-00	SD_D2-00	SD_D6-00	SD_D10-00	SD_D14-00	SD_D514-00
Sample Date			6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016	6/27/2016
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial								
METALS			mg/Kg							
Aluminum	230,000	3,400,000	4,400	7,100	4,200	4,600	5,500	6,300	6,400	4,200
Antimony	94	1,400	ND	ND	ND	ND	ND	ND	ND	24
Arsenic	68	300	ND	ND	ND	5.9	3.7	3	39	40
Barium	46,000	650,000	27	33	18	26	36	110	97	100
Cadmium	210	2,900	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NL	NL	2,700	3,300	2,100	2,800	2,100	2,600	2,100	2,000
Chromium	NL	NL	12	ND	11	14	15	20	1,800	1,800
Cobalt	70	1,000	4.6	ND	4.1	5.1	5.3	7.1	42	40
Copper	9,400	140,000	17	46	16	20	34	54	2,600	2,400
Iron	160,000	2,500,000	16,000	27,000	19,000	18,000	17,000	24,000	340,000	320,000
Lead	400	800	16	69	13	16	26	37	200	210
Magnesium	NL	NL	2,500	3,600	2,200	2,300	2,900	3,100	1,100	1,200
Manganese	5,500	77,000	150	170	140	180	150	230	3,000	2,800
Nickel	4,600	67,000	18	ND	27	12	16	88	1,300	1,400
Silver	1,200	18,000	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	1,200	17,000	180	54	50	29	37	540	330	320
Zinc	70,000	1,100,000	37	54	35	38	44	67	430	210
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)			µg/Kg							
1,2,4-Trichlorobenzene	170,000	770,000	---	---	ND	---	---	---	---	---
1,2-Dichlorobenzene	5,400,000	28,000,000	---	---	ND	---	---	---	---	---
1-Methylnaphthalene	1,800,000	7,300,000	---	---	ND	---	---	---	---	---
2-Methylnaphthalene	720,000	9,000,000	---	---	ND	---	---	---	---	---
Acenaphthene	11,000,000	140,000,000	---	---	ND	---	---	---	---	---
Acenaphthylene	NL	NL	---	---	ND	---	---	---	---	---
Acetophenone	23,000,000	350,000,000	---	---	ND	---	---	---	---	---
Anthracene	54,000,000	680,000,000	---	---	ND	---	---	---	---	---
Benzo(a)anthracene	16,000	290,000	---	---	ND	---	---	---	---	---
Benzo(a)pyrene	1,600	29,000	---	---	ND	---	---	---	---	---
Benzo(b)fluoranthene	16,000	290,000	---	---	ND	---	---	---	---	---
Benzo(g,h,i)perylene	NL	NL	---	---	ND	---	---	---	---	---
Benzo(k)fluoranthene	160,000	2,900,000	---	---	ND	---	---	---	---	---
bis(2-Ethylhexyl)phthalate	3,800,000	16,000,000	---	---	ND	---	---	---	---	---
Carbazole	NL	NL	---	---	ND	---	---	---	---	---
Chrysene	1,600,000	29,000,000	---	---	280	---	---	---	---	---
Di-n-butylphthalate	19,000,000	250,000,000	---	---	ND	---	---	---	---	---
Dibenz(a,h)anthracene	1,600	29,000	---	---	ND	---	---	---	---	---
Dibenzofuran	220,000	3,100,000	---	---	ND	---	---	---	---	---
Fluoranthene	7,200,000	90,000,000	---	---	610	---	---	---	---	---
Fluorene	7,200,000	90,000,000	---	---	ND	---	---	---	---	---
Indeno(1,2,3-cd)pyrene	16,000	290,000	---	---	ND	---	---	---	---	---
Naphthalene	380,000	1,700,000	---	---	ND	---	---	---	---	---
Phenanthrene	NL	NL	---	---	380	---	---	---	---	---
Pyrene	5,400,000	68,000,000	---	---	580	---	---	---	---	---

ANALYTICAL METHODS

Samples analyzed by U.S. EPA OEME as follows:

SVOCs: EPA Region I SOP EIASOP-BNAS3, BNAs in Soil Medium Level.

Metals : EPA Region I EIASOP-OPTIMASO, Metals in Soil Medium Level by ICP.

NL = Not Listed. No RML exists for this compound.

Only soil samples were compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

mg/Kg = Milligrams per Kilogram.

Bolded Soil and Soil/Sediment results shaded in YELLOW exceed the Residential RML.

Bolded Soil and Soil/Sediment results shaded in RED exceed the Industrial RML.

--- = Not analyzed for this compound.

NOTE: A compound is listed only if it was detected in at least one of the samples.

Compounds that were analyzed for, but not detected, have been omitted.

TABLE 3
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUND AND METAL RESULTS, SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0045	0114RH-0046	0114RH-0047	0114RH-0048	0114RH-0049	0114RH-0050	0114RH-0060	0114RH-0051
Sample Location			SD_D18-00	SD_D22-00	SD_D96-02	SD_D96-20	SD_D00-02	SD_D00-20	SD_D3-02	SD_D4-02
Sample Date			6/27/2016	6/27/2016	6/28/2016	6/28/2016	6/28/2016	6/28/2016	6/30/2016	6/28/2016
Matrix			Soil	Soil	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial								
METALS			mg/Kg							
Aluminum	230,000	3,400,000	4,300	5,500	6,300	5,800	11,000	5,500	5,500	6,100
Antimony	94	1,400	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	68	300	ND	ND	3.2	2.1	6.7	3.9	ND	3
Barium	46,000	650,000	22	26	41	28	57	25	24	28
Cadmium	210	2,900	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NL	NL	1,900	2,200	2,900	2,300	3,000	2,200	2,200	2,300
Chromium	NL	NL	16	12	20	17	26	19	12	16
Cobalt	70	1,000	4.5	5.1	7.6	5.5	8.5	7.5	5.2	5.9
Copper	9,400	140,000	51	20	310	130	85	190	46	98
Iron	160,000	2,500,000	12,000	11,000	22,000	24,000	24,000	27,000	16,000	18,000
Lead	400	800	14	14	47	40	41	130	28	16
Magnesium	NL	NL	2,400	3,100	4,100	3,800	6,000	3,000	3,000	3,200
Manganese	5,500	77,000	99	110	370	230	450	200	140	230
Nickel	4,600	67,000	14	12	19	14	30	13	13	16
Silver	1,200	18,000	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	1,200	17,000	25	24	63	18	99	52	21	23
Zinc	70,000	1,100,000	43	50	74	72	69	120	51	39
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)			µg/Kg							
1,2,4-Trichlorobenzene	170,000	770,000	ND	---	ND	---	---	---	ND	---
1,2-Dichlorobenzene	5,400,000	28,000,000	ND	---	ND	---	---	---	ND	---
1-Methylnaphthalene	1,800,000	7,300,000	ND	---	ND	---	---	---	ND	---
2-Methylnaphthalene	720,000	9,000,000	ND	---	ND	---	---	---	ND	---
Acenaphthene	11,000,000	140,000,000	ND	---	ND	---	---	---	ND	---
Acenaphthylene	NL	NL	740	---	ND	---	---	---	ND	---
Acetophenone	23,000,000	350,000,000	ND	---	ND	---	---	---	ND	---
Anthracene	54,000,000	680,000,000	ND	---	ND	---	---	---	ND	---
Benzo(a)anthracene	16,000	290,000	460	---	ND	---	---	---	330	---
Benzo(a)pyrene	1,600	29,000	ND	---	ND	---	---	---	ND	---
Benzo(b)fluoranthene	16,000	290,000	ND	---	ND	---	---	---	250	---
Benzo(g,h,i)perylene	NL	NL	ND	---	ND	---	---	---	ND	---
Benzo(k)fluoranthene	160,000	2,900,000	ND	---	ND	---	---	---	250	---
bis(2-Ethylhexyl)phthalate	3,800,000	16,000,000	3,700	---	ND	---	---	---	ND	---
Carbazole	NL	NL	ND	---	ND	---	---	---	ND	---
Chrysene	1,600,000	29,000,000	650	---	ND	---	---	---	310	---
Di-n-butylphthalate	19,000,000	250,000,000	ND	---	ND	---	---	---	ND	---
Dibenz(a,h)anthracene	1,600	29,000	ND	---	ND	---	---	---	ND	---
Dibenzofuran	220,000	3,100,000	ND	---	ND	---	---	---	ND	---
Fluoranthene	7,200,000	90,000,000	820	---	ND	---	---	---	600	---
Fluorene	7,200,000	90,000,000	ND	---	ND	---	---	---	ND	---
Indeno(1,2,3-cd)pyrene	16,000	290,000	ND	---	ND	---	---	---	ND	---
Naphthalene	380,000	1,700,000	ND	---	ND	---	---	---	ND	---
Phenanthrene	NL	NL	700	---	ND	---	---	---	360	---
Pyrene	5,400,000	68,000,000	1,300	---	ND	---	---	---	490	---

ANALYTICAL METHODS

Samples analyzed by U.S. EPA OEME as follows:

SVOCs: EPA Region I SOP EIASOP-BNAS3, BNAs in Soil Medium Level.

Metals : EPA Region I EIASOP-OPTIMASO, Metals in Soil Medium Level by ICP.

NL = Not Listed. No RML exists for this compound.

Only soil samples were compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

mg/Kg = Milligrams per Kilogram.

Bolded Soil and Soil/Sediment results shaded in YELLOW exceed the Residential RML.

Bolded Soil and Soil/Sediment results shaded in RED exceed the Industrial RML.

--- = Not analyzed for this compound.

NOTE: A compound is listed only if it was detected in at least one of the samples.

Compounds that were analyzed for, but not detected, have been omitted.

TABLE 3
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUND AND METAL RESULTS, SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0052	0114RH-0062	0114RH-0063	0114RH-0053	0114RH-0055	0114RH-0056	0114RH-0064	0114RH-0065
Sample Location			SD_D4-20	SD_D6-02	SD_D6-10	SD_D8-02	SD_D12-02	SD_D12-20	SD_D16-02	SD_D16-20
Sample Date			6/28/2016	6/30/2016	6/30/2016	6/28/2016	6/28/2016	6/28/2016	6/30/2016	6/30/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial								
METALS			mg/Kg							
Aluminum	230,000	3,400,000	9,800	4,600	8,700	3,700	4,300	8,800	4,400	6,000
Antimony	94	1,400	ND	ND	ND	ND	ND	ND	3.3	4.1
Arsenic	68	300	5.6	2.3	2.6	35	ND	2.3	5.2	5.2
Barium	46,000	650,000	44	21	38	82	16	38	19	25
Cadmium	210	2,900	8.7	ND	ND	ND	ND	ND	ND	ND
Calcium	NL	NL	10,000	1,400	7,900	3,700	1,200	2,600	1,700	1,900
Chromium	NL	NL	28	15	19	760	12	18	36	25
Cobalt	70	1,000	9.4	4.8	8.4	37	4.4	8.1	4.8	7.3
Copper	9,400	140,000	60	540	94	1,500	28	28	88	61
Iron	160,000	2,500,000	29,000	14,000	21,000	240,000	15,000	26,000	21,000	32,000
Lead	400	800	200	33	19	170	12	7.4	43	250
Magnesium	NL	NL	6,000	2,600	5,500	1,900	2,600	5,900	2,200	3,800
Manganese	5,500	77,000	420	120	310	1,500	160	240	140	220
Nickel	4,600	67,000	21	31	20	370	8.3	14	22	13
Silver	1,200	18,000	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	1,200	17,000	30	25	25	200	18	47	25	26
Zinc	70,000	1,100,000	84	45	55	220	25	46	38	52
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)			µg/Kg							
1,2,4-Trichlorobenzene	170,000	770,000	---	ND	ND	ND	---	---	ND	---
1,2-Dichlorobenzene	5,400,000	28,000,000	---	ND	ND	900	---	---	ND	---
1-Methylnaphthalene	1,800,000	7,300,000	---	ND	ND	1,600	---	---	ND	---
2-Methylnaphthalene	720,000	9,000,000	---	ND	ND	2,000	---	---	ND	---
Acenaphthene	11,000,000	140,000,000	---	ND	ND	250	---	---	ND	---
Acenaphthylene	NL	NL	---	ND	ND	ND	---	---	ND	---
Acetophenone	23,000,000	350,000,000	---	ND	ND	3,500	---	---	ND	---
Anthracene	54,000,000	680,000,000	---	ND	450	470	---	---	ND	---
Benzo(a)anthracene	16,000	290,000	---	ND	810	ND	---	---	ND	---
Benzo(a)pyrene	1,600	29,000	---	ND	710	ND	---	---	ND	---
Benzo(b)fluoranthene	16,000	290,000	---	ND	640	ND	---	---	ND	---
Benzo(g,h,i)perylene	NL	NL	---	ND	280	ND	---	---	ND	---
Benzo(k)fluoranthene	160,000	2,900,000	---	ND	490	ND	---	---	ND	---
bis(2-Ethylhexyl)phthalate	3,800,000	16,000,000	---	ND	ND	ND	---	---	ND	---
Carbazole	NL	NL	---	ND	ND	ND	---	---	ND	---
Chrysene	1,600,000	29,000,000	---	ND	760	ND	---	---	ND	---
Di-n-butylphthalate	19,000,000	250,000,000	---	ND	ND	4,300	---	---	ND	---
Dibenz(a,h)anthracene	1,600	29,000	---	ND	ND	ND	---	---	ND	---
Dibenzofuran	220,000	3,100,000	---	ND	ND	ND	---	---	ND	---
Fluoranthene	7,200,000	90,000,000	---	ND	1,700	680	---	---	ND	---
Fluorene	7,200,000	90,000,000	---	ND	280	ND	---	---	ND	---
Indeno(1,2,3-cd)pyrene	16,000	290,000	---	ND	250	ND	---	---	ND	---
Naphthalene	380,000	1,700,000	---	ND	ND	1,500	---	---	ND	---
Phenanthrene	NL	NL	---	ND	1,400	3,200	---	---	ND	---
Pyrene	5,400,000	68,000,000	---	ND	1,300	3,100	---	---	ND	---

ANALYTICAL METHODS

Samples analyzed by U.S. EPA OEME as follows:

SVOCs: EPA Region I SOP EIASOP-BNAS3, BNAs in Soil Medium Level.

Metals : EPA Region I EIASOP-OPTIMASO, Metals in Soil Medium Level by ICP.

NL = Not Listed. No RML exists for this compound.

Only soil samples were compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

mg/Kg = Milligrams per Kilogram.

Bolded Soil and Soil/Sediment results shaded in YELLOW exceed the Residential RML.

Bolded Soil and Soil/Sediment results shaded in RED exceed the Industrial RML.

--- = Not analyzed for this compound.

NOTE: A compound is listed only if it was detected in at least one of the samples.

Compounds that were analyzed for, but not detected, have been omitted.

TABLE 3
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUND AND METAL RESULTS, SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0066	0114RH-0067	0114RH-0057	0114RH-0079	0114RH-0058	0114RH-0069	0114RH-0070	0114RH-0071
Sample Location			SD_D20-02	SD_D20-20	SD_D22-18	SD_D22-118	SD_D22-30	SD_D24-02	SD_D29-02	SD_D29-10
Sample Date			6/30/2016	6/30/2016	6/28/2016	6/28/2016	6/28/2016	6/30/2016	6/30/2016	6/30/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial								
METALS			mg/Kg							
Aluminum	230,000	3,400,000	4,500	4,400	5,200	5,700	6,100	4,300	5,000	4,800
Antimony	94	1,400	ND	ND	ND	ND	ND	5.1	ND	ND
Arsenic	68	300	3.6	5.6	5.9	5.6	6.4	8.4	4.1	ND
Barium	46,000	650,000	63	19	36	34	20	89	640	16
Cadmium	210	2,900	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NL	NL	2,400	1,400	5,100	4,700	2,100	3,300	2,000	1,600
Chromium	NL	NL	78	23	24	20	14	190	30	12
Cobalt	70	1,000	6.3	6.2	6.6	8.3	6	15	7.8	6.6
Copper	9,400	140,000	210	94	270	250	33	640	210	34
Iron	160,000	2,500,000	18,000	32,000	22,000	22,000	30,000	45,000	19,000	12,000
Lead	400	800	61	120	250	710	36	350	130	10
Magnesium	NL	NL	2,700	2,400	2,800	3,100	3,300	2,500	3,100	2,600
Manganese	5,500	77,000	140	250	370	350	200	360	140	130
Nickel	4,600	67,000	32	13	60	76	12	120	16	9
Silver	1,200	18,000	3.4	ND	ND	ND	ND	ND	ND	ND
Vanadium	1,200	17,000	46	21	23	23	25	150	27	17
Zinc	70,000	1,100,000	55	75	60	55	100	270	470	24
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)			µg/Kg							
1,2,4-Trichlorobenzene	170,000	770,000	---	ND	---	---	---	ND	ND	---
1,2-Dichlorobenzene	5,400,000	28,000,000	---	ND	---	---	---	ND	ND	---
1-Methylnaphthalene	1,800,000	7,300,000	---	ND	---	---	---	4,400	ND	---
2-Methylnaphthalene	720,000	9,000,000	---	ND	---	---	---	7,800	ND	---
Acenaphthene	11,000,000	140,000,000	---	470	---	---	---	5,000	ND	---
Acenaphthylene	NL	NL	---	ND	---	---	---	17,000	ND	---
Acetophenone	23,000,000	350,000,000	---	ND	---	---	---	ND	ND	---
Anthracene	54,000,000	680,000,000	---	ND	---	---	---	17,000	ND	---
Benzo(a)anthracene	16,000	290,000	---	350	---	---	---	81,000	340	---
Benzo(a)pyrene	1,600	29,000	---	300	---	---	---	86,000	350	---
Benzo(b)fluoranthene	16,000	290,000	---	290	---	---	---	110,000	450	---
Benzo(g,h,i)perylene	NL	NL	---	ND	---	---	---	43,000	ND	---
Benzo(k)fluoranthene	160,000	2,900,000	---	280	---	---	---	88,000	340	---
bis(2-Ethylhexyl)phthalate	3,800,000	16,000,000	---	ND	---	---	---	ND	ND	---
Carbazole	NL	NL	---	ND	---	---	---	31,000	ND	---
Chrysene	1,600,000	29,000,000	---	340	---	---	---	120,000	510	---
Di-n-butylphthalate	19,000,000	250,000,000	---	ND	---	---	---	ND	ND	---
Dibenz(a,h)anthracene	1,600	29,000	---	ND	---	---	---	12,000	ND	---
Dibenzofuran	220,000	3,100,000	---	ND	---	---	---	11,000	ND	---
Fluoranthene	7,200,000	90,000,000	---	770	---	---	---	250,000	1,000	---
Fluorene	7,200,000	90,000,000	---	ND	---	---	---	15,000	ND	---
Indeno(1,2,3-cd)pyrene	16,000	290,000	---	ND	---	---	---	40,000	ND	---
Naphthalene	380,000	1,700,000	---	ND	---	---	---	7,800	ND	---
Phenanthrene	NL	NL	---	720	---	---	---	160,000	650	---
Pyrene	5,400,000	68,000,000	---	660	---	---	---	190,000	910	---

ANALYTICAL METHODS

Samples analyzed by U.S. EPA OEME as follows:

SVOCs: EPA Region I SOP EIASOP-BNAS3, BNAs in Soil Medium Level.

Metals : EPA Region I EIASOP-OPTIMASO, Metals in Soil Medium Level by ICP.

NL = Not Listed. No RML exists for this compound.

Only soil samples were compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

mg/Kg = Milligrams per Kilogram.

Bolded Soil and Soil/Sediment results shaded in YELLOW' exceed the Residential

Bolded Soil and Soil/Sediment results shaded in RED' exceed the Industrial RML

--- = Not analyzed for this compound.

NOTE: A compound is listed only if it was detected in at least one of the samples.

Compounds that were analyzed for, but not detected, have been omitted.

TABLE 3
SUMMARY OF SEMIVOLATILE ORGANIC COMPOUND AND METAL RESULTS, SOIL AND SEDIMENT SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number			0114RH-0059	0114RH-0072	0114RH-0081	0114RH-0073	0114RH-0074	0114RH-0075	0114RH-0078
Sample Location			SD_D29-30	SD_D33-20	SD_D533-20	SD_D37-02	SD_D37-10	SD_D42-02	SD_D72-02
Sample Date			6/28/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016	6/30/2016
Matrix			Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial							
METALS			mg/Kg						
Aluminum	230,000	3,400,000	5,700	6,300	7,400	5,700	5,300	5,800	7,000
Antimony	94	1,400	ND	ND	ND	ND	ND	ND	ND
Arsenic	68	300	4.5	ND	2.4	3.1	2.5	ND	5
Barium	46,000	650,000	33	22	24	22	29	23	20
Cadmium	210	2,900	ND	ND	ND	ND	ND	ND	ND
Calcium	NL	NL	2,100	1,900	2,100	1,600	1,900	1,700	2,100
Chromium	NL	NL	16	37	47	13	17	16	73
Cobalt	70	1,000	7	6.8	7.8	6.3	5.1	4.7	25
Copper	9,400	140,000	83	81	130	23	80	12	180
Iron	160,000	2,500,000	23,000	19,000	22,000	11,000	17,000	13,000	19,000
Lead	400	800	320	17	24	15	51	9.3	34
Magnesium	NL	NL	3,300	3,300	4,200	3,000	2,700	3,100	2,900
Manganese	5,500	77,000	250	190	220	140	170	160	180
Nickel	4,600	67,000	15	22	31	9.5	9.8	12	100
Silver	1,200	18,000	ND	ND	ND	ND	ND	ND	ND
Vanadium	1,200	17,000	23	43	37	18	20	19	34
Zinc	70,000	1,100,000	64	48	46	31	47	30	270
SEMIVOLATILE ORGANIC COMPOUNDS (SVOCs)			µg/Kg						
1,2,4-Trichlorobenzene	170,000	770,000	ND	290	350	---	---	---	---
1,2-Dichlorobenzene	5,400,000	28,000,000	ND	ND	ND	---	---	---	---
1-Methylnaphthalene	1,800,000	7,300,000	ND	64,000	74,000	---	---	---	---
2-Methylnaphthalene	720,000	9,000,000	ND	17,000	15,000	---	---	---	---
Acenaphthene	11,000,000	140,000,000	ND	58,000	68,000	---	---	---	---
Acenaphthylene	NL	NL	ND	6,000	6,400	---	---	---	---
Acetophenone	23,000,000	350,000,000	ND	ND	ND	---	---	---	---
Anthracene	54,000,000	680,000,000	ND	47,000	56,000	---	---	---	---
Benzo(a)anthracene	16,000	290,000	240	22,000	26,000	---	---	---	---
Benzo(a)pyrene	1,600	29,000	ND	16,000	19,000	---	---	---	---
Benzo(b)fluoranthene	16,000	290,000	320	11,000	9,800	---	---	---	---
Benzo(g,h,i)perylene	NL	NL	ND	3,500	3,600	---	---	---	---
Benzo(k)fluoranthene	160,000	2,900,000	230	9,300	11,000	---	---	---	---
bis(2-Ethylhexyl)phthalate	3,800,000	16,000,000	ND	ND	ND	---	---	---	---
Carbazole	NL	NL	ND	ND	ND	---	---	---	---
Chrysene	1,600,000	29,000,000	250	20,000	24,000	---	---	---	---
Di-n-butylphthalate	19,000,000	250,000,000	ND	ND	ND	---	---	---	---
Dibenz(a,h)anthracene	1,600	29,000	ND	ND	ND	---	---	---	---
Dibenzofuran	220,000	3,100,000	ND	6,700	ND	---	---	---	---
Fluoranthene	7,200,000	90,000,000	470	45,000	55,000	---	---	---	---
Fluorene	7,200,000	90,000,000	ND	41,000	8,000	---	---	---	---
Indeno(1,2,3-cd)pyrene	16,000	290,000	ND	3,100	3,200	---	---	---	---
Naphthalene	380,000	1,700,000	ND	5,000	5,200	---	---	---	---
Phenanthrene	NL	NL	400	180,000	210,000	---	---	---	---
Pyrene	5,400,000	68,000,000	400	69,000	76,000	---	---	---	---

ANALYTICAL METHODS

Samples analyzed by U.S. EPA OEME as follows:

SVOCs: EPA Region I SOP EIASOP-BNAS3, BNAs in Soil Medium Level.

Metals : EPA Region I EIASOP-OPTIMASO, Metals in Soil Medium Level by ICP.

NL = Not Listed. No RML exists for this compound.

Only soil samples were compared to RMLs.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

mg/Kg = Milligrams per Kilogram.

Bolded Soil and Soil/Sediment results shaded in YELLOW exceed the Residential RML.

Bolded Soil and Soil/Sediment results shaded in RED exceed the Industrial RML.

--- = Not analyzed for this compound.

NOTE: A compound is listed only if it was detected in at least one of the samples.

Compounds that were analyzed for, but not detected, have been omitted.

TABLE 4

**BULK ASBESTOS SAMPLE LOCATION DESCRIPTIONS
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT**

Sample Location	Sample Number	Location Description	Sample Description
ACM_NWF2	0114RH-0003	Second office from the northwest corner of the building.	Brown fibrous ceiling tile.
ACM_NR23-25	0114RH-0004	North Room/Office area, between posts 23 and 25.	Roofing Tar/Asphalt.
ACM_NR25-27	0114RH-0005	North Room/Office area, between posts 25 and 27.	Pipe Wrap fallen from wall and ceiling pipe.
ACM_A3-5	0114RH-0006	Northern Manufacturing area, eastern side.	Roofing concrete.
ACM_A18-20	0114RH-0007	Northern Manufacturing area, Quality Control Room.	Roofing concrete.
ACM_D9-11	0114RH-0008	Northern Manufacturing area, Row D, between posts 9 and 11.	Disintegrated pipe wrap from ceiling pipe.
ACM_I11-12	0114RH-0009	Main manufacturing section, northeast area.	Miscellaneous floor debris.
ACM_I33-34	0114RH-0010	Main manufacturing section, northwest area.	Styrofoam-like ceiling tile.
ACM_S17-19	0114RH-0011	Main manufacturing section, central area.	Roofing concrete.
ACM_R25-27	0114RH-0012	Main manufacturing section, central courtyard.	Soil/debris.
ACM_R27-29	0114RH-0013	Main manufacturing section, central courtyard.	Pipe Wrap fallen from overhead pipe.
ACM_U9-11	0114RH-0014	Main manufacturing section, central area.	Pipe Wrap fallen from wall and ceiling pipe.
ACM_U19-20	0114RH-0015	Main manufacturing section, east-central area.	Roofing concrete.
ACM_V29-31	0114RH-0016	Main manufacturing section, west-central area.	Miscellaneous floor debris.
ACM_X29-31	0114RH-0017	Main manufacturing section, west-central area.	Roofing Tar/Asphalt.
ACM_Z25-27	0114RH-0018	Main manufacturing section, south-central area.	Brown fibrous ceiling tile.
ACM_AC11-13	0114RH-0019	Main manufacturing section, southeast area.	Miscellaneous floor debris/sweeping.
ACM_AE28-29	0114RH-0020	Main manufacturing section, southwest area.	Pipe Wrap fallen from wall and ceiling pipe.
ACM_AF10-11	0114RH-0021	Main manufacturing section, southeast area.	Miscellaneous floor debris.
ACM_AH21-23	0114RH-0022	Main manufacturing section, south area.	Pipe Wrap fallen from wall and ceiling pipe.
ACM_AI21-23	0114RH-0023	Main manufacturing section, south area.	Brown fibrous ceiling tile.
ACM_AK21-23	0114RH-0024	Main manufacturing section, south area.	Disintegrated pipe wrap from ceiling pipe.
ACM_2AC27-29	0114RH-0025	Second floor loft, main manufacturing area.	Roofing Tar/Asphalt.
ACM_2AD29-31	0114RH-0026	Second floor loft, main manufacturing area.	Pipe Wrap fallen from wall and ceiling pipe.
ACM_2AD27-29	0114RH-0027	Second floor loft, main manufacturing area.	Brown fibrous ceiling tile.
ACM_ZD9-11	0114RH-0028	Northern Manufacturing area, Row D, between posts 9 and 11.	Disintegrated pipe wrap from ceiling pipe.

NOTES:

Sample locations were determined using existing markings on beams (letters) and posts (numbers) in the manufacturing areas. The sample nomenclature was extended into the unlabeled areas of the building [northern room (NR), second floor loft, etc.].

TABLE 5

**SUMMARY OF BULK ASBESTOS SAMPLE RESULTS
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT
% By Volume**

SAMPLE NUMBER	0114RH-0003	0114RH-0004	0114RH-0005	0114RH-0006	0114RH-0007	0114RH-0008	0114RH-0009
SAMPLE LOCATION	ACM_NWF2	ACM_NR23-25	ACM_NR25-27	ACM_A3-5	ACM_A18-20	ACM_D9-11	ACM_I11-12
LABORATORY NUMBER	AB62362	AB62363	AB62364	AB62365	AB62366	AB62367	AB62368
COMPOUND							
Amosite	ND	ND	ND	ND	ND	ND	ND
Chrysotile	ND	ND	60	ND	ND	60	1
Crocidolite	ND	ND	ND	ND	ND	ND	ND

SAMPLE NUMBER	0114RH-0010	0114RH-0011	0114RH-0012	0114RH-0013	0114RH-0014	0114RH-0015	0114RH-0016
SAMPLE LOCATION	ACM_I33-34	ACM_S17-19	ACM_R25-27	ACM_R27-29	ACM_U9-11	ACM_U19-20	ACM_V29-31
LABORATORY NUMBER	AB62369	AB62370	AB62371	AB62372	AB62373	AB62374	AB62375
COMPOUND							
Amosite	ND	ND	ND	ND	4	ND	ND
Chrysotile	ND	ND	trace	8	2	ND	ND
Crocidolite	ND	ND	ND	5	ND	ND	ND

SAMPLE NUMBER	0114RH-0017	0114RH-0018	0114RH-0019	0114RH-0020	0114RH-0021	0114RH-0022	0114RH-0023
SAMPLE LOCATION	ACM_X29-31	ACM_Z25-27	ACM_AC11-13	ACM_AE28-29	ACM_AF10-11	ACM_AH21-23	ACM_AI21-23
LABORATORY NUMBER	AB62376	AB62377	AB62378	AB62379	AB62380	AB62381	AB62382
COMPOUND							
Amosite	ND	ND	ND	10	ND	2	ND
Chrysotile	ND	ND	ND	5	ND	8	ND
Crocidolite	ND	ND	ND	ND	ND	ND	ND

SAMPLE NUMBER	0114RH-0024	0114RH-0025	0114RH-0026	0114RH-0027	0114RH-0028
SAMPLE LOCATION	ACM_AK21-23	ACM_2AC27-29	ACM_2AD29-31	ACM_2AD27-29	ACM_ZD9-11
LABORATORY NUMBER	AB62383	AB62384	AB62385	AB62386	AB62387
COMPOUND					
Amosite	8	ND	4	ND	ND
Chrysotile	2	ND	2	ND	3
Crocidolite	ND	ND	ND	ND	ND

NOTES:

- 1) Samples were analyzed by U.S. EPA Office of Environmental Measurement and Evaluation (OEME) New England Regional Laboratory (NERL) via Polarized Light Microscopy (PLM), EPA Region I SOP, EIASOP-INGASBSD2.
- 2) All quantities are estimated volume percent.
- 3) ND = Not Detected
- 4) % = Percent
- 5) A compound is listed only if it was detected in at least one of the samples. Compounds that were analyzed for, but not detected, have been omitted.

TABLE 6
SUMMARY OF POLYCHLORINATED BIPHENYL, SEMIVOLATILE ORGANIC COMPOUND, AND METAL RESULTS
SURFACE WATER AND PORE WATER SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number	0114RH-0001	0114RH-0002	0114RH-0085	0114RH-0086	0114RH-0087
Location	SW-D22	SW-D96	PW_D21-10	PW_D4-10	PW_D521-10
Sample Date	6/28/2016	6/28/2016	6/29/2016	6/29/2016	6/29/2016
Matrix	Surface Water	Surface Water	Pore Water	Pore Water	Pore Water (D)
PCBs (mg/Kg)	ND	ND	ND	ND	ND
METALS (mg/Kg)					
Aluminum	140	ND	ND	ND	ND
Barium	23	20	100	87	100
Calcium	18,000	17,000	140,000	120,000	140,000
Iron	550	300	2,500	16,000	2,500
Magnesium	4,200	4,100	15,000	7,200	16,000
Manganese	150	92	230	1,400	240
SVOCs (µg/Kg)	ND	ND	ND	ND	ND

SVOCs = Semivolatile Organic Compounds
mg/Kg = Milligrams per Kilogram

PCBs = Polychlorinated Biphenyls
µg/Kg = Micrograms per Kilogram

ANALYTICAL METHODS

PCBs analyzed by U.S. EPA Portable High-throughput Integrated Laboratory Identification System (PHILIS) by Method 8082 A

All other analyses were conducted by EPA Region 1 OEME as follows:

SVOCs: EPA Region I SOP EIASOP-BNAW3, BNAs in Water.

Metals: EPA Region I EIASOP-OPTIMAS0, Total Recoverable Metals in Water by ICP.

TABLE 7
SUMMARY OF OIL ID AND TOTAL PCB RESULTS
SEDIMENT AND LIQUID SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT

Sample Number	0114RH-0053	0114RH-0055	0114RH-0057	0114RH-0062	0114RH-0064	0114RH-0069	0114RH-0070	0114RH-0073	0114RH-0078	0114RH-0089	0114RH-0090	0114RH-0091	0114RH-0092
Sample Location	SD_D8-02	SD_D12-02	SD_D22-18	SD_D6-02	SD_D16-02	SD_D24-02	SD_D29-02	SD_D37-02	SD_D72-02	Oil ID-1	Oil ID-2	Oil ID-3	Oil ID-4
Matrix	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Sediment	Liquid - Sheen Near SD_D22-00	Liquid - Sheen At SD_D29-10	Liquid - Sheen At SD_D33-20	Liquid - From Skimmer Drum In Shed
Analysis													
Oil ID	Cutting Oil	ND	Bunker Oil	Cutting Oil/Motor Oil	Cutting Oil	Bunker Oil	Bunker Oil	Late Hydrocarbons	Bunker Oil	ND	ND	Bunker Oil	Hydraulic Oil
Hydrocarbon Range	C14-C40	ND	C16-C40	C16-C40	C16-C36	C10-C40	C16-C40	C24-C36	C12-C40	ND	ND	C8-C40	C14-C36
Total PCBs (mg/Kg)	7.1	ND	ND	ND	ND	ND	ND	ND	ND	N/A	N/A	N/A	N/A

ANALYTICAL METHODS

PCB analysis by EPA Portable High-throughput
Integrated Laboratory Identification System
(PHILIS) PCBs By Method 8082A.

Oil Identification (ID) Analysis by EPA Region I
SOP, MISOILID3.SOP.

mg/Kg = Milligrams per Kilogram
ND = Not Detected
PCBs = Polychlorinated Biphenyls
N/A = Not Analyzed

TABLE 8

**COMPARISON OF EPA AND VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
POLYCHLORINATED BIPHENYL ANALYTICAL RESULTS
FOR SOIL SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT**

Sample Number			0114RH-0029	VT State Data	0114RH-0030	VT State Data	0114RH-0031	VT State Data	0114RH-0032	VT State Data
Sample Location			SS_B11	B11	SS_C7	C7	SS_C21-C22	COM-111	SS_D15-D16	COM-107
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial								
PCBs (mg/Kg)			mg/Kg							
Aroclor-1254	3.5	44	6.03	8.8	ND	ND	ND	ND	ND	ND
Aroclor-1260	24	99	ND	1.9	ND	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	0.27	ND	0.12	15.7	0.86
Aroclor-1268	NL	NL	ND	ND	ND	0.25	ND	ND	8.11	0.27
Total PCBs*	23*	94*	6.03	10.7	ND	0.52	ND	0.12	23.81	1.13

ANALYTICAL METHODS

EPA samples analyzed by U.S. EPA Portable High-throughput Integrated Laboratory Identification System (PHILIS) PCBs By Method 8082 A.

Vermont (VT) state data samples analyzed by AMRO Environmental Laboratories Corp., PCBs by EPA 8082.

Column labeled *VT State Data* is compared to EPA data in preceding column; samples may not be taken from the same depth.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

COM-xxx = VT state data composite sample.

TABLE 8

**COMPARISON OF EPA AND VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
POLYCHLORINATED BIPHENYL ANALYTICAL RESULTS
FOR SOIL SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT**

Sample Number			0114RH-0033	VT State Data	0114RH-0034	VT State Data	0114RH-0035	VT State Data	0114RH-0036	VT State Data
Sample Location			SS_E19-F20	COM-109	SS_F7-F8	COM-115	SS_F13-F14	COM-118	SS_F21	F21
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial								
PCBs (mg/Kg)			mg/Kg							
Aroclor-1254	3.5	44	ND	9.3	ND	0.11	8.48	4.9	ND	ND
Aroclor-1260	24	99	ND	ND	0.526	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	1.18	ND	0.548	0.068	8.78	5.9	0.922	1.2
Aroclor-1268	NL	NL	ND	3.4	ND	ND	ND	ND	ND	ND
Total PCBs*	23*	94*	1.18	12.7	1.074	0.178	17.26	10.8	0.922	1.2

ANALYTICAL METHODS

EPA samples analyzed by U.S. EPA Portable High-throughput Integrated Laboratory Identification System (PHILIS) PCBs By Method 8082 A.

Vermont (VT) state data samples analyzed by AMRO Environmental Laboratories Corp., PCBs by EPA 8082.

Column labeled *VT State Data* is compared to EPA data in preceding column; samples may not be taken from the same depth.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

COM-xxx = VT state data composite sample.

TABLE 8

**COMPARISON OF EPA AND VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
POLYCHLORINATED BIPHENYL ANALYTICAL RESULTS
FOR SOIL SAMPLES
JONES AND LAMSON SITE
SPRINGFIELD, VERMONT**

Sample Number			0114RH-0041	VT State Data	0114RH-0042	VT State Data	0114RH-0043	VT State Data	0114RH-0044	0114RH-0080	VT State Data
Sample Location			SD_D2-00	COM-100	SD_D6-00	D6	SD_D10-00	D10	SD_D14-00	SD_D514-00	COM-105B
Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COMPOUND	RML HQ 3 Residential	RML HQ3 Industrial									
PCBs (mg/Kg)			mg/Kg								
Aroclor-1254	3.5	44	ND	0.069	ND	ND	ND	ND	64.2	44.2	85
Aroclor-1260	24	99	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor-1262	NL	NL	ND	ND	ND	ND	ND	0.19	22.5	20.8	ND
Aroclor-1268	NL	NL	ND	ND	ND	ND	ND	ND	ND	ND	42
Total PCBs*	23*	94*	ND	0.069	ND	ND	ND	0.19	86.7	65	127

ANALYTICAL METHODS

EPA samples analyzed by U.S. EPA Portable High-throughput Integrated Laboratory Identification System (PHILIS) PCBs By Method 8082 A.

Vermont (VT) state data samples analyzed by AMRO Environmental Laboratories Corp., PCBs by EPA 8082.

Column labeled *VT State Data* is compared to EPA data in preceding column; samples may not be taken from the same depth.

RML HQ 3 Residential = US EPA Region 1 Removal Management Level for HQ=3 Residential Soil.

RML HQ 3 Industrial = US EPA Region 1 Removal Management Level for HQ=3 Industrial Soil.

* The RMLs listed for Total PCBs includes aroclors and congeners; only aroclors were analyzed.

mg/Kg = Milligrams per Kilogram.

ND = Not Detected

NL = Not Listed - No RML exists for this aroclor.

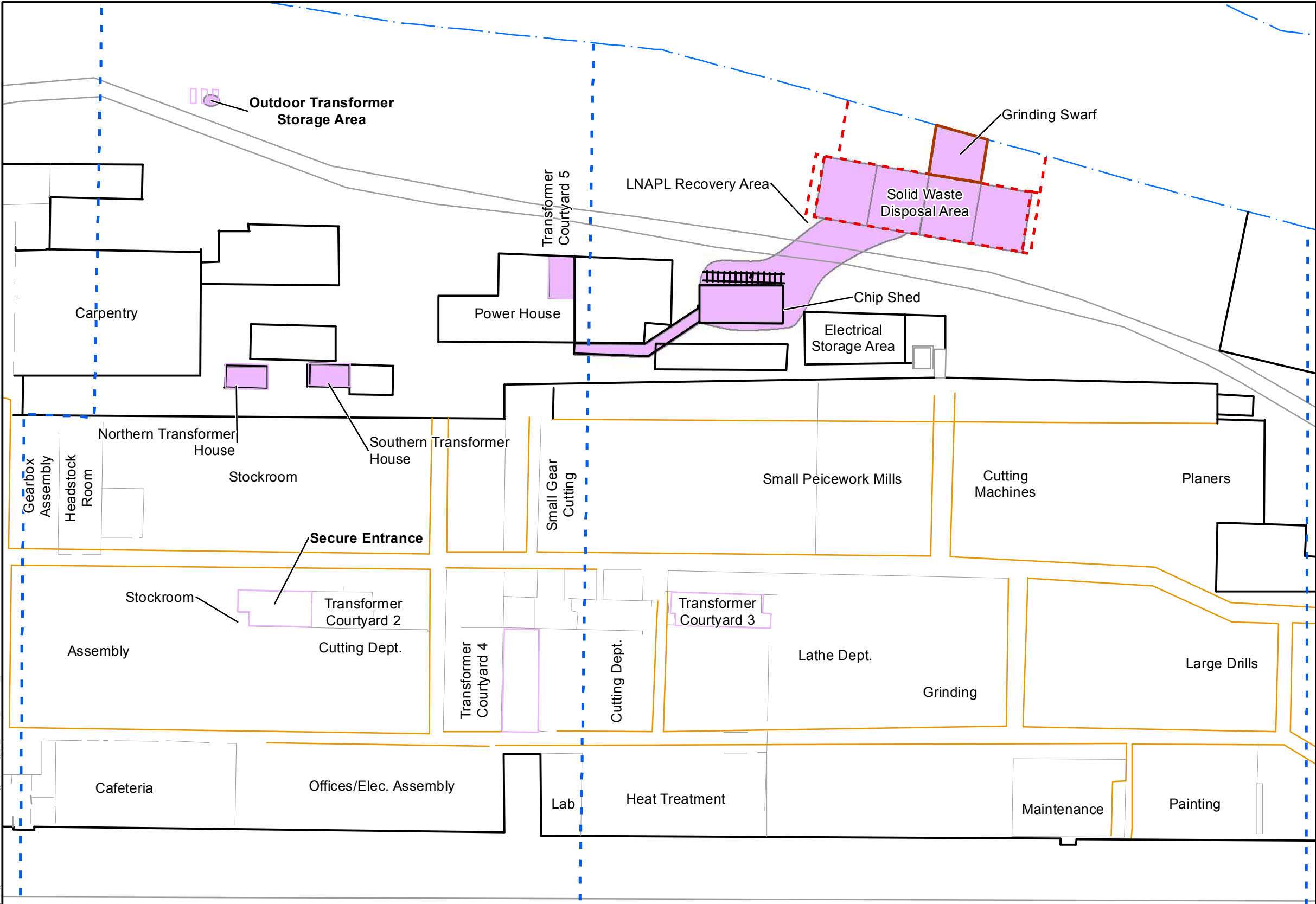
PCBs = Polychlorinated Biphenyls.

Bolded soil analytical results shaded in YELLOW exceed the Residential RML.

Bolded soil analytical results shaded in RED exceed the Industrial RML.

COM-xxx = VT state data composite sample.

Path: J:\87260 Jones & Lamson Springfield V\TTCAD-GIS\GIS\Figures\Fig. 2 Jones Lamson_Base.mxd Date Printed: 2/20/2014



Notes:
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- Legend**
- - - Area outline
 - Building Outline
 - Interior Building Walls
 - Cart Path within Building
 - X—X— Fence
 - Grinding Swarf
 - Interior walls
 - Transformer Area
 - . - . River
 - Roads
 - - - Solid Waste Area
 - Areas Targeted for PCB Cleanup

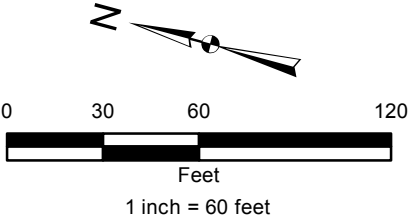
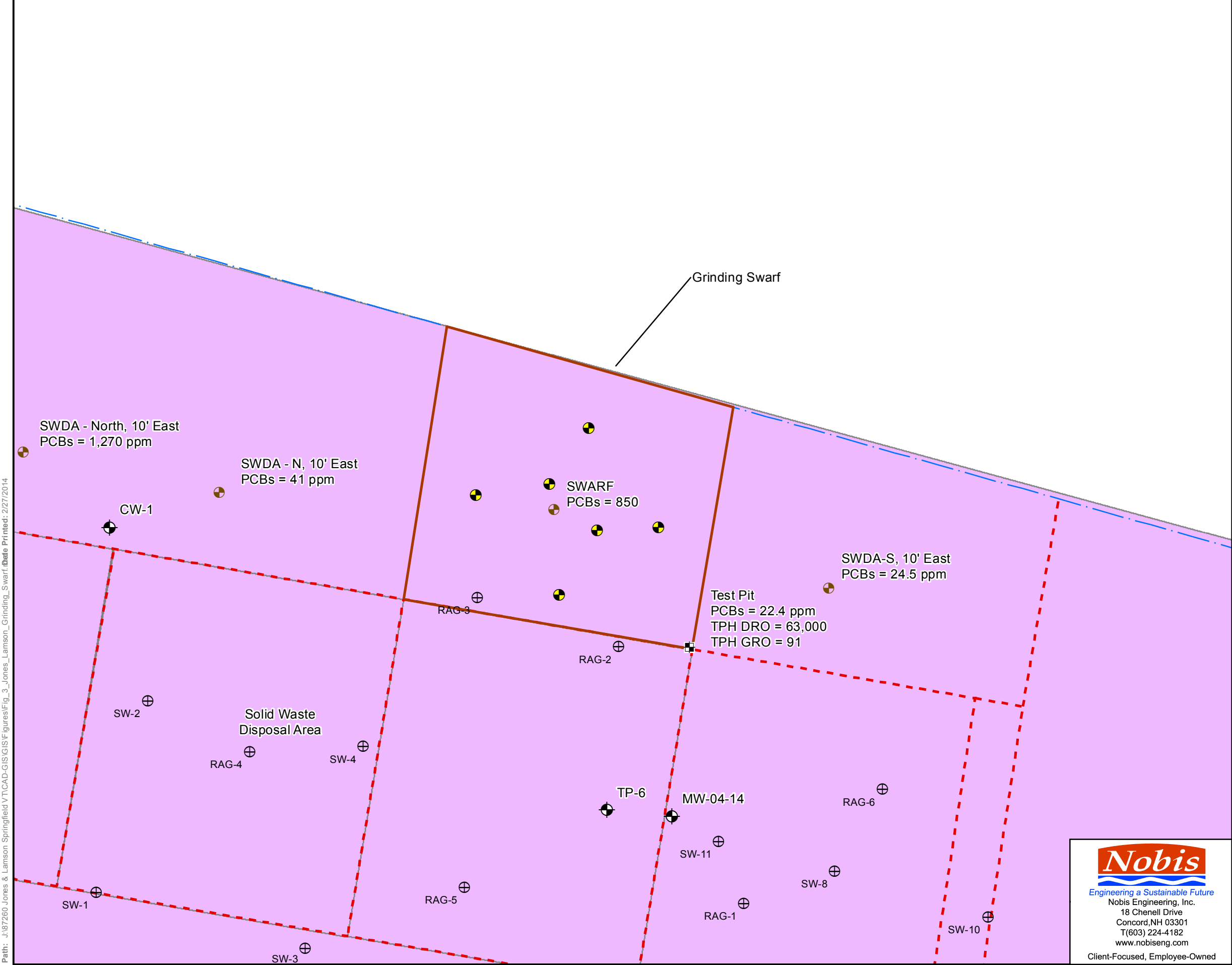


FIGURE 2

**SITE PLAN
JONES & LAMSON
SPRINGFIELD, VERMONT**

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PROJECT NO. 87260.00	DATE: FEB 2014

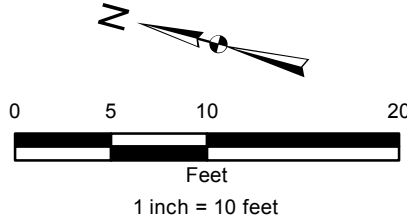


Path: J:\87260 Jones & Lamson Springfield\GIS\Figures\Fig_3_Jones_Lamson_Grinding_Swarf.mxd Date Printed: 2/27/2014

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Legend

- Soil Boring
- Test Pit
- Proposed Composite Soil Verification Sample (Base Only) - PCBs
- Monitoring Well
- Soil Boring
- Area outline
- Building Outline
- Interior Building Walls
- Cart Path within Building
- X - X - Fence
- Grinding Swarf
- Interior walls
- Transformer Area
- River
- Roads
- Solid Waste Area
- Areas Targeted for PCB Cleanup



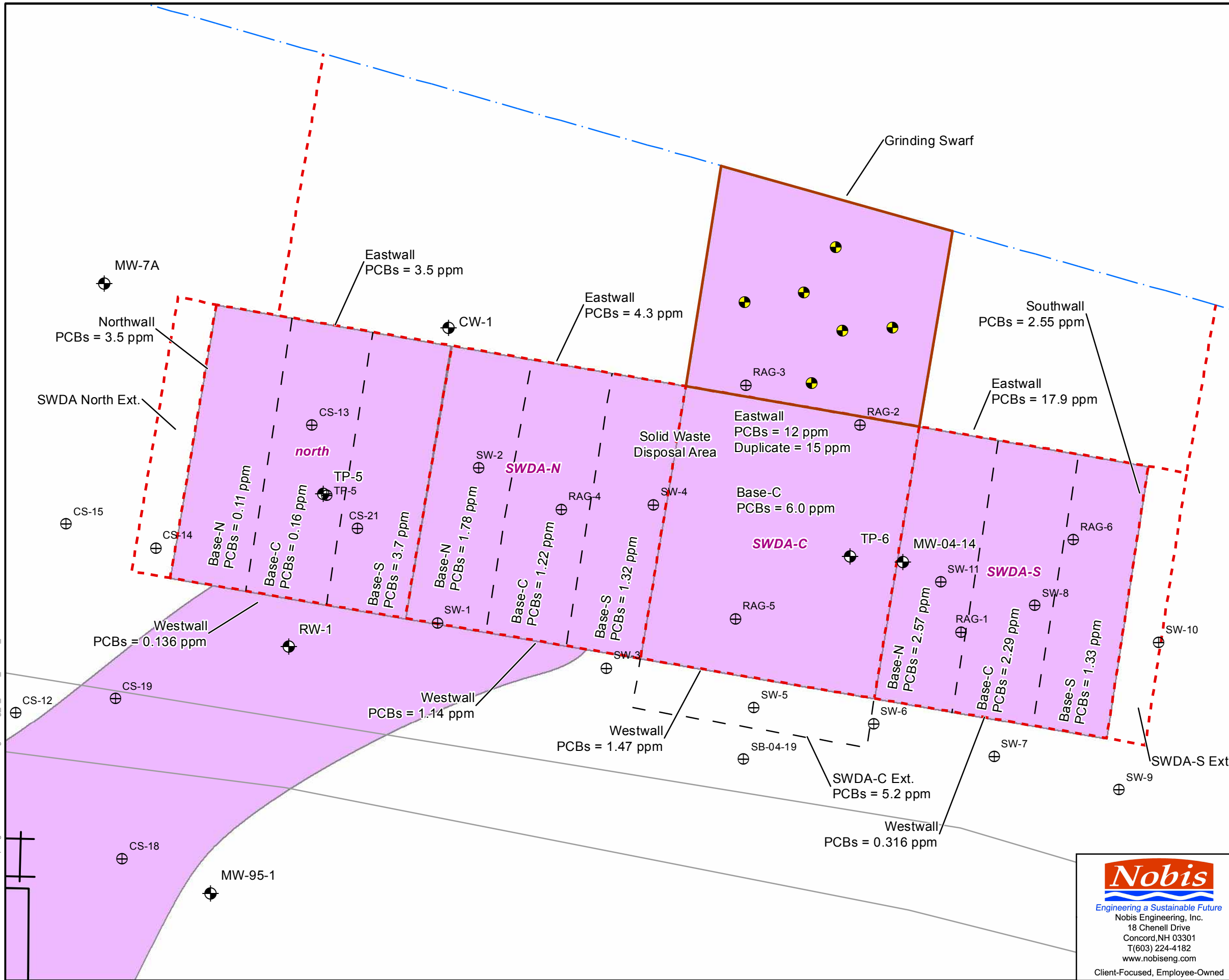
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FIGURE 3

**GRINDING SWARF
JONES & LAMSON
SPRINGFIELD, VERMONT**

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Notes:
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Legend

- Concrete Sampling - 1/2" depth Every 5 feet
- Proposed Composite Soil Verification Sample - PCBs
- Monitoring Well
- Soil Boring
- Area outline
- Building Outline
- Interior Building Walls
- Cart Path within Building
- Fence
- Grinding Swarf
- Interior walls
- Transformer Area
- River
- Roads
- Solid Waste Area
- Areas Targeted for PCB Cleanup

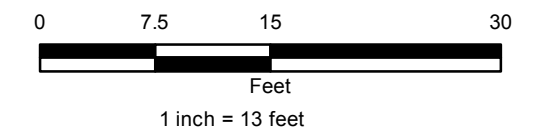


FIGURE 4

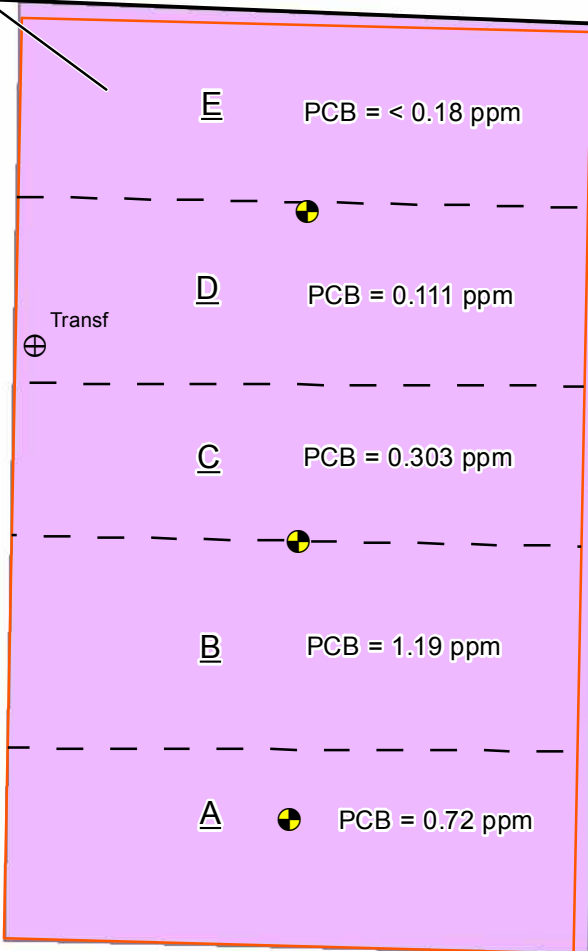
SOLID WASTE DISPOSAL AREA JONES & LAMSON SPRINGFIELD, VERMONT

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PROJECT NO. 87260.00	DATE: FEB 2014

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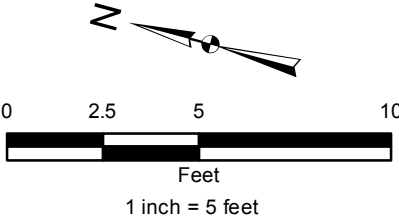
Path: J:\87260 Jones & Lamson Springfield VT\CAD-GIS\GIS\Figures\Fig_5_Jones_Lamson_Transformer_ColData.dwg Printed: 2/26/2014

Transformer Courtyard 5
(Remove concrete & 1-foot of soil)



Notes:
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- Legend**
- Proposed Composite Soil Verification Sample - PCBs
 - Monitoring Well
 - Soil Boring
 - Area outline
 - Building Outline
 - Interior Building Walls
 - Cart Path within Building
 - Fence
 - Grinding Swarf
 - Interior walls
 - Transformer Area
 - River
 - Roads
 - Solid Waste Area
 - Areas Targeted for PCB Cleanup

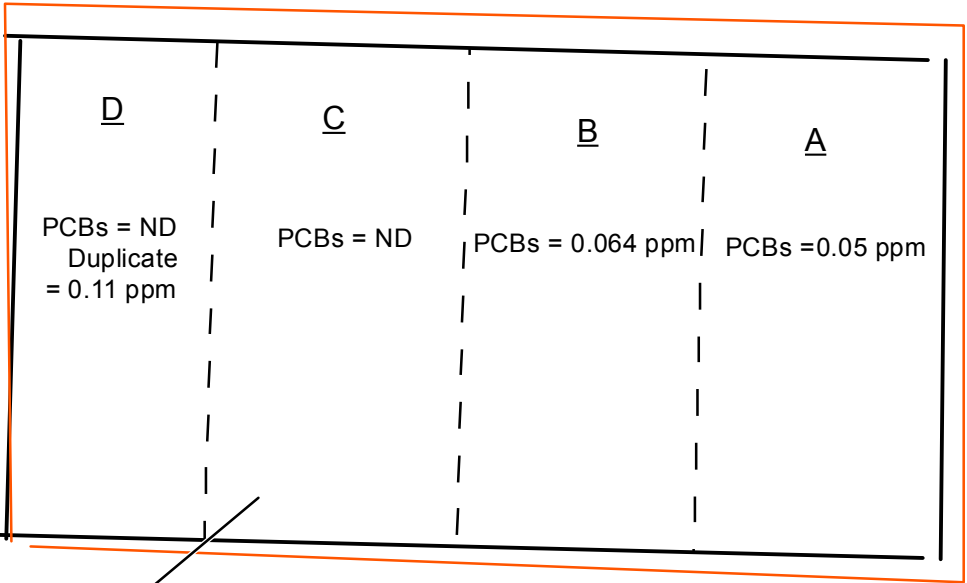


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FIGURE 5	
TRANSFORMER COURTYARD JONES & LAMSON SPRINGFIELD, VERMONT	
PREPARED BY: JH	CHECKED BY: KA
PROJECT NO. 87260.00	DATE: FEB 2014

Path: J:\87260 Jones & Lamson Springfield VT\CAD-GIS\GIS\Figures\Fig_6_Jones_Lamson_Northern_TransformerHouse.dwg 10/27/2014

Northern Transformer House



Notes:
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- Legend**
- Monitoring Well
 - RW-1
 - Soil Boring
 - Area outline
 - Building Outline
 - Interior Building Walls
 - Cart Path within Building
 - Fence
 - Grinding Swarf
 - Interior walls
 - Transformer Area
 - River
 - Roads
 - Solid Waste Area
 - Areas Targeted for PCB Cleanup

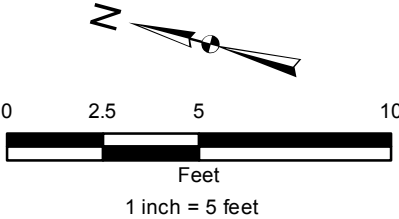


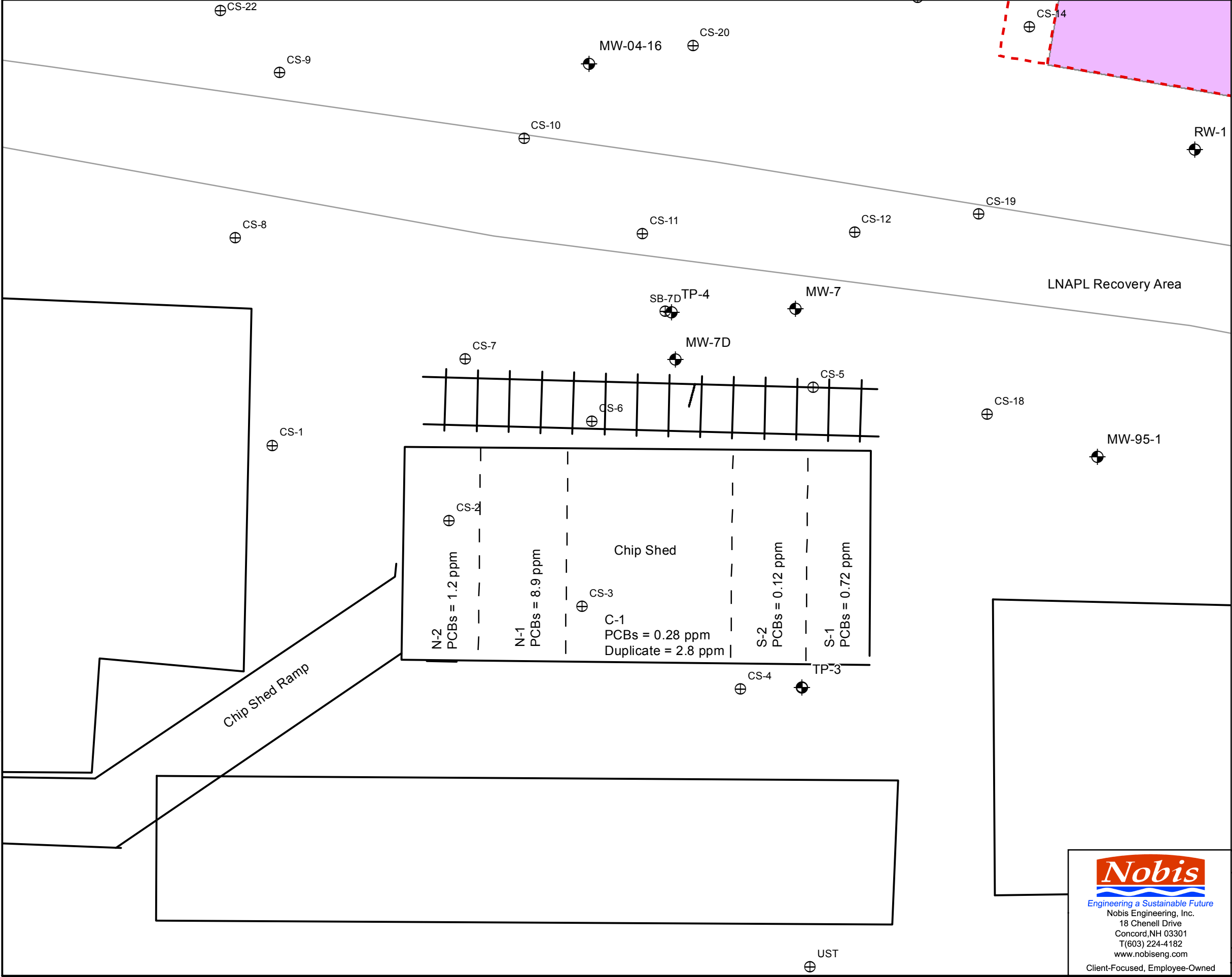
FIGURE 6

**NORTHERN TRANSFORMER HOUSE
JONES & LAMSON
SPRINGFIELD, VERMONT**

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Notes:
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- Legend**
- Proposed Composite Soil Verification Sample - PCBs
 - Soil Boring
 - Monitoring Well
 - Area outline
 - Building Outline
 - Interior Building Walls
 - Cart Path within Building
 - Fence
 - Grinding Swarf
 - Interior walls
 - Transformer Area
 - River
 - Roads
 - Solid Waste Area
 - Areas Targeted for PCB Cleanup

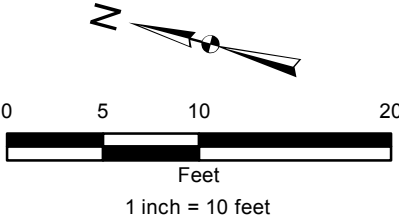


FIGURE 7

**CHIP SHED
JONES & LAMSON
SPRINGFIELD, VERMONT**

PREPARED BY: JH	CHECKED BY: KA
PROJECT NO. 87260.00	DATE: FEB 2014

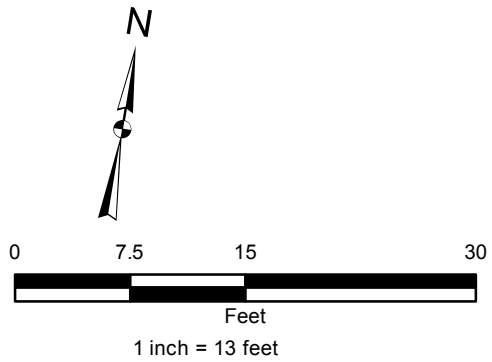
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- Legend**
- Proposed Composite Soil Verification Sample - PCBs
 - Soil Boring
 - Monitoring Well
 - Area outline
 - Building Outline
 - Interior Building Walls
 - Cart Path within Building
 - Fence
 - Grinding Swarf
 - Interior walls
 - Transformer Area
 - River
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FIGURE 8

**LANDFARMED SOILS AREA
JONES & LAMSON
SPRINGFIELD, VERMONT**

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PROJECT NO. 87260.00	DATE: FEB 2014

Table 1
Summary of PCB and TPH Concentrations in Soil Samples
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
Page 1 of 4

DRAFT

VTDEC SMS No. 770122, EPA Brownfields Cleanup Grant #96169801, ARRA Cleanup Grant
#96121201

		Total Polychlorinated Biphenyls (PCBs)	Total Petroleum Hydrocarbons (TPH)
VT VDH VALUES		0.12	NS
FEDERAL REGION SCREENING LEVEL (RESIDENTIAL)		0.22	200
FEDERAL REGION SCREENING LEVEL (INDUSTRIAL)		0.74	1,000
Sample Designation	Date Sampled		
Test Pit - Southeast	8/15/2013	<u>22.4</u>	63,000 (DRO)
	8/15/2013		91 (GRO)
SWARF			
SWARF A 1-4	8/15/2013	<u>83</u>	--
SWARF B 1-4	8/15/2013	<u>219</u>	--
SWARF C 1-4	8/15/2013	<u>96</u>	--
SWDA-C (0-2')			--
SWDA-C, South, 1-4	8/15/2013	<u>2.13</u>	--
SWDA-C, West, 1-4	8/15/2013	<u>11.5</u>	--
SWDA-C, North, 1-4	8/15/2013	<u>1.85</u>	--
SWDA-North (0-4')			
SWDA-North, Base-N	8/20/2013	0.11	--
SWDA-North, Base-C	8/20/2013	0.16	--
SWDA-North, Base-S	8/20/2013	<u>3.7</u>	--
SWDA-North, Eastwall	8/20/2013	<u>3.5</u>	--
SWDA-North, Northwall	8/20/2013	<u>3.5</u>	--
SWDA-North, Westwall	8/20/2013	0.136	--
SWDA-C West Ext. (0-2')			
SWDA-C, Base-S	8/21/2013	<u>2.37</u>	--
SWDA-C, Base-C	8/21/2013	<u>3.57</u>	--
SWDA-C, Base-N	8/21/2013	<u>3.4</u>	--
SWDA-C, Westwall	8/21/2013	<u>5.2</u>	--
SWDA-S (0-4')			
SWDA-S, Base-S	8/22/2013	<u>1.33</u>	--
SWDA-S, Base-C	8/22/2013	<u>2.29</u>	--
SWDA-S, Base-N	8/22/2013	<u>2.57</u>	--
SWDA-S, Southwall	8/22/2013	<u>2.55</u>	--
SWDA-S, Eastwall	8/22/2013	<u>17.9</u>	--
SWDA-S, Westwall	8/22/2013	0.316	--

Table 1
Summary of PCB and TPH Concentrations in Soil Samples
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
Page 2 of 4

DRAFT

VTDEC SMS No. 770122, EPA Brownfields Cleanup Grant #96169801, ARRA Cleanup Grant #96121201

		Total Polychlorinated Biphenyls (PCBs)	Total Petroleum Hydrocarbons (TPH)
VT VDH VALUES		0.12	NS
FEDERAL REGION SCREENING LEVEL (RESIDENTIAL)		0.22	200
FEDERAL REGION SCREENING LEVEL (INDUSTRIAL)		0.74	1,000
CY-5			
CY-5, A	8/22/2013	0.72	--
CY-5, B	8/22/2013	1.19	--
CY-5, B Dup	8/22/2013	0.34	--
CY-5, C	8/22/2013	0.303	--
CY-5, D	8/22/2013	0.111	--
CY-5, E	8/22/2013	<0.18	--
SWDA-N (0-4')			
SWDA-N, Base-S	8/22/2013	1.32	--
SWDA-N, Base-C	8/22/2013	1.22	--
SWDA-N, Base-N	8/22/2013	1.78	--
SWDA-N, Eastwall	8/22/2013	4.3	--
SWDA-N, Westwall	8/22/2013	1.14	--
Northern Transformer House			
Northern Transformer, A	8/22/2013	0.05	--
Northern Transformer, B	8/22/2013	0.064	--
Northern Transformer, C	8/22/2013	ND	--
Northern Transformer, D	8/22/2013	ND	--
Northern Transformer, D Dup	8/22/2013	0.11	--
Chip Shed			
Chip Shed, Base-S1	8/23/2013	0.72	--
Chip Shed, Base-S2	8/23/2013	0.12	--
Chip Shed, Base-C1	8/23/2013	0.28	--
Chip Shed, Base-C1 Dup	8/23/2013	2.6	--
Chip Shed, Base-N1	8/23/2013	8.9	--
Chip Shed, Base-N2	8/23/2013	1.3	--
Chip Shed, Eastwall	8/23/2013	4.3	--
Chip Shed, Northwall	8/23/2013	0.62	--
Chip Shed, Southwall	8/23/2013	1.07	--

Table 1
Summary of PCB and TPH Concentrations in Soil Samples
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
Page 3 of 4

DRAFT

VTDEC SMS No. 770122, EPA Brownfields Cleanup Grant #96169801, ARRA Cleanup Grant
#96121201

		Total Polychlorinated Biphenyls (PCBs)	Total Petroleum Hydrocarbons (TPH)
VT VDH VALUES		0.12	NS
FEDERAL REGION SCREENING LEVEL (RESIDENTIAL)		0.22	200
FEDERAL REGION SCREENING LEVEL (INDUSTRIAL)		0.74	1,000
Landfarm Soils (0-1.5')			
Landfarm, Southwall	8/27/2013	0.29	920
Landfarm, Northwall	8/27/2013	0.064	190
Landfarm, Base-E1	8/27/2013	0.071	400
Landfarm, Base-E2	8/27/2013	0.082	310
Landfarm, Base-E3	8/27/2013	0.053	200
Landfarm, Base-C1	8/27/2013	0.066	270
Landfarm, Base-C2	8/27/2013	0.037	160
Landfarm, Base-C3	8/27/2013	0.40	170
Landfarm, Base-C-4	8/27/2013	0.036	150
Landfarm, Base-W1	8/27/2013	0.12	510
Landfarm, Base-W2	8/27/2013	0.073	210
Landfarm, Base-W3	8/27/2013	0.041	150
Landfarm, Eastwall	8/27/2013	0.37	1,600
Landfarm, Westwall	8/27/2013	<0.18	15
Landfarm, Westwall Dup	8/27/2013	<0.18	16
SWDA-S, Ext. (0-4')			
SWDA-S, Ext. Base	8/27/2013	219	--
SWDA-S, Ext. Base Dup	8/27/2013	100	--
SWDA-S, Ext. Southwall	8/27/2013	0.57	--
SWDA-S, Ext. Westwall	8/27/2013	0.79	--
SWDA-North, Ext. (0-4')			
SWDA-North, Ext. Base	8/27/2013	0.22	--
SWDA-North, Ext. Base Dup	8/27/2013	0.28	--
SWDA-North, Ext. Northwall	8/27/2013	2.02	--
SWDA-North, Ext. Westwall	8/27/2013	0.155	--
SWDA-C: (2'-4')			
SWDA-C, Base	8/28/2013	6.0	--
SWDA-C, Westwall	8/28/2013	1.47	--
SWDA-C, Eastwall	8/28/2013	12	--
SWDA-C, Eastwall Dup	8/28/2013	15	--

Table 1
Summary of PCB and TPH Concentrations in Soil Samples
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
Page 4 of 4

DRAFT

VTDEC SMS No. 770122, EPA Brownfields Cleanup Grant #96169801, ARRA Cleanup Grant
#96121201

		Total Polychlorinated Biphenyls (PCBs)	Total Petroleum Hydrocarbons (TPH)
VT VDH VALUES		0.12	NS
FEDERAL REGION SCREENING LEVEL (RESIDENTIAL)		0.22	200
FEDERAL REGION SCREENING LEVEL (INDUSTRIAL)		0.74	1,000
<u>Former Outdoor Transformer Storage Area</u>			
FOTSA, Base	8/28/2013	0.051	--
FOTSA, Westwall	8/28/2013	0.084	--
FOTSA, Northwall	8/28/2013	0.04	--
FOTSA, Eastwall	8/28/2013	ND	--
FOTSA, Southwall	8/28/2013	0.05	--
FOTSA, Southwall Dup	8/28/2013	0.035	--
<u>Swarf Delineation</u>			
SWDA-N, 10' East	9/17/2013	<u>41</u>	--
SWDA-North, 10' East	9/17/2013	<u>1270</u>	--
SWDA-S, 10' East	9/17/2013	<u>24.5</u>	--
Swarf	9/17/2013	<u>850</u>	--

Notes:

1. All concentrations reported in parts per million (ppm). For PCBs, results are a sum of all detected aroclors. Concentrations in Bold indicate exceedances of applicable values.
2. For PCB concentrations: **Bold** indicates greater than 0.74 ppm; **Bold and Underline** indicates greater than 10 ppm; and **Bold, Underline, Italics** indicate greater than 50 ppm. For TPH concentrations: **Bold** indicates exceedance of the industrial standard.
3. Analyses of samples were performed by Con-Test Analytical Laboratory of East Longmeadow, MA. PCB analyses were performed per EPA Method 8020A, with 3540C Soxhlet Extraction.
4. VT DEC soil screening values / Vermont Department of Health (VDH) values are referenced in "Investigation and Remediation of Contaminated Properties (IROCP) Procedures" prepared by VT DEC, April 5, 2012.
5. The EPA Region III Risk Based screening level recently updated May 2013.

Table 2
Summary of Soil VOC Analyses
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
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DRAFT

VT VDH VALUES		PARAMETERS												
		BTEX				Methyl tert-Butyl Ether (MtBE)	Alkylbenzenes							Tetrachloroethene (PCE)
		Benzene	Toluene	Ethylbenzene	Xylenes (Total)		n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	p-Isopropyltoluene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	
FEDERAL REGION III RBC (RESIDENTIAL)		6.24	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	0.8
FEDERAL REGION III RBC (INDUSTRIAL)		1.1	5,000	5.4	NE	43	3,900	NE	NE	NE	3,400	62	780	0.55
		5.4	45,000	27	NE	220	51,000	NE	NE	NE	21,000	260	10,000	2.6
Sample Depth	Date													
SWDA-N, 10' East	9/17/2013	<0.063	<0.063	<0.063	<0.193	<0.063	0.089	<0.063	<0.063	0.087	<0.063	0.48	0.14	<0.063
SWDA-North, 10' East	9/17/2013	<0.053	<0.053	<0.053	<0.163	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	0.17	0.11	<0.053
SWDA-S, 10' East	9/17/2013	<0.069	<0.069	<0.069	<0.209	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069
Landfarm Eastwall	9/17/2013	<0.044	<0.044	<0.044	<0.131	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044

Notes:

1. All concentrations reported in parts per million (ppm). Concentrations in Bold indicate exceedances of applicable values.
2. "--" indicates that the analytical parameter was not detected; "<x" indicates that the parameter was not present at the analytical reporting limit, x. Where no value is entered, the analyte was not reported.
3. Samples were collected by Nobis Engineering, Inc. on the date indicated.
4. Analyses were performed by Con-Test Analytical Laboratory of East Longmeadow, MA. VOC analyses were performed per EPA Method 8260.
5. VT DEC soil screening values / Vermont Department of Health (VDH) values are referenced in "Investigation and Remediation of Contaminated Properties (IROCP) Procedures" adopted by VT DEC April 5, 2012.
6. The EPA Region III Risk Based Concentrations are updated periodically and are applicable only where VDH are not established.

Table 2
Summary of Soil VOC Analyses
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
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DRAFT

VT VDH VALUES		PARAMETERS													
		Isopropylbenzene	Naphthalene	1,2-Dichlorobenzene (o-DCB)	1,1-Dichloroethane	Trichloroethene (TCE)	cis-1,2-Dichloroethene	1,4-Dichlorobenzene	trans-1,2-Dichloroethene	1,2,3-Trichloropropane	Chloroform	Styrene	Vinyl Chloride	Acetone	
		NE	1,070	NE	NE	0.86	673	NE	135	NE	NE	NE	NE	NE	
		FEDERAL REGION III RBC (RESIDENTIAL)	2,100	3.6	1,900	3.3	2.8	160	2.4	150	0.005	0.29	6,300	0.06	61,000
		FEDERAL REGION III RBC (INDUSTRIAL)	11,000	18	9,800	17	14	2,000	12	690	0.095	1.5	36,000	1.7	630,000
Sample Depth	Date														
SWDA-N, 10' East	9/17/2013	<0.063	0.28	<0.063	<0.063	<0.063	<0.063	<0.063	<0.063	<0.13	<0.13	<0.063	<0.13	<3.1	
SWDA-North, 10' East	9/17/2013	<0.053	0.32	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.11	<0.11	<0.053	<0.11	<2.7	
SWDA-S, 10' East	9/17/2013	<0.069	<0.14	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.14	<0.14	<0.069	<0.14	<3.4	
Landfarm Eastwall	9/17/2013	<0.044	<0.087	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.087	<0.087	<0.044	<0.087	<2.2	

Table 3
Summary of Soil PAH Analyses
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
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		Indeno[1,2,3-cd]pyrene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene
VT VDH VALUES		NE	NE	NE	NE	NE	NE	0.01	NE	NE
FEDERAL REGION III RBC (RESIDENTIAL)		0.15	310	3,400	NE	17,000	0.15	0.015	0.15	NE
FEDERAL REGION III RBC (INDUSTRIAL)		2.1	4,100	33,000	NE	170,000	2.1	0.21	2.1	NE
Sample Depth	Date									
SWDA-N, 10' East	9/17/2013	83	<8.5	58	<8.5	96	130	130	150	78
SWDA-North, 10' East	9/17/2013	30	<16	<16	<16	<16	49	69	91	25
SWDA-S, 10' East	9/17/2013	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84
Landfarm Eastwall	9/17/2013	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18

Notes:

1. All concentrations reported in parts per million (ppm). Concentrations in Bold indicate exceedances of applicable values.
2. "<x" indicates that the parameter was not present at the analytical reporting limit, x. Where no value is entered, the analyte was not reported.
3. Samples were collected by Nobis Engineering, Inc. on the date indicated.
4. Analyses were performed by Con-Test Analytical Laboratory of East Longmeadow, MA. PAH analyses were performed per EPA Method 8270D.
5. VT DEC soil screening values / Vermont Department of Health (VDH) values are referenced in "Investigation and Remediation of Contaminated Properties (IROCP) Procedures" adopted by VT DEC April 5, 2012.
6. The EPA Region III Risk Based Concentrations are updated periodically and are applicable only where VDH are not established.

Table 3
Summary of Soil PAH Analyses
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont
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		Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene	Carbazole
VT VDH VALUES		NE	NE	NE	NE	NE	1,070	NE	NE	NE
FEDERAL REGION III RBC (RESIDENTIAL)		1.5	15	0.015	2,300	2,300	3.6	NE	1,700	NE
FEDERAL REGION III RBC (INDUSTRIAL)		21	210	0.21	22,000	22,000	18	NE	17,000	NE
Sample Depth	Date									
SWDA-N, 10' East	9/17/2013	67	150	20	390	59	12	460	350	60
SWDA-North, 10' East	9/17/2013	41	59	<16	45	<16	<16	29	52	<16
SWDA-S, 10' East	9/17/2013	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84	<0.84
Landfarm Eastwall	9/17/2013	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18

Notes:

1. All concentrations reported in parts per million (ppm). Concentrat
2. "<x" indicates that the parameter was not present at the analytical
3. Samples were collected by Nobis Engineering, Inc. on the date in
4. Analyses were performed by Con-Test Analytical Laboratory of E
5. VT DEC soil screening values / Vermont Department of Health (V (IROCP) Procedures" adopted by VT DEC April 5, 2012.
6. The EPA Region III Risk Based Concentrations are updated peric

Table 4
Summary of Soil Inorganic Analyses
Jones Lamson Plant #1
160 Clinton Street
Springfield, Vermont

DRAFT

		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
VT VDH VALUES		NE	NE	34.5	103	NE	NE	NE	NE
FEDERAL REGION III RBC (RESIDENTIAL)		0.39	15,000	70	NE	400	10	390	390
FEDERAL REGION III RBC (INDUSTRIAL)		1.6	190,000	800	NE	800	43	5,100	5,100
Sample Depth	Date								
SWDA-N, 10' East	9/17/2013	250	250	<0.50	700	270	<0.025	<500	<5

Notes:

1. All concentrations reported in parts per million (ppm). Concentrations in Bold indicate exceedances of applicable values.
2. "<x" indicates that the parameter was not present at the analytical reporting limit, x. Where no value is entered, the analyte was not reported.
3. Samples were collected by Nobis Engineering, Inc. on the dates indicated.
4. Analyses were performed by Con-Test Analytical Laboratory of East Longmeadow, MA. Metals analyses were performed per EPA Method
5. VT DEC soil screening values / Vermont Department of Health (VDH) values are referenced in "Investigation and Remediation of Contaminated Properties (IROCP) Procedures" adopted by VT DEC April 5, 2012 .
6. The EPA Region III Risk Based Concentrations are updated periodically and are applicable only where VDH are not established.

● Soil Borings

— Channel_Edge

Discrete Soil Samples

PCB Aroclor Conc. (total)

● <1 ppm

● 1 - 9.9 ppm

● 10 - 33 ppm

Composite Soil Samples

PCB Aroclor Conc. (total)

<1 ppm

1 -10 ppm

10 - 50 ppm

>50 ppm

The map displays a series of soil sampling locations along a channel edge, labeled Black River. The locations are organized into rows and columns, with labels A1 through F14, A19 through F21, B1 through B23, C1 through C23, and D1 through D23. A blue line represents the channel edge. Several areas are shaded with different patterns, indicating PCB Aroclor concentrations: diagonal lines for <1 ppm, yellow diagonal lines for 1-10 ppm, orange diagonal lines for 10-50 ppm, and red diagonal lines for >50 ppm. Discrete soil samples are represented by colored circles: green for <1 ppm, orange for 1-9.9 ppm, and red for 10-33 ppm. Composite soil samples are represented by shaded areas. A north arrow and a scale bar (0-60 feet) are located in the bottom right corner. The text 'Below Swarf' is written in the bottom left corner.

Black River

Below Swarf

0 10 20 40 60 Feet

N

Legend

•

Soil Borings

—

Channel_Edge

Discrete Soil Samples

PCB Aroclor Conc. (total)

<1 ppm

1 - 9.9 ppm

10 - 33 ppm

Composite Soil Samples

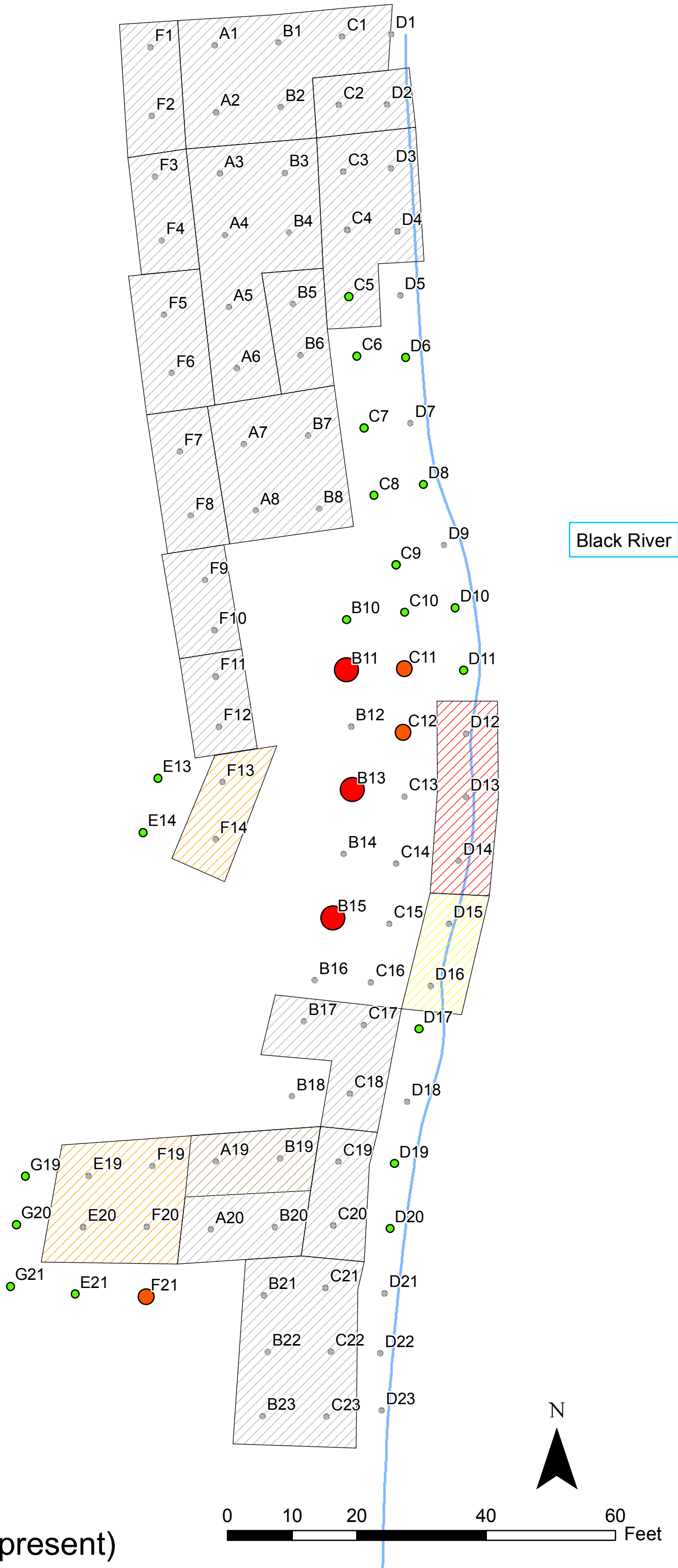
PCB Aroclor Conc. (total)

<1 ppm

1 -10 ppm

10 - 50 ppm

>50 ppm



Legend

•

Soil Borings

—

Channel_Edge

Discrete Soil Samples

PCB Aroclor Conc. (total)

•

<1 ppm

•

1 - 9.9 ppm

•

10 - 33 ppm

Composite Soil Samples

PCB Aroclor Conc. (total)

<1 ppm

1 -10 ppm

10 - 50 ppm

>50 ppm

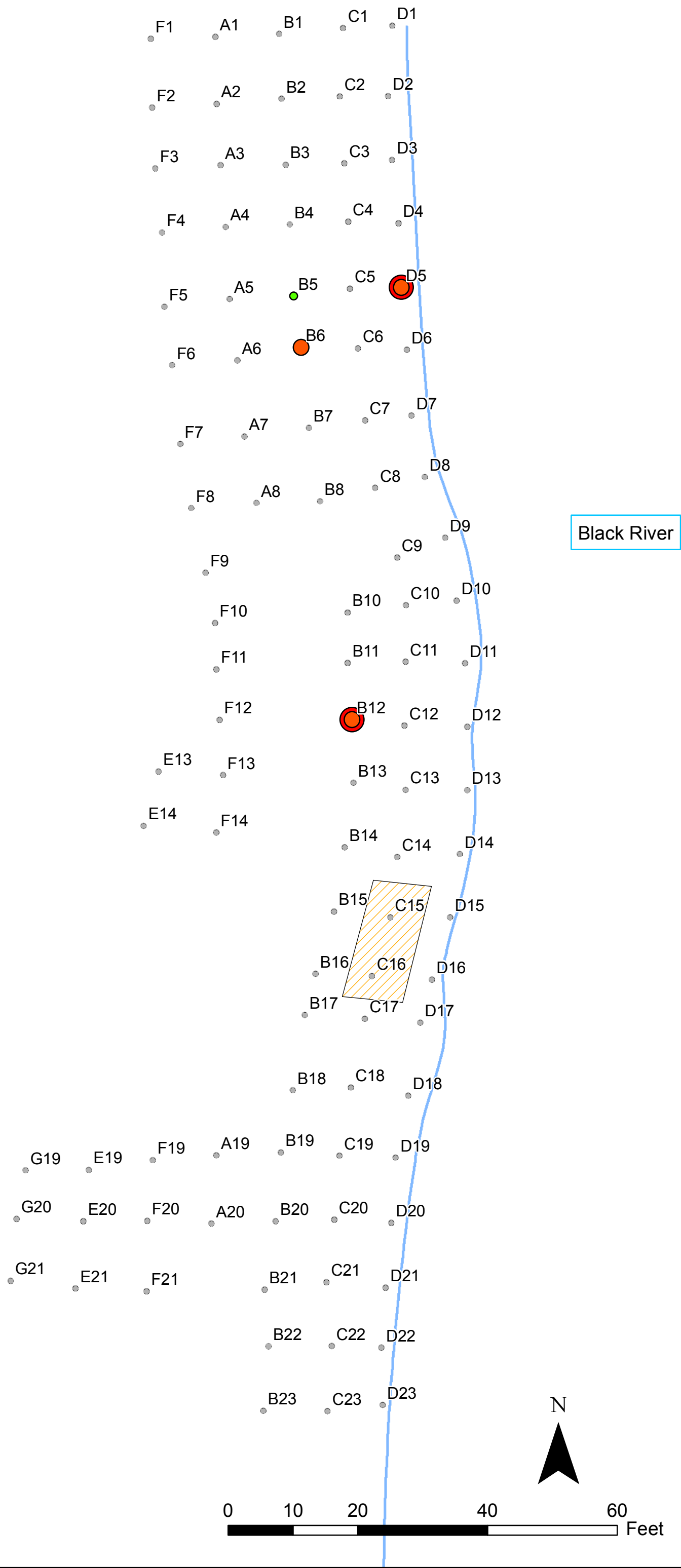


Table 1: Total PCB Concentrations

Sample ID	Total PCBs	Q	Sample ID	Total PCBs	Q
AMR-COM-1	0.053	U	AMR-SB-B12-6.5-FD	4	
AMR-COM-2	0.052	U	AMR-SB-B13-5.5	0.054	U
AMR-COM-100	0.069		AMR-B15-5.2	0.5	
AMR-COM-101	0.052	U	AMR-SB-B16-1.9	0.05	U
AMR-COM-102	0.053	U	AMR-SB-B18-11.0	0.074	U
AMR-COM-103	0.75		AMR-SB-B20-5.5	6.3	
AMR-COM-104	4.54		AMR-SB-C9-0.8	0.264	
AMR-COM-105	0.57		AMR-SB-C12-4.0	18.8	
AMR-COM-106	0.9		AMR-SB-C12-4.0 FD	17.1	
AMR-COM-107	1.13		AMR-SB-D5-4.0	32.6	
AMR-COM-108	0.15		AMR-SB-D7-0.6	0.059	
AMR-COM-109	12.7		AMR-SB-D7-0.6-FD	0.06	
AMR-COM-109-FD	1.91		AMR-SB-D17-0.5	0.82	
AMR-COM-109B	0.25		AMR-SB-D19-3.5	0.059	U
AMR-COM-109B-FD	0.26		AMR-C13-EB	0.049	U
AMR-COM-110	0.91		AMR-COM-11-EB	0.1	
AMR-COM-111	0.12		AMR-D3-0.0-EB	0	U
AMR-SB-A4-12.0	0.05	U	AMR-SB-71.5-0.0-EB	0.5	
AMR-SB-B5-6.0	0.049	U	AMR-SB-A4-EB	0.3	
AMR-SB-B6-6.0	7.6		AMR-SB-D5-EB	0.1	
AMR-SB-B12-6.5	7.2				

Table B1
Polycyclic Aromatic Hydrocarbons in Soil

Sample ID Sample Date	CAS#	Vermont Screening Levels - Resident Soil (7/11/2017)	EPA Residential Regional Screening Level (RSL) (5/1/2016)	EPA Industrial Regional Screening Level (RSL) (5/1/2016)		SB-Tar2-17.0		SB-Tar6-15.0		SB-Z2.5-13.0		SB-Z04-12.0		SB-Z07-13.5		SB-X07-13.0	
						1/10/2018	Q	1/10/2018	Q	1/11/2018	Q	1/11/2018	Q	1/9/2018	Q	1/10/2018	Q
		(MG/KG)	(MG/KG)	(MG/KG)													
2-Methylnaphthalene	91-57-6	NE	240	3000	3000	0.16		30		0.12	U	0.29		1.1	U	1.1	U
Acenaphthene	83-32-9	NE	3600	45000	45000	0.44		2		0.12	U	0.12	U	1.1	U	1.1	U
Acenaphthylene	208-96-8	NE	NE	NE	NE	0.12		1	U	0.12	U	0.12	U	1.1	U	1.1	U
Anthracene	120-12-7	NE	18000	230000	230000	0.15		1.3		0.12	U	0.12	U	1.1	U	1.1	U
B(a)P-TEQ		0.076	0.016	0.29	0.29	0.432	U	1.2	U	0.139	U	0.139	U	1.3	U	1.3	U
Benz(a)anthracene	56-55-3	NE	0.16	2.9	2.9	0.48		1	U	0.12	U	0.12	U	1.1	U	1.1	U
Benzo(a)pyrene	50-32-8	0.076	0.016	0.29	0.29	0.31		1	U	0.12	U	0.12	U	1.1	U	1.1	U
Benzo(b)fluoranthene	205-99-2	NE	0.16	2.9	2.9	0.12		1	U	0.12	U	0.12	U	1.1	U	1.1	U
Benzo(g,h,i)perylene	191-24-2	NE	NE	NE	NE	0.22		1	U	0.12	U	0.12	U	1.1	U	1.1	U
Benzo(k)fluoranthene	207-08-9	NE	1.6	29	29	0.11	U	1	U	0.12	U	0.12	U	1.1	U	1.1	U
C11-C22 Aromatic Hydrocarbons	EPHC11C22AF	NE	NE	NE	NE	1700		4900		12	U	12	U	11000		12000	
C19-C36 Aliphatic Hydrocarbons	EPHC19C36AL	NE	NE	NE	NE	1100		6400		12	U	12	U	22000		23000	
C9-C18 Aliphatic Hydrocarbons	EPHC9C18AL	NE	NE	NE	NE	300		2800		12	U	20		4300		4500	
Chrysene	218-01-9	NE	16	290	290	0.93		2.1		0.12	U	0.12	U	1.1	U	2.7	
Dibenz(a,h)anthracene	53-70-3	NE	0.016	0.29	0.29	0.11	U	1	U	0.12	U	0.12	U	1.1	U	1.1	U
Fluoranthene	206-44-0	NE	2400	30000	30000	0.15		1	U	0.12	U	0.12	U	1.1	U	1.3	
Fluorene	86-73-7	NE	2400	30000	30000	1.5		3.5		0.12	U	0.12	U	1.1	U	4.1	
Indeno(1,2,3-cd)pyrene	193-39-5	NE	0.16	2.9	2.9	0.11	U	1	U	0.12	U	0.12	U	1.1	U	1.1	U
Naphthalene	91-20-3	1.42	3.8	17	17	0.14		8.9		0.12	U	0.24		1.1	U	1.1	U
Phenanthrene	85-01-8	NE	NE	NE	NE	1.7		12		0.12	U	0.12	U	1.1	U	2.8	
Pyrene	129-00-0	NE	1800	23000	23000	4.5		4.6		0.12	U	0.12	U	1.2		6.3	

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

Sample ID		Vermont Screening Levels - Resident Soil (7/11/2017)	EPA Residential Regional Screening Level (RSL) (5/1/2016)	EPA Industrial Regional Screening Level (RSL) (5/1/2016)		SB-Y05-13.5	SB-Y05-13.5-DUP	SB-Y08-13.5							
Sample Date	CAS#					1/9/2018	Q	1/9/2018	Q	1/9/2018	Q				
		(MG/KG)	(MG/KG)	(MG/KG)											
2-Methylnaphthalene	91-57-6	NE	240	3000	NE	1.2 U		1.2 U		1.1 U					
Acenaphthene	83-32-9	NE	3600	45000	NE	1.2 U		1.2 U		1.1 U					
Acenaphthylene	208-96-8	NE	NE	NE	NE	1.2 U		1.2 U		1.1 U					
Anthracene	120-12-7	NE	18000	230000	NE	1.2 U		1.2 U		1.1 U					
B(a)P-TEQ		0.076	0.016	0.29	NE	1.4 U		1.4 U		1.3 U					
Benz(a)anthracene	56-55-3	NE	0.16	2.9	NE	1.2 U		1.2 U		1.1 U					
Benzo(a)pyrene	50-32-8	0.076	0.016	0.29	NE	1.2 U		1.2 U		1.1 U					
Benzo(b)fluoranthene	205-99-2	NE	0.16	2.9	NE	1.2 U		1.2 U		1.1 U					
Benzo(g,h,i)perylene	191-24-2	NE	NE	NE	NE	1.2 U		1.2 U		1.1 U					
Benzo(k)fluoranthene	207-08-9	NE	1.6	29	NE	1.2 U		1.2 U		1.1 U					
C11-C22 Aromatic Hydrocarbons	EPHC11C22AF	NE	NE	NE	NE	22000		21000		7200					
C19-C36 Aliphatic Hydrocarbons	EPHC19C36AL	NE	NE	NE	NE	41000		46000		19000					
C9-C18 Aliphatic Hydrocarbons	EPHC9C18AL	NE	NE	NE	NE	8400		9400		3400					
Chrysene	218-01-9	NE	16	290	NE	2.2		2.4		1.1 U					
Dibenz(a,h)anthracene	53-70-3	NE	0.016	0.29	NE	1.2 U		1.2 U		1.1 U					
Fluoranthene	206-44-0	NE	2400	30000	NE	1.2 U		1.2 U		1.1 U					
Fluorene	86-73-7	NE	2400	30000	NE	1.2 U		1.2 U		1.1 U					
Indeno(1,2,3-cd)pyrene	193-39-5	NE	0.16	2.9	NE	1.2 U		1.2 U		1.1 U					
Naphthalene	91-20-3	1.42	3.8	17	NE	1.2 U		1.2 U		1.1 U					
Phenanthrene	85-01-8	NE	NE	NE	NE	1.2 U		1.2 U		1.1					
Pyrene	129-00-0	NE	1800	23000	NE	2.3		2.4		1.1 U					

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

Table B2
Polychlorinated Biphenyls in Soil

SampleID Sample Date	CAS#	Vermont Screening Levels - Resident Soil (7/11/2017)	EPA Residential Regional Screening Level (RSL) (5/1/2016)	EPA Industrial Regional Screening Level (RSL) (5/1/2016)		SB-Tar2-17.0		SB-Tar6-15.0		SB-Z2.5-13.0		SB-Z04-12.0		SB-Z07-13.5		SB-X07-13.0	
						1/10/2018	Q	1/10/2018	Q	1/11/2018	Q	1/11/2018	Q	1/9/2018	Q	1/10/2018	Q
		(mg/Kg)	(mg/Kg)	(mg/Kg)													
Aroclor 1016	12674-11-2	NE	4.1	27	27	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1221	11104-28-2	NE	0.2	0.83	0.83	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1232	11141-16-5	NE	0.17	0.72	0.72	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1242	53469-21-9	NE	0.23	0.95	0.95	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1248	12672-29-6	NE	0.23	0.95	0.95	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1254	11097-69-1	0.12	0.24	0.97	0.97	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	6.4	
Aroclor 1260	11096-82-5	NE	0.24	0.99	0.99	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1262	37324-23-5	NE	NE	NE	NE	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Aroclor 1268	11100-14-4	NE	NE	NE	NE	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	0.54	U
Total PCBs		NE	0.24	0.99	0.99	0.55	U	0.52	U	0.058	U	0.061	U	0.55	U	6.4	
Sample ID Sample Date	CAS#	Vermont Screening Levels - Resident Soil (7/11/2017)	EPA Residential Regional Screening Level (RSL) (5/1/2016)	EPA Industrial Regional Screening Level (RSL) (5/1/2016)		SB-Y05-13.5		SB-Y05-13.5-DUP		SB-Y08-13.5							
						1/9/2018	Q	1/9/2018	Q	1/9/2018	Q						
		(mg/Kg)	(mg/Kg)	(mg/Kg)													
Aroclor 1016	12674-11-2	NE	4.1	27	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1221	11104-28-2	NE	0.2	0.83	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1232	11141-16-5	NE	0.17	0.72	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1242	53469-21-9	NE	0.23	0.95	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1248	12672-29-6	NE	0.23	0.95	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1254	11097-69-1	0.12	0.24	0.97	NE	0.62	U	0.6	U	32							
Aroclor 1260	11096-82-5	NE	0.24	0.99	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1262	37324-23-5	NE	NE	NE	NE	0.62	U	0.6	U	0.55	U						
Aroclor 1268	11100-14-4	NE	NE	NE	NE	0.62	U	0.6	U	0.55	U						
Total PCBs		NE	0.24	0.99	NE	0.62	U	0.6	U	32							

Key:
 VDH SSL - VT Department of Health Residential Soil Screening Levels
 RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.
 mg/kg - milligrams per kilogram (parts per million)
 µg/kg - micrograms per kilogram (parts per billion)
 µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
 Shaded results indicate an exceedence of the enforcement standard(s)

Table B3
Polychlorinated Biphenyls in Investigation Derived Waste

SampleID	ards - TCLP (7/14/2006)	5/1/2016)	5/1/2016)		Soil Drum												
Sample Date	CAS#	(mg/Kg)	(mg/Kg)	(mg/Kg)		1/12/2018	Q										
Aroclor 1016	12674-11-2	4.1	27	27	NE	0.56	U										
Aroclor 1221	11104-28-2	0.2	0.83	0.83	NE	0.56	U										
Aroclor 1232	11141-16-5	0.17	0.72	0.72	NE	0.56	U										
Aroclor 1242	53469-21-9	0.23	0.95	0.95	NE	0.56	U										
Aroclor 1248	12672-29-6	0.23	0.95	0.95		0.56	U										
Aroclor 1254	11097-69-1	0.24	0.97	0.97		1.9											
Aroclor 1260	11096-82-5	0.24	0.99	0.99		0.56	U										
Aroclor 1262	37324-23-5					0.56	U										
Aroclor 1268	11100-14-4					0.56	U										
Total PCBs		0.24	0.99	0.99		1.9											

Table B4
Waste Characteristics Analysis - Liquid Investigation Derived Wastes

SampleID	VGES ()				Water Drum												
Sample Date	CAS#				1/12/2018	Q											
Reactive Cyanide	REACTCN				0.1	U											
Reactive Sulfide	REACTSULF				25	U											
pH	PH				7.2	H											

Table B5
Polychlorinated Biphenyls in Liquid Investigation Derived Wastes

SampleID		Water Drum											
Sample Date	CAS#	1/12/2018	Q										
Aroclor 1016	12674-11-2	0.22	U										
Aroclor 1221	11104-28-2	0.22	U										
Aroclor 1232	11141-16-5	0.22	U										
Aroclor 1242	53469-21-9	0.22	U										
Aroclor 1248	12672-29-6	0.22	U										
Aroclor 1254	11097-69-1	2.8											
Aroclor 1260	11096-82-5	0.22	U										
Total PCBs		2.8											

Table B6
Total Petroleum Hydrocarbons in Liquid Investigation Derived Waste

SampleID		Water Drum											
Sample Date	CAS#	1/12/2018	Q										
Diesel Range Organics	TPH	7.8											

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Table B7

[illegible]

Table B8
RCRA 8 Metals in Soil Investigation Derived Wastes

SampleID		Soil Drum												
Sample Date	CAS#	1/12/2018	Q											
Barium	7440-39-3	34.4												
Cadmium	7440-43-9	0.696	U											
Chromium	7440-47-3	20												
Lead	7439-92-1	12.2												
Silver	7440-22-4	1.95	U											
Mercury	7439-97-6	0.0601												

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Table B9
Extractable Petroleum Hydrocarbon and Polycyclic Aromatic Hydrocarbons in Soil Investigation Derived Waste

[illegible]

Table B10
Waste Characteristics of Soil Investigation Derived Wastes

SampleID		Soil Drum												
Sample Date	CAS#	1/12/2018	Q											
Reactive Cyanide	REACTCN	23	U											
Reactive Sulfide	REACTSULF	110	U											
pH	PH	7.4	H											

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Table B11
Polychlorinated Biphenyls in Investigation Derived Waste

[illegible]

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Table B12
Total Petroleum Hydrocarbon in Soil Investigation Derived Wastes

SampleID	Soil Drum													
Sample Date	CAS#	1/12/2018	Q											
Diesel Range Organics	TPH	1900												

Key:

VDH SSL - VT Department of Health Residential Soil Screening Levels

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings.

mg/kg - milligrams per kilogram (parts per million)

µg/kg - micrograms per kilogram (parts per billion)

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Table D-1
Concentrations of Volatile Organic Compounds in Groundwater

Drivepoint Groundwater Samples		VGES	SEI-DP01-11.5	SEI-DP01-11.5-FD	SEI-DP01-22.5	SEI-DP02-14.0	SEI-DP02-28.0	SEI-DP03-14.0	RPD:
Sample ID	CAS#	(µg/L)	4/14/2020	4/14/2020	4/14/2020	4/14/2020	4/14/2020	4/15/2020	SEI-DP01-11.5
1.1.1.2-Tetrachloroethane	630-20-6	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.1.1-Trichloroethane	71-55-6	200	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.1.2.2-Tetrachloroethane	79-34-5	NE	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U
1.1.2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.1.2-Trichloroethane	79-00-5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.1-Dichloroethane	75-34-3	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.1-Dichloroethylene	75-35-4	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.1-Dichloropropene	563-58-6	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
1.2.3-Trichlorobenzene	87-61-6	0.9	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1.2.3-Trichloropropane	96-18-4	0.02	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
1.2.4-Trichlorobenzene	120-82-1	70	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.2.4-Trimethylbenzene	95-63-6	23	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
1.2-Dibromomethane (EDB)	106-93-4	0.05	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5.0 U
1.2-Dichlorobenzene	95-50-1	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.2-Dichloroethane	107-06-2	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.2-Dichloropropane	78-87-5	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.3.5-Trichlorobenzene	108-70-3	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.3.5-Trimethylbenzene	108-67-8	23	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.3-Dichlorobenzene	541-73-1	600	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1.3-Dichloropropane	142-28-9	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
1.4-Dichlorobenzene	106-46-7	75	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
1,4-Dioxane	123-91-1	0.3	50 U	50 U	50 U	50 U	50 U	50 U	500 U
2.2-Dichloropropane	594-20-7	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
2-Butanone (MEK)	78-93-3	511	20 U	20 U	20 U	20 U	20 U	20 U	200 U
2-Chlorotoluene	95-49-8	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
2-Hexanone (MBK)	591-78-6	NE	10 U	10 U	10 U	10 U	10 U	10 U	100 U
4-Chlorotoluene	106-43-4	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10 U	10 U	10 U	10 U	10 U	10 U	100 U
Acetone	67-64-1	950	50 U	50 U	50 U	50 U	50 U	50 U	500 U
Acrylonitrile	107-13-1	NE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Benzene	71-43-2	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromobenzene	108-96-1	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromochloromethane	74-97-5	8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromodichloromethane	75-27-4	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
Bromoform	75-25-2	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Bromomethane	74-83-9	5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Carbon Disulfide	75-15-0	NE	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Carbon Tetrachloride	56-23-5	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Chlorobenzene	108-90-7	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Chlorodibromomethane	124-48-1	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
Chloroethane	75-00-3	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Chloroform	67-66-3	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Chloromethane	74-87-3	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
cis-1,2-Dichloroethylene	156-59-2	70	1.0 U	1.0 U	2.5	22	8.2	430	--
cis-1,3-Dichloropropene	10061-01-5	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
Dibromomethane	74-95-3	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Diethyl Ether	60-29-7	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Diisopropyl Ether (DIPE)	108-20-3	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
Ethylbenzene	100-41-4	700	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Hexachlorobutadiene	87-68-3	NE	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U	6.0 U
Isopropylbenzene (Cumene)	98-82-8	NE	4.8	4.8	4.9	4.9	4.9	4.9	2%
m+p Xylene	108383/106423	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Methyl Acetate	79-20-9	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Methyl Cyclohexane	108-87-2	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Methylene Chloride	75-09-2	5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	50 U
Naphthalene	91-20-3	0.5	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
n-Butylbenzene	104-51-8	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
n-Propylbenzene	103-65-1	NE	1.9	1.9	1.9	1.9	1.9	1.9	10 U
o-Xylene	95-47-6	10000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
sec-Butylbenzene	135-98-8	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Styrene	100-42-5	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
tert-Butyl Alcohol (TBA)	75-65-0	NE	20 U	20 U	20 U	20 U	20 U	20 U	200 U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
tert-Butylbenzene	98-06-6	NE	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Tetrachloroethylene	127-18-4	5	1.0 U	1.0 U	1.0 U	5.4	1.0 U	1.0 U	14
Tetrahydrofuran	109-99-9	NE	10 U	10 U	10 U	10 U	10 U	10 U	100 U
Toluene	108-88-3	1000	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Total Trimethylbenzene	Total TMBs	23	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
Total Xylene	1330-20-7	10000	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
trans-1,2-Dichloroethylene	156-60-5	100	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10 U
trans-1,3-Dichloropropene	10061-02-6	NE	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	5.0 U
trans-1,4-Dichloro-2-butene	110-57-6	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Trichloroethylene	79-01-6	5	1.0 U	1.0 U	1.0 U	37	1.0 U	1.0 U	41
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	20 U
Vinyl Chloride	75-01-4	2	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	24

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Concentrations of Volatile Organic Compounds in Groundwater

Sample ID		VGES	SEI-DP03-25.0		SEI-DP04-14.0		SEI-DP04-14.0-1535		SEI-DP04-19.0		SEI-DP05-14.5		SEI-DP06-14.0		RPD: SEI-DP04-14.0
Sample Date	CAS#		4/15/2020	Q	4/16/2020	Q	4/16/2020	Q	4/16/2020	Q	4/16/2020	Q	4/15/2020	Q	
		(µg/L)													
1.1,1,2-Tetrachloroethane	630-20-6	700	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1.1,1-Trichloroethane	71-55-6	200	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1.1,2,2-Tetrachloroethane	79-34-5	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
1.1,2-Trichloro-1.2.2-trifluoroethane (Freon 113)	76-13-1	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1.1,2-Trichloroethane	79-00-5	5	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,1-Dichloroethane	75-34-3	70	10	U	26	U	26	U	240	U	1.0	U	1.0	U	4%
1,1-Dichloroethylene	75-35-4	7	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,1-Dichloropropene	563-58-6	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
1,2,3-Trichlorobenzene	87-61-6	0.9	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	--
1,2,3-Trichloropropane	96-18-4	0.02	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
1,2,4-Trichlorobenzene	120-82-1	7	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,2,4-Trimethylbenzene	95-63-6	23	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	1.2	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	--
1,2-Dibromomethane (EDB)	106-93-4	0.05	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
1,2-Dichlorobenzene	95-50-1	600	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,2-Dichloroethane	107-06-2	5	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,2-Dichloropropane	78-87-5	5	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,3,5-Trichlorobenzene	108-70-3	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,3,5-Trimethylbenzene	108-67-8	23	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,3-Dichlorobenzene	541-73-1	600	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,3-Dichloropropane	142-28-9	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
1,4-Dichlorobenzene	106-46-7	75	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
1,4-Dioxane	123-91-1	0.3	500	U	50	U	50	U	500	U	50	U	50	U	--
2,2-Dichloropropane	594-20-7	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
2-Butanone (MEK)	78-93-3	511	200	U	20	U	20	U	200	U	20	U	20	U	--
2-Chlorotoluene	95-49-8	100	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
2-Hexanone (MBK)	591-78-6	NE	100	U	10	U	10	U	100	U	10	U	10	U	--
4-Chlorotoluene	106-43-4	100	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	100	U	10	U	10	U	100	U	10	U	10	U	--
Acetone	67-64-1	950	500	U	50	U	50	U	500	U	50	U	50	U	--
Acrylonitrile	107-13-1	NE	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	--
Benzene	71-43-2	5	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Bromobenzene	108-95-1	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Bromochloromethane	74-97-5	8	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Bromodichloromethane	75-27-4	NE	5.0	U	0.50	U	0.50	U	5	U	0.50	U	0.50	U	--
Bromoform	75-25-2	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Bromomethane	74-83-9	5	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Carbon Disulfide	75-15-0	NE	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	--
Carbon Tetrachloride	56-23-5	NE	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	--
Chlorobenzene	108-90-7	100	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Chlorodibromomethane	124-48-1	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
Chloroethane	75-00-3	NE	20	U	16	U	17	U	510	U	2.0	U	2.0	U	6%
Chloroform	67-66-3	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Chloromethane	74-87-3	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
cis-1,2-Dichloroethylene	156-59-2	70	590	U	6.9	U	8.8	U	10	U	1.0	U	1.0	U	1%
cis-1,3-Dichloropropene	10061-01-5	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
Dibromomethane	74-95-3	NE	5.0	U	1.0	U	1.0	U	5.0	U	1.0	U	1.0	U	--
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Diethyl Ether	60-29-7	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Diisopropyl Ether (DIPE)	108-20-3	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
Ethylbenzene	100-41-4	700	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Hexachlorobutadiene	67-58-3	NE	6.0	U	0.60	U	0.60	U	6.0	U	0.60	U	0.60	U	--
Isopropylbenzene (Cumene)	98-82-8	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
m+p Xylene	108383106423	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Methyl Acetate	79-20-9	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Methyl Cyclohexane	108-87-2	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Methylene Chloride	75-09-2	5	50	U	5.0	U	5.0	U	50	U	5.0	U	5.0	U	--
Naphthalene	91-20-3	0.5	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
n-Butylbenzene	104-51-8	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
n-Propylbenzene	103-65-1	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
o-Xylene	95-47-6	10000	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
sec-Butylbenzene	135-98-8	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Styrene	100-42-5	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
tert-Amyl Methyl Ether (TAME)	994-05-9	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
tert-Butyl Alcohol (TBA)	75-65-0	NE	200	U	20	U	20	U	200	U	20	U	20	U	--
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
tert-Butylbenzene	98-06-6	NE	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Tetrachloroethylene	127-18-4	5	270	U	1.8	U	1.8	U	10	U	1.8	U	4.3	U	0%
Tetrahydrofuran	109-99-9	NE	100	U	10	U	10	U	100	U	10	U	10	U	--
Toluene	108-88-3	1000	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Total Trimethylbenzene	Total TMBs	23	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
Total Xylene	1330-20-7	10000	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
trans-1,2-Dichloroethylene	156-60-5	100	10	U	1.0	U	1.0	U	10	U	1.0	U	1.0	U	--
trans-1,3-Dichloropropene	10061-02-6	NE	5.0	U	0.50	U	0.50	U	5.0	U	0.50	U	0.50	U	--
trans-1,4-Dichloro-2-butene	110-57-6	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Trichloroethylene	79-01-6	5	370	U	1.6	U	1.6	U	10	U	1.6	U	2.0	U	0%
Trichlorofluoromethane (Freon 11)	75-69-4	NE	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--
Vinyl Chloride	75-01-4	2	20	U	2.0	U	2.0	U	20	U	2.0	U	2.0	U	--

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Concentrations of Volatile Organic Compounds in Groundwater

Samplepoint Groundwater Samples	Sample ID	VGES	SEI-DP07-14.0	SEI-DP08-14.0	SEI-DP08-23.0	SEI-DP09-14.0	SEI-DP09-27.0	SEI-DP10-11.0
	Sample Date	CAS#	(µg/L)	4/15/2020	4/15/2020	4/15/2020	4/16/2020	4/17/2020
1.1.1.2-Tetrachloroethane	630-20-6	70	1.0	1.0	1.0	1.0	1.0	2.0
1.1.1-Trichloroethane	71-55-6	200	1.0	1.0	1.0	4.0	1.0	2.0
1.1.2.2-Tetrachloroethane	79-34-5	NE	0.50	0.50	0.50	2.0	0.50	1.0
1.1.2.2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1.0	1.0	1.0	4.0	1.0	2.0
1.1.2-Trichloroethane	79-00-5	5	1.0	1.0	1.0	4.0	1.0	2.0
1.1-Dichloroethane	75-34-3	NE	1.0	1.0	1.0	4.0	1.0	2.0
1.2-Dichloroethylene	75-35-4	7	1.0	1.0	1.0	1.0	1.0	2.0
1.1-Dichloropropene	563-58-6	70	2.0	2.0	2.0	8.0	2.0	4.0
1.2,3-Trichlorobenzene	87-61-6	0.9	5.0	5.0	5.0	2.0	5.0	1.0
1.2,3-Trichloropropane	96-18-4	0.02	2.0	2.0	2.0	8.0	2.0	4.0
1.2,4-Trichlorobenzene	120-82-1	70	1.0	1.0	1.0	4.0	1.0	2.0
1.2,4-Trimethylbenzene	95-63-6	23	1.0	1.0	1.0	4.0	1.0	2.7
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	5.0	5.0	5.0	5.0	5.0	1.0
1.2-Dibromomethane (EDB)	106-93-4	0.05	0.50	0.50	0.50	2.0	0.50	1.0
1.2-Dichlorobenzene	95-50-1	600	1.0	1.0	1.0	4.0	1.0	2.0
1.2-Dichloroethane	107-06-2	5	1.0	1.0	1.0	4.0	1.0	2.0
1.2-Dichloropropane	78-87-5	5	1.0	1.0	1.0	4.0	1.0	2.0
1,3,5-Trichlorobenzene	108-70-3	NE	1.0	1.0	1.0	4.0	1.0	2.0
1,3,5-Trimethylbenzene	108-67-8	23	1.0	1.0	1.0	4.0	1.0	2.0
1.3-Dichlorobenzene	541-73-1	600	1.0	1.0	1.0	4.0	1.0	2.0
1.3-Dichloropropane	142-28-9	NE	0.50	0.50	0.50	2.0	0.50	1.0
1,4-Dichlorobenzene	106-46-7	75	1.0	1.0	1.0	4.0	1.0	2.0
1,4-Dioxane	123-91-1	0.3	50	50	50	200	50	100
2,2-Dichloropropane	594-20-7	NE	1.0	1.0	1.0	4.0	1.0	2.0
2-Butanone (MEK)	78-93-3	20	1.0	1.0	1.0	2.0	1.0	2.0
2-Chlorotoluene	95-49-8	100	1.0	1.0	1.0	4.0	1.0	2.0
2-Hexanone (MBK)	591-78-6	NE	1.0	1.0	1.0	4.0	1.0	2.0
4-Chlorotoluene	106-43-4	100	1.0	1.0	1.0	4.0	1.0	2.0
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	1.0	1.0	1.0	4.0	1.0	2.0
Acetone	67-64-1	950	5.0	5.0	5.0	200	5.0	100
Acrylonitrile	107-13-1	2.0	NE	5.0	5.0	5.0	5.0	1.0
Benzene	71-43-2	5	1.0	1.0	1.9	2.0	1.0	2.0
Bromobenzene	108-86-1	NE	1.0	1.0	1.0	4.0	1.0	2.0
Bromochloromethane	74-97-5	8	1.0	1.0	1.0	4.0	1.0	2.0
Bromodichloromethane	75-27-4	NE	0.50	0.50	0.50	2.0	0.50	1.0
Bromofom	75-25-2	NE	1.0	1.0	1.0	4.0	1.0	2.0
Bromomethane	74-83-9	5	2.0	2.0	2.0	8.0	2.0	4.0
Carbon Disulfide	75-15-0	NE	5.0	5.0	5.0	5.0	5.0	1.0
Carbon Tetrachloride	56-23-5	5	5.0	5.0	5.0	2.0	5.0	10
Chlorobenzene	108-90-7	100	1.0	1.0	1.0	4.0	1.0	2.0
Chlorodibromomethane	124-48-1	NE	0.50	0.50	0.50	2.0	0.50	1.0
Chloroethane	75-00-3	NE	2.0	2.0	2.0	8.0	2.0	25
Chloroform	67-66-3	NE	2.0	2.0	2.0	8.0	2.0	4.0
Chloromethane	74-87-3	NE	2.0	2.0	2.0	8.0	2.0	4.0
cis-1,2-Dichloroethylene	156-59-2	70	1.0	20	11	210	5.3	19
cis-1,3-Dichloropropene	10061-01-5	NE	0.50	0.50	0.50	2.0	0.50	1.0
Dibromomethane	74-95-3	NE	1.0	1.0	1.0	4.0	1.0	2.0
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2.0	2.0	2.0	8.0	2.0	4.0
Diethyl Ether	60-29-7	NE	2.0	2.0	2.0	8.0	2.0	4.0
Diisopropyl Ether (DIPE)	108-20-3	NE	0.50	0.50	0.50	2.0	0.50	1.0
Ethylbenzene	100-41-4	700	1.0	1.0	1.0	4.0	1.0	2.0
Hexachlorobutadiene	87-68-3	NE	0.60	0.60	0.60	2.4	0.60	1.2
Isopropylbenzene (Cumene)	98-82-8	NE	1.0	1.0	1.3	4.0	1.0	2.0
m-p-Xylene	108383/106423	NE	2.0	2.0	2.0	8.0	2.0	4.0
Methyl Acetate	79-20-9	NE	1.0	1.0	1.0	4.0	1.0	2.0
Methyl Cyclohexane	108-87-2	NE	1.0	1.0	1.0	4.0	1.0	2.0
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1.0	1.0	1.0	4.0	1.0	2.0
Methylene Chloride	75-09-2	5	5.0	5.0	5.0	2.0	5.0	10
Naphthalene	91-20-3	0.5	2.0	2.0	2.0	8.0	2.0	4.0
n-Butylbenzene	104-51-8	NE	1.0	1.0	1.0	4.0	1.0	2.0
n-Propylbenzene	103-65-1	NE	1.0	1.0	1.0	4.0	1.0	2.0
o-Xylene	95-47-6	10000	1.0	1.0	1.0	4.0	1.0	2.0
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1.0	1.0	1.0	4.0	1.0	2.0
sec-Butylbenzene	135-98-8	NE	1.0	1.0	1.0	4.0	1.0	2.0
Styrene	100-42-5	100	1.0	1.0	1.0	4.0	1.0	2.0
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.50	0.50	0.50	2.0	0.50	1.0
tert-Butyl Alcohol (TBA)	75-65-0	NE	20	20	20	20	20	40
tert-Butyl Methyl Ether (TBEE)	652-92-3	NE	0.50	0.50	0.50	2.0	0.50	1.0
tert-Butylbenzene	98-06-6	NE	1.0	1.0	1.0	4.0	1.0	2.0
Tetrachloroethylene	127-18-4	5	1.0	4.8	1.0	69	1.6	2.0
Tetrahydrofuran	109-99-9	NE	10	10	10	4.0	10	20
Toluene	108-88-3	1000	1.0	1.0	1.0	4.0	1.0	2.0
Total Trimethylbenzene	23	1.0	1.0	1.0	1.0	4.0	1.0	2.0
Total Xylene	1330-20-7	10000	2.0	2.0	2.0	8.0	2.0	4.0
trans-1,2-Dichloroethylene	156-60-5	100	1.0	1.0	1.0	4.0	1.0	2.0
trans-1,3-Dichloropropene	10061-02-6	NE	0.50	0.50	0.50	2.0	0.50	1.0
trans-1,4-Dichloro-2-butene	110-57-6	NE	2.0	2.0	2.0	8.0	2.0	4.0
Trichloroethylene	79-01-6	5	1.0	74	1.0	77	3.1	2.0
Trichloromethane (Freon 11)	75-69-4	NE	2.0	2.0	2.0	8.0	2.0	4.0
Vinyl Chloride	75-01-2	2	1.0	1.0	29	8.0	1.0	4.0

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference

Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-1
Concentrations of Volatile Organic Compounds in Groundwater

Drivewaypoint Groundwater Samples												
Sample ID	Sample Date	CAS#	VGES	SEI-DP10-19.0	SEI-DP11-22.0	SEI-DP12-16.0	SEI-DP12-22.0	SEI-DP13-18.0	SEI-DP13-22.0			
			(µg/L)	4/17/2020	4/16/2020	4/16/2020	4/16/2020	4/15/2020	4/15/2020			
1,1,1,2-Tetrachloroethane	630-20-6	70		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,1,1-Trichloroethane	71-55-6	200		18	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE		190	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,1,2-Trichloroethane	79-00-5	5		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,1-Dichloroethane	75-34-3	70		140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,1-Dichloroethylene	75-35-4	7		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,1-Dichloropropene	563-58-6	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
1,2,3-Trichlorobenzene	87-61-6	0.9		25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			5.0 U
1,2,3-Trichloropropane	96-18-4	0.02		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
1,2,4-Trichlorobenzene	120-82-1	70		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,2,4-Trimethylbenzene	95-63-6	23		34	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2		25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			5.0 U
1,2-Dibromobenzene (EDB)	106-93-4	0.05		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
1,2-Dichlorobenzene	95-50-1	600		5.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,2-Dichloroethane	107-06-2	5		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,2-Dichloropropane	78-87-5	5		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,3,5-Trichlorobenzene	108-70-3	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,3,5-Trimethylbenzene	108-67-8	23		9.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,3-Dichlorobenzene	541-73-1	600		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,3-Dichloropropane	142-28-9	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
1,4-Dichlorobenzene	106-46-7	75		32	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
1,4-Dioxane	123-91-1	0.3		250 U	50 U	50 U	50 U	50 U	50 U			50 U
2,2-Dichloropropane	594-20-7	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
2-Butanone (MEK)	78-93-3	511		100 U	20 U	20 U	20 U	20 U	20 U			20 U
2-Chlorotoluene	95-49-8	100		5.00 U	1.00 U	1.00 U	1.00 U	1.00 U	1.00 U			1.00 U
2-Hexanone (MBK)	591-78-6	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
4-Chlorotoluene	100-43-4	100		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Acetone	67-64-1	950		250 U	50 U	50 U	50 U	50 U	50 U			50 U
Acrylonitrile	107-13-1	NE		25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			5.0 U
Benzene	71-43-2	5		21	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Bromobenzene	108-96-1	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Bromochloromethane	74-97-5	9		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Bromodichloromethane	75-27-4	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
Bromofrom	75-25-2	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Bromomethane	74-83-9	5		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Carbon Disulfide	75-15-0	NE		25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			5.0 U
Carbon Tetrachloride	56-23-5	5		25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			5.0 U
Chlorobenzene	108-90-7	NE		140	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Chlorodibromomethane	124-48-1	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
Chloroethane	75-00-3	NE		620	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Chloroform	67-66-3	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Chloromethane	74-87-3	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
cis-1,2-Dichloroethylene	156-59-2	70		11	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
cis-1,3-Dichloropropene	10061-01-5	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
Dibromomethane	74-95-3	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Diethyl Ether	60-29-7	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Diisopropyl Ether (DIPE)	108-20-3	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
Ethylbenzene	100-41-4	700		46	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Hexachlorotadiene	87-68-3	NE		3.0 U	0.60 U	0.60 U	0.60 U	0.60 U	0.60 U			0.60 U
Isopropylbenzene (Cumene)	98-92-9	NE		99	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
m+p Xylene	108383/106423	NE		82	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Methyl Acetate	79-20-9	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Methyl Cyclohexane	108-87-2	NE		10	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Methylene Chloride	75-09-2	5		25 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U			5.0 U
Naphthalene	91-20-3	0.5		120	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
n-Butylbenzene	104-51-8	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
n-Propylbenzene	103-65-1	NE		9.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
o-Xylene	95-47-6	10000		42	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
sec-Butylbenzene	135-98-8	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Styrene	100-42-5	100		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
tert-Butyl Alcohol (TBA)	75-65-0	NE		100 U	20 U	20 U	20 U	20 U	20 U			20 U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
tert-Butylbenzene	98-06-6	NE		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Tetrachloroethylene	127-18-4	5		5.0 U	2.6	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Tetrahydrofuran	109-99-9	NE		50 U	10 U	10 U	10 U	10 U	10 U			10 U
Toluene	108-88-3	1000		350	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Total Trimethylbenzene	Total TMBs	23		43.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Total Xylene	1330-20-7	10000		124	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
trans-1,2-Dichloroethylene	156-60-5	100		5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
trans-1,3-Dichloropropene	10061-02-6	NE		2.5 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U			0.50 U
trans-1,4-Dichloro-2-butene	110-57-6	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Trichloroethylene	79-01-6	5		5.0 U	2.1	1.0 U	1.0 U	1.0 U	1.0 U			1.0 U
Trichlorofluoromethane (Freon 11)	75-69-4	NE		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U
Vinyl Chloride	75-01-4	2		10 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U			2.0 U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedance of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-1
Concentrations of Volatile Organic Compounds in Groundwater

Drivepoint Groundwater Samples				
Sample ID		VGES	SEI-MW-4R-24.0	
Sample Date	CAS#	(µg/L)	4/14/2020	Q
1,1,1,2-Tetrachloroethane	630-20-6	70	1.0	U
1,1,1-Trichloroethane	71-55-6	200	1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	NE	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1.0	U
1,1,2-Trichloroethane	79-00-5	5	1.0	U
1,1-Dichloroethane	75-34-3	70	1.0	U
1,1-Dichloroethylene	75-35-4	7	1.0	U
1,1-Dichloropropene	563-98-6	NE	2.0	U
1,2,3-Trichlorobenzene	87-61-6	0.9	5.0	U
1,2,3-Trichloropropane	96-18-4	0.02	2.0	U
1,2,4-Trichlorobenzene	120-82-1	70	1.0	U
1,2,4-Trimethylbenzene	95-63-6	23	1.0	U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	5.0	U
1,2-Dibromoethane (EDB)	106-93-4	0.05	0.50	U
1,2-Dichlorobenzene	95-50-1	600	1.0	U
1,2-Dichloroethane	107-06-2	5	1.0	U
1,2-Dichloropropane	78-87-5	5	1.0	U
1,3,5-Trichlorobenzene	108-70-3	NE	1.0	U
1,3,5-Trimethylbenzene	108-67-8	23	1.0	U
1,3-Dichlorobenzene	541-73-1	600	1.0	U
1,3-Dichloropropane	142-28-9	NE	0.50	U
1,4-Dichlorobenzene	106-46-7	75	1.0	U
1,4-Dioxane	123-91-1	0.3	5.0	U
2,2-Dichloropropane	594-20-7	NE	1.0	U
2-Butanone (MEK)	78-93-3	511	20	U
2-Chlorotoluene	95-49-8	100	1.0	U
2-Hexanone (MBK)	591-78-6	NE	10	U
4-Chlorotoluene	100-43-4	100	1.0	U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10	U
Acetone	67-64-1	950	50	U
Acrylonitrile	107-13-1	NE	5.0	U
Benzene	71-43-2	5	3.4	U
Bromobenzene	108-96-1	NE	1.0	U
Bromochloromethane	74-97-5	8	1.0	U
Bromodichloromethane	75-27-4	NE	0.50	U
Bromoforn	75-25-2	NE	1.0	U
Bromomethane	74-83-9	5	2.0	U
Carbon Disulfide	75-15-0	NE	5.0	U
Carbon Tetrachloride	56-23-5	5	5.0	U
Chlorobenzene	108-90-7	100	1.0	U
Chlorodibromomethane	124-48-1	NE	0.50	U
Chloroethane	75-00-3	NE	2.0	U
Chloroform	67-66-3	NE	2.0	U
Chloromethane	74-87-3	NE	2.0	U
cis-1,2-Dichloroethylene	156-59-2	70	9.3	U
cis-1,3-Dichloropropene	10061-01-5	NE	0.50	U
Dibromomethane	74-95-3	NE	1.0	U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2.0	U
Diethyl Ether	60-29-7	NE	2.0	U
Diisopropyl Ether (DIPE)	108-20-3	NE	0.50	U
Ethylbenzene	100-41-4	700	1.0	U
Hexachlorocycladiene	87-68-3	NE	0.5	U
Isopropylbenzene (Cumene)	98-92-9	NE	9.2	U
m+p Xylene	108383/106423	NE	2.0	U
Methyl Acetate	79-20-9	NE	1.0	U
Methyl Cyclohexane	108-87-2	NE	1.0	U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1.0	U
Methylene Chloride	75-09-2	5	5.0	U
Naphthalene	91-20-3	0.5	2.0	U
n-Butylbenzene	104-51-8	NE	1.1	U
n-Propylbenzene	103-65-1	NE	1.0	U
o-Xylene	95-47-6	10000	5.9	U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1.0	U
sec-Butylbenzene	135-98-8	NE	1.0	U
Styrene	100-42-5	100	1.0	U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.50	U
tert-Butyl Alcohol (TBA)	75-65-0	NE	20	U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.50	U
tert-Butylbenzene	98-06-6	NE	1.0	U
Tetrachloroethylene	127-18-4	5	3.4	U
Tetrahydrofuran	109-99-9	NE	10	U
Toluene	108-88-3	1000	1.0	U
Total Trimethylbenzene	Total TMBs	23	1.0	U
Total Xylene	1330-20-7	10000	5.9	U
trans-1,2-Dichloroethylene	156-60-5	100	1.0	U
trans-1,3-Dichloropropene	10061-02-6	NE	0.50	U
trans-1,4-Dichloro-2-butene	110-57-6	NE	2.0	U
Trichloroethylene	79-01-6	5	1.4	U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2.0	U
Vinyl Chloride	75-01-4	2	63	U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Concentrations of Volatile Organic Compounds in Groundwater

Monitoring Well Groundwater Samples																RPD:
SampleID	CAS#	VGES	MW-101	Q	MW-102	Q	MW-103	Q	MW-104	Q	MW-105S	Q	MW-105S-FD	Q	MW-105S	
Sample Date		(µg/L)	5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020		5/5/2020			
1.1.1.2-Tetrachloroethane	630-20-6	70	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.1.1-Trichloroethane	71-55-6	200	140	U	4.0	U	1.0	U	1.0	U	20	U	20	U	0%	
1.1.2.2-Tetrachloroethane	79-34-5	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
1.1.2-Trichloro-1.2.2-trifluoroethane (Freon 113)	76-13-1	NE	110	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.1.2-Trichloroethane	79-00-5	5	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.1-Dichloroethane	75-34-3	70	730	U	4.0	U	35	U	1.0	U	330	U	330	U	0%	
1.1-Dichloroethylene	75-35-4	7	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.1-Dichloropropene	563-58-6	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
1.2.3-Trichlorobenzene	87-61-6	0.9	50	U	2.0	U	5.0	U	5.0	U	50	U	50	U	--	
1.2.3-Trichloropropane	96-18-4	0.02	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
1.2.4-Trichlorobenzene	120-82-1	70	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.2.4-Trimethylbenzene	95-63-6	0.03	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.2-Dibromo-3-chloropropane (DBCP)	96-12-8	2	50	U	8.0	U	2.0	U	2.0	U	50	U	50	U	--	
1.2-Dibromomethane (EDB)	106-93-4	25	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
1.2-Dichlorobenzene	95-50-1	600	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.2-Dichloroethane	107-06-2	5	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.2-Dichloropropane	78-87-5	5	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.3.5-Trichlorobenzene	108-70-3	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.3.5-Trimethylbenzene	108-67-8	23	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.3-Chlorobenzene	541-73-1	600	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.3-Dichlorobenzene	142-28-9	NE	5.0	U	2.0	U	0.5	U	0.50	U	5.0	U	5.0	U	--	
1.4-Dichlorobenzene	106-46-7	75	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
1.4-Dioxane	123-91-1	0.3	500	U	200	U	50	U	50	U	500	U	500	U	--	
2.2-Dichloropropane	594-20-7	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
2-Butanone (MEK)	78-93-3	511	200	U	80	U	20	U	20	U	200	U	200	U	--	
2-Chlorotoluene	95-49-8	100	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
2-Hexanone (MBK)	591-78-6	NE	100	U	40	U	10	U	10	U	100	U	100	U	--	
4-Chlorotoluene	106-43-4	100	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	100	U	40	U	10	U	10	U	100	U	100	U	--	
Acetone	67-64-1	950	500	U	200	U	50	U	50	U	500	U	500	U	--	
Acrylonitrile	107-13-1	NE	50	U	20	U	5.0	U	5.0	U	50	U	50	U	--	
Benzene	71-43-2	5	14	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Bromobenzene	108-86-1	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Bromochloromethane	74-97-5	8	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Bromodichloromethane	75-27-4	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
Bromoform	75-25-2	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Bromomethane	74-83-9	5	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Carbon Disulfide	75-15-0	NE	50	U	20	U	5.0	U	5.0	U	50	U	50	U	--	
Carbon Tetrachloride	56-23-5	NE	80	U	5.0	U	5.0	U	5.0	U	80	U	80	U	--	
Chlorobenzene	108-90-7	100	67	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Chlorodibromomethane	124-48-1	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
Chloroethane	75-00-3	NE	720	U	8.0	U	21	U	2.0	U	540	U	520	U	4%	
Chloroform	67-66-3	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Chloromethane	74-87-3	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
cis-1,2-Dichloroethylene	156-59-2	70	15	U	260	U	57	U	1.0	U	10	U	10	U	--	
cis-1,3-Dichloropropene	10061-01-5	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
Dibromomethane	74-95-3	NE	5.0	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Diethyl Ether	60-29-2	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Diisopropyl Ether (DIPE)	108-20-3	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
Ethylbenzene	100-41-4	700	23	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Hexachlorobutadiene	67-58-3	NE	6.0	U	2.0	U	0.60	U	0.60	U	6.0	U	6.0	U	--	
Isopropylbenzene (Cumene)	98-82-8	NE	1.0	U	4.0	U	1.0	U	1.0	U	1.0	U	1.0	U	--	
m+p Xylene	108383/106423	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Methyl Acetate	79-20-9	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Methyl Cyclohexane	108-87-2	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Methylene Chloride	75-09-2	5	50	U	2.0	U	5.0	U	5.0	U	50	U	50	U	--	
Naphthalene	91-20-3	0.5	54	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
n-Butylbenzene	104-51-8	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
n-Propylbenzene	103-65-1	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
o-Xylene	95-47-6	10000	12	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
sec-Butylbenzene	135-98-8	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Styrene	100-42-5	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
tert-Amyl Methyl Ether (TAME)	994-05-9	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
tert-Butyl Alcohol (TBA)	75-65-0	NE	200	U	8.0	U	20	U	20	U	200	U	200	U	--	
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
tert-Butylbenzene	98-06-6	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Tetrachloroethylene	127-18-4	5	10	U	38	U	5.6	U	16	U	10	U	10	U	--	
Tetrahydrofuran	109-99-9	NE	100	U	40	U	10	U	10	U	100	U	100	U	--	
Toluene	108-88-3	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Total Trinitrobenzene	25551-13-7	NE	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
Total Xylene	1330-20-7	10000	12	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
trans-1,2-Dichloroethylene	156-60-5	100	10	U	4.0	U	1.0	U	1.0	U	10	U	10	U	--	
trans-1,3-Dichloropropene	10061-02-6	NE	5.0	U	2.0	U	0.50	U	0.50	U	5.0	U	5.0	U	--	
trans-1,4-Dichloro-2-butene	110-57-6	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Trichloroethylene	79-01-6	5	16	U	4.0	U	4.2	U	26	U	16	U	16	U	--	
Trichlorofluoromethane (Freon 11)	75-69-4	NE	20	U	8.0	U	2.0	U	2.0	U	20	U	20	U	--	
Vinyl Chloride	75-01-4	2	20	U	8.0	U	3.3	U	2.0	U	20	U	20	U	--	

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-1
Concentrations of Volatile Organic Compounds in Groundwater

Monitoring Well Groundwater Samples		VGES	MW-105D		MW-106		MW-107		MW-4-14D		MW-4-14R		MW-4-16R		MW-7B
Sample ID	CAS#	(µg/L)	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020
1,1,1,2-Tetrachloroethane	630-20-6	70	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,1,1-Trichloroethane	71-55-6	200	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,1,2,2-Tetrachloroethane	79-34-5	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,1,2-Trichloroethane	79-00-5	5	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,1-Dichloroethane	75-34-3	70	230		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		9.5
1,1-Dichloroethylene	75-35-4	7	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,1-Dichloropropene	563-58-6	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
1,2,3-Trichlorobenzene	87-61-6	0.9	50 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		10 U
1,2,3-Trichloropropane	96-18-4	0.02	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
1,2,4-Trichlorobenzene	120-82-1	70	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,2,4-Trimethylbenzene	95-63-6	23	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	50 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		10 U
1,2-Dibromobenzene (EDB)	106-93-4	0.05	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
1,2-Dichlorobenzene	95-50-1	600	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,2-Dichloroethane	107-06-2	5	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,2-Dichloropropane	78-87-5	5	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,3,5-Trichlorobenzene	108-70-3	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,3,5-Trimethylbenzene	108-67-8	23	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,3-Dichlorobenzene	541-73-1	600	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,3-Dichloropropane	142-28-9	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
1,4-Dichlorobenzene	106-46-7	75	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
1,4-Dioxane	123-91-1	0.3	500 U		50 U		50 U		50 U		50 U		50 U		100 U
2,2-Dichloropropane	594-20-7	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
2-Butanone (MEK)	78-93-3	511	200 U		20 U		20 U		20 U		20 U		20 U		40 U
2-Chlorotoluene	95-49-8	100	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
2-Hexanone (MBK)	591-78-6	NE	100 U		10 U		10 U		10 U		10 U		10 U		20 U
4-Chlorotoluene	100-43-4	100	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	100 U		10 U		10 U		10 U		10 U		10 U		20 U
Acetone	67-64-1	950	500 U		50 U		50 U		50 U		50 U		50 U		100 U
Acrylonitrile	107-13-1	NE	50 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		10 U
Benzene	71-43-2	5	10 U		1.0 U		1.2		4.4		1.0 U		1.0 U		2.0 U
Bromobenzene	108-96-1	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Bromochloromethane	74-97-5	8	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Bromodichloromethane	75-27-4	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
Bromofrom	75-25-2	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Bromomethane	74-83-9	5	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Carbon Disulfide	75-15-0	NE	50 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		10 U
Carbon Tetrachloride	56-23-5	5	50 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		10 U
Chlorobenzene	108-90-7	100	10 U		1.0 U		5.4		1.0 U		1.0 U		1.0 U		2.0 U
Chlorodibromomethane	124-48-1	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
Chloroethane	75-00-3	NE	440		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Chloroform	67-66-3	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Chloromethane	74-87-3	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
cis-1,2-Dichloroethylene	156-59-2	70	10 U		1.8		1.0 U		2.3		22		5.2		120
cis-1,3-Dichloropropene	10061-01-5	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
Dibromomethane	74-95-3	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Diethyl Ether	60-29-7	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Diisopropyl Ether (DIPE)	108-20-3	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
Ethylbenzene	100-41-4	700	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Hexachlorobutadiene	87-68-3	NE	6 U		0.60 U		0.60 U		0.60 U		0.60 U		0.60 U		1.2 U
Isopropylbenzene (Cumene)	98-82-8	NE	10 U		1.0 U		1.5		14		1.0 U		1.0 U		2.0 U
m+p Xylene	108383/106423	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Methyl Acetate	79-20-9	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Methyl Cyclohexane	108-87-2	NE	10 U		1.0 U		2.0		1.0 U		1.0 U		1.0 U		2.0 U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Methylene Chloride	75-09-2	5	50 U		5.0 U		5.0 U		5.0 U		5.0 U		5.0 U		10 U
Naphthalene	91-20-3	0.5	20 U		2.0 U		70		2.0 U		2.0 U		2.0 U		4.0 U
n-Butylbenzene	104-51-8	NE	10 U		1.0 U		1.0 U		1.6		1.0 U		1.0 U		2.0 U
n-Propylbenzene	103-65-1	NE	10 U		1.0 U		1.8		1.0 U		1.0 U		1.0 U		2.0 U
o-Xylene	95-47-6	10000	10 U		1.0 U		1.0 U		9.5		1.0 U		1.0 U		2.0 U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
sec-Butylbenzene	135-98-8	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Styrene	100-42-5	100	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
tert-Butyl Alcohol (TBA)	75-65-0	NE	200 U		20 U		20 U		20 U		20 U		20 U		40 U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
tert-Butylbenzene	98-06-6	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Tetrachloroethylene	127-18-4	5	10 U		1.0 U		1.0 U		1.0 U		14		3.3		2.0 U
Tetrahydrofuran	109-99-9	NE	100 U		10 U		10 U		10 U		10 U		10 U		20 U
Toluene	108-88-3	1000	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Total Trimethylbenzene	25551-13-7	NE	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
Total Xylene	1330-20-7	10000	20 U		2.0 U		2.0 U		9.5		2.0 U		2.0 U		4.0 U
trans-1,2-Dichloroethylene	156-60-5	100	10 U		1.0 U		1.0 U		1.0 U		1.0 U		1.0 U		2.0 U
trans-1,3-Dichloropropene	10061-02-6	NE	5.0 U		0.50 U		0.50 U		0.50 U		0.50 U		0.50 U		1.0 U
trans-1,4-Dichloro-2-butene	110-57-6	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Trichloroethylene	79-01-6	5	10 U		1.0 U		1.0 U		1.0 U		68		3.8		3.3
Trichlorofluoromethane (Freon 11)	75-69-4	NE	20 U		2.0 U		2.0 U		2.0 U		2.0 U		2.0 U		4.0 U
Vinyl Chloride	75-01-4	2	20 U		2.0 U		2.0 U		56		2.0 U		4.5		12

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Concentrations of Volatile Organic Compounds in Groundwater

Key:
 VGES - Vermont Groundwater Enforcement Standard, July 2019
 Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
 Total Xylene - cumulative sum of all xylenes
 µg/L - micrograms per liter (parts per billion)
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Bold results indicate detections of the analyte
 Shaded results indicate an exceedence of the enforcement standard(s)
 NE - screening level not established
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Table D-1
Concentrations of Volatile Organic Compounds in Groundwater

Piezometer Porewater Samples									
Sample ID	VGES	PW-R6-01	PW-R6-01-FD	RPD:	PW-R7-01	PW-R8-01			
Sample Date	CAS#	5/19/2020	5/19/2020		5/19/2020	5/19/2020			
	(µg/L)	Q	Q						Q
1,1,1,2-Tetrachloroethane	630-20-6	70	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	71-55-6	200	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	79-34-5	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	79-00-5	5	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	75-34-3	70	29	28	4%	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethylene	75-35-4	7	2.3	2.5	8%	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	563-98-6	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
1,2,3-Trichlorobenzene	87-61-6	0.9	5.8 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
1,2,3-Trichloropropane	96-18-4	0.02	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
1,2,4-Trichlorobenzene	120-82-1	70	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	95-63-6	23	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.2	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (EDB)	106-93-4	0.05	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
1,2-Dichlorobenzene	95-50-1	600	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	107-06-2	5	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	78-87-5	5	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trichlorobenzene	108-70-3	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	108-67-8	23	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	541-73-1	600	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichloropropane	142-28-9	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
1,4-Dichlorobenzene	106-46-7	75	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dioxane	123-91-1	0.3	50 U	50 U	--	50 U	50 U	50 U	50 U
2,2-Dichloropropane	594-20-7	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (MEK)	78-93-3	511	20 U	20 U	--	20 U	20 U	20 U	20 U
2-Chlorotoluene	95-49-8	100	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone (MBK)	591-78-6	NE	10 U	10 U	--	10 U	10 U	10 U	10 U
4-Chlorotoluene	106-43-4	100	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	10 U	10 U	--	10 U	10 U	10 U	10 U
Acetone	67-64-1	950	50 U	50 U	--	50 U	50 U	50 U	50 U
Acrylonitrile	107-13-1	NE	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Benzene	71-43-2	5	1.4	1.2	15%	1.0 U	1.0 U	1.0 U	1.0 U
Bromobenzene	108-96-1	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Bromochloromethane	74-97-5	8	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	75-27-4	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
Bromofom	75-25-2	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane	74-83-9	5	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Carbon Disulfide	75-15-0	NE	5.0 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Carbon Tetrachloride	56-23-5	5	5.8 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	108-90-7	100	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Chlorodibromomethane	124-48-1	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
Chloroethane	75-00-3	NE	26	24	8%	2.0 U	2.0 U	2.0 U	2.0 U
Chloroform	67-66-3	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Chloromethane	74-87-3	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
cis-1,2-Dichloroethylene	156-59-2	70	150	150	0%	6.3	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	10061-01-5	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
Dibromomethane	74-95-3	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Diethyl Ether	60-29-7	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Diisopropyl Ether (DIPE)	108-20-3	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
Ethylbenzene	100-41-4	700	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Hexachlorocyclotriene	87-68-3	NE	0.60 U	0.60 U	--	0.60 U	0.60 U	0.60 U	0.60 U
Isopropylbenzene (Cumene)	98-92-9	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
m+p Xylene	108383/106423	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Methyl Acetate	79-20-9	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Methyl Cyclohexane	108-87-2	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	11	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Methylene Chloride	75-09-2	5	5.8 U	5.0 U	--	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	91-20-3	0.5	2.8 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
n-Butylbenzene	104-51-8	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
n-Propylbenzene	103-65-1	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene	95-47-6	10000	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
sec-Butylbenzene	135-98-8	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	100-42-5	100	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
tert-Butyl Alcohol (TBA)	75-65-0	NE	20 U	20 U	--	20 U	20 U	20 U	20 U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
tert-Butylbenzene	98-06-6	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethylene	127-18-4	5	2.2	2.7	20%	20	1.0 U	1.0 U	1.0 U
Tetrahydrofuran	109-99-9	NE	10 U	10 U	--	10 U	10 U	10 U	10 U
Toluene	108-88-3	1000	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Total Trimethylbenzene	25551-13-7	NE	1.0 U	1.0 U	--	1.0 U	1.0 U	1.0 U	1.0 U
Total Xylene	1330-20-7	10000	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
trans-1,2-Dichloroethylene	156-60-5	100	2.4	2.5	4%	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	10061-02-6	NE	0.50 U	0.50 U	--	0.50 U	0.50 U	0.50 U	0.50 U
trans-1,4-Dichloro-2-butene	110-57-6	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Trichloroethylene	79-01-6	5	9.2	10	8%	26	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	2.0 U	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl Chloride	75-01-4	2	74	76	3%	2.0 U	2.0 U	2.0 U	2.0 U

Key:
VGES - Vermont Groundwater Enforcement Standard, July 2019
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
µg/L - micrograms per liter (parts per billion)
RPD - relative percent difference
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-2
Concentrations of Polychlorinated Biphenyls in Groundwater

Monitoring Well Groundwater Samples													
Sample ID		VGES	MW-101		MW-102		MW-103		MW-104		MW-105S		MW-105S-FD
Sample Date	CAS#		5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020
		(µg/L)											
Aroclor-1016	12674-11-2	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1221	11104-28-2	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1232	11141-16-5	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1242	53469-21-9	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1248	12672-29-6	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1254	11097-69-1	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1260	11096-82-5	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1262	37324-23-5	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Aroclor-1268	11100-14-4	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Total PCBs	1336-36-3	0.5	0.20	U	0.20	U	0.20	U	0.20	U	0.25	U	0.20
Sample ID		VGES	MW-105D		MW-106		MW-107		MW-4-14D		MW-4-14R		MW-4-16R
Sample Date	CAS#		5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020
		(µg/L)											
Aroclor-1016	12674-11-2	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1221	11104-28-2	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1232	11141-16-5	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1242	53469-21-9	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1248	12672-29-6	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1254	11097-69-1	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.29
Aroclor-1260	11096-82-5	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1262	37324-23-5	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Aroclor-1268	11100-14-4	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.19
Total PCBs	1336-36-3	0.5	0.20	U	0.19	U	0.20	U	0.20	U	0.20	U	0.29

Key:
 VGES - Vermont Groundwater Enforcement Standard, July 2019
 µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
 Shaded results indicate an exceedence of the enforcement standard(s)
 NE - screening level not established
 Q - laboratory result qualifier
 U - Analyte not detected; limit of quantitation listed

Table D-3
Concentrations of Semi Volatile Organic Compounds in Groundwater

Monitoring Well Groundwater Samples													RPD: MW-105S
SampleID	CAS#	VGES	MW-101		MW-102		MW-103		MW-104		MW-105S	MW-105S-FD	
Sample Date		(µg/L)	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	5/5/2020	
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
1,2,4-Trichlorobenzene	120-82-1	70	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
1,2-Dichlorobenzene	95-50-1	600	0.48		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
1,3-Dichlorobenzene	541-73-1	600	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
1,4-Dichlorobenzene	106-46-7	75	0.78		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
1-Methylnaphthalene	90-12-0	NE	29		5.0 U		5.0 U		4.9 U		2.1	2.2	5%
2,4,5-Trichlorophenol	95-95-4	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2,4,6-Trichlorophenol	88-06-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2,4-Dichlorophenol	120-83-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2,4-Dimethylphenol	105-67-9	NE	0.83		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2,4-Dinitrophenol	51-28-5	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2,4-Dinitrotoluene	121-14-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2,6-Dinitrotoluene	606-20-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2-Chloronaphthalene	91-58-7	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2-Chlorophenol	95-57-8	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2-Methylnaphthalene	91-57-6	NE	39		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
2-Methylphenol	95-48-7	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2-Nitroaniline	88-74-4	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
2-Nitrophenol	88-75-5	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
3,3-Dichlorobenzidine	91-94-1	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
3/4-Methylphenol	108-39-4/106-44-5	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
3-Nitroaniline	99-09-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
4,6-Dinitro-2-methylphenol	534-52-1	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
4-Bromophenylphenylether	101-55-3	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
4-Chloro-3-methylphenol	59-50-7	NE	2.2		10 U		9.9 U		9.7 U		6.7	7.4	10%
4-Chloroaniline	106-47-8	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
4-Chlorophenylphenylether	7005-72-3	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
4-Nitroaniline	100-01-6	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
4-Nitrophenol	100-02-7	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Acenaphthene	83-32-9	NE	1.2		5.0 U		5.0 U		4.9 U		0.36	0.36	0%
Acenaphthylene	208-96-8	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Acetophenone	98-86-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Aniline	62-53-3	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Anthracene	120-12-7	343	0.38		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Benidine	92-87-5	NE	19		20 U		20 U		19 U		19 U	19 U	--
Benzo(a)anthracene	56-55-3	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Benzo(a)pyrene	50-32-8	0.2	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Benzo(b)fluoranthene	205-99-2	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Benzo(g,h,i)perylene	191-24-2	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Benzo(k)fluoranthene	207-08-9	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Benzoic Acid	65-85-0	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Bis(2-chloroethoxy)methane	111-91-1	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Bis(2-chloroethoxy)ether	111-44-4	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Bis(2-chloroisopropyl)ether	108-60-1	46	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Bis(2-Ethylhexyl)phthalate	117-81-7	6	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Butylbenzophthalate	85-68-7	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Carbazole	86-74-8	NE	1.8		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Chrysene	218-01-9	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Dibenz(a,h)anthracene	53-70-3	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Dibenzofuran	132-64-9	NE	0.99		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Diethylphthalate	84-66-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Dimethylphthalate	131-11-3	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Di-n-butylphthalate	84-74-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Di-n-octylphthalate	117-84-0	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Fluoranthene	206-44-0	46	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Fluorene	86-73-7	46	2.2		5.0 U		5.0 U		4.9 U		0.79	0.88	11%
Hexachlorobenzene	118-74-1	1	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Hexachlorobutadiene	87-68-3	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Hexachlorocyclopentadiene	77-47-4	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Hexachloroethane	67-72-1	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Indeno(1,2,3-cd)pyrene	193-39-5	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Isophorone	78-59-1	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Naphthalene	91-20-3	0.5	48		5.0 U		5.0 U		4.9 U		1.3	1.5	14%
Nitrobenzene	98-95-3	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
N-Nitrosodimethylamine	62-75-9	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
N-Nitrosodi-n-propylamine	621-64-7	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Pentachloronitrobenzene	82-68-8	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Pentachlorophenol	87-86-5	1	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Phenanthrene	85-01-8	NE	3.4		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Phenol	108-95-2	NE	9.6 U		10 U		9.9 U		9.7 U		9.7 U	9.7 U	--
Pyrene	129-00-0	NE	0.30		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--
Pyridine	110-86-1	NE	4.8 U		5.0 U		5.0 U		4.9 U		4.9 U	4.9 U	--

VGES - Vermont Groundwater Enforcement Standard, July 2019

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Q - laboratory result qualifier

U - Analyte not detected; limit of quantitation listed

Table D-3
Concentrations of Semi Volatile Organic Compounds in Groundwater

Monitoring Well Groundwater Samples		VGES	MW-105D		MW-106		MW-107		MW-4-14D		MW-4-14R		MW-4-16R	
Sample ID	CAS#	(µg/L)	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
1,2,4-Trichlorobenzene	120-82-1	70	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
1,2-Dichlorobenzene	95-50-1	600	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
1,3-Dichlorobenzene	541-73-1	600	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
1,4-Dichlorobenzene	106-46-7	75	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
1-Methylnaphthalene	90-12-0	NE	4.9 U		5.0 U		26		15		4.9 U		5.0 U	
2,4,5-Trichlorophenol	95-95-4	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2,4,6-Trichlorophenol	88-06-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2,4-Dichlorophenol	120-83-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2,4-Dimethylphenol	105-67-9	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2,4-Dinitrophenol	51-28-5	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2,4-Dinitrotoluene	121-14-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2,6-Dinitrotoluene	606-20-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2-Chloronaphthalene	91-58-7	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2-Chlorophenol	95-57-8	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2-Methylnaphthalene	91-57-6	NE	4.9 U		5.0 U		7.4		4.9 U		4.9 U		5.0 U	
2-Methylphenol	95-48-7	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2-Nitroaniline	88-74-4	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
2-Nitrophenol	88-75-5	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
3,3-Dichlorobenzidine	91-94-1	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
3/4-Methylphenol	108-39-4/106-44-5	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
3-Nitroaniline	99-09-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
4,6-Dinitro-2-methylphenol	534-52-1	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
4-Bromophenylphenylether	101-55-3	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
4-Chloro-3-methylphenol	59-50-7	NE	1.8		10 U		10 U		9.7 U		9.7 U		10 U	
4-Chloroaniline	106-47-8	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
4-Chlorophenylphenylether	7005-72-3	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
4-Nitroaniline	100-01-6	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
4-Nitrophenol	100-02-7	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Acenaphthene	83-32-9	NE	0.60		5.0 U		1.5		43		4.9 U		5.0 U	
Acenaphthylene	208-06-8	NE	4.9 U		5.0 U		5.0 U		2.9		4.9 U		5.0 U	
Acetophenone	98-86-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Aniline	62-53-3	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Anthracene	120-12-7	343	4.9 U		5.0 U		0.59		4.9 U		4.9 U		5.0 U	
Benidine	92-87-5	NE	19 U		20 U		20 U		19 U		19 U		20 U	
Benzo(a)anthracene	56-55-3	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Benzo(a)pyrene	50-32-8	0.2	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Benzo(b)fluoranthene	205-99-2	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Benzo(g,h,i)perylene	191-24-2	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Benzo(k)fluoranthene	207-08-9	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Benzoic Acid	65-85-0	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Bis(2-chloroethoxy)methane	111-91-1	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Bis(2-chloroethyl)ether	111-44-4	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Bis(2-chloroisopropyl)ether	108-60-1	46	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Bis(2-Ethylhexyl)phthalate	117-81-7	6	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Butylbenzylphthalate	85-68-7	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Carbazole	86-74-8	NE	9.7 U		10 U		10 U		1.8		9.7 U		10 U	
Chrysene	218-01-9	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Dibenz(a,h)anthracene	53-70-3	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Dibenzofuran	132-64-9	NE	4.9 U		5.0 U		1.4		4.9 U		4.9 U		5.0 U	
Diethylphthalate	84-66-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Dimethylphthalate	131-11-3	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Di-n-butylphthalate	84-74-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Di-n-octylphthalate	117-84-0	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Fluoranthene	206-44-0	46	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Fluorene	86-73-7	46	0.74		0.32		3.0		4.2		4.9 U		5.0 U	
Hexachlorobenzene	118-74-1	1	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Hexachlorobutadiene	87-68-3	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Hexachlorocyclopentadiene	77-47-4	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Hexachloroethane	67-72-1	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Indeno(1,2,3-cd)pyrene	193-39-5	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	
Isophorone	78-59-1	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Naphthalene	91-20-3	0.5	4.9 U		5.0 U		3.0		0.97		4.9 U		5.0 U	
Nitrobenzene	98-95-3	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
N-Nitrosodimethylamine	62-75-9	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
N-Nitrosodi-n-propylamine	621-64-7	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Pentachloronitrobenzene	82-68-8	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Pentachlorophenol	87-86-5	1	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Phenanthrene	85-01-8	NE	4.9 U		0.49		4.0		4.9 U		4.9 U		5.0 U	
Phenol	108-95-2	NE	9.7 U		10 U		10 U		9.7 U		9.7 U		10 U	
Pyrene	129-00-0	NE	4.9 U		0.98		0.69		4.9 U		4.9 U		5.0 U	
Pyridine	110-86-1	NE	4.9 U		5.0 U		5.0 U		4.9 U		4.9 U		5.0 U	

VGES - Vermont Groundwater Enforcement Standard, July 2019
µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-4
Concentrations of Total Petroleum Hydrocarbons in Groundwater

Monitoring Well Groundwater Samples														
SampleID		VGES	MW-101		MW-102		MW-103		MW-104		MW-105S		MW-105S-FD	RPD: MW-105S
Sample Date	CAS#		5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q
		(µg/l)												
Diesel Range Organics	C-999	NE	6700		1900		6400		200	U	2100		7200	110%
Sample ID		VGES	MW-105D		MW-106		MW-107		MW-4-14D		MW-4-14R		MW-4-16R	
Sample Date	CAS#		5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q	5/5/2020	Q
		(µg/l)												
Diesel Range Organics	C-999	NE	4300		900		2700		5500		1100		1600	

VGES - Vermont Groundwater Enforcement Standard, July 2019

µg/L - micrograms per liter (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Q - laboratory result qualifier

U - Analyte not detected; limit of quantitation listed

Table D-5
Concentrations of Volatile Organic Compounds in Surface Water

SampleID Sample Date	CAS#	VWQS: Protection of Human Health; Consumption of Water & Organisms	VWQS: Protection of Human Health; Consumption of Organisms	VWQS: Protection of Aquatic Biota; Max Concentration	VWQS: Protection of Aquatic Biota; Average Concentration	SW-01 5/19/2020	Q	SW-02 5/19/2020	Q	SW-02-FD 5/19/2020	Q	SW-03 5/19/2020	Q
		(ug/l)	(ug/l)	(ug/l)	(ug/l)	5/19/2020	Q	5/19/2020	Q	5/19/2020	Q	5/19/2020	Q
1,1,1,2-Tetrachloroethane	630-20-6	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,1,1-Trichloroethane	71-55-6	10000	20000	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,1,2,2-Tetrachloroethane	79-34-5	0.2	3	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	75-13-1	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,1,2-Trichloroethane	79-00-5	0.55	8.9	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,1-Dichloroethane	75-34-3	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,1-Dichloroethylene	75-35-4	300	3000	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,1-Dichloropropene	563-58-6	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
1,2,3-Trichlorobenzene	87-61-6	NE	NE	NE	NE	5.0 U		5.0 U		5.0 U		5.0 U	
1,2,3-Trichloropropane	96-18-4	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
1,2,4-Trichlorobenzene	120-82-1	0.071	0.076	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,2,4-Trimethylbenzene	95-63-6	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	NE	NE	NE	NE	5.0 U		5.0 U		5.0 U		5.0 U	
1,2-Dibromoethane (EDB)	106-93-4	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
1,2-Dichlorobenzene	95-50-1	1000	3000	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,2-Dichloroethane	107-06-2	9.9	6.5	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,2-Dichloropropane	78-87-5	0.9	31	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,3,5-Trichlorobenzene	108-70-3	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,3,5-Trimethylbenzene	108-67-8	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,3-Dichlorobenzene	541-73-1	7	10	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,3-Dichloropropane	142-28-9	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
1,4-Dichlorobenzene	106-46-7	300	900	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
1,4-Dioxane	123-91-1	NE	NE	NE	NE	50 U		50 U		50 U		50 U	
2,2-Dichloropropane	594-20-7	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
2-Butanone (MEK)	78-93-3	NE	NE	NE	NE	20 U		20 U		20 U		20 U	
2-Chlorotoluene	95-49-9	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
2-Hexanone (MBK)	591-78-6	NE	NE	NE	NE	10 U		10 U		10 U		10 U	
4-Chlorotoluene	106-43-4	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	NE	NE	NE	10 U		10 U		10 U		10 U	
Acetone	67-64-1	NE	NE	NE	NE	50 U		50 U		50 U		50 U	
Acrylonitrile	107-13-1	0.061	7	NE	NE	5.0 U		5.0 U		5.0 U		5.0 U	
Benzene	71-43-2	NE	2.1	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Bromobenzene	108-96-1	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Bromochloromethane	74-97-5	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Bromodichloromethane	75-27-4	0.95	27	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
Bromoform	75-25-2	7	120	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Bromomethane	74-83-9	100	10000	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Carbon Disulfide	75-15-0	NE	NE	NE	NE	5.0 U		5.0 U		5.0 U		5.0 U	
Carbon Tetrachloride	56-23-5	0.4	5	NE	NE	5.0 U		5.0 U		5.0 U		5.0 U	
Chlorobenzene	108-90-7	100	800	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Chlorodibromomethane	124-48-1	0.8	21	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
Chloroethane	75-00-3	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Chloroform	67-66-3	60	2000	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Chloromethane	74-87-3	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
cis-1,2-Dichloroethylene	156-59-2	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
cis-1,3-Dichloropropene	10061-01-5	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
Dibromomethane	74-95-3	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Diethyl Ether	60-29-7	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Diisopropyl Ether (DIPE)	108-20-3	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
Ethylbenzene	100-41-4	68	130	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Hexachlorobutadiene	87-68-3	0.01	0.01	NE	NE	0.60 U		0.60 U		0.60 U		0.60 U	
Isopropylbenzene (Cumene)	98-82-8	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
m+p Xylene	108383/106423	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Methyl Acetate	79-20-9	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Methyl Cyclohexane	108-87-2	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Methylene Chloride	75-09-2	20	1000	NE	NE	5.0 U		5.0 U		5.0 U		5.0 U	
Naphthalene	91-20-3	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
n-Butylbenzene	104-51-8	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
n-Propylbenzene	103-65-1	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
o-Xylene	95-47-6	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
sec-Butylbenzene	135-98-8	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Styrene	100-42-5	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
tert-Butyl Alcohol (TBA)	75-65-0	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
tert-Butylbenzene	98-06-6	NE	NE	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Tetrachloroethylene	127-18-4	10	29	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Tetrahydrofuran	109-99-9	NE	NE	NE	NE	10 U		10 U		10 U		10 U	
Toluene	108-88-3	57	520	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
trans-1,2-Dichloroethylene	156-60-5	100	4000	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
trans-1,3-Dichloropropene	10061-02-6	NE	NE	NE	NE	0.50 U		0.50 U		0.50 U		0.50 U	
trans-1,4-Dichloro-2-butene	110-57-6	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Trichloroethylene	79-01-6	0.6	7	NE	NE	1.0 U		1.0 U		1.0 U		1.0 U	
Trichlorofluoromethane (Freon 11)	75-69-4	NE	NE	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	
Vinyl Chloride	75-01-4	0.022	1.6	NE	NE	2.0 U		2.0 U		2.0 U		2.0 U	

Key:
VWQS - Vermont Water Quality Standards (2016)
Total Trimethylbenzene - cumulative sum of all trimethylbenzene isomers
Total Xylene - cumulative sum of all xylenes
ug/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-6
Concentrations of Volatile Organic Compounds in Sediment

SampleID	SQG: TEC	SQG: PEC	SB-R1-1	SB-R2-0.5	SB-R3-2.0	SB-R3-2.0-FD	SB-R5-1.0	SB-R7-0.7					
Sample Date	CAS#	(µg/kg)	(µg/kg)	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q
1,1,1,2-Tetrachloroethane	630-20-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,1,1-Trichloroethane	71-55-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,1,2,2-Tetrachloroethane	79-34-5	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	NE	7.7 U		11 U		7.2 U		8.4 U		11 U	
1,1,2-Trichloroethane	79-00-5	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,1-Dichloroethane	75-34-3	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,1-Dichloroethylene	75-35-4	NE	NE	3.1 U		4.4 U		2.9 U		3.3 U		4.4 U	
1,1-Dichloropropene	563-58-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2,3-Trichlorobenzene	87-61-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2,3-Trichloropropane	96-18-4	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2,4-Trichlorobenzene	120-82-1	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2,4-Trimethylbenzene	95-63-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2-Dibromoethane (EDB)	106-93-4	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
1,2-Dichlorobenzene	95-50-1	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2-Dichloroethane	107-06-2	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,2-Dichloropropane	78-87-5	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,3,5-Trichlorobenzene	108-70-3	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,3,5-Trimethylbenzene	108-67-8	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,3-Dichlorobenzene	541-73-1	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,3-Dichloropropane	142-28-9	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
1,4-Dichlorobenzene	106-46-7	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
1,4-Dioxane	123-91-1	NE	NE	77 U		110 U		72 U		84 U		110 U	
2,2-Dichloropropane	594-20-7	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
2-Butanone (MEK)	78-93-3	NE	NE	31 U		44 U		29 U		33 U		44 U	
2-Chlorotoluene	95-49-8	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
2-Hexanone (MBK)	591-78-6	NE	NE	15 U		22 U		14 U		17 U		22 U	
4-Chlorotoluene	106-43-4	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	NE	15 U		22 U		14 U		17 U		22 U	
Acetone	67-64-1	NE	NE	77 U		110 U		72 U		84 U		110 U	
Acrylonitrile	107-13-1	NE	NE	4.6 U		6.6 U		4.3 U		5 U		6.6 U	
Benzene	71-43-2	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Bromobenzene	108-86-1	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Bromochloromethane	74-97-5	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Bromodichloromethane	75-27-4	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Bromoform	75-25-2	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Bromomethane	74-83-9	NE	NE	7.7 U		11 U		7.2 U		8.4 U		11 U	
Carbon Disulfide	75-15-0	NE	NE	4.6 U		6.6 U		4.3 U		5 U		6.6 U	
Carbon Tetrachloride	56-23-5	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Chlorobenzene	108-90-7	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Chlorodibromomethane	124-48-1	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
Chloroethane	75-00-3	NE	NE	15 U		22 U		14 U		17 U		22 U	
Chloroform	67-66-3	NE	NE	3.1 U		4.4 U		2.9 U		3.3 U		4.4 U	
Chloromethane	74-87-3	NE	NE	7.7 U		11 U		7.2 U		8.4 U		11 U	
cis-1,2-Dichloroethylene	156-59-2	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
cis-1,3-Dichloropropene	10061-01-5	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
Dibromomethane	74-95-3	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	NE	15 U		22 U		14 U		17 U		22 U	
Diethyl Ether	60-29-7	NE	NE	15 U		22 U		14 U		17 U		22 U	
Diisopropyl Ether (DIPE)	108-20-3	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
Ethylbenzene	100-41-4	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Hexachlorobutadiene	87-68-3	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Isopropylbenzene (Cumene)	98-82-8	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
m+p Xylene	108383/106423	NE	NE	3.1 U		4.4 U		2.9 U		3.3 U		4.4 U	
Methyl Acetate	79-20-9	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Methyl Cyclohexane	108-87-2	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	NE	NE	3.1 U		4.4 U		2.9 U		3.3 U		4.4 U	
Methylene Chloride	75-09-2	NE	NE	15 U		22 U		14 U		17 U		22 U	
Naphthalene	91-20-3	176	561	3.1 U		4.4 U		2.9 U		3.3 U		4.4 U	
n-Butylbenzene	104-51-8	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
n-Propylbenzene	103-65-1	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
o-Xylene	95-47-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
p-Isopropyltoluene (p-Cymene)	99-87-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
sec-Butylbenzene	135-98-8	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Styrene	100-42-5	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
tert-Butyl Alcohol (TBA)	75-65-0	NE	NE	31 U		44 U		29 U		33 U		44 U	
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
tert-Butylbenzene	98-06-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Tetrachloroethylene	127-18-4	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Tetrahydrofuran	109-99-9	NE	NE	7.7 U		11 U		7.2 U		8.4 U		11 U	
Toluene	108-88-3	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
trans-1,2-Dichloroethylene	156-60-5	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
trans-1,3-Dichloropropene	10061-02-6	NE	NE	0.77 U		1.1 U		0.72 U		0.84 U		1.1 U	
trans-1,4-Dichloro-2-butene	110-57-6	NE	NE	3.1 U		4.4 U		2.9 U		3.3 U		4.4 U	
Trichloroethylene	79-01-6	NE	NE	1.5 U		2.2 U		1.4 U		1.7 U		2.2 U	
Trichlorofluoromethane (Freon 11)	75-69-4	NE	NE	7.7 U		11 U		7.2 U		8.4 U		11 U	
Vinyl Chloride	75-01-4	NE	NE	7.7 U		11 U		7.2 U		8.4 U		11 U	

Key:

Vermont Sediment Quality Guidelines (SQGs) for Threshold Effect Concentration (TEC) and Probable Effects Concentration (PEC), from Investigation and Remediation of Contaminated Properties Rule, July 2019

µg/kg - micrograms per kilogram (parts per billion)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Q - laboratory result qualifier

U - Analyte not detected; limit of quantitation listed

Table D-7
Concentrations of Polychlorinated Biphenyls in Sediment

SampleID		SQG: TEC	SQG: PEC	SB-R1-1		SB-R2-0.5		SB-R3-2.0		SB-R3-2.0-FD		SB-R5-1.0		SB-R7-0.7	
Sample Date	CAS#			5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q
		(µg/kg)	(µg/kg)												
Aroclor-1016	12674-11-2	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1221	11104-28-2	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1232	11141-16-5	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1242	53469-21-9	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1248	12672-29-6	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1254	11097-69-1	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1260	11096-82-5	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1262	37324-23-5	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Aroclor-1268	11100-14-4	NE	NE	88	U	87	U	88	U	99	U	98	U	93	U
Total PCBs	1336-36-3	59.8	676	88	U	87	U	88	U	99	U	98	U	93	U

Key:
Vermont Sediment Quality Guidelines (SQGs) for Threshold Effect Concentration (TEC) and Probable Effects Concentration (PEC), from Investigation and Remediation of Contaminated Properties Rule, July 2019
µg/kg - micrograms per kilogram (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-8
Concentrations of Semi Volatile Organic Compounds in Sediment

SampleID	SQG: TEC	SQG: PEC	SB-R1-1	SB-R2-0.5	SB-R3-2.0	SB-R3-2.0-FD	SB-R5-1.0	SB-R7-0.7					
Sample Date	CAS#	(µg/kg)	(µg/kg)	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
1,2,4-Trichlorobenzene	120-82-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
1,2-Dichlorobenzene	95-50-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
1,3-Dichlorobenzene	541-73-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
1,4-Dichlorobenzene	106-46-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
1-Methylnaphthalene	90-12-0	NE	NE	200 U		200 U		200 U		210 U		210 U	
2,4,5-Trichlorophenol	95-95-4	NE	NE	410 U		390 U		410 U		420 U		420 U	
2,4,6-Trichlorophenol	88-06-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
2,4-Dichlorophenol	120-83-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
2,4-Dimethylphenol	105-67-9	NE	NE	410 U		390 U		410 U		420 U		420 U	
2,4-Dinitrophenol	51-28-5	NE	NE	790 U		760 U		790 U		820 U		820 U	
2,4-Dinitrotoluene	121-14-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
2,6-Dinitrotoluene	606-20-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
2-Chloronaphthalene	91-58-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
2-Chlorophenol	95-57-8	NE	NE	410 U		390 U		410 U		420 U		420 U	
2-Methylnaphthalene	91-57-6	NE	NE	200 U		200 U		200 U		210 U		200 U	
2-Methylphenol	95-48-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
2-Nitroaniline	88-74-4	NE	NE	410 U		390 U		410 U		420 U		420 U	
2-Nitrophenol	88-75-5	NE	NE	410 U		390 U		410 U		420 U		420 U	
3,3-Dichlorobenzidine	91-94-1	NE	NE	200 U		200 U		200 U		210 U		200 U	
3/4-Methylphenol	108-39-4/106-44-5	NE	NE	410 U		390 U		410 U		420 U		420 U	
3-Nitroaniline	99-09-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
4,6-Dinitro-2-methylphenol	534-52-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
4-Bromophenylphenylether	101-55-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
4-Chloro-3-methylphenol	59-50-7	NE	NE	790 U		760 U		790 U		820 U		820 U	
4-Chloroaniline	106-47-8	NE	NE	790 U		760 U		790 U		820 U		820 U	
4-Chlorophenylphenylether	7005-72-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
4-Nitroaniline	100-01-6	NE	NE	410 U		390 U		410 U		420 U		420 U	
4-Nitrophenol	100-02-7	NE	NE	790 U		760 U		790 U		820 U		820 U	
Acenaphthene	83-32-9	NE	NE	200 U		200 U		200 U		210 U		210 U	
Acenaphthylene	208-96-8	NE	NE	200 U		200 U		200 U		210 U		210 U	
Acetophenone	98-86-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
Aniline	62-53-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
Anthracene	120-12-7	57.2	845	200 U		200 U		200 U		210 U		210 U	
B(a)P-TEQ	50-32-8	150	1450	231 U		231 U		231 U		243 U		243 U	
Benidine	92-87-5	NE	NE	790 U		760 U		790 U		820 U		820 U	
Benzo(a)anthracene	56-55-3	108	1050	200 U		200 U		200 U		210 U		210 U	
Benzo(a)pyrene	50-32-8	150	1450	200 U		200 U		200 U		210 U		210 U	
Benzo(b)fluoranthene	205-99-2	NE	NE	200 U		200 U		200 U		210 U		210 U	
Benzo(g,h,i)perylene	191-24-2	NE	NE	200 U		200 U		200 U		210 U		210 U	
Benzo(k)fluoranthene	207-08-9	NE	NE	200 U		200 U		200 U		210 U		210 U	
Benzoic Acid	65-85-0	NE	NE	1200 U		1100 U		1200 U		1200 U		1200 U	
Bis(2-chloroethoxy)methane	111-91-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
Bis(2-chloroethoxy)ether	111-44-4	NE	NE	410 U		390 U		410 U		420 U		420 U	
Bis(2-chloroisopropoxy)ether	108-60-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
Bis(2-Ethylhexyl)phthalate	117-81-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
Butylbenzylphthalate	85-68-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
Carbazole	86-74-8	NE	NE	200 U		200 U		200 U		210 U		210 U	
Chrysene	218-01-9	166	1290	200 U		200 U		200 U		210 U		210 U	
Dibenz(a,h)anthracene	53-70-3	33	NE	200 U		200 U		200 U		210 U		210 U	
Dibenzofuran	132-64-9	NE	NE	410 U		390 U		410 U		420 U		420 U	
Diethylphthalate	84-66-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
Dimethylphthalate	131-11-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
Di-n-butylphthalate	84-74-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
Di-n-octylphthalate	117-84-0	NE	NE	410 U		390 U		410 U		420 U		420 U	
Fluoranthene	206-44-0	423	2230	200 U		200 U		320		210 U		380	
Fluorene	86-73-7	77.4	536	200 U		200 U		200 U		210 U		210 U	
Hexachlorobenzene	118-74-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
Hexachlorobutadiene	87-68-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
Hexachlorocyclopentadiene	77-47-4	NE	NE	410 U		390 U		410 U		420 U		420 U	
Hexachloroethane	67-72-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
Indeno(1,2,3-cd)pyrene	193-39-5	NE	NE	200 U		200 U		200 U		210 U		210 U	
Isophorone	78-59-1	NE	NE	410 U		390 U		410 U		420 U		420 U	
Naphthalene	91-20-3	176	561	200 U		200 U		200 U		210 U		210 U	
Nitrobenzene	98-95-3	NE	NE	410 U		390 U		410 U		420 U		420 U	
N-Nitrosodimethylamine	62-75-9	NE	NE	410 U		390 U		410 U		420 U		420 U	
N-Nitrosodi-n-propylamine	621-64-7	NE	NE	410 U		390 U		410 U		420 U		420 U	
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	NE	410 U		390 U		410 U		420 U		420 U	
Pentachloronitrobenzene	82-68-8	NE	NE	410 U		390 U		410 U		420 U		420 U	
Pentachlorophenol	87-86-5	NE	NE	410 U		390 U		410 U		420 U		420 U	
Phenanthrene	85-01-8	204	1170	200 U		200 U		200 U		210 U		350	
Phenol	108-95-2	NE	NE	410 U		390 U		410 U		420 U		420 U	
Pyrene	129-00-0	195	1520	200 U		200 U		290		210 U		330	
Pyridine	110-86-1	NE	NE	410 U		390 U		410 U		420 U		420 U	

Key:
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µg/kg - micrograms per kilogram (parts per billion)
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NE - screening level not established
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Table D-9
Concentrations of Total Petroleum Hydrocarbons in Sediment

SampleID		SQG: TEC	SQG: PEC	SB-R1-1		SB-R2-0.5		SB-R3-2.0		SB-R3-2.0-FD		SB-R5-1.0		SB-R7-0.7	
Sample Date	CAS#			5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q	5/21/2020	Q
		(mg/Kg)	(mg/Kg)												
Diesel Range Organics	C-999	NE	NE	10	U	17		40		22		20		17	

Key:
Vermont Sediment Quality Guidelines (SQGs) for Threshold Effect Concentration (TEC) and Probable Effects Concentration (PEC), from Investigation and Remediation of Contaminated Properties Rule, July 2019
µg/kg - micrograms per kilogram (parts per billion)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-10
Field Quality Control for Polychlorinated Biphenyls

SampleID		TSCA: Solid Non-Porous Media High Occupancy Walkaway	EB-052120	
Sample Date	CAS#		5/21/2020	Q
		(µg/100 cm ²)		
Aroclor-1016	12674-11-2	10	0.20	U
Aroclor-1221	11104-28-2	10	0.20	U
Aroclor-1232	11141-16-5	10	0.20	U
Aroclor-1242	53469-21-9	10	0.20	U
Aroclor-1248	12672-29-6	10	0.20	U
Aroclor-1254	11097-69-1	10	0.20	U
Aroclor-1260	11096-82-5	10	0.20	U
Aroclor-1262	37324-23-5	10	0.20	U
Aroclor-1268	11100-14-4	10	0.20	U
Total PCBs	1336-36-3	NE	0.20	U

Key:

TSCA - Toxic Substance Control Act for soil media in a high occupancy setting

µg/m³ - micrograms per 100 square centimeters

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

NE - screening level not established

Q - laboratory result qualifier

U - Analyte not detected; limit of quantitation listed

Table D-11
Waste Characterization for Soil

Soil Pesticides										
Sample ID		VSS - Resident	VSS - Non-resident	RSL - Resident	RSL - Industrial	MW-106-WC		MW-107-WC	SEI-SB-112-WC	
Sample Date	CAS #					4/27/2020	Q	4/27/2020	Q	4/27/2020
		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)					
4,4'-DDD	72-54-8	NE	NE	1.9	9.6	0.053 U		0.090 U		0.089 U
4,4'-DDE	72-55-9	NE	NE	2	9.3	0.053 U		0.090 U		0.089 U
4,4'-DDT	50-29-3	NE	NE	1.9	8.5	0.053 U		0.090 U		0.089 U
Alachlor	15972-60-8	61	718	9.7	41	0.27 U		0.45 U		0.44 U
Aldrin	309-00-2	0.02	0.1	0.039	0.18	0.066 U		0.11 U		0.11 U
alpha-BHC	319-84-6	NE	NE	0.086	0.36	0.066 U		0.11 U		0.11 U
beta-BHC	319-85-7	NE	NE	0.3	1.3	0.066 U		0.11 U		0.11 U
Chlordane	57-74-9	NE	NE	NE	NE	0.27 U		0.45 U		0.44 U
delta-BHC	319-86-8	NE	NE	NE	NE	0.066 U		0.11 U		0.11 U
Dieldrin	60-57-1	NE	NE	0.034	0.14	0.053 U		0.090 U		0.089 U
Endosulfan I	959-98-8	NE	NE	NE	NE	0.066 U		0.11 U		0.11 U
Endosulfan II	33213-65-9	NE	NE	NE	NE	0.11 U		0.18 U		0.18 U
Endosulfan Sulfate	1031-07-8	NE	NE	380	4900	0.11 U		0.18 U		0.18 U
Endrin	72-20-8	NE	NE	19	250	0.11 U		0.18 U		0.18 U
Endrin Aldehyde	7421-93-4	NE	NE	NE	NE	0.11 U		0.18 U		0.18 U
Endrin Ketone	53494-70-5	NE	NE	NE	NE	0.11 U		0.18 U		0.18 U
gamma-BHC (Lindane)	58-89-9	NE	NE	0.57	2.5	0.027 U		0.045 U		0.044 U
Heptachlor	76-44-8	NE	NE	0.13	0.63	0.066 U		0.11 U		0.11 U
Heptachlor Epoxide	1024-57-3	NE	NE	0.07	0.33	0.066 U		0.11 U		0.11 U
Hexachlorobenzene	118-74-1	0.13	0.69	0.21	0.96	0.08 U		0.13 U		0.13 U
Methoxychlor	72-43-5	NE	NE	320	4100	0.66 U		1.1 U		1.1 U
Toxaphene	8001-35-2	NE	NE	0.49	2.1	1.3 U		2.2 U		2.2 U
2,4,5-T	93-76-5	NE	NE	630	8200	0.0035 U		0.0030 U		0.0029 U
2,4,5-TP (Silvex)	93-72-1	NE	NE	510	6600	0.0035 U		0.0030 U		0.0029 U
2,4-D	94-75-7	NE	NE	700	9600	0.035 U		0.030 U		0.029 U
2,4-DB	94-82-6	NE	NE	1900	25000	0.035 U		0.030 U		0.029 U
Dalapon	75-99-0	NE	NE	1900	25000	0.088 U		0.074 U		0.072 U
Dicamba	1918-00-9	NE	NE	1900	25000	0.0035 U		0.0030 U		0.0029 U
Dichloroprop	120-36-5	NE	NE	NE	NE	0.035 U		0.030 U		0.029 U
Dinoseb	88-85-7	NE	NE	63	820	0.018 U		0.015 U		0.014 U
MCPA	94-74-6	NE	NE	32	410	3.5 U		3.0 U		2.9 U
MCPP	93-65-2	NE	NE	63	820	3.5 U		3.0 U		2.9 U

Soil Polychlorinated Biphenyls										
SampleID		VSS - Resident	VSS - Non-resident	RSL - Resident	RSL - Industrial	MW-106-WC		MW-107-WC	SEI-SB-112-WC	
Sample Date	CAS#					4/27/2020	Q	4/27/2020	Q	4/27/2020
		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)					
Aroclor-1016	12674-11-2	NE	NE	4.1	27	0.11 U		0.090 U		0.089 U
Aroclor-1221	11104-28-2	NE	NE	0.2	0.83	0.11 U		0.090 U		0.089 U
Aroclor-1232	11141-16-5	NE	NE	0.17	0.72	0.11 U		0.090 U		0.089 U
Aroclor-1242	53469-21-9	NE	NE	0.23	0.95	0.11 U		0.090 U		0.089 U
Aroclor-1248	12672-29-6	NE	NE	0.23	0.95	0.11 U		0.090 U		0.089 U
Aroclor-1254	11097-69-1	NE	NE	0.24	0.97	0.11 U		0.16		0.87
Aroclor-1260	11096-82-5	NE	NE	0.24	0.99	0.11 U		0.090 U		0.089 U
Aroclor-1262	37324-23-5	NE	NE	NE	NE	0.11 U		0.090 U		0.089 U
Aroclor-1268	11100-14-4	NE	NE	NE	NE	0.11 U		0.090 U		0.089 U
Total PCBs	1336-36-3	0.114	0.68	NE	NE	0.11 U		0.16		0.87

Key:

Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019

RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2019

RCRA - Resource Conservation Recovery Act

mg/kg - milligrams per kilogram (parts per million)

Bold results indicate detections of the analyte

Shaded results indicate an exceedence of the enforcement standard(s)

Benzo(a)pyrene Toxicity Equivalency Quotient [B(a)P-TEQ] values with orange border exceed the Vermont Urban Background value

NE - screening level not established

Q - laboratory result qualifier

U - Analyte not detected; limit of quantitation listed

Table D-11
Waste Characterization for Soil

Soil Semi Volatile Organic Compounds										
SampleID		VSS - Resident / Urban Background	VSS - Non-resident / Urban Background	RSL - Resident	RSL - Industrial	MW-106-WC 4/27/2020		MW-107-WC 4/27/2020		SEI-SB-112-WC 4/27/2020
Sample Date	CAS#	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)		Q		Q	
1,2,4,5-Tetrachlorobenzene	95-94-3	NE	NE	23	350	0.48 U		0.40 U		0.79 U
1,2,4-Trichlorobenzene	120-82-1	NE	NE	24	110	0.48 U		0.40 U		0.79 U
1,2-Dichlorobenzene	95-50-1	NE	NE	1800	9300	0.48 U		0.40 U		0.79 U
1,2-Diphenylhydrazine/Azobenzene	122-66-7	NE	NE	0.68	2.9	0.48 U		0.40 U		0.79 U
1,3-Dichlorobenzene	541-73-1	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
1,4-Dichlorobenzene	106-46-7	NE	NE	2.6	11	0.48 U		0.40 U		0.79 U
1-Methylnaphthalene	90-12-0	NE	NE	18	73	0.24 U		0.69		1.3
2,4,5-Trichlorophenol	95-95-4	NE	NE	6300	82000	0.48 U		0.40 U		0.79 U
2,4,6-Trichlorophenol	88-06-2	NE	NE	49	210	0.48 U		0.40 U		0.79 U
2,4-Dichlorophenol	120-83-2	NE	NE	190	2500	0.48 U		0.40 U		0.79 U
2,4-Dimethylphenol	105-67-9	NE	NE	1300	16000	0.48 U		0.40 U		0.79 U
2,4-Dinitrophenol	51-28-5	NE	NE	130	1600	0.94 U		0.78 U		1.5 U
2,4-Dinitrotoluene	121-14-2	NE	NE	1.7	7.4	0.48 U		0.40 U		0.79 U
2,6-Dinitrotoluene	606-20-2	NE	NE	0.36	1.5	0.48 U		0.40 U		0.79 U
2-Chloronaphthalene	91-58-7	NE	NE	4800	60000	0.48 U		0.40 U		0.79 U
2-Chlorophenol	95-57-8	NE	NE	390	5800	0.48 U		0.40 U		0.79 U
2-Methylnaphthalene	91-57-6	NE	NE	240	3000	0.24 U		0.44		0.40
2-Methylphenol	95-48-7	NE	NE	3200	41000	0.48 U		0.40 U		0.79 U
2-Nitroaniline	88-74-4	NE	NE	630	8000	0.48 U		0.40 U		0.79 U
2-Nitrophenol	88-75-5	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
3,3-Dichlorobenzidine	91-94-1	NE	NE	1.2	5.1	0.24 U		0.20 U		0.40 U
3/4-Methylphenol	108-39-4/106-44-5	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
3-Nitroaniline	99-09-2	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
4,6-Dinitro-2-methylphenol	534-52-1	NE	NE	5.1	66	0.48 U		0.40 U		0.79 U
4-Bromophenylphenylether	101-55-3	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
4-Chloro-3-methylphenol	59-50-7	NE	NE	6300	82000	0.94 U		0.78 U		1.5 U
4-Chloroaniline	106-47-8	NE	NE	2.7	11	0.94 U		0.78 U		1.5 U
4-Chlorophenylphenylether	7005-72-3	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
4-Nitroaniline	100-01-6	NE	NE	27	110	0.48 U		0.40 U		0.79 U
4-Nitrophenol	100-02-7	NE	NE	NE	NE	0.94 U		0.78 U		1.5 U
Acenaphthene	83-32-9	NE	NE	3600	45000	0.24 U		0.20 U		0.40 U
Acenaphthylene	208-96-8	NE	NE	NE	NE	0.24 U		0.20 U		0.40 U
Acetophenone	98-86-2	NE	NE	7800	120000	0.48 U		0.40 U		0.79 U
Aniline	62-53-3	NE	NE	95	400	0.48 U		0.40 U		0.79 U
Anthracene	120-12-7	NE	NE	18000	230000	0.30		0.20 U		0.42
B(a)P-TEQ	50-32-8	0.07 / 0.58	1.54 / 0.58	0.11	2.1	0.28 U		0.23 U		0.49
Benidine	92-87-5	NE	NE	0.00053	0.01	0.94 U		0.78 U		1.5 U
Benzo(a)anthracene	56-55-3	NE	NE	1.1	21	0.24 U		0.20 U		0.45
Benzo(a)pyrene	50-32-8	0.07	1.54	0.11	2.1	0.24 U		0.20 U		0.40 U
Benzo(b)fluoranthene	205-99-2	NE	NE	1.1	21	0.24 U		0.20 U		0.40 U
Benzo(g,h,i)perylene	191-24-2	NE	NE	NE	NE	0.28		0.20 U		0.40 U
Benzo(k)fluoranthene	207-08-9	NE	NE	11	210	0.24 U		0.20 U		0.40 U
Benzoic Acid	65-85-0	NE	NE	250000	3300000	1.4 U		1.2 U		2.3 U
Bis(2-chloroethoxy)methane	111-91-1	NE	NE	190	2500	0.48 U		0.40 U		0.79 U
Bis(2-chloroethyl)ether	111-44-4	NE	NE	0.23	1	0.48 U		0.40 U		0.79 U
Bis(2-chloroisopropyl)ether	108-60-1	2804	36274	3100	47000	0.48 U		0.40 U		0.79 U
Bis(2-Ethylhexyl)phthalate	117-81-7	20	120	39	160	0.48 U		0.40 U		0.79 U
Butylbenzylphthalate	85-68-7	NE	NE	290	1200	0.48 U		0.40 U		0.79 U
Carbazole	86-74-8	NE	NE	NE	NE	0.24 U		0.20 U		0.40 U
Chrysene	218-01-9	NE	NE	110	2100	0.24 U		0.20 U		0.42
Dibenz(a,h)anthracene	53-70-3	NE	NE	0.11	2.1	0.24 U		0.20 U		0.40 U
Dibenzofuran	132-64-9	NE	NE	73	1000	0.48 U		0.40 U		0.79 U
Diethylphthalate	84-66-2	NE	NE	51000	660000	0.48 U		0.40 U		0.79 U
Dimethylphthalate	131-11-3	NE	NE	NE	NE	0.48 U		0.40 U		0.79 U
Di-n-butylphthalate	84-74-2	NE	NE	6300	82000	0.48 U		0.40 U		0.79 U
Di-n-octylphthalate	117-84-0	NE	NE	630	8200	0.48 U		0.40 U		0.79 U
Fluoranthene	206-44-0	2301	26371	2400	30000	0.41		0.20 U		0.90
Fluorene	86-73-7	2301	26371	2400	30000	0.48		0.29		1.0
Hexachlorobenzene	118-74-1	0.13	0.69	0.21	0.96	0.48 U		0.40 U		0.79 U
Hexachlorobutadiene	87-68-3	NE	NE	1.2	5.3	0.48 U		0.40 U		0.79 U
Hexachlorocyclopentadiene	77-47-4	NE	NE	1.8	7.5	0.48 U		0.40 U		0.79 U
Hexachloroethane	67-72-1	NE	NE	1.8	8	0.48 U		0.40 U		0.79 U
Indeno(1,2,3-cd)pyrene	193-39-5	NE	NE	1.1	21	0.24 U		0.20 U		0.40 U
Isophorone	78-59-1	NE	NE	570	2400	0.48 U		0.40 U		0.79 U
Naphthalene	91-20-3	2.7	16	3.8	17	0.24 U		0.33		0.40 U
Nitrobenzene	98-95-3	NE	NE	5.1	22	0.48 U		0.40 U		0.79 U
N-Nitrosodimethylamine	62-75-9	NE	NE	0.002	0.034	0.48 U		0.40 U		0.79 U
N-Nitrosodi-n-propylamine	621-64-7	NE	NE	0.078	0.33	0.48 U		0.40 U		0.79 U
N-Nitrosodiphenylamine/Diphenylamine	86-30-6	NE	NE	110	470	0.48 U		0.40 U		0.79 U
Pentachloronitrobenzene	82-68-8	NE	NE	2.7	13	0.48 U		0.40 U		0.79 U
Pentachlorophenol	87-86-5	0.48	2.9	1	4	0.48 U		0.40 U		0.79 U
Phenanthrene	85-01-8	NE	NE	NE	NE	0.57		0.80		1.3
Phenol	108-95-2	NE	NE	19000	250000	0.48 U		0.40 U		0.79 U
Pyrene	129-00-0	NE	NE	1800	23000	1.5		0.64		1.4
Pyridine	110-86-1	NE	NE	78	1200	0.48 U		0.40 U		0.79 U

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings,
May 2019 RCRA - Resource Conservation Recovery Act
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
Benzo(a)pyrene Toxicity Equivalency Quotient [B(a)P-TEQ] values with orange border exceed the Vermont Urban
Background value NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected, limit of quantitation listed

Table D-11
Waste Characterization for Soil

Soil Volatile Organic Compounds	SampleID Sample Date	VSS - Resident (mg/Kg)	VSS - Non-resident (mg/Kg)	RSL - Resident (mg/Kg)	RSL - Industrial (mg/Kg)	MW-106-WC 4/27/2020	MW-107-WC 4/27/2020	SEI-SB-112-WC 4/27/2020
	CAS#					Q	Q	Q
1,1,1,2-Tetrachloroethane	630-20-6	1.3	8	2	8.8	0.063 U	0.090 U	0.047 U
1,1,1-Trichloroethane	71-55-6	NE	NE	8100	36000	0.063 U	0.090 U	2.6
1,1,2,2-Tetrachloroethane	79-34-5	NE	NE	0.6	2.7	0.031 U	0.045 U	0.024 U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	76-13-1	NE	NE	6700	28000	0.063 U	0.090 U	0.047 U
1,1,2-Trichloroethane	79-00-5	NE	NE	1.1	5	0.063 U	0.090 U	0.047 U
1,1-Dichloroethane	75-34-3	2.1	13	3.6	16	0.063 U	0.090 U	2.8
1,1-Dichloroethylene	75-35-4	NE	NE	230	1000	0.063 U	0.090 U	0.056
1,1-Dichloropropene	563-58-6	NE	NE	NE	NE	0.13 U	0.18 U	0.094 U
1,2,3-Trichlorobenzene	87-61-6	NE	NE	63	930	0.31 U	0.45 U	0.24 U
1,2,3-Trichloropropane	96-18-4	0.00311	0.07	0.0051	0.11	0.13 U	0.18 U	0.094 U
1,2,4-Trichlorobenzene	120-82-1	NE	NE	24	110	0.063 U	0.090 U	0.047 U
1,2,4-Trimethylbenzene	95-63-6	144	177	300	1800	0.063 U	0.090 U	0.16
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.01	0.06	0.0053	0.064	0.31 U	0.45 U	0.24 U
1,2-Dibromoethane (EDB)	106-93-4	0.02	0.14	0.036	0.16	0.031 U	0.045 U	0.024 U
1,2-Dichlorobenzene	95-50-1	NE	NE	1800	9300	0.063 U	0.090 U	0.047 U
1,2-Dichloroethane	107-06-2	0.29	1.7	0.46	2	0.063 U	0.090 U	0.047 U
1,2-Dichloropropane	78-87-5	1.5	9.1	2.5	11	0.063 U	0.090 U	0.047 U
1,3,5-Trichlorobenzene	108-70-3	NE	NE	NE	NE	0.063 U	0.090 U	0.047 U
1,3,5-Trimethylbenzene	108-67-8	144	177	270	1500	0.063 U	0.090 U	0.047 U
1,3-Dichlorobenzene	541-73-1	NE	NE	NE	NE	0.063 U	0.090 U	0.047 U
1,3-Dichloropropane	142-28-9	NE	NE	1600	23000	0.031 U	0.045 U	0.024 U
1,4-Dichlorobenzene	106-46-7	NE	NE	2.6	11	0.063 U	0.090 U	0.047 U
1,4-Dioxane	123-91-1	2.8	17	5.3	24	3.1 U	4.5 U	2.4 U
2,2-Dichloropropane	594-20-7	NE	NE	NE	NE	0.063 U	0.090 U	0.047 U
2-Butanone (MEK)	78-93-3	16952	26991	27000	190000	1.3 U	1.8 U	0.94 U
2-Chlorotoluene	95-49-8	NE	NE	1600	23000	0.063 U	0.090 U	0.047 U
2-Hexanone (MBK)	591-78-6	NE	NE	200	1300	0.63 U	0.90 U	0.47 U
4-Chlorotoluene	106-43-4	NE	NE	1600	23000	0.063 U	0.090 U	0.047 U
4-Methyl-2-pentanone (MIBK)	108-10-1	NE	NE	33000	140000	0.63 U	0.90 U	0.47 U
Acetone	67-64-1	40609	100028	61000	670000	3.1 U	4.5 U	2.4 U
Acrylonitrile	107-13-1	NE	NE	0.25	1.1	0.31 U	0.45 U	0.24 U
Benzene	71-43-2	0.7	4.2	1.2	5.1	0.063 U	0.090 U	0.073
Bromobenzene	108-86-1	NE	NE	290	1800	0.063 U	0.090 U	0.047 U
Bromochloromethane	74-97-5	193	597	150	630	0.063 U	0.090 U	0.047 U
Bromodichloromethane	75-27-4	NE	NE	0.29	1.3	0.063 U	0.090 U	0.047 U
Bromoform	75-25-2	NE	NE	19	86	0.063 U	0.090 U	0.047 U
Bromomethane	74-83-9	NE	NE	6.8	30	0.13 U	0.18 U	0.094 U
Carbon Disulfide	75-15-0	608	662	770	3500	0.31 U	0.45 U	0.24 U
Carbon Tetrachloride	56-23-5	0.37	2.2	0.65	2.9	0.063 U	0.090 U	0.047 U
Chlorobenzene	108-90-7	414	726	280	1300	0.063 U	0.090 U	0.047 U
Chlorodibromomethane	124-48-1	NE	NE	8.3	39	0.031 U	0.045 U	0.024 U
Chloroethane	75-00-3	NE	NE	14000	57000	0.13 U	0.18 U	1.3
Chloroform	67-66-3	NE	NE	0.32	1.4	0.13 U	0.18 U	0.094 U
Chloromethane	74-87-3	NE	NE	110	460	0.13 U	0.18 U	0.094 U
cis-1,2-Dichloroethylene	156-59-2	140	1814	160	2300	0.063 U	0.090 U	0.047 U
cis-1,3-Dichloropropene	10061-01-5	NE	NE	NE	NE	0.031 U	0.045 U	0.024 U
Dibromomethane	74-95-3	NE	NE	24	99	0.063 U	0.090 U	0.047 U
Dichlorodifluoromethane (Freon 12)	75-71-8	NE	NE	87	370	0.13 U	0.18 U	0.094 U
Diethyl Ether	60-29-7	NE	NE	16000	230000	0.13 U	0.18 U	0.094 U
Diisopropyl Ether (DIPE)	108-20-3	NE	NE	2200	9400	0.031 U	0.045 U	0.024 U
Ethylbenzene	100-41-4	3.7	22	5.8	25	0.063 U	0.090 U	0.055
Hexachlorobutadiene	87-68-3	NE	NE	1.2	5.3	0.063 U	0.090 U	0.047 U
Isopropylbenzene (Cumene)	98-82-8	256	264	1900	9900	0.063 U	0.094	0.11
m+p Xylene	108383/106423	NE	NE	NE	NE	0.13 U	0.18 U	0.094 U
Methyl Acetate	79-20-9	NE	NE	78000	1200000	0.63 U	0.90 U	0.47 U
Methyl Cyclohexane	108-87-2	NE	NE	NE	NE	0.063 U	0.25	0.29
Methyl tert-Butyl Ether (MTBE)	1634-04-4	649	4464	47	210	0.063 U	0.090 U	0.047 U
Methylene Chloride	75-09-2	NE	NE	57	1000	0.31 U	0.45 U	0.24 U
Napthalene	91-20-3	2.7	16	3.8	17	0.13 U	5.2	0.59
n-Butylbenzene	104-51-8	3504	51100	3900	58000	0.063 U	0.11	0.15
n-Propylbenzene	103-65-1	253	261	3800	24000	0.063 U	0.13	0.10
o-Xylene	95-47-6	NE	NE	650	2800	0.063 U	0.090 U	0.047 U
p-Isopropyltoluene (p-Cymene)	98-87-6	NE	NE	NE	NE	0.063 U	0.090 U	0.049
sec-Butylbenzene	135-98-8	7009	102200	7800	120000	0.063 U	0.090 U	0.092
Styrene	100-42-5	NE	NE	6000	35000	0.063 U	0.090 U	0.047 U
tert-Amyl Methyl Ether (TAME)	994-05-8	NE	NE	NE	NE	0.031 U	0.045 U	0.024 U
tert-Butyl Alcohol (TBA)	75-65-0	NE	NE	NE	NE	1.3 U	1.8 U	0.94 U
tert-Butyl Ethyl Ether (TBEE)	637-92-3	NE	NE	NE	NE	0.031 U	0.045 U	0.024 U
tert-Butylbenzene	98-06-6	7009	102200	7800	120000	0.063 U	0.090 U	0.047 U
Tetrachloroethylene	127-18-4	2.4	14	24	100	0.063 U	0.090 U	0.047 U
Tetrahydrofuran	109-99-9	NE	NE	18000	94000	0.63 U	0.90 U	0.47 U
Toluene	108-88-3	706	798	4900	47000	0.063 U	0.090 U	0.30
Total Trimethylbenzene	25551-13-7	NE	NE	NE	NE	0.063 U	0.090 U	0.16
Total Xylene	1330-20-7	252	257	580	2500	0.13 U	0.18 U	0.094 U
trans-1,2-Dichloroethylene	156-60-5	1402	18137	1600	23000	0.063 U	0.090 U	0.047 U
trans-1,3-Dichloropropene	10061-02-6	NE	NE	NE	NE	0.031 U	0.045 U	0.024 U
trans-1,4-Dichloro-2-butene	110-57-6	NE	NE	0.0074	0.032	0.13 U	0.18 U	0.094 U
Trichloroethylene	79-01-6	0.68	6.5	0.94	6	0.063 U	0.090 U	0.047 U
Trichlorofluoromethane (Freon 11)	75-69-4	NE	NE	23000	350000	0.13 U	0.18 U	0.094 U
Vinyl Chloride	75-01-4	0.1	0.59	0.059	1.7	0.13 U	0.18 U	0.094 U

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2019 RCRA - Resource Conservation Recovery Act
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
Benzo(a)pyrene Toxicity Equivalency Quotient [B(a)P-TEQ] values with orange border exceed the Vermont Urban Background value NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-11
Waste Characterization for Soil

Soil Total Petroleum Hydrocarbons										
SampleID		VSS - Resident	VSS - Non-resident	RSL - Resident	RSL - Industrial	MW-106-WC		MW-107-WC	SEI-SB-112-WC	
Sample Date	CAS#					4/27/2020	Q	4/27/2020	Q	4/27/2020
Diesel Range Organics	C-999	96	440	NE	NE	1600		1800		9500

Soil RCRA 8 Metals										
SampleID		VSS - Resident	VSS - Non-resident	RSL - Resident	RSL - Industrial	MW-106-WC		MW-107-WC	SEI-SB-112-WC	
Sample Date	CAS#					4/27/2020	Q	4/27/2020	Q	4/27/2020
		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)					
Arsenic	7440-38-2	16	16	0.68	3	4.8	U	3.7	U	3.7
Barium	7440-39-3	11247	127362	15000	220000	79		55		22
Cadmium	7440-43-9	6.9	67	71	980	0.48	U	0.37	U	0.37
Chromium	7440-47-3	NE	NE	NE	NE	21		16		12
Lead	7439-92-1	400	800	400	800	14		8.0		11
Selenium	7782-49-2	366	4900	390	5800	4.8	U	3.7	U	3.7
Silver	7440-22-4	237	2483	390	5800	0.48	U	0.37	U	0.37
Mercury	7439-97-6	3.1	3.1	11	46	0.036	U	0.029	U	0.029

Key:
Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule, July 2019
RSL - US Environmental Protection Agency, Regional Screening Levels for Residential (Res) and Industrial (Ind) settings, May 2019
RCRA - Resource Conservation Recovery Act
mg/kg - milligrams per kilogram (parts per million)
Bold results indicate detections of the analyte
Shaded results indicate an exceedence of the enforcement standard(s)
Benzo(a)pyrene Toxicity Equivalency Quotient [B(a)P-TEQ] values with orange border exceed the Vermont Urban Background value
NE - screening level not established
Q - laboratory result qualifier
U - Analyte not detected; limit of quantitation listed

Table D-12
Concentrations of RCRA 8 Metals in Investigative Derived Waste

Groundwater RCRA 8 Metals							
Sample ID		VGES	MW-106-WC		MW-107-WC		SEI-SB-112-WC
Sample Date	CAS #		4/27/2020	Q	4/27/2020	Q	4/27/2020
		(µg/l)					
Arsenic	7440-38-2	10	50 U		50 U		50 U
Barium	7440-39-3	2000	1000		550		500 U
Cadmium	7440-43-9	5	10 U		10 U		10 U
Chromium	7440-47-3	100	50 U		50 U		50 U
Lead	7439-92-1	15	100 U		100 U		100 U
Selenium	7782-49-2	50	50 U		50 U		50 U
Silver	7440-22-4	NE	50 U		50 U		50 U
Mercury	7439-97-6	2	0.10 U		0.10 U		0.10 U

Key:
 VGES - Vermont Groundwater Enforcement Standard, July 2019
 RCRA - Resource Conservation Recovery Act
 µg/L - micrograms per liter (parts per billion)
Bold results indicate detections of the analyte
 Shaded results indicate an exceedence of the enforcement standard(s)
 NE - screening level not established
 Q - laboratory result qualifier
 U - Analyte not detected; limit of quantitation listed

Appendix D: Letter to Abutters Template



State of Vermont
Department of Environmental Conservation
Waste Management & Prevention Division
Davis Building - 1st Floor, One National Life Drive
Montpelier, VT 05620-3704

OFFICIAL NOTICE

Dear Property Owner,

This is an official notice that a draft Corrective Action Plan (CAP) has been prepared by Stone Environmental, Inc. on behalf of Springfield Regional Development Corporation for the Jones & Lamson site. Vermont law requires that adjoining and/or impacted property owners receive notice of this CAP, as well as being provided a 30 day public comment period. The public comment period will start on 7/30/26 and end on 8/30/26.

The CAP approval process includes a public comment period and a public meeting will be held on August 10, 2026 from 6:30 PM at Springfield Town Hall. Note that in order to appeal a final CAP approval, comments must be submitted during the public comment period.

To view the draft CAP, please visit the Environmental Notice Bulletin (ENB) at ENB.VERMONT.GOV, and enter the site number: 77 0122 in the "Permit #" space. Do not include spaces or dashes.

For further information, please visit the following website:
DEC.VERMONT.GOV/PERMITS/ENB/GENERAL.

FOR QUESTIONS CONTACT:

Waste Management & Prevention Division, Sites Management Section (SMS)
SMS Site Manager: Kimberly Caldwell
SMS Site Manager email address: kimberly.caldwell@vermont.gov
(802) 828-1138

SITE NUMBER

77 0122

NAME OF POTENTIALLY RESPONSIBLE PARTY

Jones & Lamson Machine Company

LOCATION OF CORRECTIVE ACTION STREET ADDRESS/ROUTE

160 Clinton Street

TOWN(S) WHERE PROPOSED CORRECTIVE ACTION WILL TAKE PLACE

Springfield, Vermont

Appendix E: EcoVac Proposal



*The World Leader in Mobile Dual-Phase/Multi-Phase Extraction and
Patented SURFAC®/ISCO-EFR®/SOLV-IT® Technologies*

June 14, 2022

Dan Voisin
Environmental Assessment and Remediation Service Leader/Senior Geologist
Stone Environmental
535 Stone Cutters Way
Montpelier, VT 05602
dvoisin@stone-env.com

Subject: Proposal to Provide SOLV-IT® Remediation Services
Former Jones & Lamson Plant #1
Springfield, Vermont

Dear Dan:

Thank you for utilizing EcoVac Services and our innovative solutions for remediating the subject site. Our patented SOLV-IT® process involves a unique “treatment train” approach to remediate viscous NAPLs, incorporating the sequential components of biosolvent and surfactant injection combined with multi-phase/dual-phase extraction.

Treatability Study and pilot testing services have been completed at this site, providing a “blue print” for SOLV-IT® implementation. SOLV-IT® will be implemented over a 26-day time period injecting one half pore volume of biosolvent and one pore volume of surfactant solution, sequentially, during multi-phase extraction. A projected minimum of twelve pore volumes of impacted groundwater and LNAPL will be extracted on multiple days following the injection phase.

The scope will include two days of testing on the final treatment wells, followed by four days of combined extraction and injection, including residence time. After the injection phase twenty days of capture events will be completed, utilizing various extraction well arrays, to recover a minimum of twelve times the injection volume as determined from the Treatability Study. The total estimated groundwater extraction volume for this scope of work is 49,000 gallons.

Prior to SOLV-IT® implementation, EcoVac Services recommends that Stone Environmental install six additional treatment wells, consisting of four four-inch diameter treatment wells and two six-inch wells, at the locations shown on the attached figure to enhance the probability of success. These treatment wells are necessary to provide proper injection and extraction overlap when combined with the existing well grid, based on the recent field testing performed by EcoVac Services at the site.

*356 Nottingham Drive, Suite 100 - Marietta, Georgia 30066-2540
(770) 592-1001
www.ecovacservices.com*

Our lump sum cost to perform this scope of work is \$237,186.00, subject to those assumptions contained in Attachment A.

Please contact us should you have any additional questions or require additional information, and thank you for this opportunity to team with Stone Environmental.

Sincerely,

A handwritten signature in black ink, appearing to read "N Athens", followed by a vertical line.

Nick Athens

ATTACHMENT A
ASSUMPTIONS UTILIZED IN DEVELOPING
ECOVAC SERVICES' COSTS (06/13/2022)
Stone Environmental
Former Jones & Lamson Plant #1
Springfield, Vermont

- The cost estimate contains no contingencies for costs or delays that may result from adverse weather conditions, client or regulatory delays, access delays, health/safety delays, or any other conditions beyond the control of EcoVac Services. A (free) water source from a hydrant is located onsite, as well as a 110-volt electricity source. Fieldwork at this site will take place on consecutive days between the hours of 6am-4pm (including weekends).
- Payment terms are net 30 days from receipt of the invoice. This quotation is valid for a period of 90 days. Level D PPE will be utilized in the field. Stone Environmental will be responsible for securing any and all regulatory permits (including the future UIC permit), and making all regulatory notifications.
- Recovered fluids will be placed in frac tanks provided by Stone Environmental, who will administer subsequent disposal.
- Site work will be conducted for 8 hours/day. One and one-half additional hours/day is allocated for set-up, breakdown and gauging, as well as offloading recovered fluids onsite. Additional field time will be charged at a rate of \$950/hour.



SOLV-IT® LNAPL

US Patent 6,158,924

Cosolvent Trailer

Well Header Assembly

High Vacuum Unit

Vapor Treatment Unit

EFR®

SURFAC®

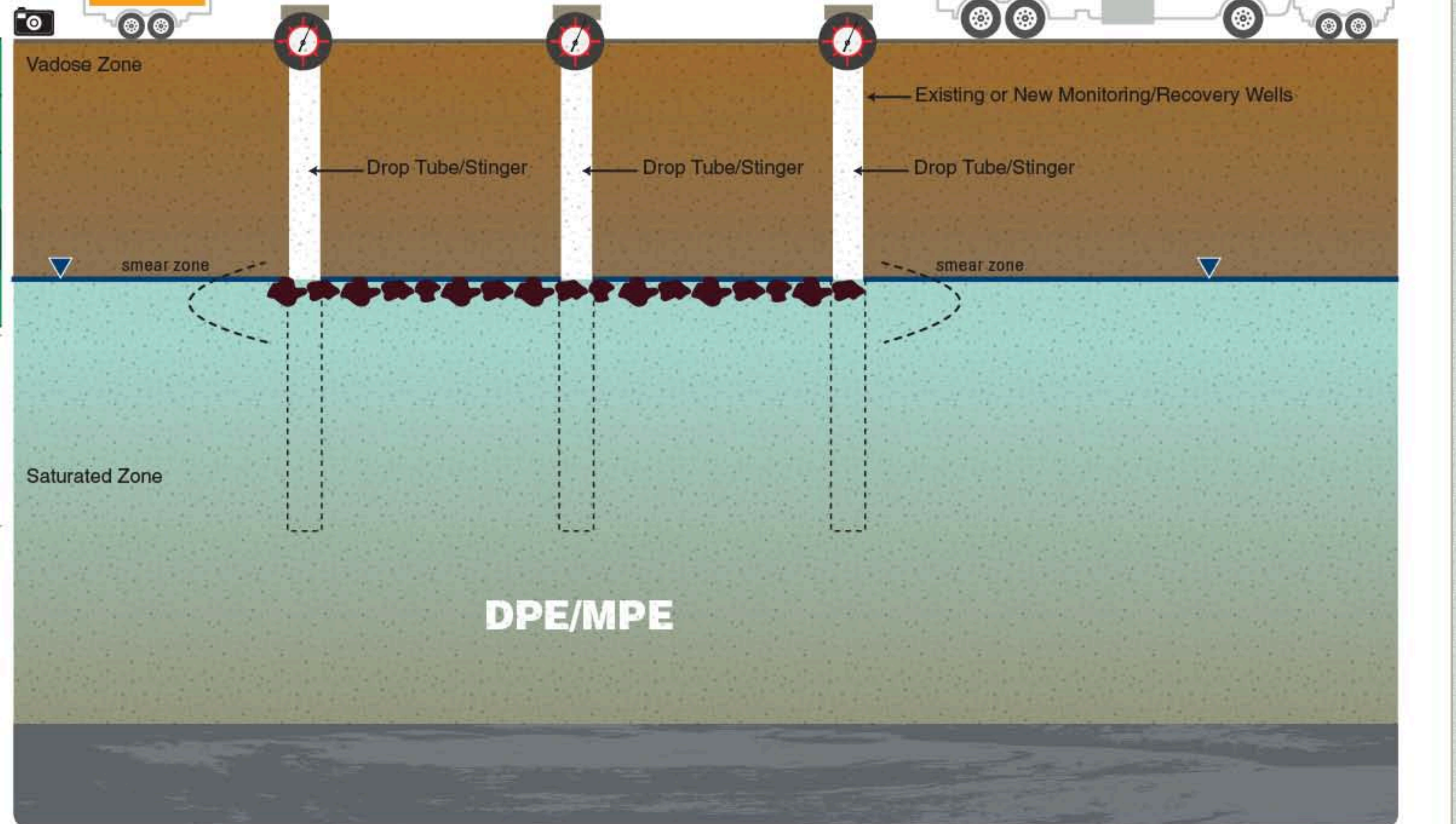
ISCO-EFR®

SOLV-IT® LNAPL

SOLV-IT® DNAPL

LEGEND

-  Water Table
-  LNAPL
-  Cosolvent
-  Surfactant





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Cosolvent Trailer

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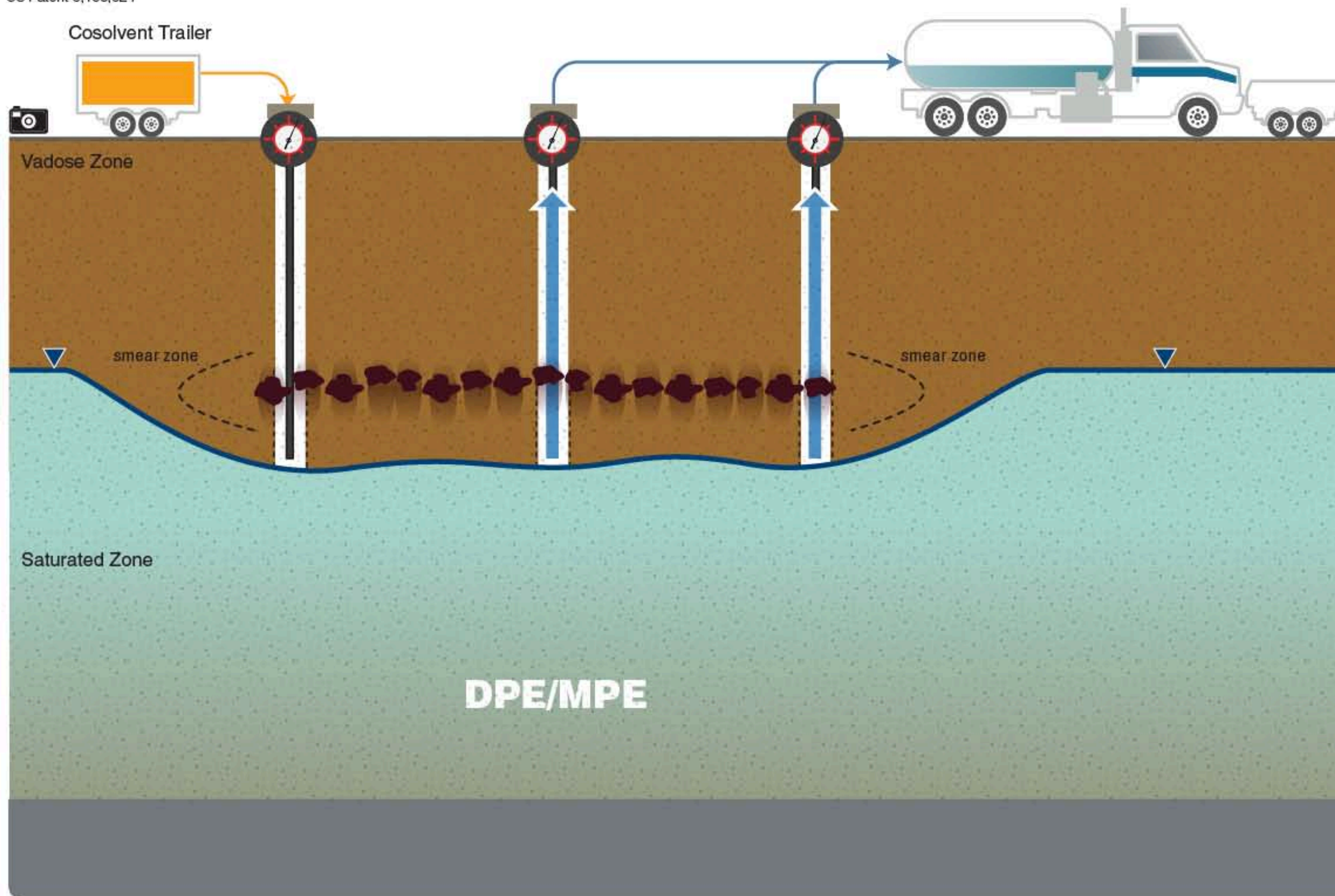
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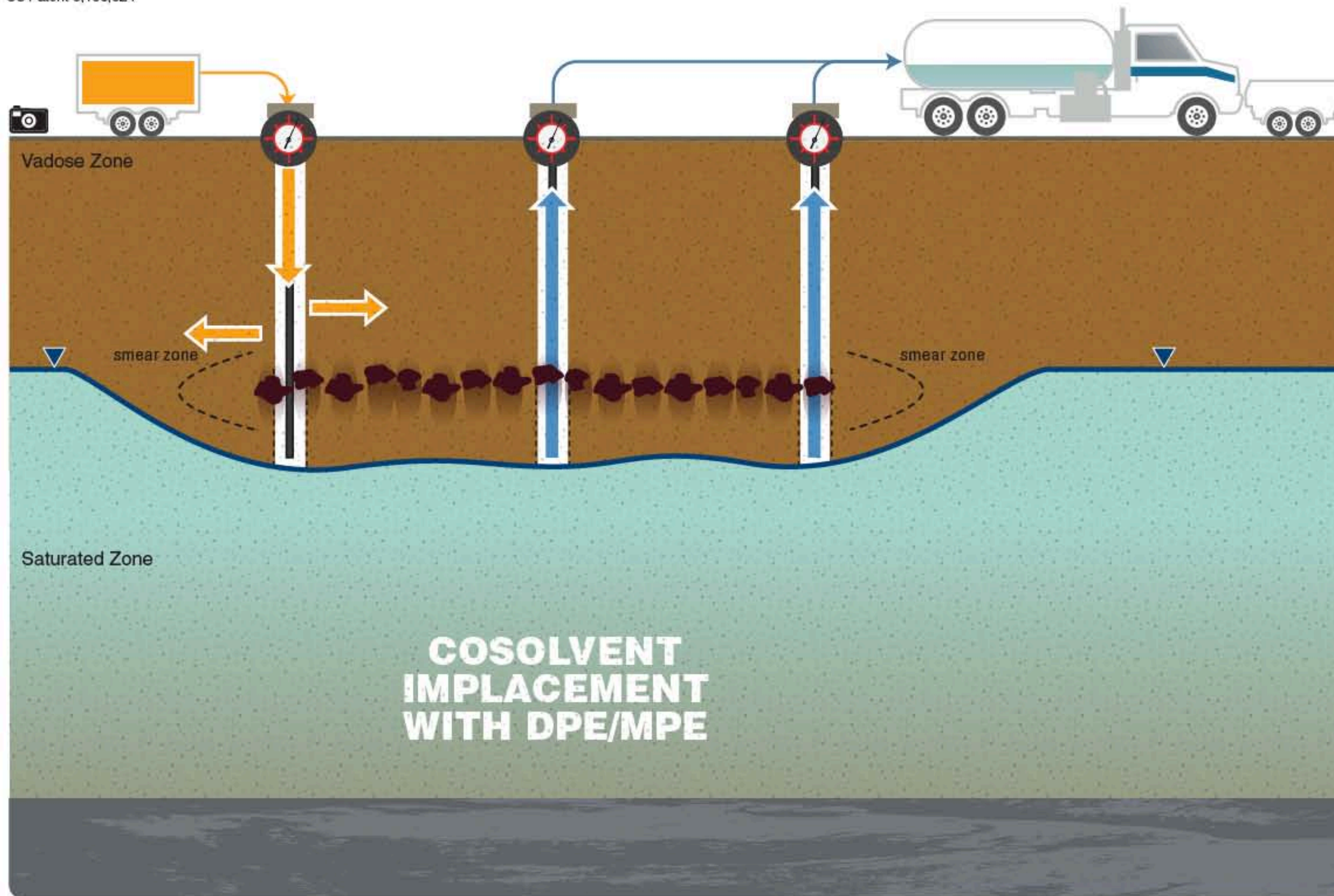
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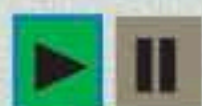
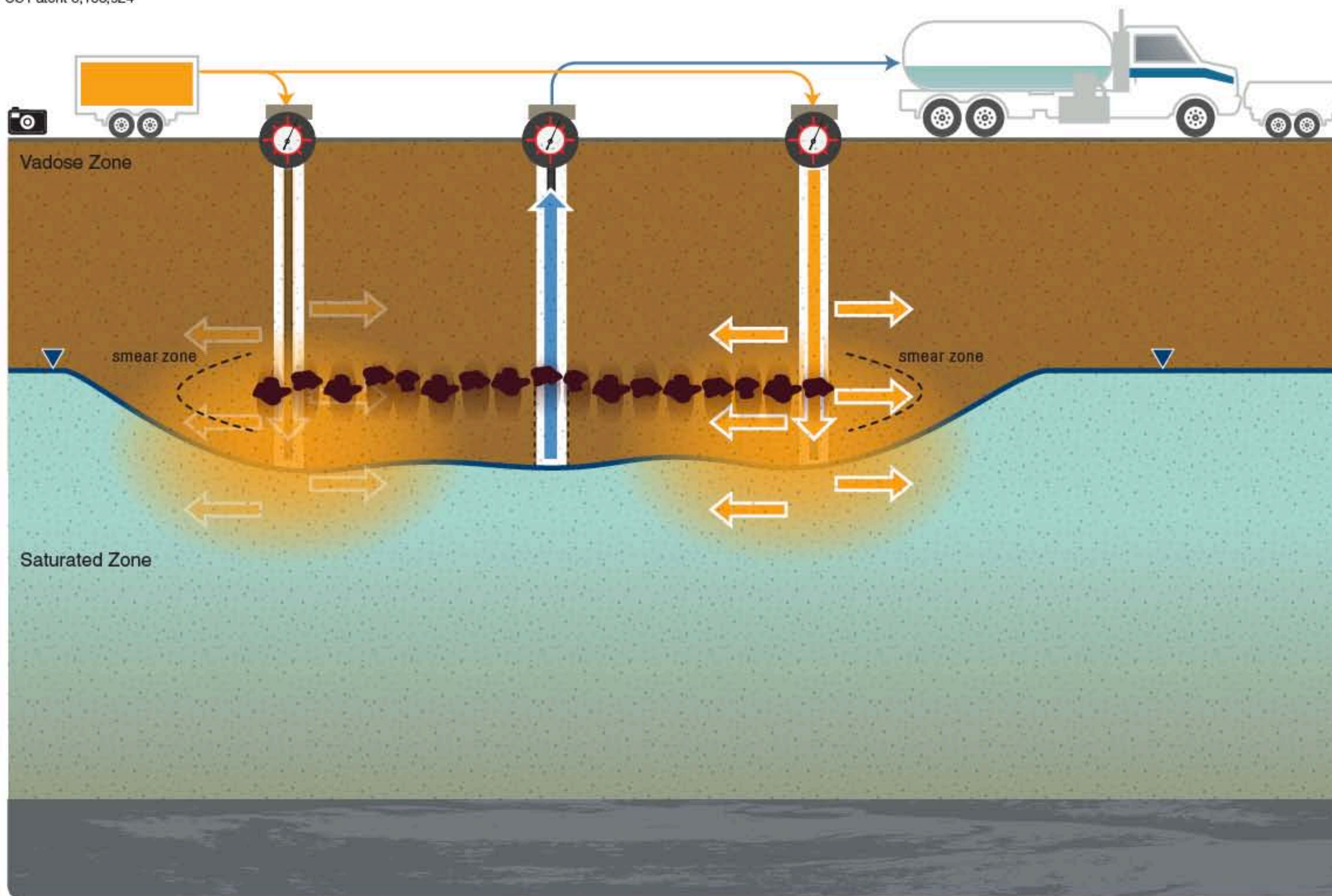
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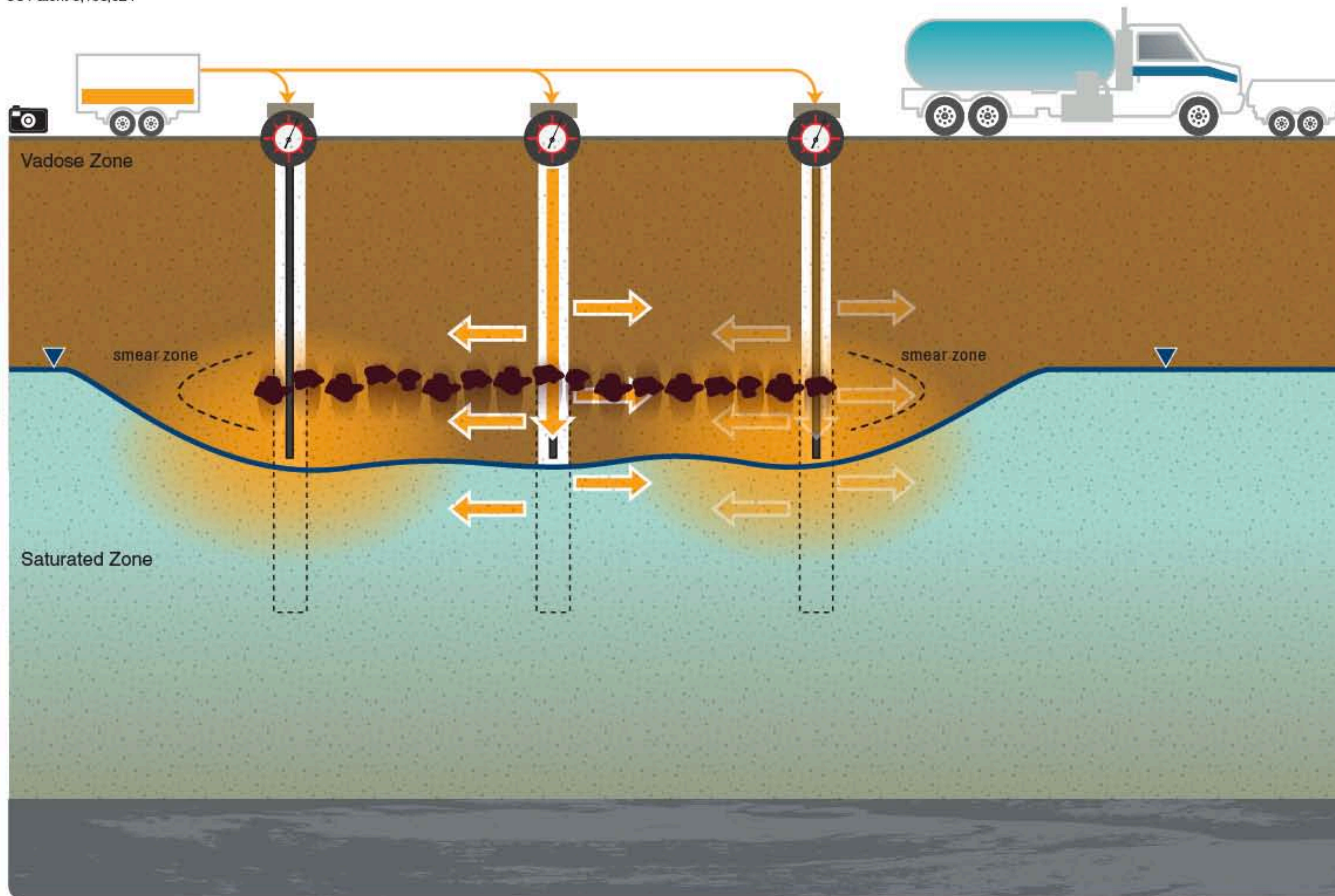
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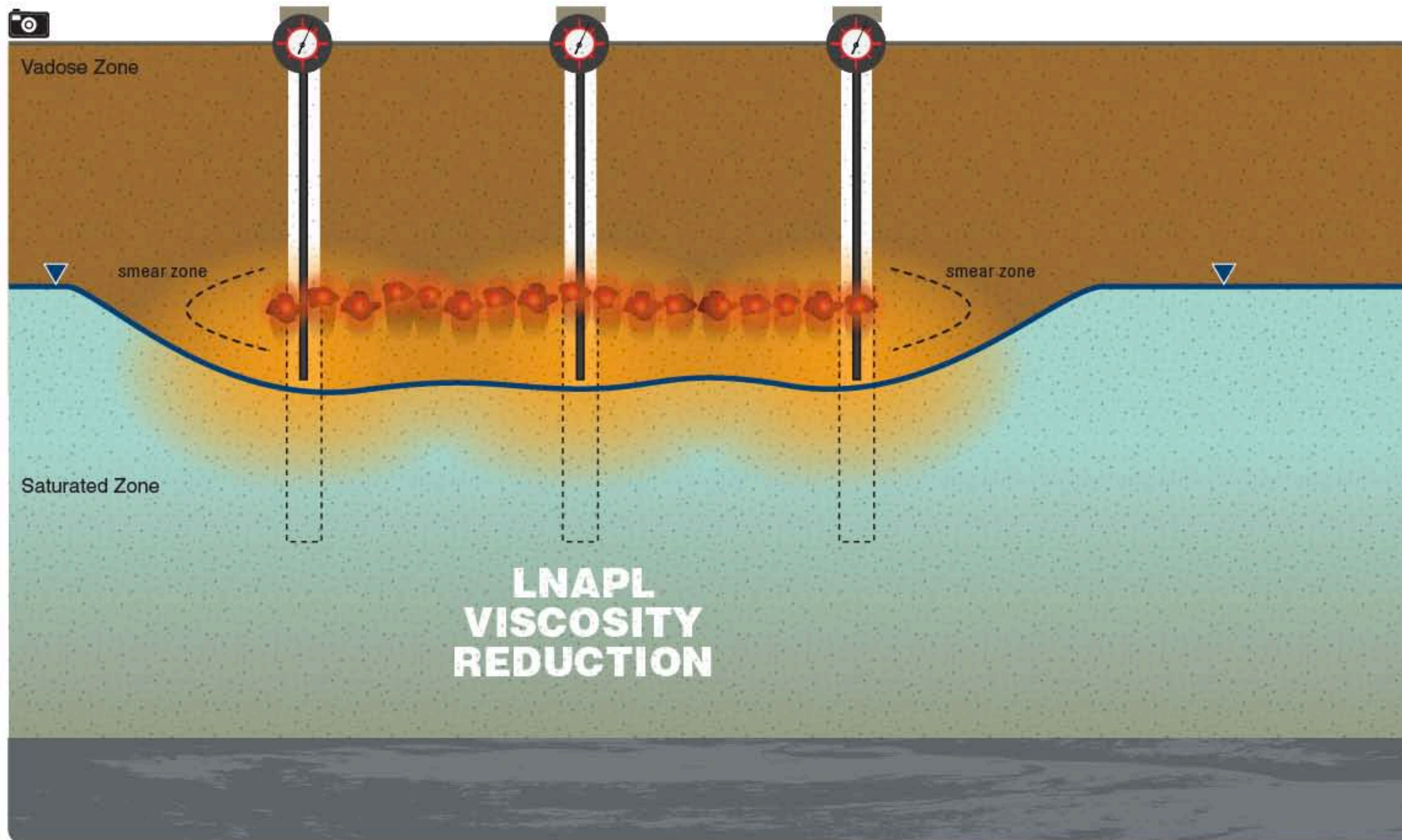
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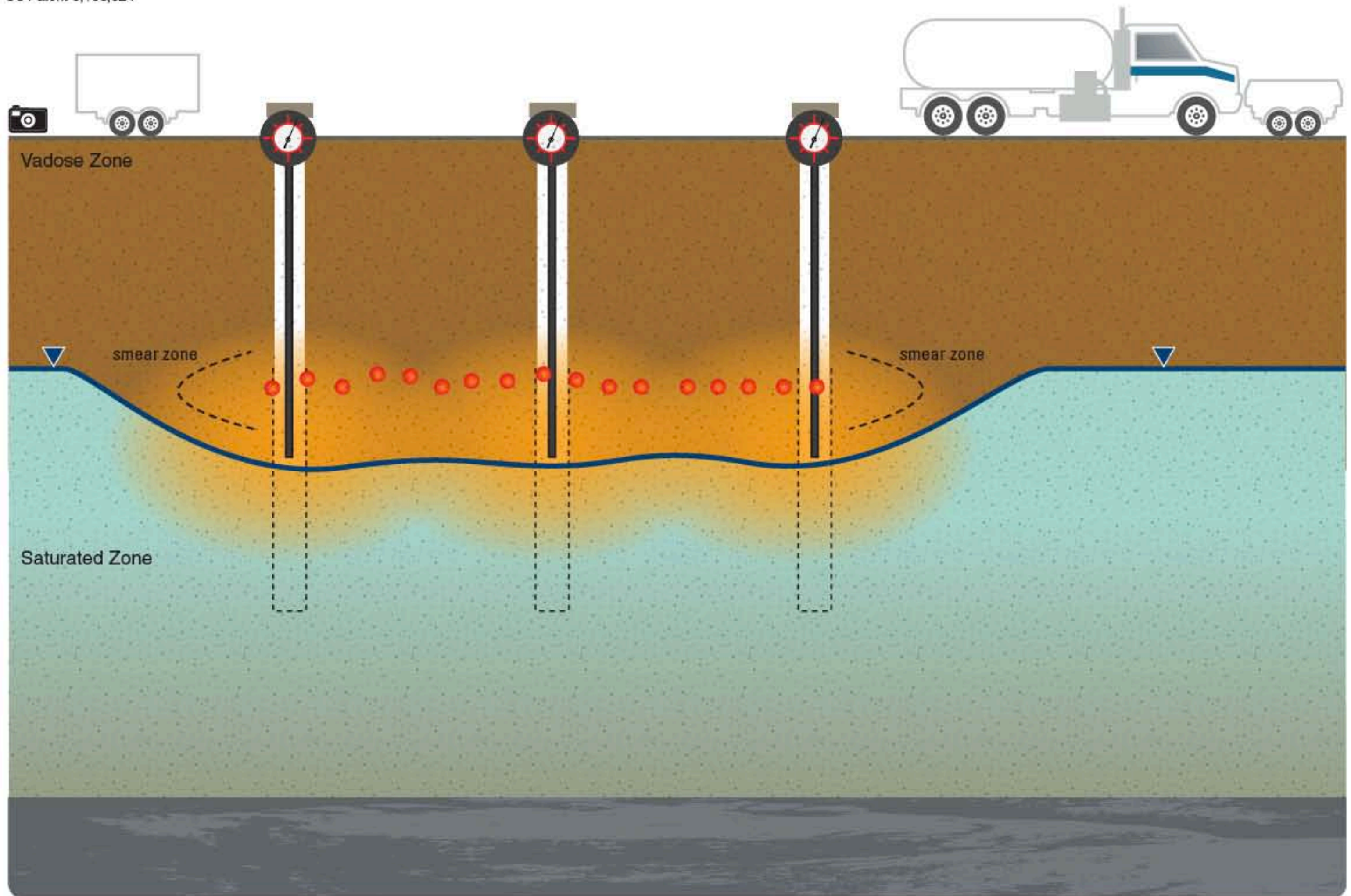
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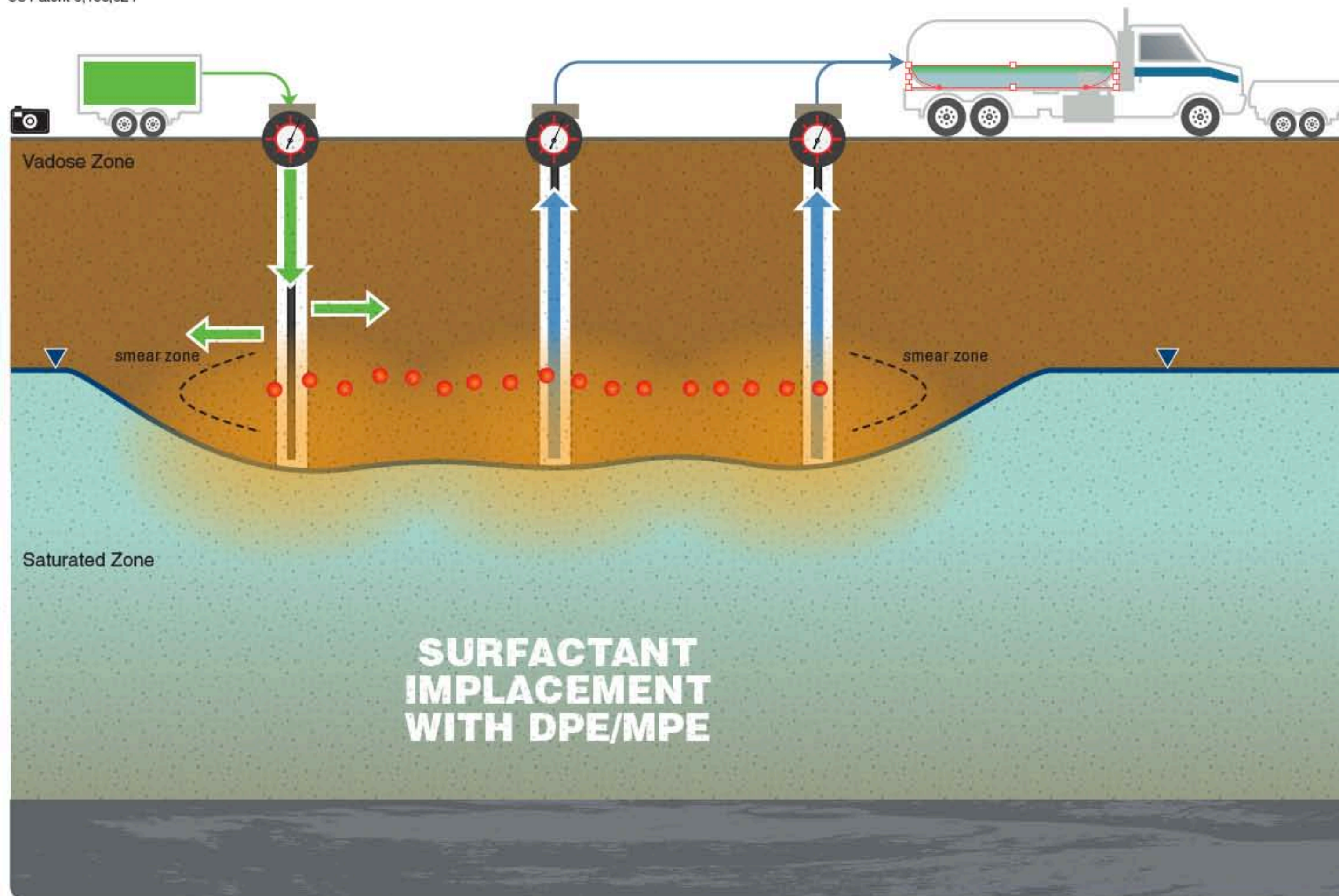
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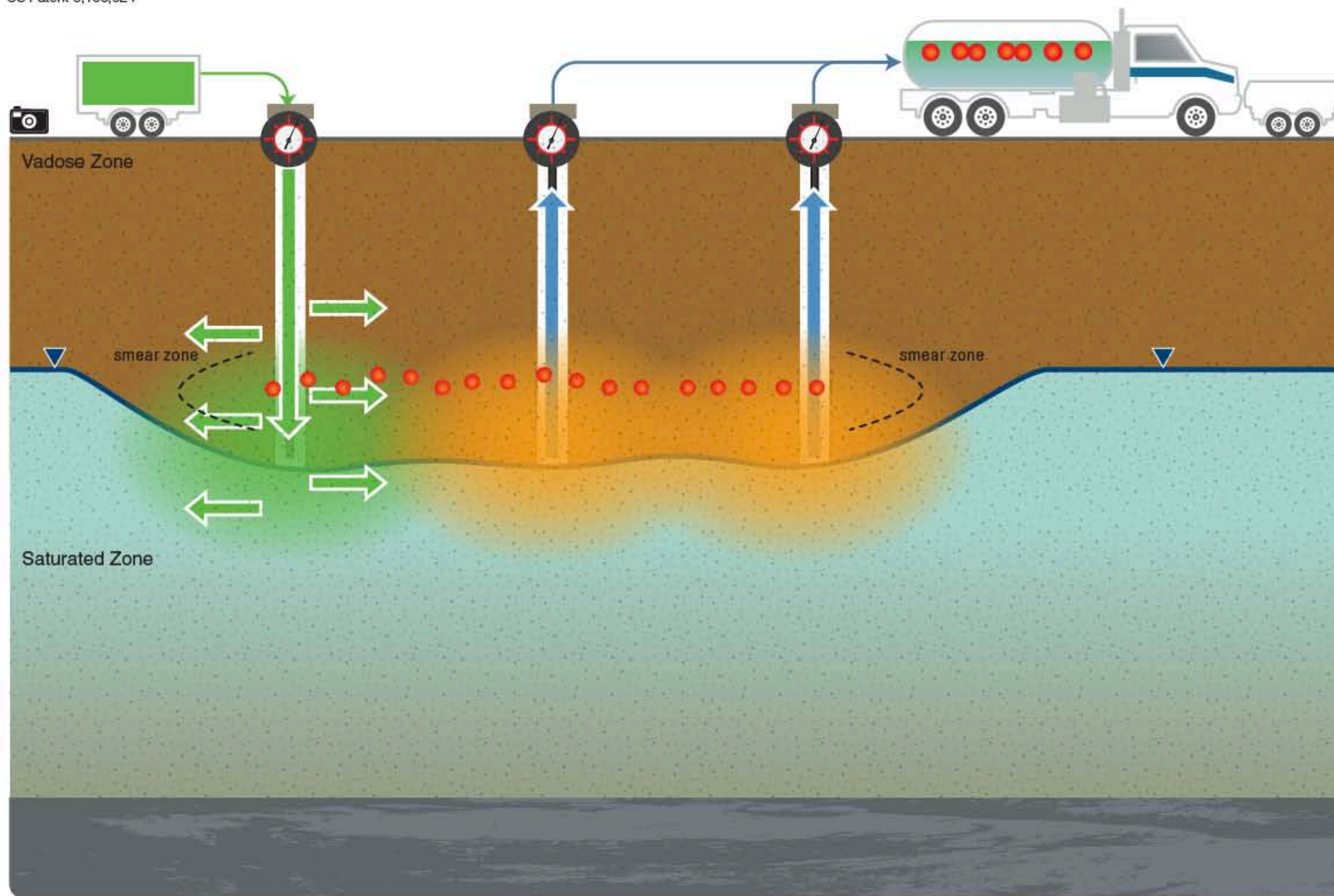
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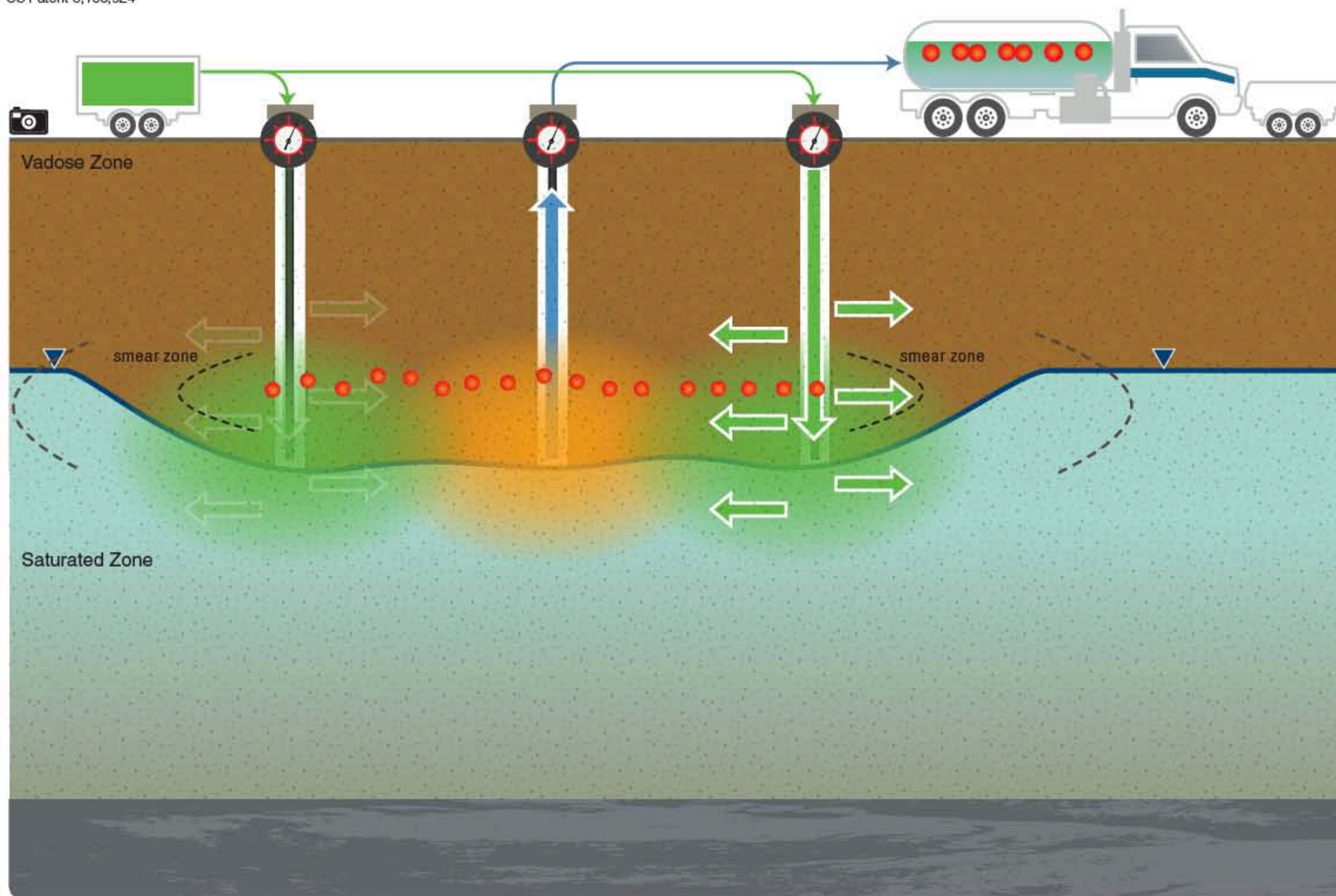
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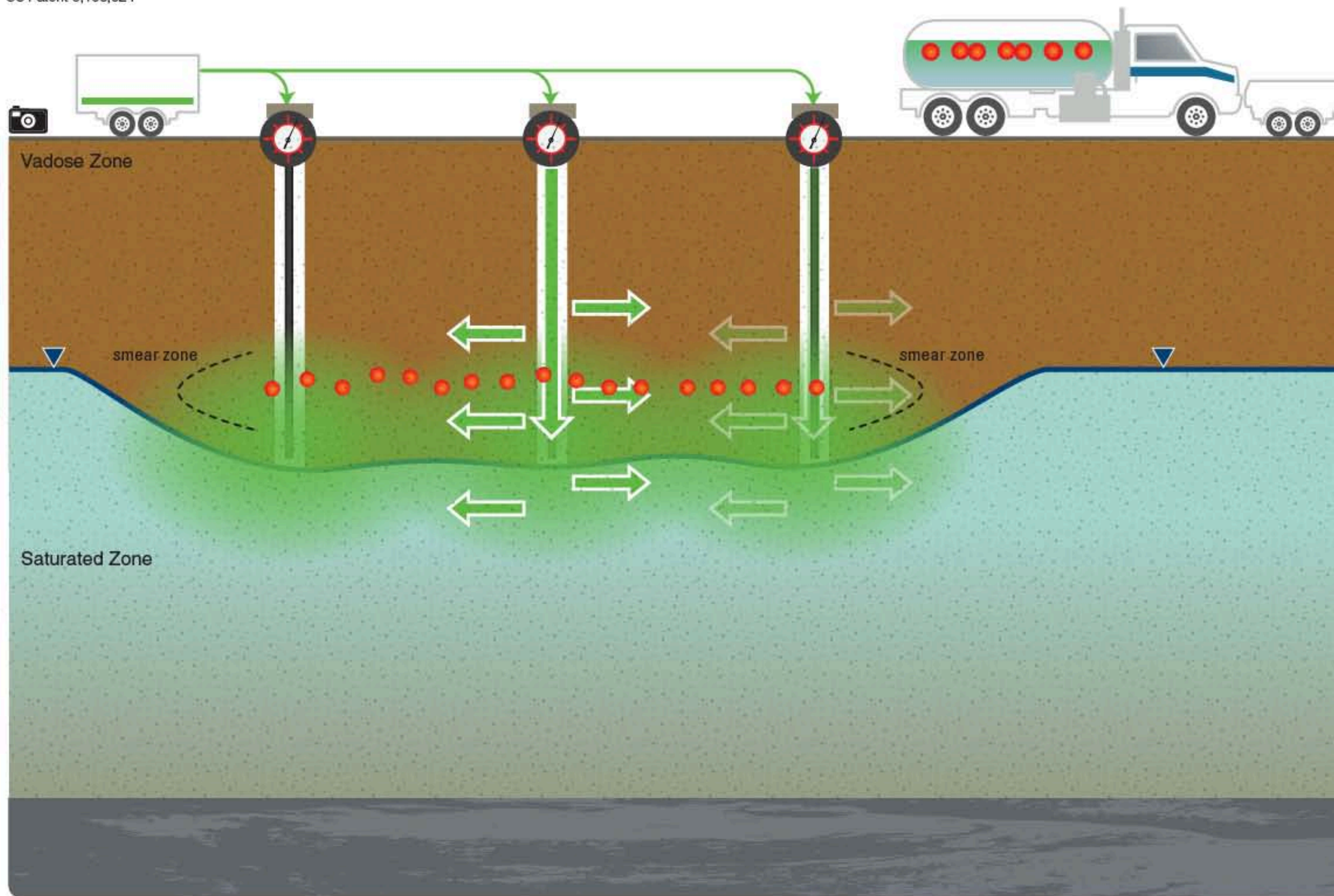
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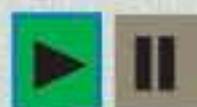
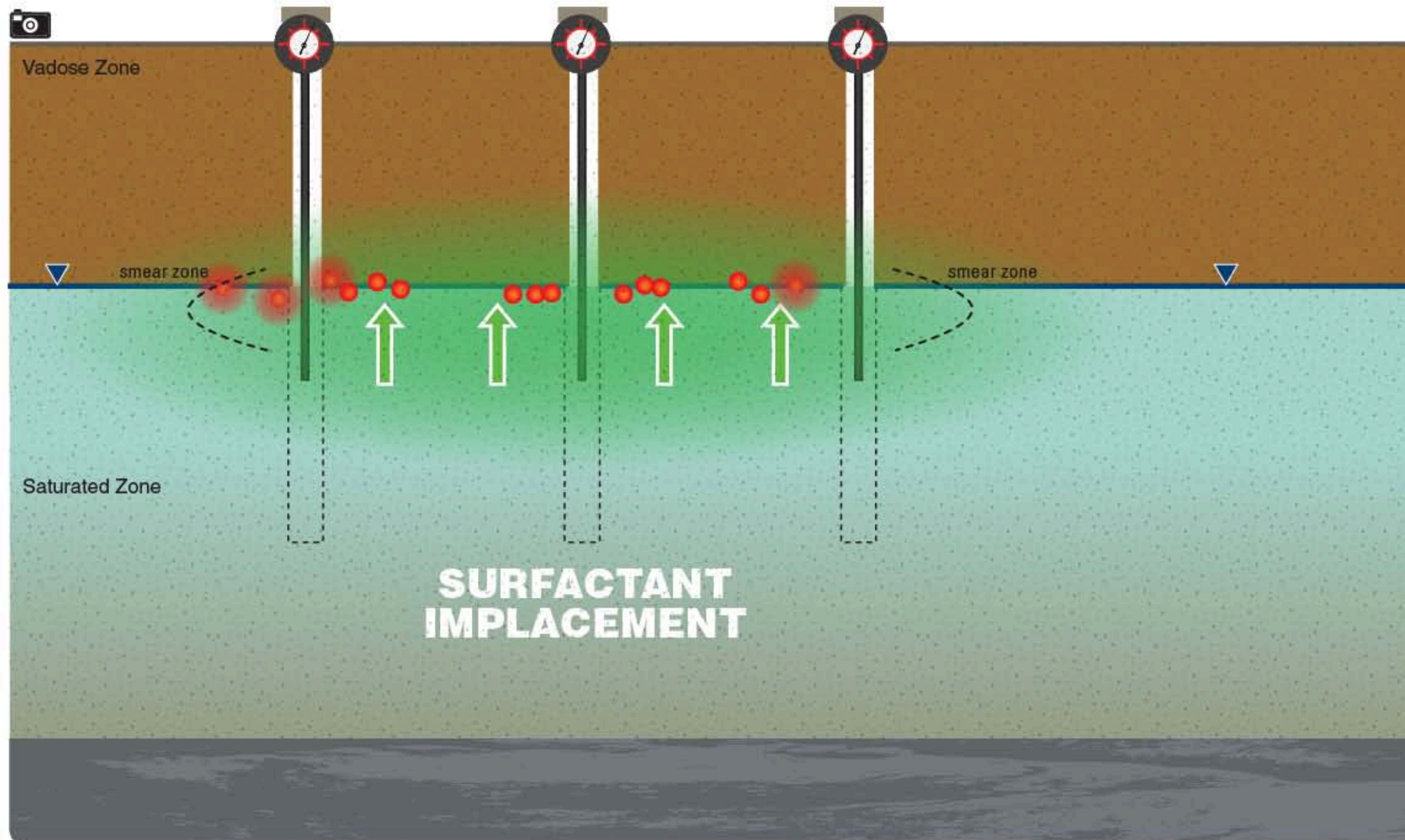
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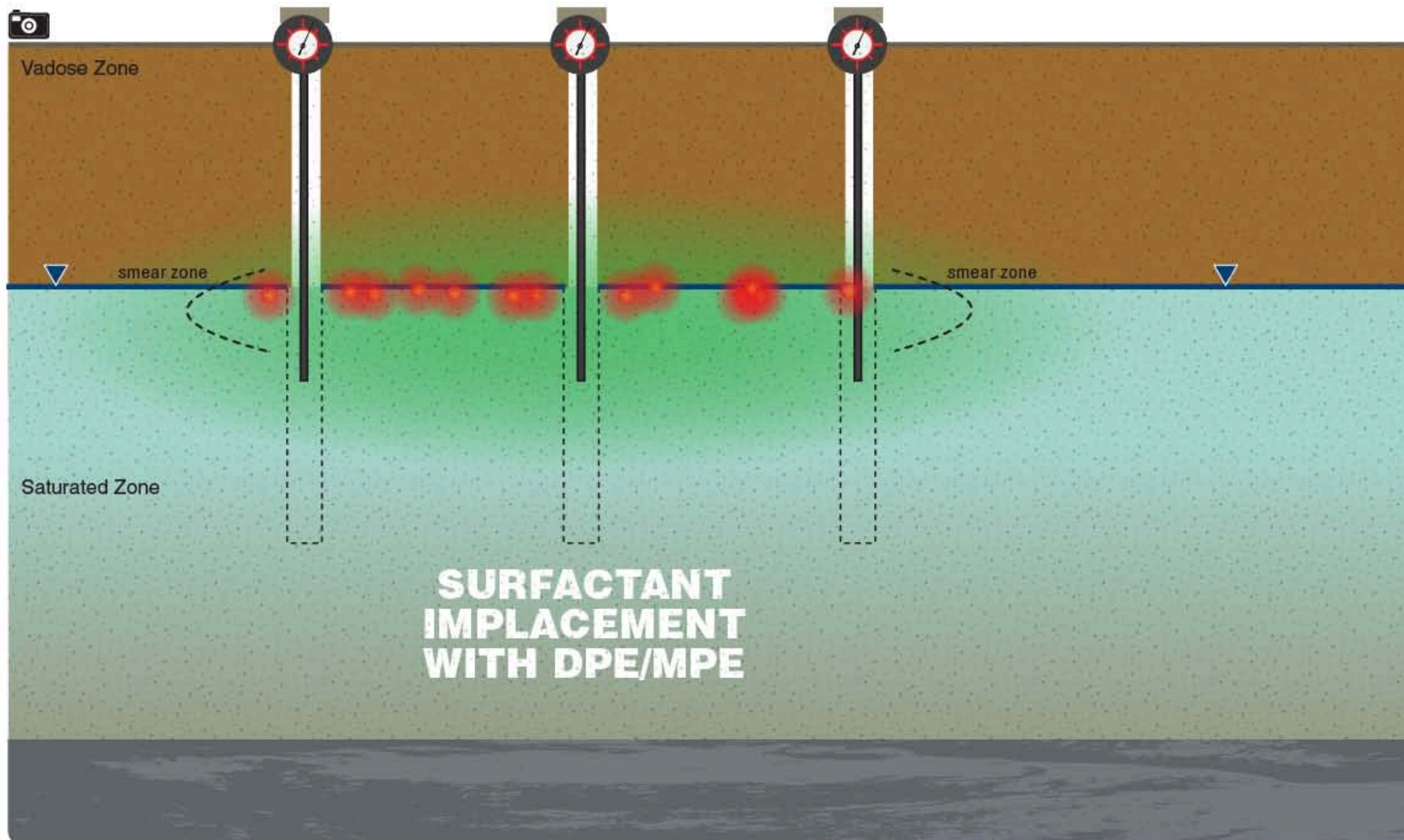
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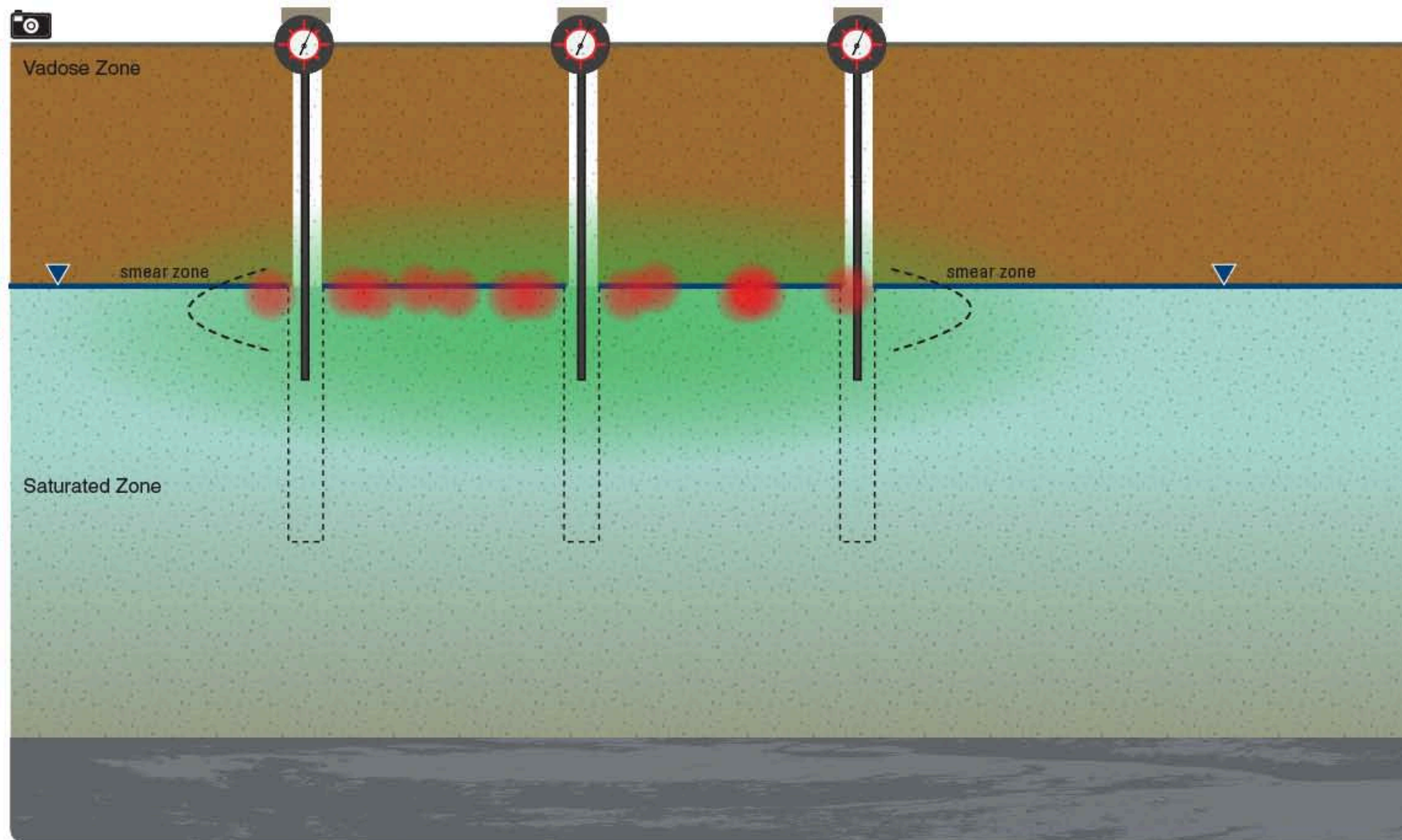
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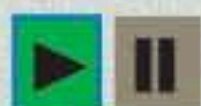
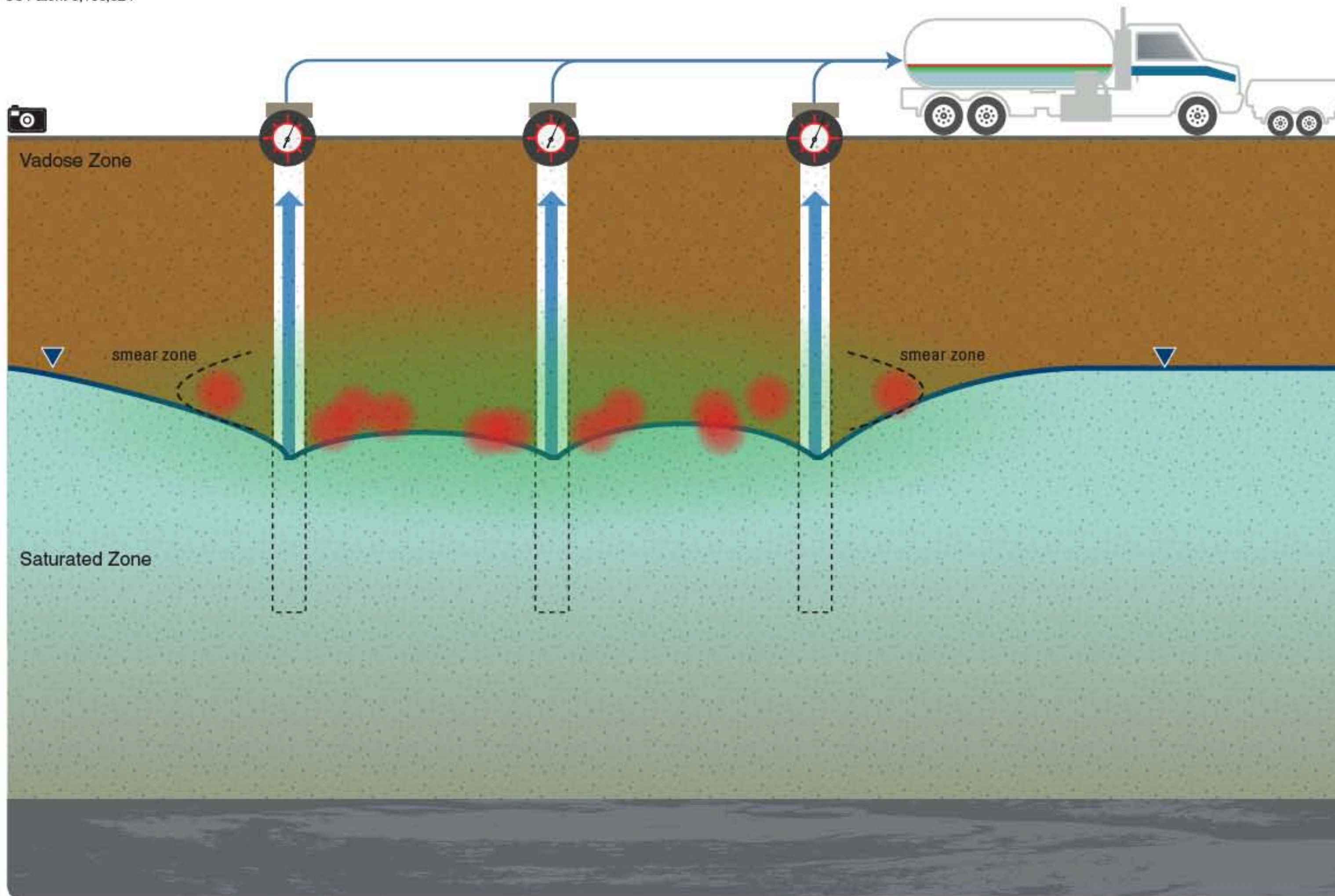
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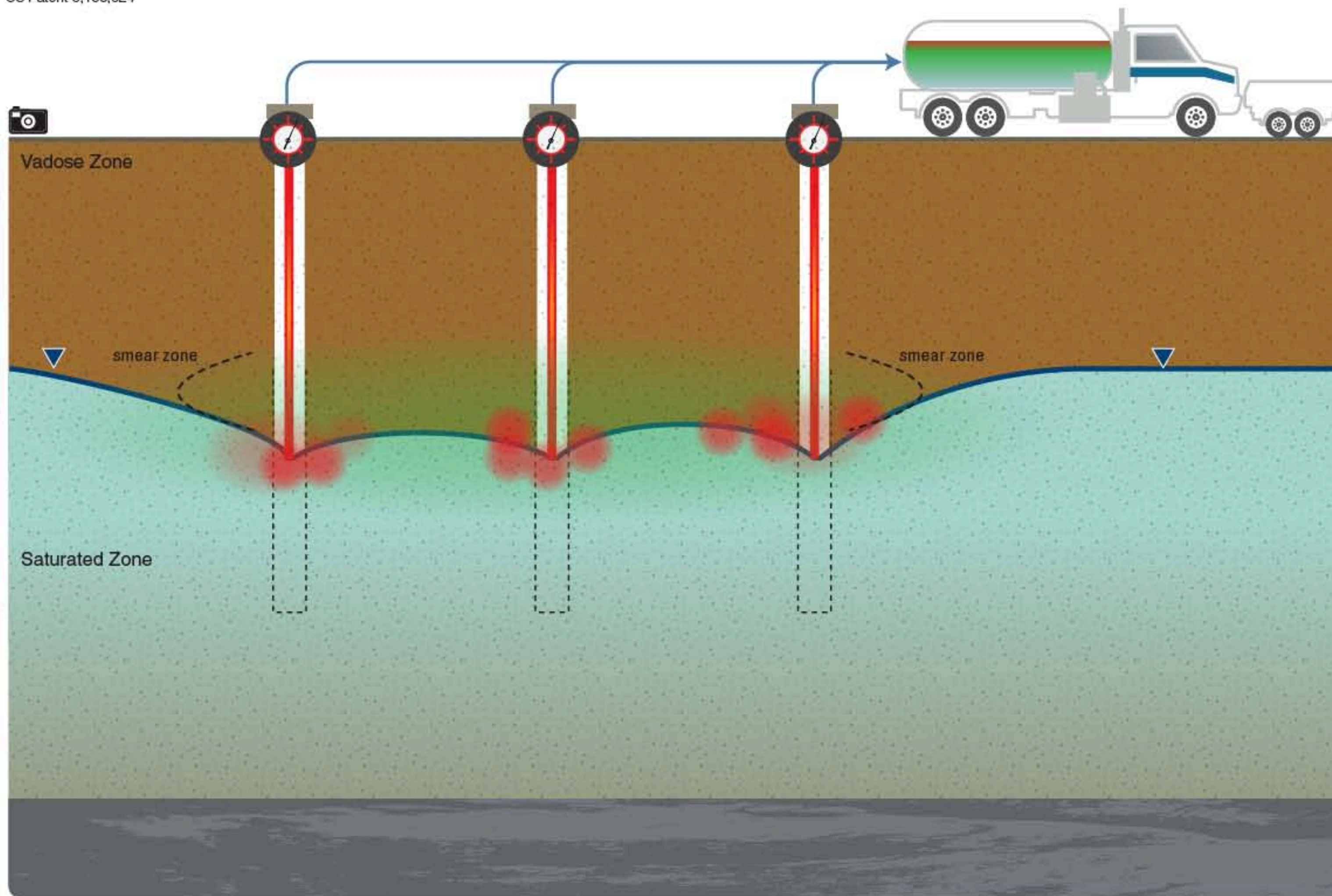
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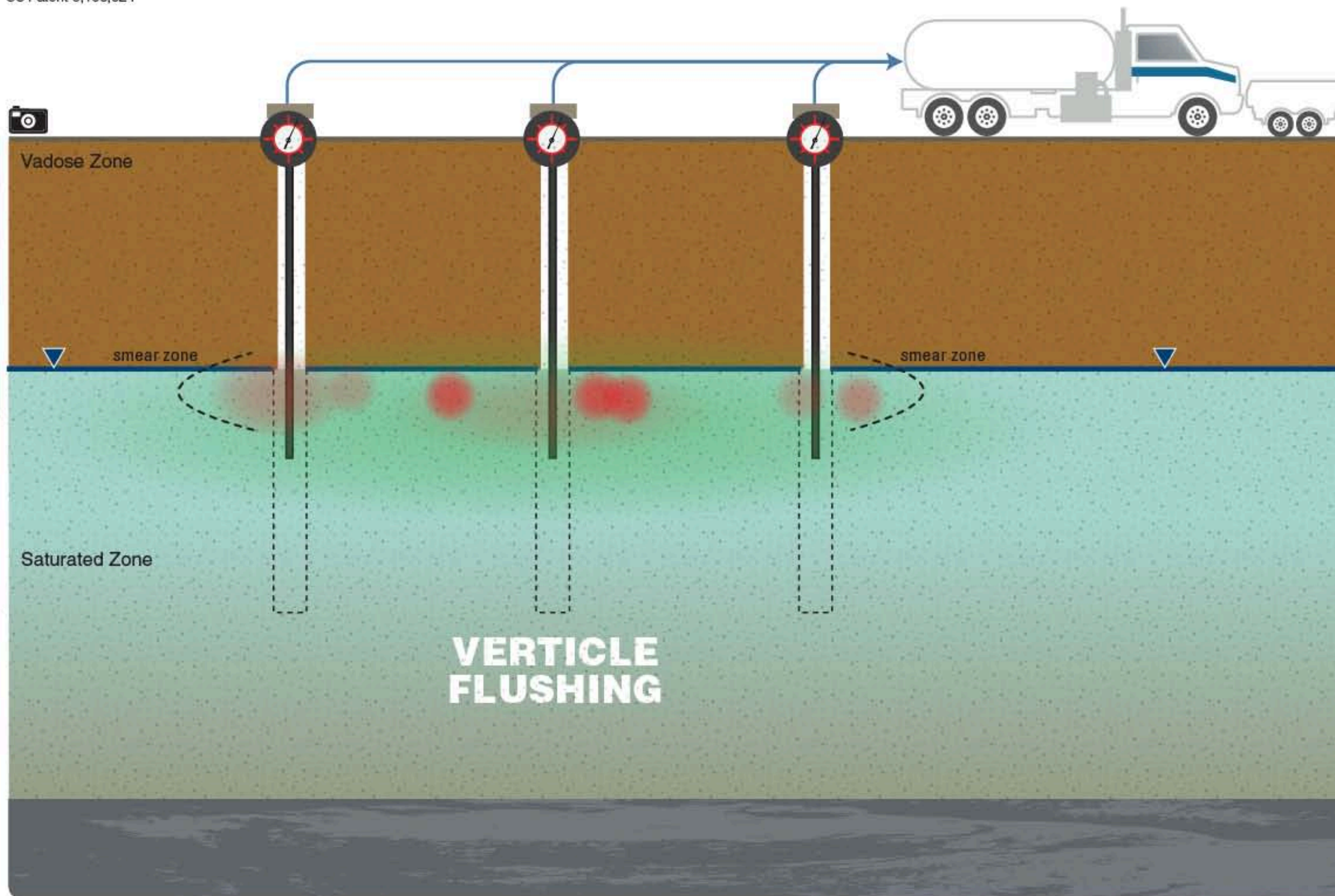
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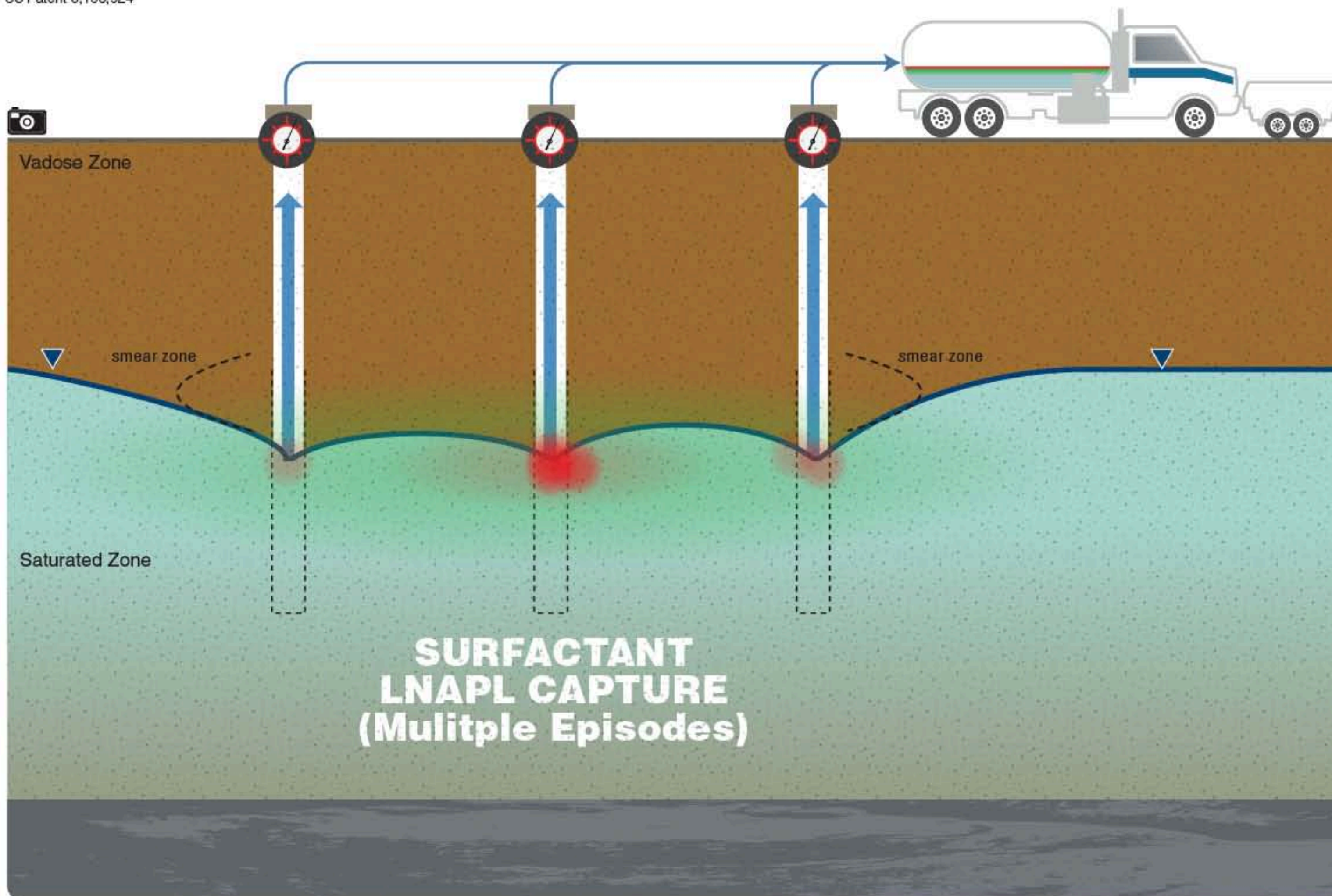
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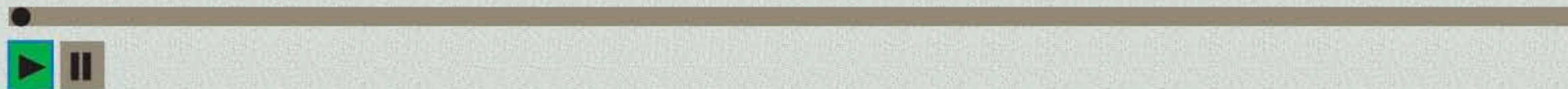
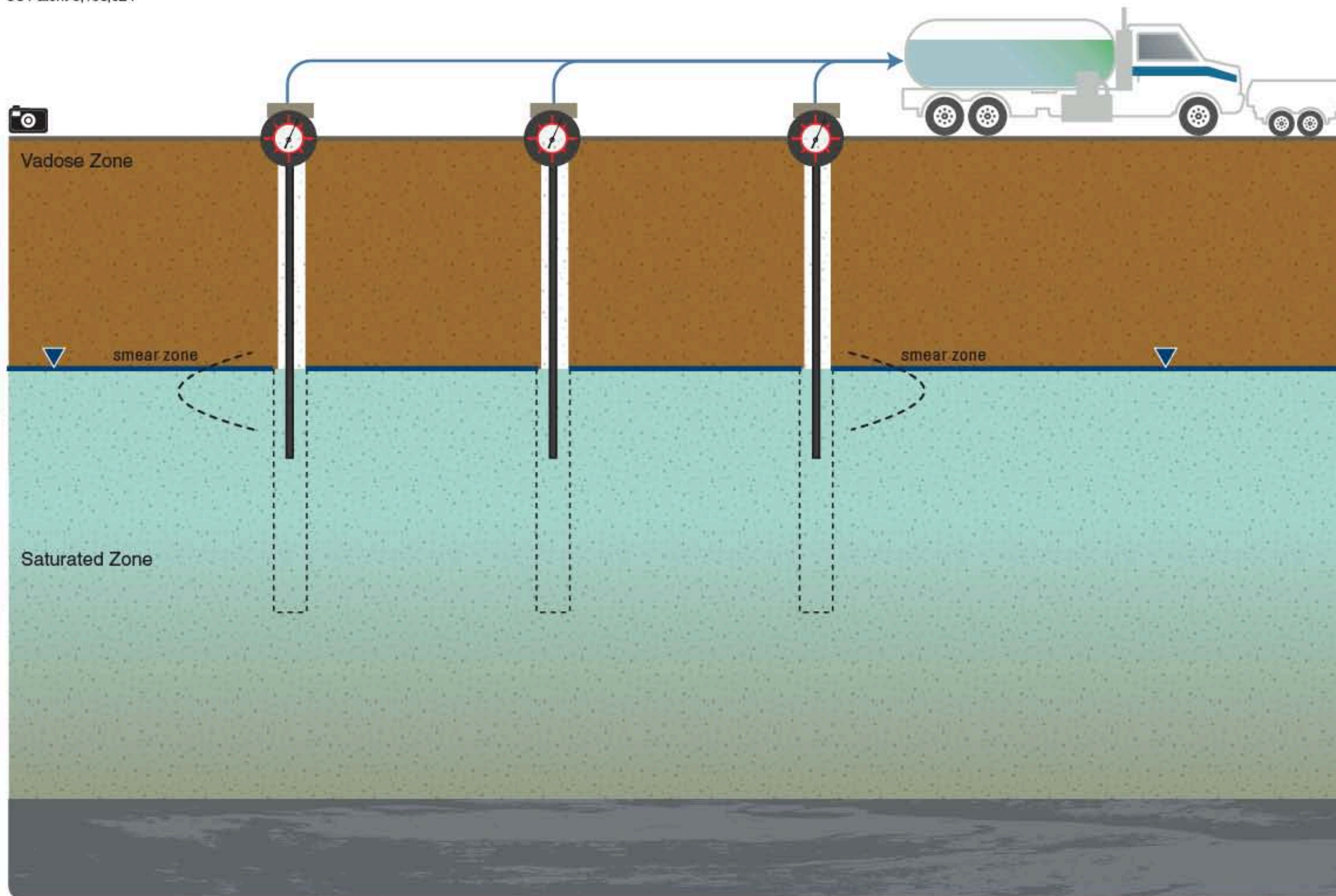
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SOLV-IT[®] LNAPL

SOLV-IT[®] DNAPL

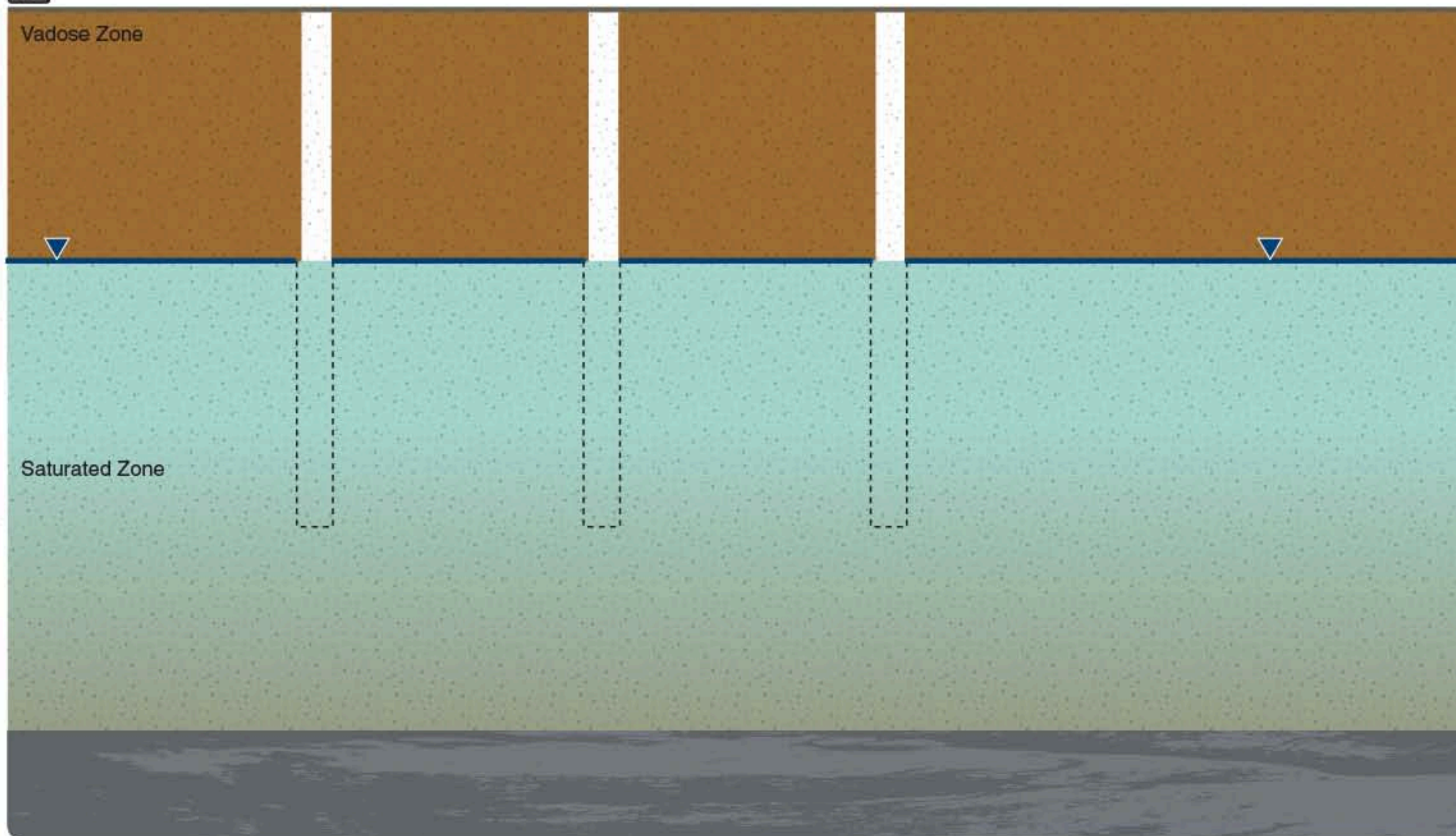
LEGEND

-  Water Table
-  LNAPL
-  Cosolvent
-  Surfactant



Vadose Zone

Saturated Zone



ECOVAC PLANT DERIVED BIOSOLVENT/COSOLVENT (EFC™)

CHEMICAL: Fatty Acid Methyl Ester

SYNONYMS: Methyl Ester of Soybean Oil

SECTION II - INGREDIENTS AND HAZARD CLASSIFICATION

	Principle Hazardous Compound	Wt%	CAS#
	Nonylphenol Ethoxylate	1.0-5.0	9016-45-9
SARA HAZARD:	FIRE - (Section 311/312) None noted TITLE III SECTION 313: Not listed		

SECTION III - HEALTH INFORMATION

EFFECTS OF OVEREXPOSURE:

INHALATION: Exposure via inhalation not likely.

INGESTION: No significant adverse effects are expected upon ingestion of the product. LD50>50 ml/kg (albino rats)

EYE CONTACT: Direct Eye Contact may cause Severe Irritation

SKIN CONTACT: May cause mild Skin Irritation.

SECTION IV - OCCUPATIONAL EXPOSURE LIMITS

PEL: NO OSHA PEL

TLV: NO ACGIH TLV

SECTION V - EMERGENCY FIRST AID PROCEDURE

FOLLOW STANDARD FIRST AID PROCEDURES:

SWALLOWING: No need for first aid is anticipated if material is swallowed.

SKIN CONTACT: Wash affected area with soap and water. If irritation persists get medical attention.

EYE CONTACT: Flush eyes with cool water for at least 15 minutes. If irritation persists to get medical attention.

INHALATION: If symptoms are experienced, remove source of contamination or move victim to fresh air. symptoms persist get medical attention.

SECTION VI - PHYSICAL DATA

BOILING POINT: Over 600°F at 760 mm Hg pressure

VAPOR PRESSURE: 0.88 mm Hg at 68°F

SPECIFIC GRAVITY: 0.882 (at 25 C)

SOLUBILITY IN WATER: Insoluble

APPEARANCE AND COLOR: Light Yellow Liquid

ODOR: Faint Fatty Odor

SECTION VII - FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD USED: > 300° F (PMCC)

FLAMMABLE LIMITS: Not Applicable

NFPA RATING: HEALTH: 1 FIRE: 1 REACTIVITY: 0

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS: Treat as Oil Fire. CO₂, Dry Chemical, Foam.

UNUSUAL FIRE & EXPLOSION HAZARDS: Rags soaked with any solvent present a fire hazard and should always be stored in UL listed or Factory Mutual approved, covered Containers. Improperly stored rags can create conditions that lead to oxidation. Oxidation, under certain conditions can lead to spontaneous combustion. This product contains antioxidants to retard oxidation.

SECTION VIII - REACTIVITY

STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	None known.
MATERIALS TO AVOID:	Strong oxidizers, acids, and alkalis
HAZARDOUS DECOMPOSITION PRODUCTS:	CO, CO ₂ .
CONDITIONS TO AVOID:	None known.

SECTION IX - EMPLOYEE PROTECTION

CONTROL MEASURES:	Adequate ventilation
RESPIRATORY PROTECTION:	Under normal conditions, respirator is not normally required
PROTECTIVE CLOTHING:	Impervious gloves
EYE PROTECTION:	Safety glasses, Goggles

SECTION X - ENVIRONMENTAL PROTECTION

ENVIRONMENTAL PRECAUTIONS	Avoid uncontrolled releases of this material to environment.
SPILL OR LEAK PRECAUTIONS	Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent material. Prevent entry into waterways, sewers, or basements or confined areas.
WASTE DISPOSAL	Dispose of according to federal, state and/or local requirements.

SECTION XI - REGULATORY CONTROLS

DOT CLASSIFICATION:	Class 65
DOT PROPER SHIPPING NAME:	Fatty Acid Ester
OTHER REGULATORY REQUIREMENTS:	Listed in TSCA inventory

SECTION XII - PRECAUTIONS: HANDLING, STORAGE AND USAGE

Avoid overheating. Store in cool, well ventilated area.

EcoVac Services, Inc.

Date Updated: 5/21/19

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: EcoVac Formulated Surfactant (EFS™)
Chemical Family: Sulfosuccinates, Ethoxylated Alcohols
Molecular Formula: Proprietary mixtures of anionic surfactants / nonionic surfactants
Molecular Weight: Mixture

EcoVac Services, Inc. 105 Weatherstone Drive, Suite 610, Woodstock, Georgia 30188.
For Product Information call 770-592-1001.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component / CAS No.	% (w/w)	OSHA (PEL)	ACGIH (TLV)	Carcinogen
Surfactant Mixture	63 – 77%	Not Established	Not Established	--

3. HAZARDS IDENTIFICATION

APPEARANCE AND ODOR:

Color:	Colorless
Appearance:	Hazy liquid gel
Odor:	soap like

HAZARD:

WARNING! CAUSES EYE AND SKIN IRRITATION

TOXICOLOGICAL INFORMATION

Oral LD50 (Rat):	1,600 mg/kg
Dermal LD50 (Rabbit):	3,600 mg/kg

4. FIRST AID MEASURES

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of physician.
Never give anything by mouth to an unconscious person.

Skin Contact:

Remove contaminated clothing and shoes, and then wash with plenty of water immediately. Get medical attention if irritation persists after washing.

Eye Contact:

Rinse immediately with plenty of water for 15 minutes. Obtain medical advice if there are persistent symptoms.

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Protective Equipment:

Firefighters should wear full fire-fighting turn-out gear including NIOSH-approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode.

Special Hazards:

Keep containers cool by spraying with water if exposed to fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Where exposure level is known, wear approved respirator suitable for level of exposure. Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Wear impermeable boots.

Methods for Cleaning Up:

Cover spills with inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

7. HANDLING AND STORAGE

HANDLING**Precautionary Measures:**

Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.

Storage Temperature:

Store at > 10 °C for integrity.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Use general ventilation. Local exhaust is suggested for use, where possible, especially in enclosed or confined spaces.

Respiratory Protection:

For operations where inhalation exposure can occur, use an approved respirator recommended by an industrial hygienist after an evaluation of the operation. A full face-piece respirator also provides eye and face protection.

Eye Protection

Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	colorless
Appearance:	hazy liquid gel
Odor:	soap like
Boiling Point:	not available
Melting Point:	not available
Vapor Pressure:	not available
Specific Gravity:	~1.1 @25 C
Vapor Density:	estimated heavier than air
Percent Volatile:	not available
Solubility in Water:	not available
VOC Content:	not applicable
pH:	5.0 – 8.0 (3% aqueous solution)
Evaporation Rate:	Negligible
Solubility in Water:	> 3% @25 C
Flash Point:	not available
Flammable Limits:	not available
Autoignition Temp:	not available
Decomposition Temp:	not available
Partition Coefficient:	not available
Odor Threshold:	not available

10. STABILITY AND REACTIVITY

Stability:	stable
Conditions to Avoid:	unknown
Polymerization:	will not occur
Conditions to Avoid:	unknown
Material Incompatibility:	strong oxidizing agents, strong acids and alkalis.
Hazardous Decomposition:	carbon monoxide
Products:	carbon dioxide, oxides of sulfur

11. TOXICOLOGICAL INFORMATION

Toxicological information for the product is found under Section 3. HAZARD IDENTIFICATION.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic LC50: 10 – 100 mg/L

Environmental Fate: readily biodegradable

13. DISPOSAL CONSIDERATIONS

Disposal Instructions

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations. Regulations may vary in different locations. Characterization and compliance with applicable laws are the responsibility of the generator.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name

Refer to bill of lading or container label for DOT or other transportation hazard classification, if any.

15. REGULATORY INFORMATION

United States:

All components of this product are included on the TSCA Chemical Inventory or not required to be listed on the TSCA Chemical Inventory.

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 2

Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 1

Materials that must be preheated before ignition can occur.

Reactivity: 0

Materials that in themselves are normally stable, even under fire exposure conditions.

Completed On

May 21, 2009

Completed By

EcoVac Services, Inc.

Appendix F: Long-Term Groundwater Monitoring Plan

**Long-Term Groundwater Monitoring
Plan: Jones & Lamson Bunker Oil
NAPL Area of Concern**

160 Clinton Street, Springfield, Vermont

August 18, 2023



PROJECT NO.

15-049

PREPARED FOR:

Bob Flint / Executive Director
Springfield Regional Development Corporation
14 Clinton Street
Springfield VT 05156

SUBMITTED BY:

Daniel Voisin / Senior Geologist
Stone Environmental, Inc.
535 Stone Cutters Way
Montpelier / VT 05602
dvoisin@stone-env.com
802.229.1875

REVIEWED BY:

DTV

Title and Approval Page

Document Title

Long-Term Groundwater Monitoring Plan: Jones & Lamson Bunker Oil NAPL Area of Concern, 160 Clinton Street, Springfield, Vermont

August 18, 2023

Document Prepared by:

Stone Environmental, Inc.
535 Stone Cutters Way,
Montpelier, VT 05602
(802) 229-4541

Document Preparer Approvals:

Sarah Rathay, Hydrogeologist, Stone Environmental, Inc.



August 22, 2023

Signature

Date

I certify under penalty of perjury that I am an environmental professional and that all content contained within this deliverable is to the best of my knowledge true and correct.

Daniel Voisin, Senior Geologist, Stone Environmental, Inc.



August 22, 2023

Signature

Date

Long-Term Groundwater Monitoring Plan: Jones & Lamson Bunker Oil NAPL Area of Concern, 160 Clinton Street, Springfield, Vermont

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2.1. Semi-Annual Groundwater Gauging and Monitoring	5
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1. Introduction

Stone Environmental, Inc. (Stone) has prepared this Long-Term Groundwater Monitoring Plan on behalf of the Springfield Regional Development Corporation (SRDC; property owner) to conduct groundwater monitoring within the non-aqueous phase liquid (NAPL) Area of Concern (AOC) at the former Jones and Lamson (J&L) Property located at 160 Clinton Street in Springfield, Vermont (the Site; Figure 1 in Appendix A).

Fuel oil NAPL at the Site is the result of a leaking underground storage tank (UST) containing bunker fuel oil. The fuel oil release has comingled with PCB-contaminated cutting oil released from a former chip shed. The total estimated volume of NAPL contaminated soil is 2,700 cubic yards where a larger volume of soil is contaminated (up to 13,800 cubic yards) due to residual and adsorbed phase contamination. The NAPL contamination is within the saturated zone at the Site and migrating from the point of release to the sediment within the Black River.

Based on the NAPL AOC Evaluation of Corrective Action Alternatives Site Investigation (ECAA SI) Report (Stone, 2022), the recommended corrective action for NAPL in soil is remediation via multi-phase extraction (MPE) using EcoVac Services' SOLV-IT® cosolvent and surfactant. Following remediation, long-term groundwater monitoring is required to monitor residual contamination until concentrations no longer exceed the Vermont Groundwater Enforcement Standard (VGES).

1.1. Site Description, History, and Previous Environmental Investigations

A Site description, history, and summary of previous environmental investigations is provided in the Partial CAP, entitled *Partial Corrective Action Plan: Jones & Lamson Bunker Oil NAPL Area of Concern, 160 Clinton Street, Springfield, Vermont* and dated August 18, 2023.

2. Scope of Work

The scope of groundwater monitoring presented in this plan includes semi-annual groundwater monitoring at the Site for two years following remediation within the NAPL AOC as described in the Partial CAP. While this scope presents a two-year monitoring period, monitoring is required in perpetuity as long as residual groundwater contaminant concentrations exceed the VGES at established compliance wells and the scope and frequency of monitoring is subject to change based on monitoring results and subject to VT DEC approval.

Compliance wells used for Site closure will include MW-04014D, MW-103, MW-105S, MW-105D, and MW-113.

Stone Standard Operating Procedures (SOPs) to be used during groundwater monitoring are listed below and available in their entirety upon request.

- SEI-4.2.7: Chain of Custody Procedures,
- SEI-5.1.5: Maintenance and Decontamination of Field Equipment,
- SEI-5.32.7: Liquid Level Measurement: Use, Maintenance and Calibration of Electronic Water Level Indicators and Oil-Water Interface Probes,
- SEI-5.41.4: Handling, Collection and Transportation of Samples,
- SEI-5.49.1 Procedure for Sampling Groundwater Monitoring Wells Using Low Stress (Low Flow) Technique.

2.1. Semi-Annual Groundwater Gauging and Monitoring

Groundwater samples will be collected from eight existing monitoring wells to evaluate spatial and temporal trends in the dissolved-phase groundwater plume. Prior to groundwater sampling, monitoring wells will be gauged for liquid (NAPL and groundwater) levels using an oil-water interface probe and water level meter.

Groundwater samples will be collected from eight monitoring wells (MW-104, -105S, -105D, 106, -107, -7B, 4-16R, 4-14D) (Figure 2) using low-flow methodology in accordance with Stone's SOPs. Monitoring wells will be purged and sampled using a peristaltic pump and dedicated ¼-inch fluorinated ethylene propylene (FEP) tubing. Physical and chemical field parameters, including dissolved oxygen (DO), pH, specific conductance, temperature, and oxidation-reduction potential (ORP) will be measured using a calibrated multi-parameter water quality meter equipped with a flow-through cell. Turbidity will be measured using a stand-alone turbidity meter.

Monitoring wells will be purged until the following parameters have stabilized for three consecutive readings:

- pH ± 0.1 unit;
- Specific Conductance $\pm 3\%$;
- ORP ± 10 millivolts (mV);
- DO $\pm 10\%$, or 3 consecutive readings below 0.5 mg/L;
- Temperature $\pm 3\%$; and
- Turbidity $\pm 10\%$, or 3 consecutive readings below 5 nephelometric turbidity units (NTU)

Following stabilization, groundwater samples will be collected directly into laboratory-supplied bottles for VOCs, PAHs, PCBs, and TPH. Samples will be placed in an ice-filled cooler and transported under chain of custody procedures to Eurofins Analytical Laboratory of Burlington, Vermont (Eurofins). One field duplicate and one trip blank will be collected for quality assurance/quality control (QA/QC) purposes.

2.2. Investigative Derived Waste

Investigation derived wastes (IDW) generated during fieldwork will include purge water, tubing, and decontamination fluids, as well as personal protective equipment such as gloves. Liquid IDW will be contained on-Site in appropriately labeled US Department of Transportation approved 55-gallon drums pending laboratory analytical results. Solid IDW will not require specialized disposal techniques will be disposed of as municipal waste.

2.3. Quality Assurance/Quality Control (QA/QC)

Stone will collect one groundwater field duplicate sample per monitoring event. Trip blank samples will be prepared by the laboratory and will accompany groundwater samples for the duration of the field work during each monitoring event.

To ensure that data produced during field and analytical efforts are of known and acceptable quality, QA/QC samples will be collected for groundwater. Table 1, below, presents the anticipated QA/QC samples that will be collected as part of this investigation. Field duplicates will be collected at a 5 percent (1 in 20) frequency. Trip blanks will be prepared by the laboratory and accompany each cooler containing VOC samples.

Sampling apparatus will be decontaminated prior to initiating hydraulic gauging and sample collection in accordance with Stone Standard Operating Procedure (SOP) SEI 5.1.5.

Table 1: Field Quality Control Requirements

QC Sample	Frequency	Acceptance Criteria	Corrective Action
Field Duplicates	5% per analyte group/ matrix	Precision 30% groundwater matrix	Assess sampling precision, qualify data
Trip Blanks	1 per shipment containing PFAS samples	Accuracy/Bias- contamination Target analytes < Quantitation Limit	Identify source of contamination during transit, qualify data

2.4. Reporting

Stone will prepare annual groundwater monitoring reports (two) in accordance with §35-704 of the Investigation and Remediation of Contaminated Properties Rule (IRule, July 2019) following completion of semi-annual monitoring events. The reports will include sampling procedures, tabulated analytical and field data, an updated conceptual site model, figures presenting potentiometric contours and water quality data, analytical timeseries, conclusions, and recommendations.

2.5. Project Schedule

Based on the project schedule detailed in the NAPL AOC Partial CAP, long-term groundwater monitoring is expected to begin in fall 2024 and conclude in spring 2026. Monitoring reports will be prepared for VT DEC review within 45 days of receiving analytical results of the spring sampling events.

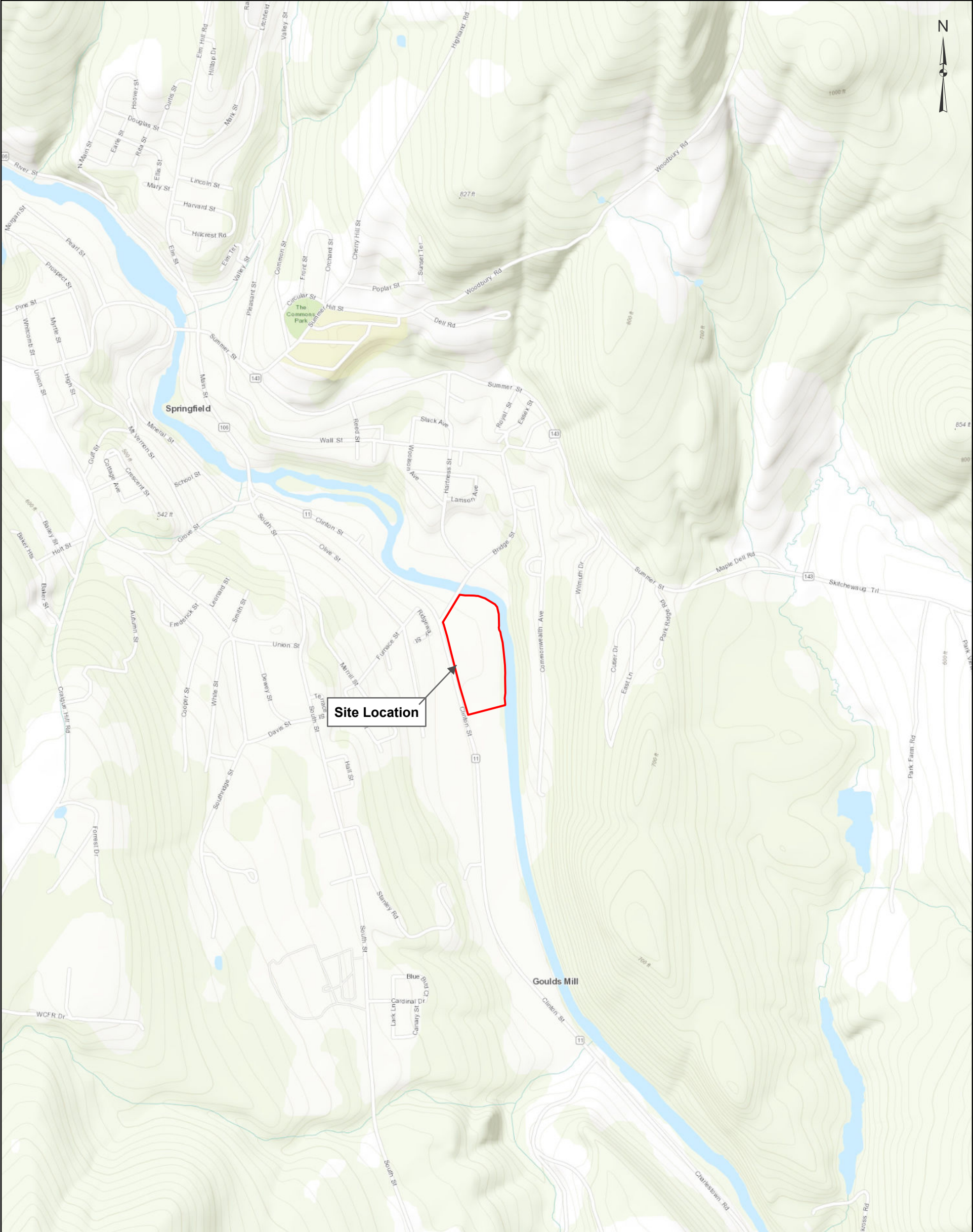
Groundwater monitoring will be discontinued after one year of semi-annual monitoring if the contaminants of concern are not detected in the compliance points at concentrations exceeding VGES. All wells will then be abandoned in accordance with the Vermont Water Supply Rule by removing the PVC riser and screen and grouting the boreholes to prevent wells from potentially acting as a preferential contaminant migration pathway.

If contaminants of concern are detected in one or more compliance points at concentrations exceeding VGES, the VT DEC may request additional groundwater monitoring, changes to frequency, and/or number and locations of monitoring points sampled.

Appendix A: Figures

Figure 1: Location Map

Figure 2: Site Map with Proposed Monitoring Locations



LEGEND

Site Boundary

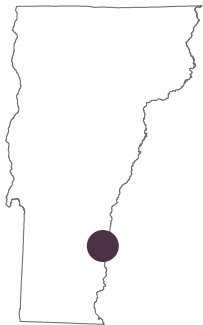
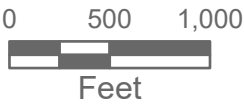
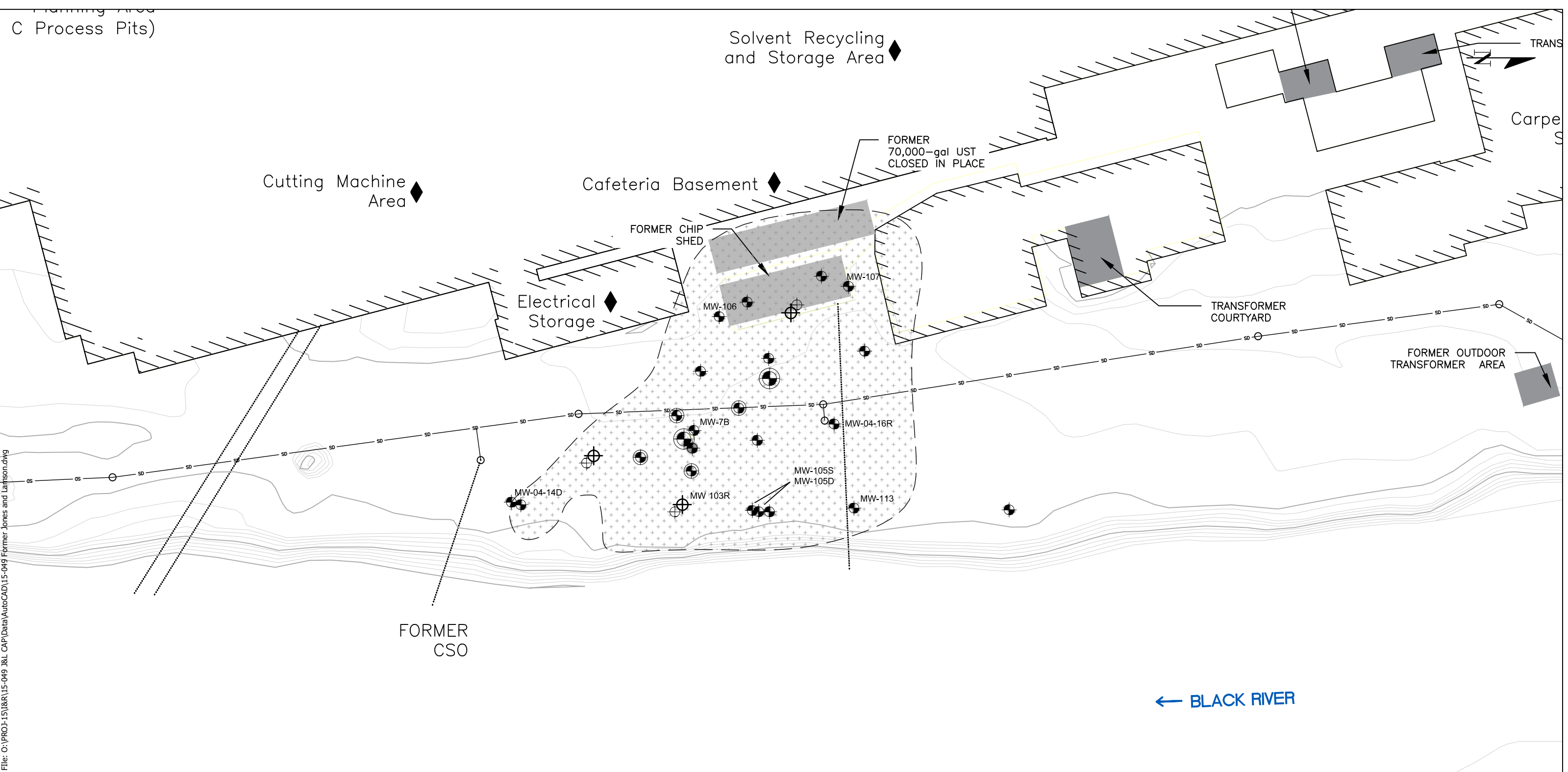


Figure 1: Location Map

Former Jones & Lamson Plant

Prepared for Springfield Regional
Development Corporation



File: O:\PROJ-15\1&R\15-049 1&L CAP Data\AutoCAD\15-049 Former Jones and Lamson.dwg

EXISTING BUILDINGS

FORMER BUILDING OUTLINE

AREA FEATURES

NAPL PLUME

STORM DRAIN LINE

SEWER LINE

SURFACE CONTOUR (2')

SEWER MANHOLE

MONITORING/EXTRACTION WELL

HISTORICAL MONITORING WELL

REPLACEMENT EXTRACTION WELL

PROPOSED 4-INCH EXTRACTION WELL

PROPOSED 6-INCH EXTRACTION WELL

Sources:

1. Building layout based on a plan entitled "existing conditions, abatement and demolition of former Jones and Lamson buildings - 160 clinton street," prepared by Weston & Sampson, December 30, 2016, scale 1"=50'.

2. Select site features derived from ECS Site Plan with Air Photo, December 2005.

DRAWING CREDITS

#	Date	Drwn	Chk'd	App'd	Description
1	6/16/2020	LBR			Drawn On: 6/16/2020
2	6/18/2020	DTV			Checked On: 6/18/2020
3	15-049				Checked By: DTV
4					Project No.: 15-049

DRAWING SCALE

0

40

80

Feet

STONE ENVIRONMENTAL

535 Stone Cutters Way / Montpelier / VT / 05602 / USA

802.229.4541 / info@stone-env.com / www.stone-env.com

SITE MAP WITH PROPOSED MONITORING LOCATIONS

FORMER JONES & LAMSON PLANT

160 CLINTON STREET

SPRINGFIELD, VT

FIGURE NO.

2

Appendix G: Detailed Cost Estimate and Vendor Quotes

Project No.: 15-049							
Project Name: J&L NAPL AOC Remedial Implementation							
Detailed Cost Estimate							
Task Number/Name		Description	Unit Rate	Unit	Units	Amount	Notes
1 - Supplemental Well Installation, Pre-Remedial Soil Borings							Oversee installation of up to 7 additional wells using a track mounted Diedrich 120. One 2", four, 4" and two, 6" diameter wells installed to 24 feet bgs. Assumes a total of 4 days. Equipment decontaminated via steam cleaning.
							Develop wells using Waterra with surge block. Contain water in poly totes to be transferred to Frac Tanks, once available.
							Perform 3 pre-remedial borings to establish baseline TPH/PCB conditions. Collect up to three discrete samples per boring for lab analysis.
						\$ 74,369.39	IDW Estimate: 24 drums for well installation; 1 drum for soil cores.
Professional Services					126	\$ 14,730.00	
	Scientist	Principal	\$ 165.00	Hours	8	\$ 1,320.00	Task Management - 2 hrs/day
	Scientist	Senior Professional 1	\$ 135.00	Hours	47	\$ 6,345.00	On-site geologist. Soil logging and drilling oversight. 5, 8-hr days. RT travel (3 hrs) first and last day, 4 hrs prep/data management.
	Scientist	Staff Professional 2	\$ 95.00	Hours	47	\$ 4,465.00	Well development. 5, 8-hr days, RT travel (3 hrs) first and last day. 2 hrs prep, 2 hrs post.
	Scientist	Staff Professional 2	\$ 95.00	Hours	8	\$ 760.00	Survey wells. 4 hrs onsite, 3 hrs travel, 1 hr data management.
	Scientist	Staff Professional 1	\$ 95.00	Hours	8	\$ 760.00	Survey wells. 4 hrs onsite, 3 hrs travel, 1 hr data management.
	Scientist	Senior Professional 1	\$ 135.00	Hours	8	\$ 1,080.00	Manage IDW.
	Scientist					\$ -	
Subcontractors/Consultants					242	\$ 51,616.50	
		BHE - Transport and Disposal of PCB/TPH impacted soil	\$ 336.00	drum	27	\$ 9,072.00	
		BHE - EEC Surcharge	\$ 1,632.96	LS	1	\$ 1,632.96	
		BHE Markup	\$ 1,070.50	LS	1	\$ 1,070.50	
		Eurofins RCRA Metals	\$ 70.00	Each	5	\$ 385.00	Sample drums - composite 1 per 5 drums, includes markup
		Eurofins TPH in Soil - 8015	\$ 75.00	Each	11	\$ 907.50	9 samples, 1 FD, 1 EB, includes markup
		Eurofins PCBs in Soil - 8082	\$ 75.00	Each	10	\$ 825.00	9 samples, 1 FD, includes markup
		Platform Mob.	\$ 2,400.00	Est.	1	\$ 2,400.00	
		Platform Dietrich D120	\$ 2,415.00	Day	5	\$ 12,075.00	
		Platform Consumables 4"	\$ 98.65	ft	120	\$ 11,838.00	5 wells to 24 feet
		Platform Consumables 6"	\$ 124.23	ft	48	\$ 5,963.04	
		Platform Consumables General	\$ 2,962.50	Est.	1	\$ 2,962.50	drums, concrete, liners
		Platform Per Diem	\$ 95.00	Day	5	\$ 475.00	
		Platform Decontamination Package	\$ 285.00	LS	1	\$ 285.00	
		Steam Cleaner & Generator	\$ 145.00	day	5	\$ 725.00	
		Platform Markup	\$ 1,000.00	LS	1	\$ 1,000.00	
External Expenses					38	\$ 4,074.84	
		Field Supplies & Equipment	\$ 300.00	Each	2	\$ 660.00	275-gallon poly IBC tote.
		Lodging	\$ 180.00	Each	8	\$ 1,584.00	4 nights, two staff
		Per Diem/Meals (non lodging)	\$ 59.00	Days	8	\$ 519.20	3 full days, 1st and last days at 0.5. 2 staff
		Field Supplies & Equipment	\$ 229.00	Each	3	\$ 755.70	1" LDPE Tubing, 100' roll
		Field Supplies & Equipment	\$ 95.95	Each	2	\$ 211.09	SS-32 Foot Valve
		Field Supplies & Equipment	\$ 18.85	Each	10	\$ 207.35	Waterra SBD-32-4
		Field Supplies & Equipment	\$ 25.00	Each	5	\$ 137.50	General daily consumables
						\$ -	
Internal Expenses					557	\$ 3,948.05	
		PPE	\$ 22.00	Day/Staff	11	\$ 242.00	
		Stone Vehicle Mileage	\$ 0.73	Mile	510	\$ 369.75	three round trips, 170 miles each
		F-150 Usage Fee	\$ 125.00	Day	5	\$ 625.00	
		Electrical Generator - Honda Eu 2000	\$ 90.00	Day	5	\$ 450.00	
		Samsung Field Tablet	\$ 50.00	Day	5	\$ 250.00	
		Oil-Water Interface Probe	\$ 55.00	Day	5	\$ 275.00	
		PID (PPM)	\$ 90.00	Day	5	\$ 450.00	
		Total Station	\$ 75.00	Day	1	\$ 75.00	
		Total Station Data Collector	\$ 35.00	Day	1	\$ 35.00	
		Waterra Inertia Pump - Week	\$ 550.00	Week	2	\$ 1,100.00	2 pumps.
		Keyed-Alike Pad Lock	\$ 10.90	Each	7	\$ 76.30	7 new wells.

2- Remedial Implementation and Permitting							Prepare and submit application elements for General Permit 3-9016. Remedial implementation will be conducted via multi phase extraction (MPE) using various extraction well arrays. It is assumed that remedial implementation will take place over 30 consecutive days utilizing one EcoVac crew with Stone oversight. Treatment of approx. 60,000 gallons of water (8,040 cu ft) will occur simultaneously with up to four days following the completion of MPE to complete water treatment. Treatment to be performed by LRT. Decontaminate water treatment system (US Ecology). Stone to oversee cleaning, receive cleanup verification analytical results, and coordinate IDW. Perform three borings post remediation to evaluate effectiveness of remedy. Collect up to 3 samples for TPH and PCB analysis from each boring (9).
						\$ 736,468.49	
Professional Services					518	\$ 61,500.00	
	Scientist	Principal	\$ 165.00	Hours	41	\$ 6,765.00	Task Management; 1 hr per field day, 8 hrs for permitting coordination.
	Scientist	Project Professional 1	\$ 115.00	Hours	360	\$ 41,400.00	30, 10-hr days for remedial oversight. Assumes 5 day shifts for staff with 3 hours RT travel per shift. Staying in Springfield. 1 hr for daily data management and communications. 2 hours prep/demob per shift.
	Scientist	Project Professional 1	\$ 115.00	Hours	36	\$ 4,140.00	Decon oversight (3 days). Assumes 2 nights in Springfield, 3 hrs RT travel. Prep and post field work comm (1 hr/day)
	Scientist	Principal	\$ 165.00	Hours	8	\$ 1,320.00	Field Readiness Meeting, preparations
	Scientist	Project Professional 1	\$ 115.00	Hours	8	\$ 920.00	Field Readiness Meeting, preparations
	Scientist	Project Professional 1	\$ 115.00	Hours	13	\$ 1,495.00	Soil logging for post-remedial soil borings, 1 8-hr day with 3 hrs RT travel. 2 hrs prep/sample management
	Scientist	Project Professional 1	\$ 115.00	Hours	26	\$ 2,990.00	IDW Management: 2, 10-hr days, 6 hrs travel
	Scientist	Staff Professional 1	\$ 95.00	Hours	13	\$ 1,235.00	Set up IDW/Water Treatment area
	Scientist	Staff Professional 1	\$ 95.00	Hours	13	\$ 1,235.00	Set up IDW/Water Treatment area
	Scientist					\$ -	
Subcontractors/Consultants					549	\$ 651,752.94	
						\$ -	
	Platform - Mob		\$ 800.00	LS	1	\$ 880.00	Soil borings, includes markup
	Platform - 7720 DT 8-hour day		\$ 2,200.00	LS	1	\$ 2,420.00	Soil borings, includes markup
	Platform - Consumables		\$ 75.00	LS	3	\$ 247.50	Soil borings, includes markup
	Electrician		\$ 3,000.00	LS	1	\$ 3,300.00	Allowance, includes markup
	EcoVac Remediation		\$ 383,260.00	LS	1	\$ 383,260.00	Per EcoVac quote dated June 5, 2026
	EcoVac markup		\$ 1,000.00	LS	1	\$ 1,000.00	
	LRT - Mob and Install		\$ 15,512.00	LS	1	\$ 15,512.00	LRT Quote 5671 Rev 2
	LRT - Operation of System		\$ 1,568.00	day	13	\$ 20,384.00	LRT Quote 5671 Rev 2. Labor and travel for operating treatment system. Assumes two visits per week of operation of MPE plus one day at the end.
	LRT - Monthly Rental		\$ 10,000.00	month	2	\$ 20,000.00	LRT Quote 5671 Rev 2
	LRT - Filter Cartridges		\$ 18.00	LS	144	\$ 2,592.00	LRT Quote 5671 Rev 2 12 cartridges per change out. 2 change outs per week. 6 weeks
	LRT - Filter Bags		\$ 9.00	day	52	\$ 468.00	Assumes 4 bags/day of treatment, 13 days
	LRT - Sorbent Booms		\$ 55.00	boring	8	\$ 440.00	4 per Frac
	LRT - Coalescing Media Replacement		\$ 850.00	LS	1	\$ 850.00	LRT Quote 5671 Rev 2 Disposal at end of treatment.
	LRT - Demobilization		\$ 8,900.00	Est.	1	\$ 8,900.00	LRT Quote 5671 Rev 2
	LRT Markup		\$ 1,000.00	LS	1	\$ 1,000.00	PCF cap.
	Town of Springfield Sewer		\$ 8.28	Est.	88	\$ 801.50	Price per 100 cubic feet of water, 60,000 gallons expected with 10% contingency. Includes 10% markup
	BHE - Frac Tank Decontamination		\$ 4,900.00	Est.	3	\$ 14,700.00	
	BHE - OWS and Filter Canister Decontamination		\$ 2,500.00	Est.	1	\$ 2,500.00	
	BHE - NAPL Waste Transportation		\$ 287.00	drum	30	\$ 8,610.00	
	BHE - NAPL Waste Disposal		\$ 2,665.00	drum	30	\$ 79,950.00	Assumes <15% solids, <10% Chlorine
	BHE - Solid Waste CYB Transportation		\$ 287.00	CYB	2	\$ 574.00	Based on 9 drums for ~20,000 gallons during pilot plus 10% contingency.
	BHE - Solid Waste CYB Disposal		\$ 890.00	CYB	2	\$ 1,780.00	3,000 lbs of carbon, 200 lbs per drum.
	BHE - GAC Media Transport		\$ 81.00	drum	15	\$ 1,215.00	
	BHE - GAC Media Disposal		\$ 255.00	drum	15	\$ 3,825.00	
	BHE - Loading		\$ 650.00	Trip	2	\$ 1,300.00	
	BHE - EEC Surcharge		\$ 20,601.72	each	2	\$ 41,203.44	
	BHE Markup		\$ 1,000.00	LS	1	\$ 1,000.00	PCF cap.
	Eurofins - 8082 wipes		\$ 75.00	each	36	\$ 2,700.00	
	Eurofins - 8082 solid		\$ 75.00	each	12	\$ 900.00	
	Eurofins - 8082 NAPL		\$ 75.00	each	6	\$ 450.00	
	Eurofins - 8082 liquid		\$ 75.00	each	6	\$ 450.00	

		Eurofins 8270/8260/8082	\$	265.00	each	7	\$	1,855.00	Treatment System efficacy
		Eurofins - PCBs in soil	\$	75.00	each	11	\$	825.00	IDW
		Eurofins - TPH in soil	\$	75.00	each	8	\$	600.00	IDW
		Eurofins - Waste Characterization VOCs	\$	95.00	each	8	\$	760.00	IDW
		Eurofins - Waste Characterization GAC	\$	265.00	each	5	\$	1,325.00	GAC Samples
		Eurofins - Waste Characterization PCBs	\$	75.00	each	8	\$	600.00	IDW
		Eurofins Markup	\$	635.50	LF	1	\$	635.50	10% of lab fee for task.
		IronClad Env. - Mob/Demob	\$	1,750.00	each	6	\$	10,500.00	Mob/Demob. \$1000/unit/trip
		IronClad Env. - Frac rental	\$	1,200.00	Month	6	\$	7,200.00	\$35/day per unit, 3 units, 60 day duration
		IronClad Env. - Safeguard Berm	\$	540.00	Month	6	\$	3,240.00	
		IronClad Markup	\$	1,000.00	LS	1	\$	1,000.00	PCF cap.
External Expenses						124	\$	14,946.80	
		Lodging	\$	180.00	Each	32	\$	6,336.00	
		Per Diem/Meals (non lodging)	\$	59.00	Days	32	\$	2,076.80	
		Field Supplies & Equipment	\$	95.00	Each	60	\$	6,270.00	55 gallon drums
		Licensing/Reg. Compliance	\$	240.00	Each	1	\$	264.00	Construction General Permit 3-9016 Notice of Intent
Internal Expenses						1956	\$	8,268.75	
		PPE	\$	22.00	Day/Staff	36	\$	792.00	30 days oversight, IDW Management (2 days), Site Setup, 2 days, 2 staff.
		Stone Vehicle Mileage	\$	0.73	Mile	1830	\$	1,326.75	Staff change outs (85 miles per trip (one way), 12 trips), daily travel (10/day); Three site visits for IDW, treatment area set up.
		Water Level Indicator	\$	30.00	Day	30	\$	900.00	
		F-150 Usage Fee	\$	125.00	Day	30	\$	3,750.00	
		Samsung Field Tablet	\$	50.00	Day	30	\$	1,500.00	
3- Contingent Water Treatment System Re-Cleaning							\$	47,305.80	Contingent scope and cost in the event that confirmation wipe samples taken from treatment system components contain PCBs above reporting limits. Assumes full system re-decontamination and re-sampling over 3 days. 48hr TAT for Laboratory results, assumes 4 days of stand by for Vac Truck.
Professional Services						47	\$	5,705.00	
	Scientist	Principal	\$	165.00	Hours	6	\$	990.00	Task Management
	Scientist	Project Professional 1	\$	115.00	Hours	33	\$	3,795.00	Oversight. 3, 10 hr days with 2 nights in Springfield. 3 hrs RT Travel.
	Scientist	Project Professional 1	\$	115.00	Hours	8	\$	920.00	IDW Management
	Scientist						\$	-	
Subcontractors/Consultants						18	\$	38,824.00	
		LRT - Decon	\$	5,208.00	day	3	\$	15,624.00	
		Vac Truck	\$	4,500.00	day	2	\$	9,000.00	
		Vac Truck - Standby Rate	\$	2,750.00	day	4	\$	11,000.00	
		PCB Wipe Samples (48 hr TAT)	\$	250.00	Each	8	\$	2,200.00	
		LRT Markup	\$	1,000.00	LS	1	\$	1,000.00	PCF cap.
External Expenses						17	\$	1,917.30	
		Shipping/Freight	\$	125.00	Each	1	\$	137.50	
		Lodging	\$	180.00	Each	2	\$	396.00	
		Per Diem/Meals (non lodging)	\$	59.00	Days	2	\$	129.80	First and Last at 0.5 + 1 day.
		Field Supplies & Equipment	\$	95.00	Each	12	\$	1,254.00	55 gallon drums
							\$	-	
Internal Expenses						350	\$	859.50	
		PPE	\$	22.00	Day/Staff	4	\$	88.00	
		Stone Vehicle Mileage	\$	0.73	Mile	340	\$	246.50	two round trips
		Samsung Field Tablet	\$	50.00	Day	3	\$	150.00	
		F-150 Usage Fee	\$	125.00	Day	3	\$	375.00	

								Collect groundwater samples semi-annually from 8 monitoring wells (MW-103, MW-104, -105S, -105D, 106, -107, -7B, 4-16R, MW-113, 4-14D) via low flow. Collect samples from each well for TPH, VOCs, PAHs, PCBs analyses. Monitoring will occur until contaminant concentrations no longer exceed VGES (2 yrs budgeted). Monitoring well network expected to decrease in size over time. Monitoring well abandonment not included in budget.
4 - Long-Term Monitoring - 2 Years						\$	42,157.80	Analytical: GW: 10 mon wells, 1 FD, 1 TB (VOCs) Each event: TPH 11, VOCs 12, SVOCs 11, PCBs 11
Professional Services					186	\$	19,590.00	
	Scientist	Principal	\$ 165.00	Hours	12	\$	1,980.00	Task Management and Senior Review
	Scientist	Staff Professional 2	\$ 95.00	Hours	60	\$	5,700.00	Staff Sci x 2: 10 hrs on-site, 3 hrs RT travel, 2 hr equip/sample managment (15 hrs X 4 events = 60 hrs per staff)
	Scientist	Staff Professional 1	\$ 95.00	Hours	60	\$	5,700.00	Staff Sci x 2: 10 hrs on-site, 3 hrs RT travel, 2 hr equip/sample managment (15 hrs X 4 events = 60 hrs per staff)
	Scientist	Project Professional 1	\$ 115.00	Hours	6	\$	690.00	LBR/SYR: Data management per event (1.5 hrs x 4 events = 6 hrs)
	Scientist	Project Professional 1	\$ 115.00	Hours	48	\$	5,520.00	16 hrs to draft annual monitoring report, 8 hrs to draft figures (24 hrs x 2 reports = 48 hrs)
	Scientist					\$	-	
Subcontractors/Consultants					229	\$	15,264.00	
	Eurofins Analytical - 8015 TPH DRO		\$ 65.00	Each	44	\$	2,860.00	
	Eurofins Analytical - 8260 VOCs		\$ 59.00	Each	48	\$	2,832.00	
	Eurofins Analytical - 8270 PAHs		\$ 126.00	Each	44	\$	5,544.00	
	Eurofins Analytical - 8082 Soxhlet Extraction		\$ 65.00	Each	44	\$	2,860.00	
	Eurofins - Sample Disposal		\$ 3.50	Each	48	\$	168.00	
	Lab Markup		\$ 1,000.00	LS	1	\$	1,000.00	10% of total, max of 1,000
External Expenses					16	\$	1,280.40	
						\$	-	
	Rental-Field Equipment		\$ 8.00	Each	8	\$	70.40	Turbidimeter, 4 events, two set-ups
	Field Supplies & Equipment		\$ 25.00	Each	4	\$	110.00	Per event
	Shipping/Freight		\$ 250.00	Each	4	\$	1,100.00	Rental gear and samples.
						\$	-	
						\$	-	
Internal Expenses					1532	\$	6,023.40	
	F-150 Usage Fee		\$ 125.00	Day	4	\$	500.00	
	Stone Vehicle Mileage		\$ 0.73	Mile	680	\$	493.00	170 miles RT, 4 events
	Peristaltic Pump - Geotech Series II		\$ 75.00	Day	8	\$	600.00	4 events, two set-ups
	Oil-Water Interface Probe		\$ 55.00	Day	8	\$	440.00	4 events, two set-ups
	Water Level Indicator		\$ 30.00	Day	8	\$	240.00	4 events, two set-ups
	PPE		\$ 22.00	Day/Staff	8	\$	176.00	4 events, two set-ups
	HydroVu Water Quality Sonde - Daily		\$ 150.00	Day	8	\$	1,200.00	4 events, two set-ups
	.25 inch OD FEP Tubing		\$ 2.94	Feet	800	\$	2,352.00	4 events, two set-ups
	Peristaltic Pump tubing (L15)		\$ 2.80	Feet	8	\$	22.40	4 events, two set-ups
						\$	-	
5 - CACCR						\$	15,360.00	Draft Corrective Action Construction Completion Report in accordance with Irule. Include summary of work completed, data tables, drawings, field notes and photodocumentation. Calculate NAPL removal volume.
Professional Services					112	\$	15,360.00	
	Scientist	Principal	\$ 165.00	Hours	8	\$	1,320.00	DTV: Task Management, senior review
	Scientist	Senior Professional 1	\$ 135.00	Hours	60	\$	8,100.00	SYR: Draft report.
	Scientist	Senior Professional 1	\$ 135.00	Hours	24	\$	3,240.00	JLV: Tables and Figures, soil boring logs.
	Scientist	Senior Professional 1	\$ 135.00	Hours	8	\$	1,080.00	KJM: Senior Engineer Review:
	Scientist	Senior Professional 3	\$ 135.00	Hours	12	\$	1,620.00	MBS: Senior/Peer Review
	Scientist					\$	-	
Subcontractors/Consultants					0	\$	-	
External Expenses					0	\$	-	
Internal Expenses					0	\$	-	

							Project Management during remedial implementation. Assumes 3 month duration. Tasks include: - PCF paperwork, invoice backups. - BABAA/DB reporting, interviews - Invoicing, Subcontracting
6 - Project Management, RBCP/CAP Revisions						\$ 10,956.00	
Professional Services					80	\$ 10,956.00	
	Scientist	Principal	\$ 165.00	Hours	32	\$ 5,280.00	DTV: 8 hrs/month for routine communications. RLF Documents, Revised CAP coordination - (16 hours)
	Scientist	Administrative Specialist	\$ 68.00	Hours	12	\$ 816.00	HT: 2 hrs/month, Copies and Printing Assistance for CIP documents
	Scientist	Senior Professional 3	\$ 135.00	Hours	12	\$ 1,620.00	KJM: Revised CAP/RBCP Reviews
	Scientist	Senior Professional 1	\$ 135.00	Hours	24	\$ 3,240.00	SYR: Revised RBCP
Subcontractors/Consultants					0	\$ -	
External Expenses					0	\$ -	
Internal Expenses					0	\$ -	
GRAND TOTAL						\$ 926,617.48	



*Mobile Dual-Phase/Multi-Phase Extraction
Patented SURFAC[®]/ISCO-EFR[®]/COSOLV[®] Technologies*

June 05, 2026

Dan Voisin
Environmental Assessment and Remediation Service Leader/Senior Geologist
Stone Environmental
535 Stone Cutters Way
Montpelier, VT 05602
dvoisin@stone-env.com

**Subject: Updated Proposal
SOLV-IT[®] and SURFAC[®] Remediation Services
Former Jones & Lamson Plant #1
Springfield, Vermont**

Dear Dan:

Thank you for utilizing EcoVac Services and our innovative solutions for remediating the subject site. Our patented SOLV-IT[®] and SURFAC[®] processes involve a unique “treatment train” approach to remediate viscous NAPLs, incorporating the sequential components of biosolvent and surfactant injection combined with multi-phase/dual-phase extraction.

Treatability Study and pilot testing services have been completed at this site, providing a “blue print” for SOLV-IT[®] and SURFAC[®] implementation. The remediation will be implemented over an approximate 29-day time period injecting approximately one half pore volume of biosolvent and one pore volume of surfactant solution, sequentially, during multi-phase extraction. These totals may be adjusted in the field. A projected minimum of twelve pore volumes of impacted groundwater and LNAPL will be extracted on multiple days following the injection phase.

The scope will include eight (8) days of combined extraction and injection, including residence time. The two (2) new recovery wells will be assessed and tested during these eight (8) days. After the injection phase, twenty-one (21) days of capture events will be completed, utilizing various extraction well arrays, to recover a minimum of twelve times the injection volume as determined from the Treatability Study. The total estimated groundwater extraction volume for this scope of work is 49,000 gallons. Based on the flow regime at this site, this volume could increase.

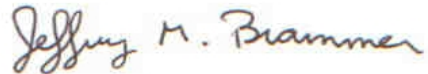
*4100 N. Lincoln Blvd., Oklahoma City, OK 73105
P.O. Box 607 Norman, OK 73070
(405) 360-1552 - Fax (405) 424-8129
www.ecovacservices.com*

Our updated lump sum cost to perform this scope of work is \$383,260.00, reflecting inflationary increases in labor and materials, a change in scope to accommodate a complete capture and control of the injected biosolvent and surfactant, and subject to those assumptions contained in Attachment A.

Please contact us should you have any additional questions or require additional information and thank you for this opportunity to team with Stone Environmental.

Sincerely,

EcoVac Services

A handwritten signature in blue ink that reads "Jeffrey M. Brammer". The signature is written in a cursive style with a clear, legible font.

Jeffrey M. Brammer, PG
Operations Leader, Senior Hydrogeologist

ATTACHMENT A
ASSUMPTIONS UTILIZED IN DEVELOPING
ECOVAC SERVICES' COSTS (06/05/2026)
Stone Environmental
Former Jones & Lamson Plant #1
Springfield, Vermont

- The cost estimate contains no contingencies for costs or delays that may result from adverse weather conditions, client or regulatory delays, access delays, health/safety delays, or any other conditions beyond the control of EcoVac Services. A (free) water source from a hydrant is located onsite, as well as a 110-volt electricity source. Fieldwork at this site will take place on consecutive days between the hours of 6am-4pm (including weekends).
- Payment terms are net 30 days from receipt of the invoice. This quotation is valid for a period of 90 days. Level D PPE will be utilized in the field. Stone Environmental will be responsible for securing any and all regulatory permits (including the future UIC permit), and making all regulatory notifications.
- Recovered fluids will be placed in frac tanks provided by Stone Environmental, who will administer subsequent disposal.
- Site work will be conducted for 8 hours/day. One additional hour/day is allocated for set-up, breakdown and gauging, as well as offloading recovered fluids onsite.

June 7, 2026



Project No. TBD
RE: Jones & Lampson Springfield, Vermont.

Dear: Ms. Rathay

Platform Environmental Drilling and Remediation Services (Platform, LLC.) is pleased to present Stone Environmental, Inc. (Stone) with the following proposed scope of work and cost estimate for drilling services at the project sites referenced above. Platform will mobilize a track mounted Diedrich 120 drill rig to the site for advancement of soil borings, and well installation. The anticipated maximum depth of completion for this project is twenty-five (25) feet below ground surface (bgs). It has been assumed that we will complete approximately five (5) days of drilling to complete the work scope. Location of the soil borings will be determined and will be pre-cleared with state and local utilities by Stone personnel or others under their direction, prior to the advancement of subsurface tooling.

Scope Of Work:

1. Mobilize/Demobilize a drill rig to site in Springfield, VT.
2. Advance and install (4) 4" PVC MWs to a depth of 24' b.g.s. each via 6 1/4" H.S.A.
 - a. Well screens are to be constructed of continuously wound v-wire
 - b. Wells will be completed in stick-up protective casings.
3. Advance and install (2) 6" PVC MWs to a depth of 24' b.g.s. each via 8 1/4" H.S.A.
 - a. Well screens are to be constructed of continuously wound v-wire
 - b. Wells will be completed in stick-up protective casings.
4. All soils will be contained in drums and staged onsite for disposal.
5. Drums to be provided for purge water, however Stone will perform the well development.
6. Decon – we will encounter NAPL. We will work from clean to dirty, but you will need to decon with steam prior to leaving the site.

7. COST ESTIMATE

Platform will perform the above-mentioned tasks for an estimated time and materials cost of \$37,833. A detailed break-out of our cost estimate is presented below. This scope of work and cost estimate is based on our telephone conversation and experience with similar project sites.

Tasks	Unit Cost	Units	Extended Cost	Sub-total
Mobilization/Demobilization				
Mobilization/Demobilization	\$2,400 / ls	1	\$2,400	
Decon Services and Consumables	\$285 / ls	1	\$285	
Roadwork Sign Package	\$125 ls	0	\$0	
DOT Mandated Downtime	\$0 / day	0	\$0	
Sub-total				\$2,685
Soil Borings and Well Installation				
Rotary Drilling Services	\$2,350 / day	5	\$11,750	
Project Management	\$65 / day	5	\$325	
Additional Laborer	\$0 / day	0	\$0	
Per Diem	\$95 / day	5	\$475	
Overtime/Standby	\$258 / hr	0	\$0	
Sub-total				\$12,550
Additional Equipment				
Air Compressor 375 CFM	\$245 / day	0	\$0	
DTH Hammer	\$125 / day	0	\$0	
Timber Mats	\$145 / day	0	\$0	
Steam Cleaner	\$85 / day	5	\$425	
Portable Generator	\$60 / day	5	\$300	
Pressure Washer	\$50 / day	0	\$0	
Sub-total				\$725
Consumable Equipment				
Soil Core Liners	\$7.50 / ea	0	\$0	
Well Installation Materials 4.0 inch	\$98.65 / ft	106	\$10,457	
Well Installation Materials 6.0 inch	\$124.23 / ft	53	\$6,584	
55 Gal Drum	\$95.00 / ea	24	\$2,280	
Concrete	\$19.00 / bag	8	\$152	
Sub-total				\$19,473
Total Estimated Project Cost				\$37,833

This proposed scope of work and cost estimate letter are provided for your review and authorization. All work will be conducted in accordance with our standard terms and conditions. If this proposal is acceptable please signify by signing and returning a copy of this letter. We look forward to working with you on this project and appreciate the opportunity to present this cost estimate to you for direct push drilling services. Should you have any questions regarding this proposal, please feel free to contact me at either 802-498-3828 or mjordan@platform-env.com.

Sincerely yours,

Michael Jordan
Owner

Direct Phone / 802-498-3828

Cell / 802.498.3828

E-Mail / mjordan@platform-env.com

Document1

AGREED AND ACCEPTED BY

Name of client organization

Signature

Printed name

Title

Date



Brighter Horizons Environmental Corp.

201 West Main Street
Ayer, MA 01432
978-970-0500
www.bhenv.com

November 11, 2025

Mr. Dan Voisin
Stone Environmental
535 Stone Cutters Way
Montpelier, VT 05602
dvoisin@stone-env.com

RE: Management, Transportation & Disposal of Impacted Materials
Former Jones and Lamson – Springfield, Vermont

Dear Mr. Voisin:

Brighter Horizons Environmental Corporation (BHE) is pleased to provide this quotation for the above-referenced project. We look forward to the opportunity to provide the services outlined below in a cost-effective manner while providing excellent customer service and craftsmanship.

1.0 SCOPE OF WORK

Management, transportation and disposal of impacted material generated at the Former Jones and Lamson site located in Springfield, Vermont. Cleaning as noted is also included within this proposal.

Task 1 – Transport and Disposal of PCB- and TPH-Impacted Soil

- Manage, transport, and dispose of approximately 25 drums of soil containing >50 ppm PCBs and petroleum hydrocarbons (TPH).
- Handle all materials as TSCA-regulated and in accordance with applicable RCRA and DOT regulations.
- Provide all manifests, disposal certificates, and chain-of-custody documentation.

Task 2 – Cleaning of Frac Tanks

Pricing is provided per frac tank to allow for adjustments in final quantities (as actual number of tanks may vary)

- Clean up to three (3) 20,000-gallon frac tanks used for temporary storage of extracted NAPL and groundwater. *Treated liquids will be managed onsite by Lockwood Remedial Technologies prior to cleaning.*
- Perform internal cleaning to remove residual NAPL and solids. *Stone Environmental to conduct wipe sampling post-cleaning to confirm effectiveness of cleaning.*
- If wipe sample results indicate residual contamination, BHE to return to site for re-cleaning/touch-up as needed.

Task 3 – Cleaning of Oil-Water Separator and Filter Bag Canisters

- Perform internal cleaning of the oil-water separator and filter bag canisters per the provided system schematic. *Stone Environmental to conduct wipe sampling post-cleaning to confirm effectiveness of cleaning.*
- Confined-space entry is not anticipated.
- Provide all equipment, labor, and PPE necessary for safe and compliant completion of this task.
- Dispose of cleaning residuals as appropriate TSCA or RCRA waste streams.

Task 4 – Transport and Disposal of TSCA/RCRA NAPL

- Manage, transport, and dispose of up to 30 drums of TSCA- and RCRA-regulated NAPL waste.
- Ensure proper handling under applicable TSCA Subpart D and RCRA hazardous waste requirements.
- Provide all supporting documentation and manifests.

Task 5 – Transport and Disposal of TSCA CYB (Containerized Waste)

- Transport and dispose of one (1) TSCA CYB containing soil, PPE, and other consumables generated during remedial activities.
- Manage as a TSCA-regulated solid waste.

Task 6 – Transport and Disposal of Additional TSCA Solids

- Transportation and disposal of additional TSCA solids that may be generated during operations.
- Quantities are to be determined; disposal documentation is required for each shipment.

Task 7 – Transport and Disposal of Spent Liquid-Phase GAC

- Transport and dispose of approximately 15 drums of spent granular activated carbon (GAC) generated from the liquid-phase treatment system.
- Waste expected to be TSCA/RCRA regulated.
- Provide certificates of destruction or disposal from the receiving facility.

2.0 PRICING

TASK	DESCRIPTION	QTY	UOM	PRICE/ UNIT	EXTENDED PRICE
1	Transportation of Task 1 Drums	25	DRUM	\$81.00	\$2,025.00
	Disposal of PCB and TPH-Impacted Soil	25	DRUM	\$255.00	\$6,375.00
2	Cleaning of Frac Tanks	3	EACH	\$4,900.00	\$14,700.00
3	Cleaning of Oil-Water Separator and Filter Bag Canisters	1	LS	\$2,500.00	\$2,500.00
4	Transportation of Task 4 Drums	30	DRUM	\$287.00	\$8,610.00
	Disposal of TSCA/RCRA NAPL	30	DRUM	-	-
	TSCA PCB Water/Oil <15% Solids; <10% Chlorine	-	DRUM	\$2,665.00	-
	TSCA PCB Water/Oil <25% Solids; <15% Chlorine 500-10,000 ppm	-	DRUM	\$3,445.00	-
	TSCA PCB Water/Oil >25 to <50% Solids; <50% Chlorine >10,000 ppm	-	DRUM	\$4,860.00	-
5	Transportation of Task 5 CYB	1	CY BOX	\$287.00	\$287.00
	Disposal of TSCA CYB (Containerized Waste)	1	CY BOX	\$890.00	\$890.00
6	Transportation of Task 6 CYB	1	CY BOX	\$287.00	\$287.00
	Disposal of Additional TSCA Solids	1	CY BOX	\$890.00	\$890.00
7	Transportation of Task 7 Drums	15	DRUM	\$81.00	\$1,215.00
	Disposal of Spent Liquid-Phase GAC	15	DRUM	\$255.00	\$3,825.002
Drum Pick-Up/ CY Box Pick Up Fee		2	EACH	\$650.00	\$1,300.00
EEC Surcharge, variable (total invoice excluding state fees or taxes)		1	LS	18%	-

3.0 ASSUMPTIONS AND CONCLUSIONS

- Each drum must weigh less than 600 pounds.
- Proposal assumes all drums are 55-gallon capacity.
- Clean drums shall be supplied by others.
- Work will be conducted during normal business hours, Monday through Friday.
- Pricing is based on a 7:00 AM start time or earlier.
- Pricing is contingent upon facility review and acceptance.

- Loading time exceeding one (1) hour will be billed at \$195 per hour.
- A Massachusetts Hazardous Waste Transporter Fee will apply and will be invoiced at \$0.028 per pound.
- Actual quantities will be invoiced based on final measurements.
- Pricing does not include environmental or soil management plans, PID or air monitoring, LSP/Consultant services, sampling, analysis, excavation, or loading services.
- Pricing does not reflect prevailing wage rates.
- If required, the Engineer/Owner must obtain and provide an EPA Identification Number (EPA ID) prior to BHE mobilization.

4.0 TERMS AND CONDITIONS

- Pricing DOES NOT apply to PFAS/PFOS impacted soils, unless specified otherwise.
- Retainage DOES NOT apply to transportation/disposal services.
- Excess loading or waiting time will be billed at \$195.00 per hour after the first hour, unless stated otherwise.
- No loads i.e., trucks ordered but not loaded due to lack of waste material, equipment failure or other conditions beyond the control of Brighter Horizons will be charged at a 4-hour minimum per dump trailer.
- All materials MUST be prepared for shipment & ready for loading prior to trucks arriving on-site.
- All loads MUST have the proper shipping documents before leaving the site.
- Payment terms on this project are: 30-days net from date of invoice.
- Invoice disputes must be resolved within ten (10) working days from date of invoice. After ten days, all invoices will be assumed accurate and must be paid in full.
- In the event legal or other action is required to collect unpaid invoice balances, Customer agrees to pay all costs of collection, including reasonable attorneys' fees and agrees to the laws, jurisdiction, and venue of the state of Massachusetts.
- This quotation is valid for thirty (30) days from the date of this quote.
- Pricing is based on the current market capacity, conditions, and Government regulations. If a significant market-wide pricing, capacity, or regulatory change affects our pricing, this quotation is subject to change.

5.0 PROPOSAL ACCEPTANCE

This proposal is hereby accepted and executed by an authorized signatory for the party to whom this proposal is addressed: **Stone Environmental**.

Signature

Date

Name (Please Print)

Title

Company

Purchase Order No. (if applicable)

Brighter Horizons Environmental appreciates the opportunity to provide this proposal. Should you have any questions, please contact me at 508-989-0419.

Regards,



Nathan White
Executive Vice President of Sales and Operations
Brighter Horizons Environmental Corporation



April 26, 2023

Ms. Sarah Rathay
Stone Environmental
535 Stone Cutters Way
Montpelier, VT 05602

Reference: Proposal –Water Treatment Services
 Former Jones and Lamson Property
 160 Clinton Street
 Springfield, VT
 LRT Reference #5671

Dear Sarah:

Thank you for your inquiry regarding water treatment services provided by Lockwood Remediation Technologies, LLC (LRT) on behalf of Stone Environmental (Stone) at the above-referenced jobsite (site). The proposal is based on information provided by Stone.

Baseline Assumptions

1. The project consists of the treatment of approximately 60,000 gallons of groundwater located at 160 Clinton Street in Springfield, VT.
2. It is LRT's understanding that the water will be extracted from existing wells and transferred to the water treatment system by others.
3. As requested by Stone, LRT is providing a cost estimate for a water treatment system with a flow rate up to 50 gallons per minute (gpm); however, actual site conditions may vary.
4. It is assumed that during the initial days of testing, a maximum of 4,000 gallons per day will be treated.
5. Based on information provided by Stone, non-aqueous phase liquid (NAPL) is anticipated to be present at the site and may be encountered during the dewatering. Primary contaminants of concern to be addressed during water treatment include total suspended solids (TSS), non-aqueous phase liquid (NAPL), petroleum-related compounds, volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs). It is assumed that any metals concentrations will be addressed through settling and bag filtration. Should this not be the case, or if additional analytes are encountered, modifications to the treatment system may be required, which could affect the system budget.
6. As indicated by Stone, extracted water will also contain a surfactant and cosolvent used in remediation. Due to the presence of surfactant in the water, a third carbon vessel has been added to serve as the lead vessel in an effort to protect the last two vessels from premature fouling.

7. LRT assumes that the discharge will be to Springfield sanitary sewer system under a permit obtained by others.
8. Power will be provided by others.
9. Spent media will be disposed of by others.
10. Stone will manage the equipment decontamination, including the removal and disposal of sediment within the tanks, and wipe tests on the equipment, if PCBs are detected. PCB wipe tests results will be provided to LRT prior to equipment being taken off rent and demobilizing equipment from the site. As requested by Stone, LRT has provided the option to manage and perform the labor for the equipment decontamination.
11. If PCBs are detected, PCB wipe samples of each piece of equipment are required to confirm that PCB results are non-detect and below a minimum laboratory detection limit of $0.2 \mu\text{g}/100 \text{ cm}^2$ for each Aroclor.

Work Scope

Water Treatment System – 50 gpm

1. Two (2) 18,000-gallon weir tank. The tank will need to be raised (by others) a minimum of one foot to allow the water to flow via gravity to the oil water separator.
2. One (1) oil water separator (OWS) with coalescing media. The OWS will be placed in-line after the weir tank prior to the bag filter skid. The OWS is rated for a designed flow rate of 50 gpm. Separate-phase products that enter the OWS will be skimmed off from the top and collected in 55-gallon drums. Water levels within the pump-out chamber can be monitored via a site tube located on the front of the unit.
3. One (1) submersible or centrifugal pump with level controls capable of pumping water up to 50 gpm. Power requirements will be 1-phase/230V.
4. One (1) duplex bag filter skid with two single bag filters plumbed in parallel such that one bag filter vessel can be operated while the other remains in standby. During a bag filter changeout, the opposite vessel is opened while the other is closed so that water treatment never needs to be shut down. Bag filter skid includes isolation valves, sample ports and pressure gauges on the influent and effluent piping so that it is clear when a bag filter changeout is required. Maximum flow rate is 50 gpm and maximum pressure is 125 pounds per square inch (PSI).
5. Three (3) high pressure, steel carbon vessels plumbed in series. Each vessel is filled with 1,000 pounds of reactivated liquid phase carbon. Each vessel is rated for a maximum flow rate of 50 gpm and a maximum pressure of 75 PSI and includes isolation valves, sample ports and pressure gauges on the influent and effluent piping so that it is clear when backwashing is required.
6. One (1) cartridge filter skid with two (2) cartridge vessel housings plumbed in parallel such that one housing can be operated while the other remains in standby. During a cartridge filter change-out, the opposite housing is opened while the other is closed so that water treatment never needs

to be shut down. Each cartridge filter housing holds twelve (12) 40-inch cartridges and includes isolation valves, sample ports and pressure gauges on the influent and effluent piping so that it is clear when a filter change-out is required.

7. One (1) flow meter with totalizer.
8. One (1) 21,000-gallon frac tank for temporary storage of the treated effluent water awaiting analytical results, prior to discharge. Water treatment may need to temporarily cease when tank reaches capacity until the results are received.
9. Hoses and all interconnecting hose from the influent tank to the approved discharge point.

Pricing

<u>Mobilization & Installation:</u> Water Treatment System – Includes 3,000 pounds of react carbon and two (2) LRT technicians – Assumes 2 days	\$12,350
<u>Monthly Rental:</u> Water Treatment System	\$9,500
<u>Demobilization:</u> Water Treatment System* – Does not include tank cleaning/equipment decon. See pricing below. Tank/Equipment Decon & Media Removal – Includes a 3-person LRT confined space entry crew & equipment (included PCB cleaning chemical D-Limonene) – Assumes 3 days for tank and equipment cleaning. Vac Truck w/ Operator – Assumes 2 days (does not include standby rate for PCB samples) Vac Truck Standby Rate (standby rate depends on vac truck demand) PCB Wipe Samples – Assumes 15-20 samples *Does not include media removal from vessels. Spent media will be disposed by others. Media removal	\$7,200 \$4,650/day \$4,000/day \$2,500/day \$150/sample
<u>Operation & Maintenance:</u> On-site Assistance – Assumes 8 hours on-site, travel and includes truck	\$1,350/day
<u>Consumables:</u> Bag Filters Cartridge Filters 55-Gallon Drum Absorbent Booms – 5” X 10’ Coalescing Media Replacement Cost – If damaged or cannot be cleaned at completion of project – Assumes 12 cuft	\$7/each \$15/each \$100/each \$50/each \$750

Exclusions

1. Unloading and loading equipment at the jobsite. LRT will transport all equipment to and from the site on flat trailers. The client will need to use a machine for unloading and loading.
2. Level ground and preparation of staging areas for water treatment system.
3. Electrical power or diesel fuel (unless otherwise specified in this proposal).
4. Potentially compressible soil may be present at the site. LRT cannot be responsible for settlement or any other adverse effects due to groundwater lowering.
5. Liquidated or consequential damages.
6. Union or prevailing wage labor (unless otherwise specified in this proposal)
7. LRT has assumed that all work may be accomplished under Level D construction attire. Any site-specific training costs by others.
8. Winterization (unless otherwise specified in this proposal)
9. Water for media activation or backwashing
10. Disposal of media, NAPL or waste (unless otherwise specified in this proposal)
11. Operation or maintenance of proposed equipment (unless otherwise specified in this proposal).
12. Permits or discharge fees (unless otherwise specified in this proposal).
13. Cleaning of equipment or disposal of material left in equipment (unless otherwise specified in this proposal).
14. PCB wipe samples to confirm equipment is decontaminated correctly (unless otherwise specified in this proposal).
15. Replacement cost for coalescing media
16. Sales tax

Our standard limited warranty, disclaimer and limitation of liability and remedy statement is attached and considered part of this proposal. The pricing contained in this proposal is valid for 30 days. Our payment terms are net 30 on delivery. Based on our current availability, the proposed rental equipment can be delivered in less than 2 weeks from your signature of this proposal.

Please feel free to contact us at 774-239-5855 if you have any questions or if you require additional information. We look forward to working with you on this project.

Sincerely,
Lockwood Remediation Technologies, LLC

Tammie Hagie

Tammie Hagie
Estimator

Mike Deso

Mike Deso
Vice President

Acceptance of Terms for Services:

Print Name

Company Name

Signature

Date

Lockwood Remediation Technologies, LLC (LRT)

Limited Warranty Disclaimer and Limitation of Liability and Remedy

1. **Equipment Manufactured by LRT** – LRT warrants its products against defects in workmanship or materials under normal use for a period of twelve months from the date of installation by LRT personnel. The warranty includes all cost borne by LRT associated with the repair or replacement (at LRT's discretion) of the part or equipment. LRT will make a good faith effort to complete a prompt correction or other adjustment with respect to any product, which proves to be defective within the warranty period. This warranty does not include damages occurring from improper installation, improper operation, improper maintenance, or work by 3rd parties not under LRT's control.
2. **Products or Components Manufactured by Others** – LRT will honor the manufacturer's specific warranty for products and/or components manufactured by others, however all cost incurred by LRT to remedy the warranty claim will be incurred by the Client, unless the repair is the result of equipment improperly installed by LRT personnel. The repair(s) will be invoiced in accordance with our Schedule of Fees.
3. **Chemical Compatibility** – Our warranty does not extend to damage caused by chemical incompatibility unless specifically stated in our proposal. The compatibility statement must include and would be limited to the specific chemicals and concentrations listed.
4. **Treatment Plants** – LRT's treatment plants are warranted to treat chemicals to the concentrations listed in LRT's proposal. All other chemicals, concentrations, or constituents other than specifically listed may not be treated or may hinder the treatment process. Any modifications required to either treat or remove additional said chemicals is not included.
5. **Manuals** – LRT's treatment system manual is intended to provide a qualified operator with a compilation of manufacturer's manuals for equipment provided. Only qualified personnel shall perform the specified operation, optimization and maintenance of specified equipment. LRT's manuals are not intended to be used by unqualified personnel and are not to be used as a training tool. Any operation, optimization or maintenance completed by unqualified personnel may result in property damage, serious injury or death, under such circumstances, client shall hold LRT harmless.
6. **Limitation of Liability** – The warranty expressed herein is in lieu of any other warranties expressed or implied including, but not limited to, any implied warranty or merchantability or fitness for a particular purpose and is in lieu of all other obligations or liability on LRT's part. Under no circumstance will LRT be liable for any incidental, special, or consequential damages, or for any other loss, damage, or expense of any kind, including loss of profits, or claims for labor, arising from any cause whatsoever. LRT's maximum liability shall not exceed at LRT's discretion, either the (i) repair or replacement of the defective part of product, at LRT's option; or (ii) return of the product and refund the purchased price. Either remedy shall constitute the Client's entire and exclusive remedy whether in contract, tort under warranty or otherwise.