February 27, 2019

Mr. Gerold Noyes, PE
VT DEC - WMPD
Davis Building – 1st Floor
One National Life Drive
Montpelier, VT 05620-3740

Re: Middlebury Bridge and Rail Project – WCRS(23)
Corrective Action Plan

Dear Mr. Noyes,

On behalf of the Vermont Agency of Transportation ("VTrans"), VHB has prepared this Corrective Action Plan ("CAP") for the WCRS(23) phase of the Middlebury Bridge and Rail Project ("the Main Project"). Main Project construction is anticipated to occur during the 2019, 2020, and 2021 construction seasons.

The purpose of this CAP is to specify the procedures that VTrans' contractors or subcontractors will follow during the handling of contaminated media, and to mitigate risks to sensitive receptors within the Main Project area during construction activities and during future use. This CAP is not intended to address cleanup activities throughout the entirety of the Middlebury Train Derailment hazardous site beyond the scope of the Main Project, but is intended to specify construction and contaminant management procedures within portions of the Main Project area that will encounter this hazardous site and/or other contaminated media.

Groundwater is anticipated to be encountered during construction. Groundwater dewatering will proceed in accordance with the Direct Discharge Permit (NPDES permit #3-1566).

Please feel welcome to contact us with any questions and comments you may have.

Sincerely,
VANASSE HANGEN BRUSTLIN, INC.

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Corrective Action Plan

MIDDLEBURY BRIDGE AND RAIL PROJECT

WCRS(23)

Middlebury, Vermont

Prepared for **VTrans**
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Montpelier, VT 05633

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February 27, 2019

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List of Acronyms

amsl	Above Mean Sea Level
ANR Atlas	Vermont Agency of Natural Resources Natural Resource Atlas
BaP-TEQ	Benzo[a]pyrene Toxicity Equivalent
bgs	below ground surface
BTV	Background Threshold Value
CAP	Corrective Action Plan
COC	Constituents of Concern
CSM	Conceptual Site Model
DEC	Vermont Department of Environmental Conservation
EM	Environmental Manager
EPSC	Erosion Prevention and Sediment Control
ESA	Environmental Site Assessment
GPR	Groundwater Protection Rule and Strategy
IRULE	Investigation and Remediation of Contaminated Properties Rule
NRCS	Natural Resource Conservation Service
PAHs	Polycylic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PID	Photoionization Detector
REC	Recognized Environmental Condition
ROW	State Railroad right-of-way
SOP	Standard Operating Procedure
SSVs	Soil Screening Values
TPH-DRO	Total Petroleum Hydrocarbons – Diesel Range Organics
TPH-GRO	Total Petroleum Hydrocarbons – Gasoline Range Organics
UST	Underground Storage Tank
VGES	Vermont Groundwater Enforcement Standards
VOCs	Volatile Organic Compounds
VTR	Vermont Railway, Inc.
VTrans	Vermont Agency of Transportation

Professional Engineer's Review

This Corrective Action Plan was prepared by VHB on behalf of the Vermont Agency of Transportation. The Plan has been reviewed by the undersigned Registered Professional Engineer and certified herewith.

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.

By: Charlie Farmer Date: 02/27/19

Charlie Farmer, PE, Vermont Registered Professional Engineer #132283

STATE OF VERMONT
CHARLES F. FARMER JR.
NO. 132283
ENVIRONMENTAL
02/27/19
LICENSED
PROFESSIONAL ENGINEER

Executive Summary

VHB has prepared this Corrective Action Plan ("CAP") on behalf of the Vermont Agency of Transportation ("VTrans") for the Middlebury Bridge and Rail Project ("the Project"). This CAP addresses the construction of the Middlebury WCRS(23) phase of the Project, which will include the railroad track lowering, final bridge replacement activities, associated work along Main Street and Merchants Row, and removal of the temporary access roadway ("the Main Project").

The overall purpose of the Project is to fully replace two roadway bridges in downtown Middlebury, Vermont where Main Street and Merchants Row span the Vermont Western Rail Corridor track. The bridges will be replaced by a single pre-cast concrete box tunnel, and the existing grade of the railroad track will be depressed by approximately 6-feet to accommodate the new tunnel. Grade along the railroad track to the north and south of the proposed tunnel will also be lowered to accommodate a maximum 1% grade as required for railroad design, and retaining walls will be used to stabilize track side slopes.

Pre-construction characterization of soil and groundwater in the Project area was completed in 2016 and 2017 in accordance with a Vermont Department of Environmental Conservation ("DEC") approved work plan (VHB, 2016b). Based on the results, the DEC determined that a CAP is required to manage the contaminated materials that will be encountered during Project construction. The Project includes sections of the Middlebury Train Derailment hazardous waste site (VT DEC #2009-3912) in Middlebury, Vermont.

The purpose of this CAP is to specify the procedures that VTrans' contractors or subcontractors will follow during the handling of contaminated media within the Project area, and to mitigate risks to sensitive receptors within the Project area during construction activities and during future use. This CAP is not intended to address cleanup activities throughout the entirety of the Middlebury Train Derailment hazardous waste site beyond the scope of the Project, but is intended to specify construction and contaminant management procedures within portions of the Project area that will encounter this hazardous waste site and/or other contaminated media.

Construction of the Main Project is anticipated to occur during the 2019, 2020, and 2021 construction seasons. Construction will involve excavation of approximately 35,000 cubic yards of soil and additional removal of bedrock. Soil in the Main Project area has been characterized via laboratory analysis according to a DEC approved work plan. The primary constituent of concern for the Project area is polycyclic aromatic hydrocarbons ("PAHs"), which were reported above applicable soil screening values and urban background threshold values. Total Petroleum Hydrocarbons – Diesel Range Organics in exceedance of applicable screening values were also identified along a segment of Main Street, which is isolated spatially from the rest of the Project. Details for reuse options and waste disposal requirements for the contaminated, non-hazardous soil excavated as part of the Project are included in this CAP.

Groundwater is anticipated to be encountered during construction. Constituents of concern in groundwater in the Project area include lead above the Vermont Groundwater Enforcement Standard. It is anticipated that construction of the Main Project will require dewatering of groundwater during deeper excavations. Groundwater dewatering will proceed in accordance with the National Pollutant Discharge Elimination System ("NPDES") Permit to Discharge to Waters of the United States, which has been secured from the DEC for the Project under NPDES permit #3-1566.

All contaminated media management activities, test results, and observations will be reported to the DEC after completion of Main Project activities in a Corrective Action Construction Completion Report in accordance with the Investigation and Remediation of Contaminated Properties Rule.

1.0 Introduction

VHB has prepared this Corrective Action Plan (CAP") on behalf of the Vermont Agency of Transportation ("VTrans") for the Middlebury Bridge and Rail Project ("the Project"). The purpose of the Project is to fully replace two roadway bridges in downtown Middlebury, Vermont where Main Street and Merchants Row span the Vermont Western Rail Corridor track (Figure 1). The bridges will be replaced by a single pre-cast concrete box tunnel, and the existing grade of the railroad track will be depressed by approximately 6-feet to accommodate the new tunnel. Grade along the railroad track, to the north and south of the proposed tunnel, will also be lowered to accommodate a maximum 1% grade as required for railroad design, and retaining walls will be used to stabilize track side slopes. Various underground utility upgrades and the installation of temporary access roadways will also be required to complete the Project. Pre-construction characterization of soil and groundwater in the Project area was completed in 2016 and 2017 in accordance with a DEC approved work plan (VHB, 2016b). Based on the results, the DEC has determined that a CAP is needed to manage the contaminated, non-hazardous materials that will be encountered during Project construction.

The Project has been split into two construction phases known as Middlebury EWP3(2) ("Early Work Package 2") and Middlebury WCRS(23) ("the Main Project"). This CAP addresses the Main Project, which will include railroad track lowering, pre-cast concrete U-wall and tunnel installation, associated work along Main Street and Merchants Row, and removal of the temporary access roadway. Portions of the Main Project will be constructed within the limits of the Middlebury Train Derailment Hazardous Waste Site (DEC #2009-3912). Per the Vermont Department of Environment Conservation ("DEC") Investigation and Remediation of Contaminated Properties Rule ("IRULE") (DEC, 2017), a Vicinity Map has been provided as Figure 2.

The Conceptual Site Model ("CSM") for the contaminated, non-hazardous material in the Project area is relative to the identified constituents of concern ("COC") in the three primary work areas for the Main Project – the Railroad Corridor, Main Street/Merchants Row, and the Village Green. Polycyclic Aromatic Hydrocarbons ("PAHs") in soil and lead and arsenic in groundwater were the only COCs identified over all work areas for the Main Project. There is no known source for the slightly elevated levels of lead and arsenic in groundwater across the Project area.

As described below, some potential sources of PAHs in soil are specific to each individual work area; however, aeolian deposition of byproducts from incomplete combustion of fossil fuels associated with historical automobile and railroad activities typical in an urban setting may have influenced PAH

concentrations throughout the Main Project area. Likewise, numerous historical fires in the Main Project area likely influenced PAH concentrations.

COCs identified in soil the Village Green area include PAHs. There is no apparent additional source for PAH contamination in soil in the area beyond the historical fires and automobile/railroad activities noted above.

COCs identified in soil the Main Street/Merchants Row area include PAHs and Total Petroleum Hydrocarbons – Diesel Range Organics ("TPH-DRO") that may need to be managed as part of construction activities. Like the Village Green area, the CSM for the area is that PAHs are most likely derived from multiple historical fires and automobile/railroad activities noted above. The potential source for the limited area of petroleum-impacted soils identified in one sample collected on Main Street is unknown.

COCs identified in soil in the Railroad Corridor area include PAHs. The CSM for the for the Railroad Corridor is that soil contamination is derived from historical railroad activities and associated infrastructure, as well as the historical gasoline release associated with the Middlebury Train Derailment Hazardous Waste Site noted above. Three likely mechanisms for deposition of PAHs in the Railroad Corridor area have been identified: 1) leaching of creosote from railroad ties to surrounding soils; 2) deposition from historical rail car transportation activities; and 3) gasoline release from the Middlebury Train Derailment.

Creosote used to preserve railroad ties can contain PAHs that may be released to adjacent soils. In 2004 the United States Department of Agriculture produced a study titled, "Polycyclic Aromatic Hydrocarbon Migration from Creosote-Treated Railway Ties into Ballast and Adjacent Wetlands," which evaluated transport of PAHs to the surrounding railroad ballast (USDA, 2004). The study found the following relevant conclusions:

- "At sufficiently high temperatures, the expansion of the wood forces creosote oil to the surface where it coalesces to form droplets that may run down the face of the treated wood into ballast. Alternately, these droplets may form blisters that burst, projecting minute particles of creosote an unknown distance (probably up to 30 cm)."
- "Polycyclic aromatic hydrocarbons, particularly the intermediate and HMW (high molecular weight) compounds are hydrophobic, with solubilities ranging from 0.07 mg/L for anthracene to 0.00026 mg/L for benzo(ghi)perylene. They adhere to most dry surfaces (like ballast rocks) and are immobilized."

Based on the findings of this study, it is probable that creosote impacted soils 30 cm (approximately 1 foot) horizontally from each railroad tie, adhered to the ballast rocks, and were immobilized.

Another possible source for PAH contamination in the Railroad Corridor is deposition from rail car transportation activities. Lubricating oil on the rail cars themselves, as well as overspill from cargo may have contributed to the reported elevated PAH concentrations in soil.

A third possible source for the elevated PAHs observed in the Railroad Corridor is the Middlebury Train Derailment Gasoline Release. Some PAH impacts to soil in the Project area may have been at least partially attributable to this release.

The purpose of the CAP is to specify the procedures that VTrans' contractors or subcontractors shall follow during the handling of contaminated media, and to mitigate risks to sensitive receptors within the Main Project area during construction activities and during future use. This CAP is not intended to specify remedial activities throughout the entirety of the Project area, but is intended to specify construction and contaminant management procedures within portions of the Project area that will encounter this hazardous waste site and/or other contaminated media.

This CAP narrative will refer to locations within the Main Project area in accordance with engineering stationing notation (e.g. Station 10+00) as defined in the Engineering Plan Sets provided as Appendix A.

2.0 Public Notice List

The Main Project area is generally bounded by the Otter Creek and other residential and commercial properties. According to the IRULE, all property owners that are impacted by a release and all adjoining property owners will be notified once a CAP has been approved by the DEC. No properties other than abutting property owners have been identified as having been impacted. A detailed abutter map is included as Figure 3 and a public notice list is included as Table 1.

3.0 Project Area Description

The Main Project area is located within downtown Middlebury, Vermont to the east of the Otter Creek (Figure 1). This area includes approximately 3,575 feet of the State railroad right-of-way ("ROW") from the truss bridge over the Otter Creek (southern limit; Station 10+00) to just north of the Elm Street Bridge (northern limit; Station 45+75) (see Appendix A, Sheet 1), as well as limited portions of Main Street, Merchants Row, and the Village Green in the vicinity of the railroad bridges. The Main Street/Merchants Row area is included in the Main Project area since the approach to the railroad crossing in both roads will be redeveloped to accommodate the pre-cast concrete box tunnel. Redevelopment of the roads will be limited in depth to the existing road base, with the exception of

24-inch excavation of soil extending approximately 50 feet from both sides of the pre-cast concrete box tunnel.

3.1 Site History

3.1.1 Railroad Corridor

The Railroad Corridor is located along the eastern bank of the Otter Creek and extends from the Otter Creek Truss Bridge to just north of the Elm Street Bridge (Station 10+00 to Station 45+75). This area currently contains a single-lane railroad track.

A review of Historical Sanborn Maps (dated 1885, 1892, 1905, 1910, 1920, 1927 and 1944) and aerial photographs (dated 1942, 1961, 1972, 1993, 1995, 2006, 2008, 2009, 2011 and 2012) identifies that this area was occupied by a railroad track since at least 1885, in the same general alignment as the present-day railroad track.

3.1.2 Main Street and Merchants Row

The Project area includes the Town of Middlebury road ROWs, which include Main Street from the Merchants Row intersection to Seymour Street and Merchants Row from the Main Street intersection to South Pleasant Street. These roadways are paved, and the travel lanes are bordered by vehicle parking spaces and concrete sidewalks.

A review of Historical Sanborn Maps (1885-1944) identified that the Site has historically been occupied by Main Street and Merchants Row in the same general alignment as the present-day roadways. The maps indicate that the bridges first consisted of wood decking (labeled in the 1885, 1892 and 1905 maps) and later concrete (labeled in the 1944-1965 maps).

3.1.3 Village Green

The Project area includes the Village Green, located between the intersection of Main Street, Merchants Row, and the Railroad Corridor. This area consists of a small green space with concrete sidewalks for foot traffic, park benches, and a decorative fountain.

A building is visible in the 1885 Sanborn Map in the approximate location of the Village Green, and is labeled as a dentist and grocery store. The building is no longer visible on the 1892 map. The 1885 and 1892 maps indicate that this area is occupied by a water tower; however, no features are visible on the remaining maps (years 1905-1962) in the approximate area of the Village Green.

3.2 Topography

Topography within the Main Project area is relatively flat and generally slopes downward to the south and west towards the Otter Creek. Elevations in this area range from approximately 360 feet above mean sea level ("amsl") to approximately 350 feet amsl. The Railroad Track is located at a

lower elevation than the adjoining roadways and the Village Green, which are located at approximately 368-370 ft amsl.

3.3 Geology

According to the National Resource Conservation Service database (accessed 2017), surficial soils within the Main Project area are mapped as Vergennes clay. Soil borings and test pits advanced near the Railroad Corridor identified that surficial soils were primarily fill consisting of stone railroad ballast, which is partially to completely fouled with sandy loam and is underlain by sand and silt (GeoDesign, 2016; and VHB boring logs included in Appendix B).

According to the Bedrock Geologic Map of Vermont (Ratcliffe, et al., 2011) and previous geotechnical assessments (GeoDesign, 2016), bedrock is composed of moderately hard limestone, marble, and phyllite. Bedrock is exposed along the sidewalls of the Railroad Track near the intersection with the Main Street Bridge, and is encountered at shallow depths near this area (GeoDesign, 2016).

3.4 Hydrology

Groundwater within the Railroad Track area is assumed to flow to the west toward the Otter Creek, but is interrupted by the railroad tracks and bedrock sidewalls along the tracks. Water table elevations observed during soil test pit excavations, boring advancement, and monitoring well installations indicate that the water table is relatively shallow along the Railroad Track with the shallowest groundwater (approximately 0.4-1.7 feet bgs) observed near the intersections with the Main Street and Merchants Row Bridges (Station 20+50 to Station 29+00), and deeper groundwater (approximately 2-8 feet bgs) observed at the northern and southern ends of the Railroad Corridor area (GeoDesign, 2016).

4.0 Previous Work Summary

A summary of historical assessments and related work performed within or in the vicinity of the Main Project area is provided below. This summary is not intended to be a complete evaluation of the Middlebury Train Derailment hazardous waste site (DEC #2009-3912).

4.1 Middlebury Train Derailment Investigations, 2007-2015

On October 22, 2007, an accidental train derailment occurred between the Otter Creek truss bridge (Station 10+00 on Construction Plan Sets provided as Appendix A) and the Merchants Row Bridge (Station 23+25). Twenty-five (25) railcars were derailed, 15 of which contained gasoline and 10 of which contained road salt (OCE, 2008). All the cars overturned to the west of the track, toward the Otter Creek. Reportedly, gasoline leaked from seven (7) of the 15 overturned railcars and road salt spilled from four (4) of the 10 railcars (OCE, 2008). The estimated volume of gasoline released to the environment was between 200 to 1,800 gallons (OCE, 2008). The remainder of the

petroleum from the overturned railcars was pumped into truck tankers and hauled off-site. The gasoline spill impacted soil, groundwater, and surface water (Otter Creek) near the derailment area. Additionally, during the derailment, petroleum infiltrated the Town of Middlebury sewer system and was subsequently treated at the sewage treatment plant. Sorbent booms were placed in the Otter Creek between October and December 2007. Road salt was manually shoveled out of the derailment area by hand. The Middlebury Train Derailment Site was listed by the DEC as a hazardous waste site (DEC #2009-3912). In December 2009 and January 2010, injections of chemical oxidants (RegenOx™ and ORC Advanced®) were completed within the derailment area as a form of groundwater remediation (OCE, 2010).

Two surficial soil samples collected in 2007 (MW-07-08 and MW-07-09) were analyzed for Volatile Organic Compounds ("VOCs") and Total Petroleum Hydrocarbons Gasoline Range Organics ("TPH-GRO") and indicated the presence of benzene, toluene, ethylbenzene, xylenes, naphthalene, trimethybenzene, and TPH-GRO in excess of the DEC residential and industrial Soil Screening Values ("SSVs"). Seven surficial soil samples collected in 2009 (SB-09-01 through -07) were analyzed for TPH-GRO and lead, both of which were present at concentrations below the VT DEC residential SSVs (OCE, 2010). PID headspace readings from these 2007 and 2009 soil samples were generally elevated (>100 ppm).

To the west of the railroad track, between the Otter Creek truss bridge and Merchants Row Bridge, 10 groundwater monitoring wells (MW-07-01 through -10) were installed in 2007. Three (3) of these wells (MW-07-03, -04, -05) were destroyed in 2009 during construction of the Cross Street Bridge. One (1) new well was installed in 2009 (MW-09-01) and 10 new monitoring wells (MW-10-01 through -10) were installed in 2010. At the beginning of Project construction there were a total of 18 groundwater monitoring wells associated with this hazardous waste site and construction details for these wells are provided in the table below. These wells, as well as additional wells installed by VHB as part of pre-construction characterization sampling, are depicted on Figure 3.

Groundwater Monitoring Wells – Middlebury Train Derailment Investigations				
Well ID	**Railroad Station**	**Temp. Access Road Station**	**Well Depth***	**Well Screen***
MW-07-01	10+60	0+60	11.0	2.0 – 11.0
MW-09-01	13+00	3+15	16.0	2.0 - 16.0
MW-07-02	13+00	3+15	8.3	2.3 - 8.3
MW-10-01	13+00	3+15	10.0	4.0 - 10.0
MW-10-02	16+27	6+70	12.0	5.0 - 12.0
MW-10-03	16+37	6+80	12.0	5.0 – 12.0
MW-10-04	16+70	7+13	11.5	4.5 - 11.5
MW-10-05	16+95	7+37	11.5	4.5 - 11.5
MW-10-06	17+55	7+97	10.0	4.0 – 10.0
MW-07-06	17+55	7+97	11.0	3.0 - 11.0
MW-10-07	18+20	8+62	9.0	3.0 – 9.0
MW-07-07	18+20	8+62	8.5	2.0 - 8.5
MW-10-08	18+78	9+20	9.5	3.5 - 9.5
MW-07-08	18+78	9+20	11.1	3.1 - 11.1
MW-10-09	19+30	9+75	8.5	3.5 - 8.5
MW-07-09	19+39	9+81	10.3	3.3 - 10.3
MW-10-10	19+44	9+86	10.0	4.0 - 10.0
MW-07-10	19+95	10+37	11.0	3.0 - 11.0
*Units in feet below ground surface. Construction details as reported by Otter Creek Engineering (OCE, 2008; OCE, 2010).				

Groundwater samples were analyzed for petroleum VOCs in seven (7) of the wells in November 2016. Results from the 2016 monitoring event indicate that the Vermont Groundwater Enforcement Standards ("VGES") were exceeded for benzene in two (2) of the seven (7) wells (MW-10-01, and MW-10-09), which are centered around Station 13+00 and Station 19+00 (OCE, 2016). Petroleum VOCs have been either not detected or are below the VGES in the most recent sampling rounds for 14 of the 18 wells (MW-07-01, MW-07-02, MW-07-06, MW-07-07, MW-07-08, MW-07-09, MW-07-10, MW-09-01, MW-10-02, MW-10-03, MW-10-05, MW-10-06, MW-10-07, MW-10-08; OCE, 2016).

4.2 GeoDesign, Geotechnical Investigations, 2013-2016

In 2013, GeoDesign completed two geotechnical investigations within the Project area to evaluate subsurface conditions beneath the railroad tracks, near the bridge abutments, and along the Drainage Structure alignment. As a part of this investigation, ledge probes, soil borings, and test pits were advanced generally along Main Street, Merchants Row, and the railroad track extending north and south of the proposed tunnel area. Photoionization Detector ("PID") headspace readings from soils within the railroad track, Merchants Row, Main Street and behind the eastern railroad retaining wall, north of Main Street, were relatively low (<4 ppm; GeoDesign, 2016).

In 2014, GeoDesign completed additional soil borings, ledge probes, and rock coring within the Drainage Structure alignment to refine the depth to bedrock in these areas. In 2014, GeoDesign also collected additional geotechnical data for soft clay soils located along the railroad track to the north of the Main Street Bridge. No PID headspace readings were collected during this assessment (GeoDesign, 2016).

In March 2016, GeoDesign completed several test pits along the railroad tracks under the Main Street Bridge to assess the abutments in this area. The test pits were advanced to determine the depth to bedrock and depth of pier support structures, which support the Main Street Bridge. Test pits indicated that the depth to bedrock varies from approximately 5.4 feet bgs near the southern limit of the Main Street Bridge to approximately 1.4 feet bgs near the northern limit of the Main Street Bridge. Additionally, GeoDesign completed further rock coring in the Drainage Structure shaft areas. No PID headspace readings were collected during this assessment (GeoDesign, 2016).

During GeoDesign's 2013 investigations, eight (8) groundwater wells were installed along the railroad track to monitor the groundwater elevation within the Project area. Each well was installed with five or 10 feet of factory slotted screen and were backfilled with clean filter sand to above the well screen, capped with a bentonite plug, and backfilled with native materials to the ground surface (GeoDesign, 2016). Well construction details are included in the table below.

Groundwater Monitoring Wells – Geotechnical Investigations				
Well ID	**Railroad Station**	**Temp. Access Road Station**	**Well Depth***	**Well Screen***
GBD-2 (ow)	13+75	4+00	10	5-10
GBD-5 (ow)	17+90	8+33	7	3-7
RR-11 (ow)	20+92	11+32	10	5-10
RR-13 (ow)	23+00	NA	Destroyed	
RR-16 (ow)	25+25	NA	10	5-10
RR-01 (ow)	28+95	NA	10	5-10
GBD-16 (ow)	32+06	NA	15	5-15
GDB-20 (ow)	35+55	NA	30	20-30
*Units in feet below ground surface ("bgs"). Construction details as reported by GeoDesign (GeoDesign, 2016). NA – Not applicable				

Water table elevations measured by GeoDesign indicate that groundwater within the Project area is approximately 0.5 to 3.0 feet below the grade of the existing railroad track (GeoDesign, 2016). A summary of data collected by GeoDesign in 2016, including well location and groundwater elevation data, is provided as Appendix C.

4.3 VHB, Phase I Environmental Site Assessment, 2016

As requested by the DEC, VHB completed a Phase I Environmental Site Assessment ("ESA") in accordance with ASTM E1527-13 (VHB, 2016a). The purpose of the ESA was to identify recognized environmental conditions ("RECs") in connection with the Project area in order to determine areas of contaminated soil, groundwater, and soil gas that may need to be managed during Project construction. RECs were identified for the Project area, and the following contaminants of concern were identified:

- Petroleum-impacted soil and groundwater were identified in the southern Project area (approximately Station 10+25 to Station 20+00) in association with a 2007 train derailment (DEC #20093912). Several other small spills of petroleum have occurred on the paved surface of Main Street and Merchants Row, which were cleaned up by spill response contractors with the use of sorbents.
- The historical site use as a railroad corridor indicated the likelihood of surficial soil contamination within the Project area. Railroad contaminants typically include, but are not limited to, metals (specifically lead and arsenic), PAHs, petroleum compounds, herbicides, and pesticides. Reportedly, herbicides are applied according to manufacturer specifications to the railroad corridor to control vegetation. Additionally, the railroad ties within the corridor may be treated with wood preservative.
- According to historical maps and photographs, in 1891 a fire razed many of the buildings located on the northwestern side of Main Street and the southern side of Merchants Row. According to recent investigations (GeoDesign, 2016), subsurface soils in Main Street and Merchants Row exhibit evidence of this fire (e.g. coal and brick fragments), which indicates the likely presence of PAHs in the soils.
- Surficial soil and shallow groundwater contamination may exist within the Project area resultant from historical adjoining site uses (railroad yard, coal storage areas, petroleum tanks for heating purposes, and petroleum tanks associated with filling stations), and nearby hazardous waste sites, underground storage tank ("UST") sites, and spill sites.

4.4 VHB, Pre-construction Characterization of Soil and Groundwater, 2016-2017

In July and August 2016, VHB advanced soil borings within the Project area and collected soil and groundwater samples for laboratory analysis in accordance with a DEC approved work plan (VHB, 2016b). The purpose of this assessment was to determine the condition of soil and groundwater likely to be encountered as part of the Project, and to advise VTrans of handling and disposal options for disturbed soil and groundwater.

4.4.1 Groundwater

An evaluation of groundwater that will be encountered as part of construction dewatering was completed by VHB in 2016 and 2017. VHB installed six (6) groundwater monitoring wells to assess groundwater within the Project area (Figure 4). On August 2-4, 2016 the VHB installed wells, and the wells previously installed by GeoDesign (see Section 4.2), were sampled by VHB according to the DEC approved Work Plan. For the August 2016 sampling

event, groundwater could not be sampled in the Launch Shaft and GBD-2(ow) because these wells were dry, and groundwater could not be sampled in RR-13(ow) because the well was destroyed.

Groundwater Monitoring Wells – VHB			
Well ID	**RR Station**	**Well Depth***	**Well Screen***
RR-12+00(ow)	12+00	12	2-12
Launch	27+25	7	2-7
Drive 2-REC	25+35	11	2-11
Drive 3-REC	29+00	12	2-12
RR-40+00(ow)	40+00	20	15-20
RR-44+00(ow)	44+00	17	12-17
*Units in feet below ground surface ("bgs"). NA – not applicable			

At the request of the DEC, a second round of groundwater sampling occurred in April 2017. Wells were sampled by VHB using dedicated disposable tubing and standard low-flow purge procedures. A groundwater sample could not be collected from RR-12+00(ow) because this well was destroyed. All groundwater samples were preserved on ice and delivered to a certified testing laboratory for analysis of dissolved lead, total lead, phosphorus and hardness.

4.4.2 Soil

A total of 90 soil borings were advanced: seven (7) along the Temporary Access Road, four (4) within the Drainage Structure shafts, two (2) within the Village Green, four (4) along Merchants Row, four (4) along Main Street, and 69 along the railroad track. Some soil samples proposed in the Work Plan were not able to be collected because of obstructions including shallow bedrock and bridge decking/abutments located near the Main Street, Merchants Row, and Elm Street Bridge. Laboratory reports for all data collected as part of the Pre-construction Characterization of Soil and Groundwater are provided in this CAP as Appendix D. Analytical results are summarized in Section 5.0 – Contaminant Distribution.

4.4.2.1 Railroad Corridor

In total, 113 discrete soil samples were collected from 69 borings at an approximately 50-foot spacing along the Railroad Corridor area (Figure 5). Soil samples were collected from a depth of 2-feet below ground surface ("bgs") from STA RR-10+50 to RR-15+50 and RR-38+50 to RR-45+50. With the exception of locations where deep (6-feet bgs) soil samples could not be collected due to refusal, soil samples were generally collected from a depth

of 2-feet bgs and 6-feet bgs from STA RR-15+50 to RR-38+00. At shallower depths, soil generally consisted of stone railroad ballast, which was partially to completely fouled with sandy loam. At deeper depths, soil generally consisted of sand trending towards silty clay with depth (see boring logs included as Appendix B). Soils were screened with a PID at all locations to evaluate total organic vapors commonly associated with petroleum and solvent contamination. Headspace PID readings were relatively low (< 2.0 ppm) in the Railroad Corridor area. All samples were submitted for laboratory analysis for waste disposal characteristics including VOCs, semi volatile organic compounds ("SVOCs"), RCRA 8 metals, TPH-GRO, TPH-DRO, Polychlorinated Biphenyls ("PCBs"), ignitability, and corrosivity.

A total of seven (7) samples were collected from a depth of 1-foot bgs in the Temporary Access Road area. As with the rest of the Railroad Corridor, soil PID headspace readings were relatively low, and samples were submitted for full waste disposal characterization as listed above.

4.4.2.2 Main Street and Merchants Row

In total, eight (8) discrete soil samples were collected from eight (8) borings at approximately 50-foot spacing along Main Street/Merchants Row area (Figure 5). Soil samples were collected from a depth of 2-feet bgs.

Soil PID headspace readings were relatively low (<11.5 ppm) with the exception of MS-103+50, which had a PID reading of 196.4 ppm. Generally, soil was typical subbase and urban fill (see boring logs included as Appendix B). All soil samples were submitted for laboratory analysis for waste disposal characteristics including VOCs, SVOCs, RCRA 8 metals, TPH-DRO, TPH-GRO, PCBs, ignitability, and corrosivity.

4.4.2.3 Village Green

In total, four (4) discrete soil samples were collected from two (2) borings at approximately 50-foot spacing in the Village Green area adjacent to the proposed concrete box tunnel. Soil samples were collected from a depth of 2-feet bgs and 14-feet bgs at location TP-24+75. At location TP-25+25, soil samples were collected from a depth of 2-feet bgs and 8-feet bgs. Generally, soils were classified as fine sand and silt with some fine-medium gravel. Indicators of general urban fill were also noted at shallow depths (see boring logs included as Appendix B). All soil samples were submitted for laboratory analysis for waste disposal characteristics including VOCs, SVOCs, RCRA 8 metals, TPH-DRO, TPH-GRO, PCBs, ignitability, and corrosivity.

4.5 Pre-construction Monitoring Well Removal

Prior to construction activities in areas where groundwater monitoring wells were installed as part of the Middlebury Train Derailment Site Investigation (Section 4.1), GeoDesign Geotechnical

Investigation (Section 4.2), and VHBs Pre-construction Characterization of Soil and Groundwater (Section 4.4), all monitoring wells that were able to be located were decommissioned. Of the 28 monitoring wells identified in the Project area based on the above referenced investigations, nine monitoring wells were located and decommissioned. The disposition of the remaining 19 wells is unknown. Any monitoring well which was not located may have been decommissioned as part of the ongoing management of the Middlebury Train Derailment hazardous waste site, or destroyed by routine railroad maintenance along the railroad ROW. The following monitoring wells were either decommissioned or not able to be located.

- Groundwater monitoring wells associated with the Middlebury Train Derailment hazardous waste site:
  - Decommissioned Monitoring Wells: MW-10-09 and MW-10-10
  - Monitoring Wells which were not located: MW-10-02, MW-10-03, MW-10-04, MW-10-05, MW-07-06, MW-10-06, MW-07-07, MW-10-07, MW-07-08, MW-10-08, MW-07-09 and MW-07-10.
- Groundwater monitoring wells associated with GeoDesign Geotechnical Investigation:
  - Decommissioned Monitoring Wells: GBD-2(ow), GBD-5(ow), RR-11(ow), and GBD-20(ow).
  - Monitoring wells which were not located: RR-16(ow), RR-1(ow), GBD-16(ow)
- Groundwater monitoring wells associated with VHB Pre-construction Characterization of Soil and Groundwater:
  - Decommissioned Monitoring Wells: RR-40+00(ow), Drive 2-REC, Drive 3-REC, and Launch
  - Monitoring wells which were not located: RR-12+00(ow), RR-44+00(ow), Drive 3-REC

In accordance with a letter from the VT DEC dated December 6, 2016, four of monitoring wells associated with the Middlebury Train Derailment hazardous waste site will be reinstalled after the construction of WCRS(23) of the Project; MW-07-08, MW-07-09, MW-10-09 and MW-10-10. Details regarding well reinstallation are included in Section 12.0.

5.0 Contaminant Distribution

The investigation reports summarized in Section 4.0 identified media in the Project area that exceeded applicable SSVs and VGES as presented in the IRULE (DEC, 2017) and Groundwater Protection Rule and Strategy (DEC, 2016), respectively. The following summary presents the findings of the Pre-construction Characterization of Soil and Groundwater (see Section 4.4), and addresses regulatory standards that apply to the media that will be encountered during Project construction. Laboratory Reports for all data collected as part of the Pre-construction Characterization of Soil and Groundwater are provided as Appendix D.

5.1 Groundwater

Table 2 presents a summary of all groundwater analytical data for the Project area. Associated monitoring well locations are shown on Figure 4. Groundwater samples were collected during two sampling events completed in August 2016 and April 2017. The primary COC identified in groundwater in the Project area was lead, which exceeded the VGES standard of 15 ug/L at seven sample locations with values ranging from 21 ug/L to 100 ug/L. Arsenic was reported at a concentration equal to the VGES at one location. No other contaminants were detected at concentrations which exceed the applicable VGES standard.

5.2 Soil

Table 3 presents a summary of exceedances of applicable regulatory standards for all soil sample locations within the Main Project area, and Table 4 presents all of the analytical data for those locations. For the purposes of this CAP, Project soil has been classified into four (4) different management groups based on the reported concentrations of COCs, which are depicted spatially on Figure 5 and described in Table 5. The following sub-sections provide a detailed review of contaminants identified in soils in the different spatial areas of the Main Project during the Pre-construction Characterization of Soil and Groundwater.

5.2.1 Railroad Corridor

Pre-construction characterization sampling completed as part of the Project (see Section 4.4) identified COCs in soil in the Railroad Corridor area that will need to be managed as part of construction activities. Two sampling series were completed in the area. Samples for the "AR" soil boring series were collected from 1-foot bgs, which was the approximate depth of excavation anticipated in this area.

With the exception of boring location RR-29+50 where samples were collected at 2-feet bgs and 4-feet bgs, samples for the "RR" soil boring series were generally collected from 2-feet bgs and 6-feet bgs in accordance with a DEC approved Work Plan (VHB, 2016b). Additional deeper samples were collected from locations RR-22+00 (11-feet bgs) and RR-23+50 (10-feet bgs). Samples were collected at these intervals to support planned removal of the top 4-feet of soil in an initial "lift" followed by excavation of deeper Railroad Corridor soil. Additionally, the depositional environment for the COCs identified in the Phase I ESA indicated that contamination would most likely be limited to shallow soil for most of the area. Additional details for planned construction activities are presented in Section 7.0.

Shallow Soil (0-4-feet bgs)

As expected based on the findings of the Phase I ESA, shallow soils (0-4-feet bgs) in the Railroad Corridor area were found to be impacted by PAHs at concentrations both below and above the Urban BTV. Several samples also exceeded the Industrial Vermont Screening Level standard for Benzo[a]pyrene Toxicity Equivalent ("BaP-TEQ"). Additionally, three (3) sample locations, RR-21+50-2FT, RR-44+00-2FT, and RR-45+00-2FT, reported

concentrations of TPH-DRO in exceedance of the residential SSV. Conservatively, segments of the Railroad Corridor area where "AR" series and "RR" series samples were collected in close proximity along parallel transects, the highest concentrations for the adjacent samples were used to inform the color-coded soil classification groups presented on Figure 5 and described in Table 5.

Deep Soil (>4-feet bgs)

Deep soil in the Railroad Corridor area was found to be primarily "clean" with no detected analytes above SSVs or BTVs, except for two (2) locations with concentrations that exceeded Urban BTVs (RR-28+50 and RR-37+50) and four (4) locations that exceeded residential SSVs, but were below Urban BTVs (RR-19+50, RR-20+50, RR-21+50, and RR-22+00).

5.2.2 Main Street and Merchants Row

Pre-construction characterization sampling completed as part of the Project (see Section 4.4) identified COCs in soil in the Main Street/Merchants Row area that will need to be managed as part of construction activities. With the exception of boring location MR-202+00 where samples were collected at 1-feet bgs and 2-feet bgs, samples for the "MR" and "MS" soil boring series were collected from 2-feet bgs in accordance with a DEC approved Work Plan (VHB, 2016b). Samples were collected at these intervals to support planned construction of removing the top approximately 2-feet of soil as part of roadway reconstruction activities in limited areas on either side of the proposed tunnel. Additional details on planned construction activities are presented in Section 7.0.

Shallow Soil (0-4-feet bgs)

As expected based on the findings of the Phase I ESA, shallow soils (0-4-feet bgs) in the Main Street/Merchants Row area were found to be impacted by PAHs at concentrations both below and above the Urban BTV. Several samples also exceeded the Industrial Vermont Screening Level standard for Benzo[a]pyrene Toxicity Equivalent ("BaP-TEQ"). Additionally, two (2) sample locations reported concentrations of TPH-DRO in exceedance of the residential and industrial SSV at MR-202+00 and MS-103+00, respectively. In addition to the industrial exceedance of TPH-DRO at MS-103+00, Napthalene was also reported at a concentration that exceeded the industrial SSV at that location.

Deep Soil (>4-feet bgs)

Deep soil was not evaluated in the Main Street/Merchants Row area per the DEC approved Work Plan (VHB, 2016b).

5.2.3 Village Green

Pre-construction characterization sampling completed as part of the Project (see Section 4.4) identified COCs in soil in the Village Green area that will need to be managed as part of

construction activities. Two borings were advanced in the area. Two samples were collected from each of the borings at 2-feet bgs and 14-feet bgs at TP-24+75 and 2-feet bgs and 8-feet bgs at TP-25+25. Samples were collected at these intervals to support planned construction activities in the Village Green area directly adjacent to the proposed tunnel installation. Additionally, as with other Project areas, the depositional environment for the COCs identified in the Phase I ESA indicated that contamination would most likely be limited to shallow soil. Additional details on planned construction activities are presented in Section 7.0.

Shallow Soil (0-4-feet bgs)

As expected based on the findings of the Phase I ESA, shallow soils (0-4-feet bgs) in the Village Green area were found to be impacted by PAHs at concentrations below and above the Urban BTV. The shallow sample collected from TP-24+75 also exceeded the Industrial Vermont Screening Level standard for BaP-TEQ.

Deep Soil (>4-feet bgs)

Deep soil in the Village Green area was found to be primarily "clean" with no detected analytes above SSVs or BTVs.

6.0 Sensitive Receptors

The following potential sensitive receptors have been identified: (1) workers during Project construction, (2) the public during future public use, (3) Otter Creek, and (4) wetlands. A map depicting sensitive receptors is provided as Figure 6.

Exposure pathways for construction workers include dermal contact, inhalation, and ingestion of impacted soil and dermal contact with impacted groundwater. These exposure pathways will be mitigated by having pre-characterized the site and the subsequent development of the corrective actions as described in this CAP. Additionally, an OSHA-HAZWOPER certified Environmental Manager ("EM") that meets the definition of an Environmental Professional in the IRULE, or their OSHA-HAZWOPER certified designee ("designee") will observe the excavation and material handling activities.

Because the Village Green area will be used as a public space, the general public is a potential sensitive receptor in that area of the Project. Potential exposure pathways for the general public during future use of the Village Green include dermal contact, ingestion, and inhalation of impacted soil. During construction, the Project area will be restricted to the public with fencing. After construction, the exposure pathways for the general public in the Village Green area will be mitigated by installation of an engineered soil cap if contaminated, non-hazardous soil is reused in the area.

The Otter Creek has been identified as a potential receptor for this Project. In addition, another potential receptor is a Class II wetland mapped by the Vermont State Wetland Inventory ("VSWI") to the west of the southern Project area, near the Otter Creek. During construction, potential exposure pathways for these features include erosion and runoff of disturbed soils and discharge of accumulated groundwater seepage pumped from the excavation into the existing storm drain (note that under existing conditions, groundwater seepage naturally discharges to these surface waters under ambient flow conditions, thus the construction dewatering is not a significant change from existing conditions). Required erosion control measures are described by General Permit #7280-9020.R for moderate risk construction activities. A project specific Erosion Prevention and Sediment Control ("EPSC") plan specifies required procedures for stabilizing soils (see Section 7.1.3) and preventing erosion. Specific methods for groundwater dewatering will proceed in accordance with NPDES Direct Discharge Permit #3-1566.

This Project area is not located within a wellhead protection area and no drinking water wells or source protection areas are located nearby. The surrounding area is supplied with potable water from the municipal system that obtains water from wells and springs located several miles to the east at a higher elevation than the Project. Therefore, the Project is not anticipated to impact the municipal water system or wells.

Based on VHB's review of available information, there are no known interested, threatened, or impacted third parties associated with the contamination that will be disturbed or encountered as part of the Project.

7.0 Remedial Construction Plan

7.1 General Construction Procedures

The following sections include general construction procedures for preconstruction notification, construction observations, and EPSC measures.

The construction areas will be cordoned off from the public using fencing and signage to deter public access. The contractor is responsible for Project area security, safety, and watching for unauthorized access.

Because the Project area has been pre-characterized, and contaminant concentrations have been determined to exceed the SSV's but are below hazardous thresholds, the EM or their designee shall oversee the work related to handling excavated soils in accordance with 40 CFR 1910.120. The contractor will be responsible for oversight and direction of their employees to perform work in accordance with this CAP and in accordance with observations and guidance of the EM. The contractor is responsible to notify all personnel who will be working on the Project of contamination risks in accordance with the Hazard Communication Standard, 29 CFR 1910.1200.

VHB and VTrans understand that the DEC does not require the testing of "clean fill" which will be brought to the Project area for construction purposes, provided the material is sourced from a virgin area (e.g. a sand and gravel pit).

7.1.1 Preconstruction Notifications

The DEC shall be notified prior to the commencement of construction activities. The primary DEC contact is:

Gerold Noyes, PE
802-522-5614
Gerold.Noyes@vermont.gov

The subcontractor completing earthwork shall mark out excavation locations and notify Dig Safe (1800-DIG-SAFE) at least 48 hours prior to start of work.

7.1.2 Construction Observation and Field Screening

The EM or their designee will be on-site for construction observation during all days when excavation is being conducted. The EM and their designee will have OSHA-HAZWOPER training and be experienced with the management of contaminated media.

Soil observation will be performed by the EM or their designee during contaminated media excavation activities. During excavation activities, soils will be observed for visual and olfactory evidence of contamination, as appropriate for the identified contaminants. A log book will be used to keep account of soil removal volumes, and other observations (see Section 10.0 for further details). PID screening will only occur if a new release or new discovery of VOC contamination occurs. PID screening will be completed according to VHB's PID screening standard operating procedure ("SOP") provided as Appendix F, or alternate method as approved by the DEC in writing. Prior to use, the PID will be calibrated with a 100 ppmv isobutylene standard, per manufacturer's instructions, and calibrations will be recorded in the instrument's calibration log (see Section 7.0).

Groundwater dewatering sampling and observations will be performed by the EM in accordance with the NPDES Direct Discharge Permit #3-1566.

7.1.3 Erosion Prevention and Sediment Control

All EPSC measures and inspections shall be conducted in accordance with the Project's construction phase stormwater discharge permit, and shall be the responsibility of the contractor.

Prior to construction and excavation activities, a silt fence will be placed along the downslope side of areas where there is a potential for soil erosion and/or sediment runoff. Within 100

feet of a surface water, the silt fence will be reinforced with wire mesh, or similar. In advance of forecasted rainfall or precipitation, EPSC measures that are in areas of active earth disturbance will be inspected and repaired or augmented, as needed.

If stormwater runoff is identified downgradient of the construction site or runs off to receiving waters, the contractor shall take immediate action to correct the discharge, including maintaining existing EPSC measures and installing supplemental EPSC measures. Diversionary measures may be used to intercept runoff from above the construction and direct it around the disturbed area so that clean water does not come in contact with exposed soils.

In accordance with the EPSC measures provided in Appendix A, construction entrances shall be regularly maintained to control equipment and vehicles from tracking materials off-site. Vehicles and construction entrance areas shall be swept as needed to prevent off-site sediment transport. Tracked soils shall be returned to the construction area from which they were generated and shall not be considered clean fill.

7.1.4 Dust Control

In accordance with the EPSC measures provided in Appendix A, dust control shall be handled via application of water and/or water containing calcium chloride to areas where dust may be generated, while taking precautions to not generate runoff. During dry conditions, disturbed soils will be visually monitored to identify areas in need of dust control measures before dust is generated. It will be the responsibility of the contractor to provide dust mitigation measures.

7.1.5 Temporary Off-site Staging Areas

Due to the narrow Project area and the downtown location, an off-site staging area will likely be required during Project construction. The staging area will be used for the storage of materials and equipment related to this Project. Additionally, the staging area may be used to stage soils during construction, if needed.

Any Temporary Off-site Soil Stockpile location that will temporarily store contaminated media excavated from the Project area will meet the setback distances required in the siting criteria included in the Insignificant Waste Management Event ("IWMEA") guidance and the IRULE, understanding that this location will not be used for "treatment" of soil, but rather as a temporary staging location for construction purposes. Any area selected for Temporary Off-site Stockpiling of soil will be approved by an IWMEA prior to use.

Soils staged in the temporary soil stockpile area will be surrounded with erosion control materials (e.g. reinforced silt fencing, hay bale cordon, or similar) and subject to dust control measures as provided in Section 7.1.4. It will be the responsibility of the contractor to install these erosion control materials and to keep them in good condition throughout construction

efforts. The contractor will also be responsible for securely polyencapsulating any Blue Soil, Orange Soil, or Petroleum-Impacted Soil (see Table 5) staged in this area when not in active use. Polyencapsulation will utilize 6-mil (min.) plastic under and over the stockpile. Public access will be restricted in any Off-site Staging Areas.

All soils will be removed from the staging area within 90 days of the end of Main Project construction activities. Soils will either be returned to the Project area for on-site reuse as specified in Section 7.3 below or managed off-site in accordance with requirements for each soil group described in Section 8.

7.2 Construction Dewatering

Dewatering activities will occur in accordance with NPDES Direct Discharge Permit #3-1566 (Appendix E). Sediment collected by weir tanks and/or filter bags will be managed as contaminated, non-hazardous soil (Orange Soil) as described in Section 8.0 below.

7.3 Soil Reuse Options

As presented in Table 5 and Figure 5, and as discussed in Section 5.0, Project soils have been classified into four groups to aid in soil management during construction. Table 5 provides a definition, reuse options, and waste disposal requirements for each soil classification. Figure 5, Sheets 1 through 5, provides a spatial distribution of each of the soil classification groups.

During construction, soils may be temporarily stockpiled at an approved temporary off-site stockpile location. If soil will be reused according to the classifications noted above, Green, Blue, and Orange soils will be stockpiled separately. In the event that soils of different classification groups are comingled for project construction efficiency, these soils will be managed according to the more stringent classification (ex. comingled Blue and Orange Soil will be managed as Orange Soil).

If contaminated, non-hazardous soil is reused on-site in accordance with IRULE Section 35-510 (e), contact risk to sensitive receptors will be managed according to the exposure scenario for the final land-use. As shown in Table 5, three types of Engineered Soil Cap have been specified for the project, one of which will be utilized if contaminated, non-hazardous soil is reused in the Project area. Engineered Soil Cap Types for the Project area as follows:

- **Type 1:** 6-inches (min) of stone over geotextile fabric along railroad tracks and adjacent stormwater swale;
- **Type 2:** 18-inches (min) of clean fill (subbase) under impervious surface (roadway, sidewalk, etc.)
- **Type 3:** 18-inches (min) of clean fill over orange indicator fabric (US Fabric, US 100NW-HVO or approved equal)

7.4 Petroleum-Impacted Soil

Petroleum-impacted soil with TPH-DRO and Naphthalene concentrations above the Industrial SSV was identified in boring MS-103+00, which will need to be managed separately from other Project soil. **The EM will be on-site with a PID to segregate petroleum-impacted soil from other Project soil while excavation is occurring in the Petroleum-Impacted Soil area on Figure 5. Soil segregation will be completed according the VHBs PID Screening SOP (Appendix F), or by another method as approved by the DEC.** Petroleum-impacted soil that is excavated and removed from the area shall not be reused on-site.

8.0 Waste Management Plan

This section defines soil management and disposal options for excess contaminated, non-hazardous soil generated as part of construction activities. "Blue Soil", as defined in Table 5, shall be managed as contaminated, non-hazardous if it is not reused in an Urban Soil Background Area (Figure 7). Contaminated, non-hazardous soil shall be disposed of at an appropriate disposal facility. Waste Profile Approvals are being sought for ESMI of NY and Casella facilities in Morrisonville, NY and Coventry, VT.

With the exception of the petroleum-impacted soil identified on Figure 5, Sheet 3, PAHs represent the only exceedances of industrial SSVs in the pre-construction characterization data set. While PAH-impacted soil is not being proposed to be managed as "Development Soils" as presented in the IRULE with respect to disposal at a "receiving site" or "categorical solid waste facility", PAH-impacted soil classified as contaminated, non-hazardous that is above industrial SSVs shall be able to be received by the Casella Solid Waste Facility in Coventry, VT to be used as alternate daily cover. PAH-impacted soil classified as contaminated, non-hazardous soil is also applicable for use as alternate daily cover at the Casella Solid Waste Facility in Morrisonville, NY without special provision. Additionally, all project soil, including the petroleum-impacted soil identified on Figure 5, Sheet 3, has been approved for disposal at ESMI of NY.

Soils excavated in the vicinity of MS-103+50, between the railroad bridge and MS-104+00, will be handled separately than other project soils due to VOC and TPH contamination concentrations above industrial SSVs. As described in Section 7.2.2, petroleum-impacted soil in this area will be segregated from other contaminated, non-hazardous soil. Soils excavated from these areas will be disposed of at a certified categorical disposal facility or a permitted landfill according to their waste profile.

<u>Other Media</u>: Other materials that may be encountered during WCRS (23) Project construction include railroad ties and miscellaneous debris, refuse, and building materials. Non-earth materials will be managed for disposal, reuse, or recycling in accordance with the Vermont Solid Waste Management Rules (2012), the Investigation and Remediation of Contaminated Properties Rule ("IRule"; 2017), the

Vermont Hazardous Waste Management Regulations (2013), and the Vermont Regulations for Asbestos Control (dated 1987, revised 1995), as applicable.

9.0 Quality Assurance/Quality Control Plan

VTrans will complete 100% construction inspection during Project construction, including inspection of any engineered soil cap (see Section 7.3 and Table 5) if contaminated, non-hazardous soil is reused on-site. Any location where contaminated, non-hazardous soil is reused shall be depicted on a site plan for inclusion in the Corrective Action Construction Completion Report. If a Type 3 engineered soil cap is utilized, VTrans or the EM shall photo-document the installation of an orange indicator fabric. Photos will be annotated noting the location and photo orientation, and will be compiled for use in the Corrective Action Construction Completion report.

10.0 Data Management and Documentation

The Environmental Manager or their designee will prepare a daily log during excavation activities, which will be used to keep account of soil removal volumes. The log will include the activities completed during each day, weather, personnel on-site, general job tasks, field observations/readings and instrument calibration data (if applicable). During excavations, the log book will be used to keep daily track of approximate soil volumes (e.g. truck loads) excavated from the respective Project areas (referenced by engineering station numbers), soil shipment loads, and general observations of soil. During dewatering operations, the log book will be used to keep track of the presence of sheens or odors (if any), the lateral location and depth of seeps/fractures, the approximate rate of groundwater inflow/discharge, sediment-removal practices in use, sampling locations, and turbidity measurements, as necessary. Observations of dewatering activities will be completed in accordance with NPDES Direct Discharge Permit #3-1566.

11.0 Contingency Measures

Previously unidentified contaminated media may be encountered during Project construction activities. Below are contingency measures, which will be implemented in the unexpected event that unknown contaminants or gross levels of contaminants are encountered during construction.

11.1 Soil Contingency Measures

If unexpected overt evidence of soil contamination is encountered via visual, olfactory or field screening methods, the following WMPD Project contact will be notified:

Gerold Noyes, PE
802-522-5614

In the event the WMPD contact cannot be reached within the workday during which the contamination is identified, the contamination discovery will be reported to the WMPD Spills Hotline:

Vermont WMPD Spills Hotline:	1-800-641-5505
	802-828-1138

If grossly contaminated soil is encountered within the Project area, then this material would be excavated within the project limits – defined as the extent of excavation according to the Final Construction Plans and Specifications. The excavated material would be temporarily stockpiled on-site or at the temporary off-site staging area (Section 7.1.5) and fully polyencapsulated with 6-mil (min) plastic sheeting. The soil would be sampled in accordance with VHB Soil Sampling Standard Operating Procedure (Appendix G), and submitted to a certified laboratory for waste disposal characterization. The soil would be fully polyencapsulated at all times during temporary storage, and would be removed before completion of construction activities.

11.2 Dewatering Contingency Measures

Dewatering activities will occur in accordance with NPDES Direct Discharge Permit #3-1566.

11.3 Underground Appurtenances

Given the historic uses of the WCRS (23) Project area, there is a possibility that underground piping, rail ties, or other underground appurtenances could be encountered during construction and excavation activities. In the event that unexpected, potentially contaminated materials are identified during construction, the DEC will be notified (see contact information in Section 8.1).

All materials will be managed in accordance with the Vermont Solid Waste Management Rules (2012), the Investigation and Remediation of Contaminated Properties Procedure (dated April 5, 2012), the Vermont Hazardous Waste Management Regulations (2013), and the Vermont Regulations for Asbestos Control (dated February 1987, amended November 1995) or with other applicable State regulations.

12.0 Institutional Control Plan

After construction is complete and all soils are permanently stabilized, a Notice to the Land Records will be provided to the Middlebury Town clerk for recording in the Town's land records. These notices will be completed in accordance with § 35-602 of the IRULE, and will be subject to the review and approval of a DEC appointed attorney. The notice will identify the locations of the impacted media and engineering controls that are part of the Project, and will include a stipulation that the DEC will be

notified in a timely manner if subsurface work will occur in the areas where the notices apply. Draft notices will be included in the "Construction Completion Report", which will be submitted to the DEC at the end of construction as stipulated in the IRULE. End of construction is defined as when construction activities are complete and all soils are permanently stabilized (vegetated).

After completion of construction activities, VTrans will reinstall four groundwater monitoring wells (MW-07-08, MW-07-09, MW-10-09 and MW-10-10) that are associated with the Middlebury Train Derailment hazardous waste site for the purpose of the continued groundwater monitoring as requested by the DEC in a letter dated December 6, 2016. Wells will be installed as close to their original locations as possible (Figure 3). Wells will be installed to approximately 12 feet bgs and will consist of two-inch diameter PVC. Depending on depth and previous well construction, 5 to 10 feet of factory slotted screen will be installed in the bottom of the well, with solid riser to ground surface. The well annulus will be filled with clean filter sand to above the well screen, capped with a bentonite plug, and backfilled with native materials to ground surface. A steel flush-mounted well box will be installed at ground surface and the well casing will be capped with a PVC expansion plug. VTrans and VHB understand that the monitoring of these wells would be the responsibility of Vermont Railway, Inc., as the defined responsible party of the Middlebury Train Derailment hazardous waste site.

13.0 Corrective Action Maintenance Plan

In accordance with the construction phase stormwater discharge permit, all earth disturbance within the Project area will be inspected daily during construction activities. After the Project areas are temporarily stabilized, the Project areas will be inspected monthly until permanent stabilization is achieved. Permanent stabilization includes 80 percent vegetation cover, stone, asphalt, rock, or other permanent material that provides complete cover of exposed soils.

For all areas that contaminated media are reused within the Project area per Section 7.0, maintenance of the areas will be completed as part of regular upkeep of public infrastructure and an active railroad corridor.

14.0 Reporting

As stipulated in the IRULE, a Corrective Action Construction Completion Report will be submitted to the DEC within 90 days of the completion of the Project, which occurs after all soils are permanently stabilized. This report will be consistent with requirements of § 35-507 of the IRULE. The report will include at a minimum site maps, photographs, and drawings depicting engineering controls; documentation of field procedures; deviations from the CAP (if any); and soil reuse records. The proposed Notice to the Land Records (Section 12.0) will be included in this report for review by DEC.

15.0 List of Required Permits

The following permits have been acquired for the Main Project:

List of Permits Required for the Project		
Permit Name	Regulatory Agency	Contact Information
NEPA Environmental Assessment	VTrans Environmental Section FHWA	Jeff Ramsey Jeff.Ramsey@vermont.gov
Section 106 Determination of Effect	VTrans Environmental Section FHWA	Judith Ehrlich Judith.Ehrlich@vermont.gov
Section 404 Water Quality Permit	U.S. Army Corps of Engineers	Mike Adams Michael.S.Adams@usace.army.mil
Section 7 of the Endangered Species Act	U.S. Fish and Wildlife	Susie von Oettingen Susi_vonoettingen@fws.gov
Flood Hazard Area and River Corridor Permit	VT DEC Rivers Program	Rebecca Pfeiffer Rebecca.Pfeiffer@vermont.gov
Construction Phase Stormwater Permit	VT DEC Stormwater Program	Winn Wilson William.Wilson@vermont.gov
Direct Discharge Permit ("NPDES")	VT DEC Wastewater Program	Liz Dickson Liz.Dickson@vermont.gov

16.0 List of Project Contacts

Project team members for the Project, are included in the following table:

Project Management Team		
Entity	Personnel	Contact Information
VTrans (project lead)	Jonathan Griffin	802-595-0054 jonathan.griffin@vermont.gov
VTrans (contaminated materials coordinator)	Andy Shively	802-229-8740 Andy.Shively@vermont.gov

Project Management Team		
Entity	Personnel	Contact Information
VHB (designing engineer)	Aaron Guyette	802-497-6100 aguyette@vhb.com
Kubricky Construction Corp. (contractor)	Mark Alexander	518-792-5864 malexander@dacollins.com
Town of Middlebury Community Liaison	Jim Gish	802-388-8100 x200 JGish@TownofMiddlebury.org

17.0 Schedule for Implementation

Main Project construction is anticipated to occur during the 2019, 2020, and 2021 construction seasons. The exact completion date for the project is unknown.

18.0 Health and Safety Plan

VHB's Health and Safety Plan ("HASP") is included as Appendix H. This HASP is intended for the use of VHB personnel only. VHB and VTrans stipulate that all contractors are responsible for establishing and following their own Health and Safety Plans. The contractor may submit their HASP to VHB for review prior to construction.

References

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OCE, 2010; Otter Creek Engineering, Inc., "Vermont Railway, Inc. Middlebury Train Derailment (Site #2009-3912), Middlebury, Vermont, Remediation Assessment Report." June 2011.

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NRCS; United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey, accessed 2016. <http://websoilsurvey.nrcs.usda.gov/>

Ratcliffe, N.M., Stanley, R.S, Gale, M.H., Thompson, P.J., and Walsh, G.J., 2011, Bedrock Geologic Map of Vermont: U.S. Geological Survey Scientific Investigations Map 3184, 3 sheets, scale 1:100,000.

Vermont Agency of Natural Resources, Department of Environmental Conservation, "Chapter 12 of the Environmental Protection Rules: Groundwater Protection Rule and Strategy," December 16, 2016.

Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management Division, "Environmental Fact Sheet Managing Treated Wood Waste (VT DEC publication #WM-1001)," July, 2003.

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Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management and Prevention Division, "Investigation and Remediation of Contaminated Properties Procedure," April 5, 2012.

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Vermont Department of Health, "Vermont Regulations for Asbestos Control; V.S.A Title 18, Chapter 26," February 1987, amended November 1995.

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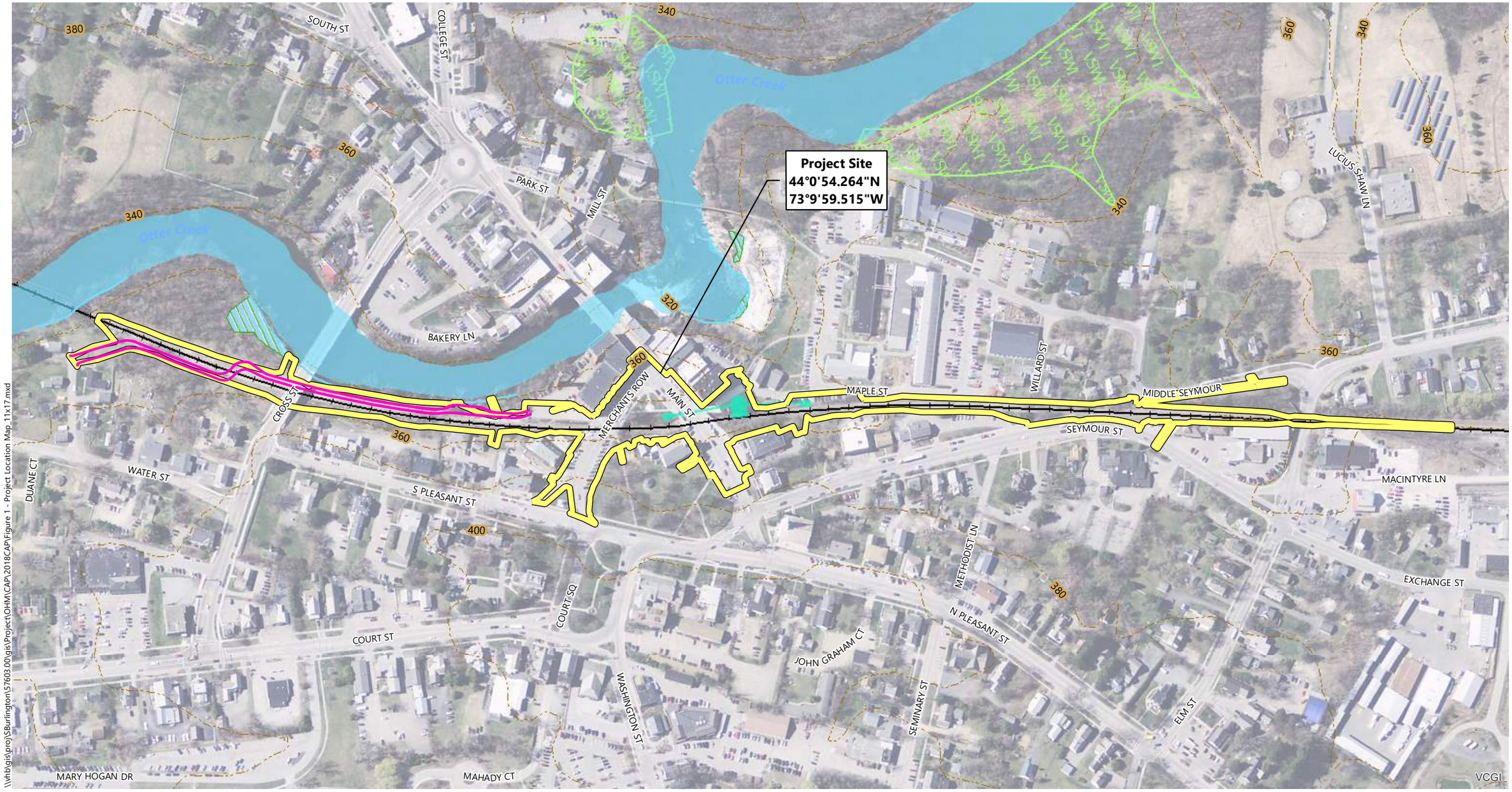
VT ANR, 2016b; Vermont Agency of Natural Resources, Department of Environmental Conservation, Waste Management and Prevention Division, "An Evaluation of PAHs, Arsenic, and lead Background Soil Concentrations in Vermont," December 19, 2016.

VHB, 2016a; VHB, "Middlebury WCRS(23) Bridge Project - Phase I Environmental Site Assessment," June 24, 2016.

VHB, 2016b; VHB, "Middlebury WCRS(23) Bridge Project – Pre-Construction Soil and Groundwater Sampling Work Plan," April 18, 2016, revised June 24, 2016.

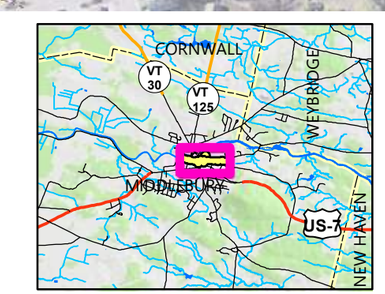
\\vhb\gbl\proj\SBurlington\57603.00\reports\OHM Reports\CAP - Main Project\Corrective Action Plan_Middlebury WCRS(23).doc

FIGURES



0 125 250 500 Feet

Access Road Boundary (VHB)
Limit of Disturbance (VHB)
Drainage Structures (VHB)
Railroad (VTrans)



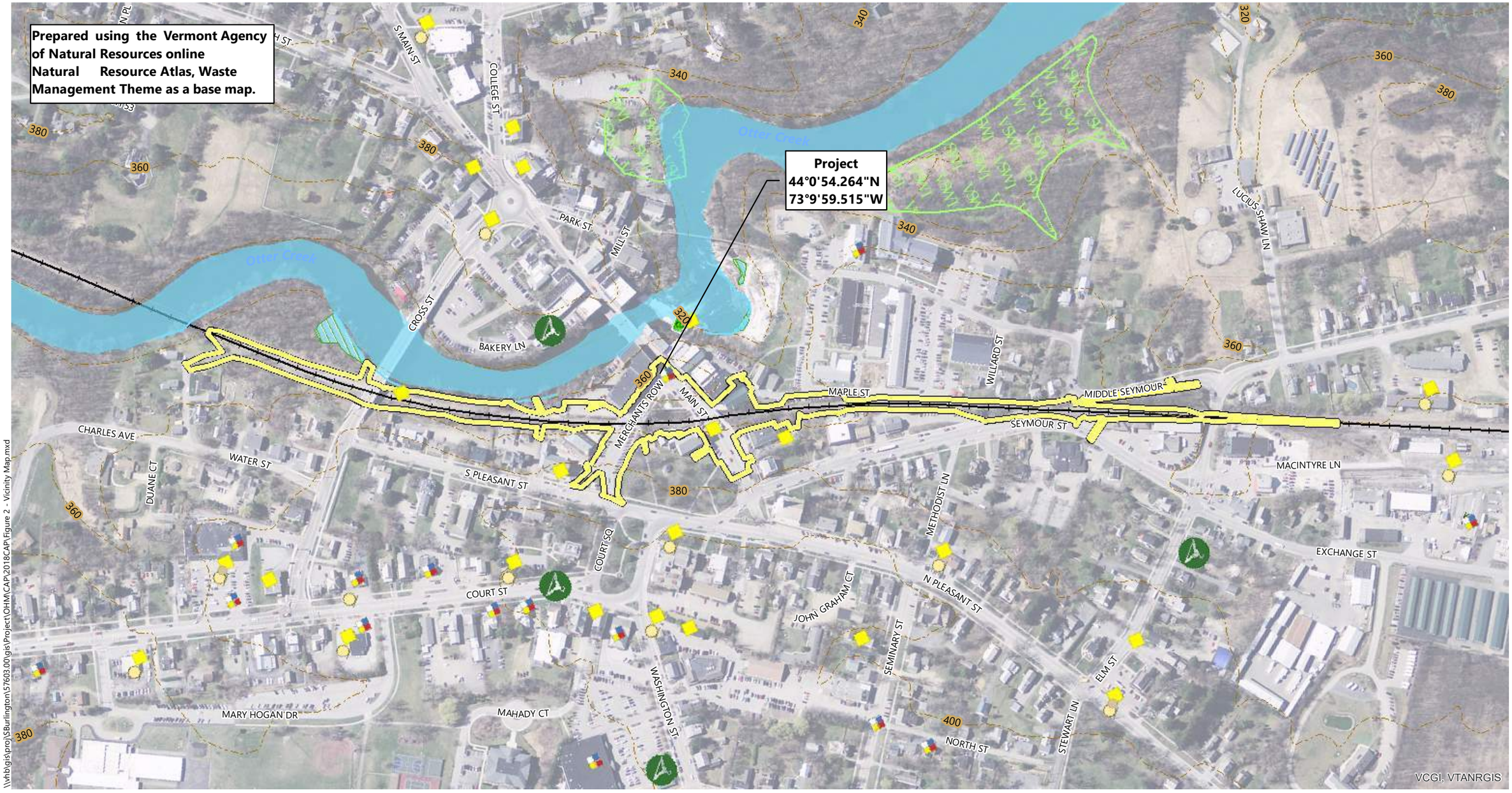
Middlebury WCRS (23) - Main Project

Middlebury, Vermont

Sources:
Background Imagery by VCGI (Collected in 2012)
VHB (Various Years)
VTrans - Vermont Agency of Transportation (2014)

Project Location

\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 1 - Project Location Map_11x17.mxd



0 150 300 600 Feet

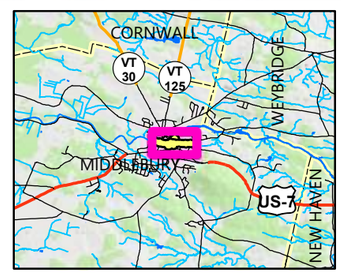
- Limit of Disturbance (VHB)
- Railroad (VTrans)
- Hazardous Waste Site
- Hazardous Waste Generators
- Brownfields
- Salvage Yard
- Aboveground Storage Tank
- Underground Storage Tank (working)
- Dry Cleaner

Land Use Restrictions

- Class IV GW Reclass
- Class VI GW Reclass
- Deed Restriction
- Easement
- Land Record Notice
- Other

Landfills

- OPERATING
- CLOSED



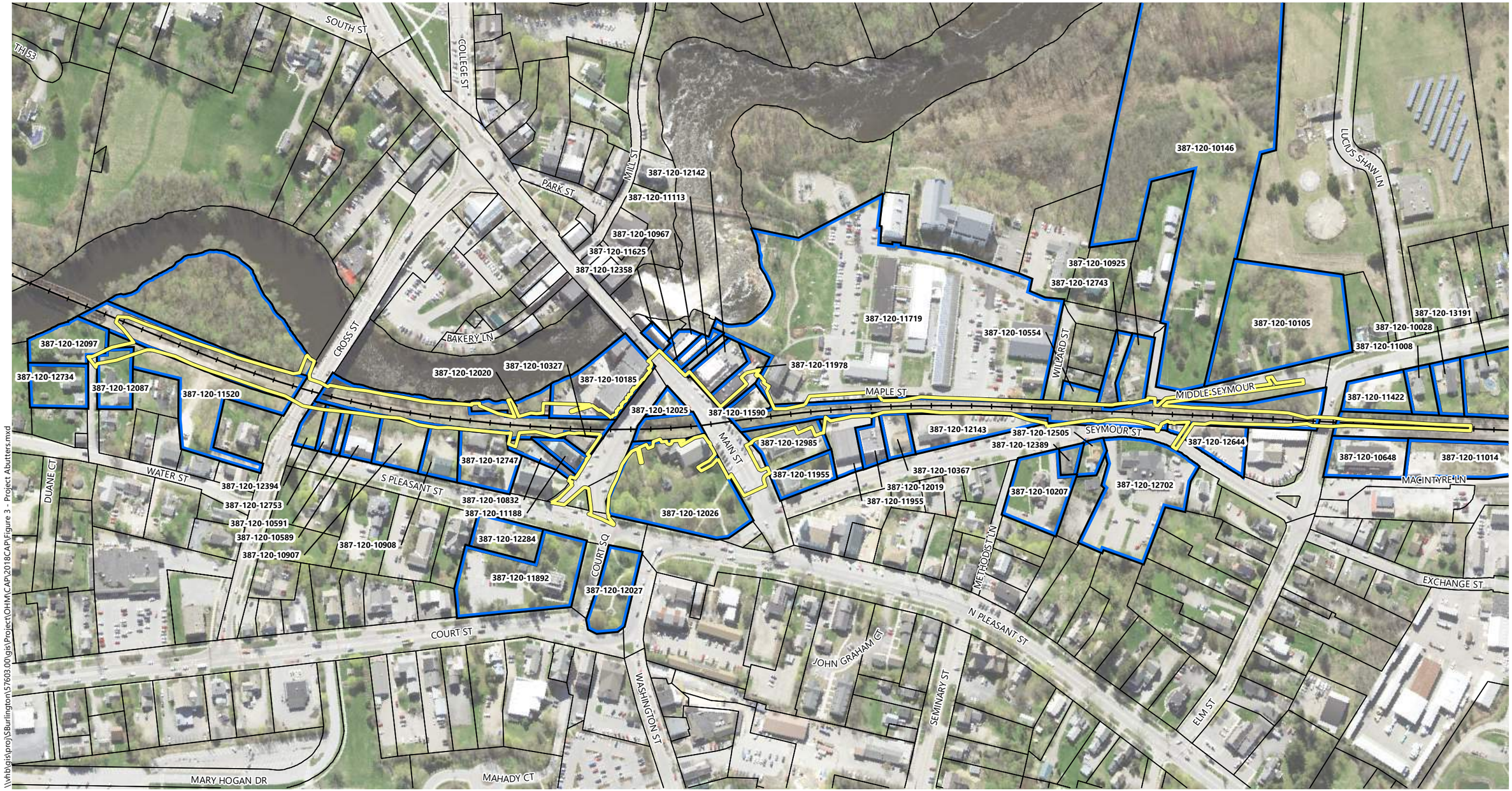
Middlebury WCRS (23) - Main Project

Middlebury, Vermont

Sources:
Background Imagery by VCGI (Collected in 2012)
VHB (Various Years)
VTrans - Vermont Agency of Transportation (2014)

Vicinity Map

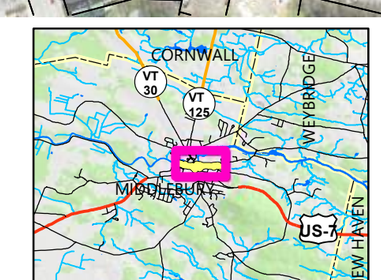
\\vhb\gis\proj\Burlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 2 - Vicinity Map.mxd



\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 3 - Project Abutters.mxd

0 125 250 500 Feet

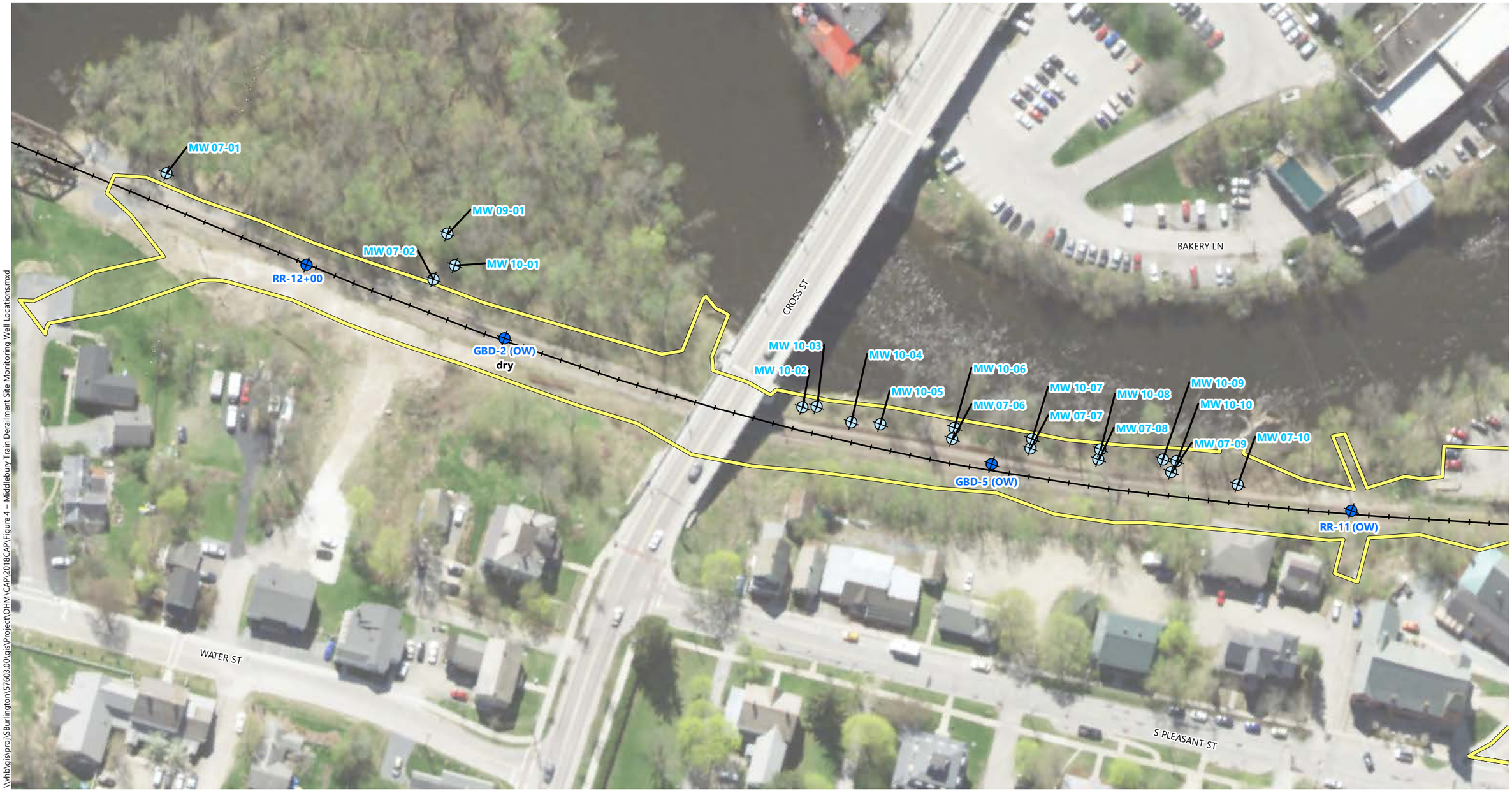
Project Limit of Disturbance (VHB)
Abutter Parcel Boundary (VCGI)
Parcel Boundary (VCGI)
Railroad (VTrans)



Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (Collected in 2017)
VHB (Various Years)
VCGI - (Vermont Center for Geographic Information - 2013)
VTrans - (Vermont Agency of Transportation - 2014)

Project Abutters

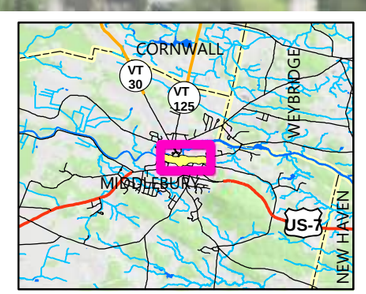


\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 4 – Middlebury Train Derailment Site Monitoring Well Locations.mxd

0 40 80 160 Feet

Project Limit of Disturbance (VHB)
OCE Groundwater Well (VHB)*
Railroad Groundwater Well (VHB)
Railroad (VTrans)

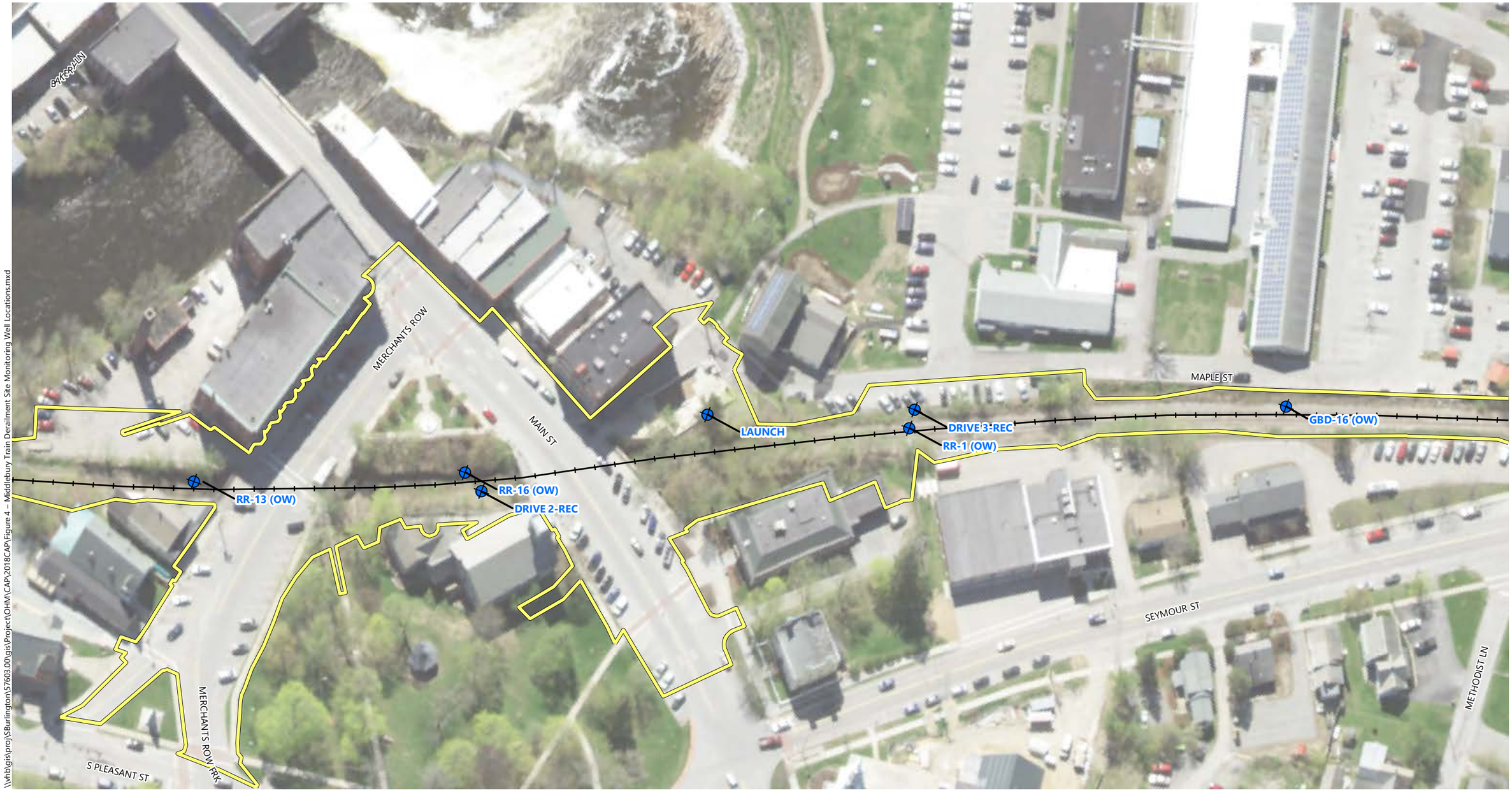
* Monitoring W ells installed as p art of the Mid d leb ury train d erailm ent Site Investigation



Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2014)
OCE - Otter Creek Engineering
VHB (Various Years)
VCGI - Vermont Center for Geographic Information
VTrans - Vermont Agency of Transportation

Monitoring Well Locations
Sheet 1 of 3



\\vhb\gis\proj\Burlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 4 – Middlebury Train Derailment Site Monitoring Well Locations.mxd

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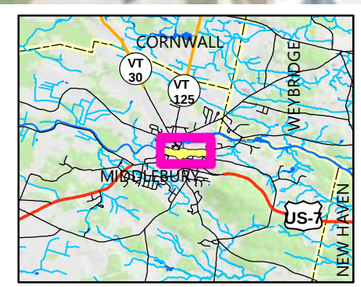
Project Limit of Disturbance (VHB)
Railroad Groundwater Well (VHB)
Railroad (VTrans)



Middlebury WCRS (23) - Main Project | Middlebury, Vermont

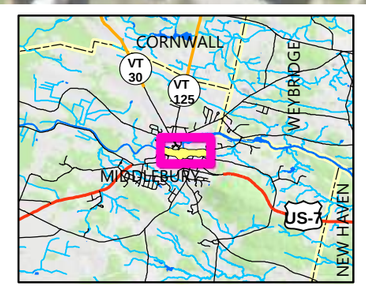
Sources:
Background Imagery by VCGI (2014)
OCE - Otter Creek Engineering
VHB (Various Years)
VCGI - Vermont Center for Geographic Information
VTrans - Vermont Agency of Transportation

Monitoring Well Locations
Sheet 2 of 3

\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 4 – Middlebury Train Derailment Site Monitoring Well Locations.mxd

0 40 80 160 Feet

Project Limit of Disturbance (VHB)
Railroad Groundwater Well (VHB)
Railroad (VTrans)



Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2014)
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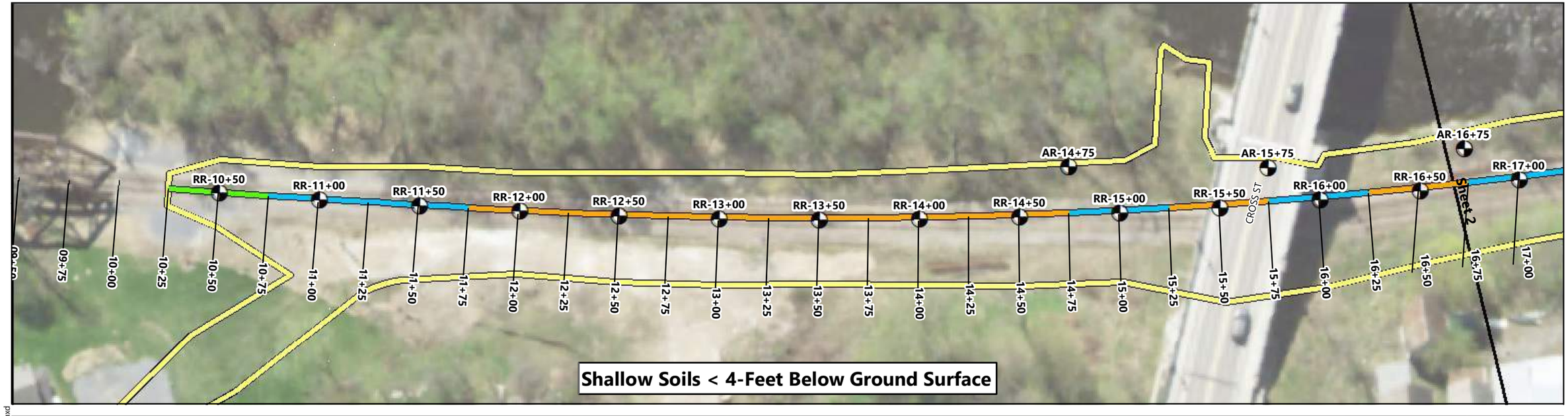
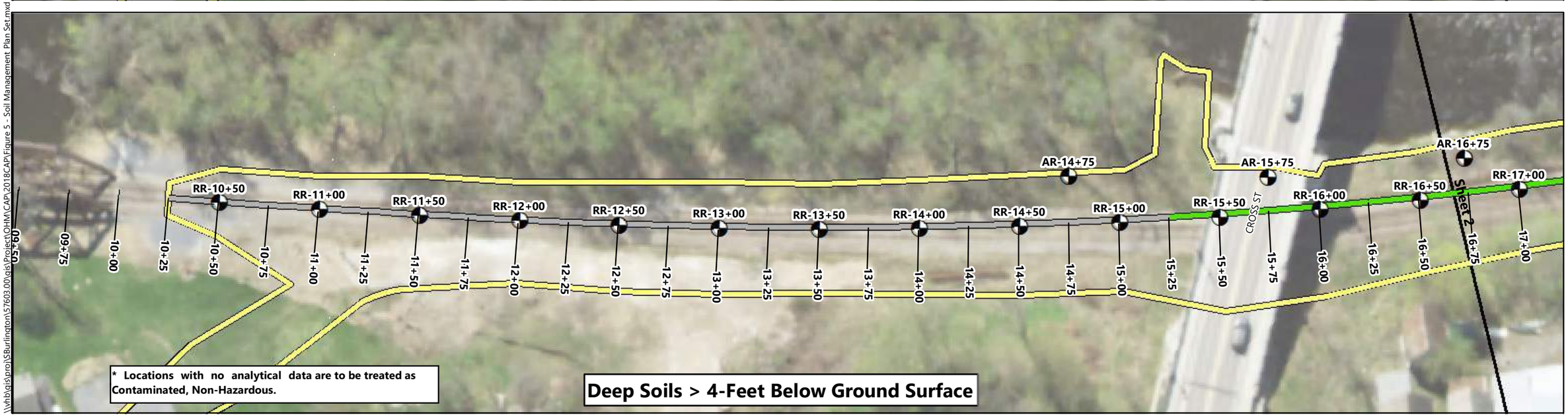
VHB (Various Years)
VCGI - Vermont Center for Geographic Information
VTrans - Vermont Agency of Transportation

Monitoring Well Locations
Sheet 3 of 3





0 20 40 80 Feet

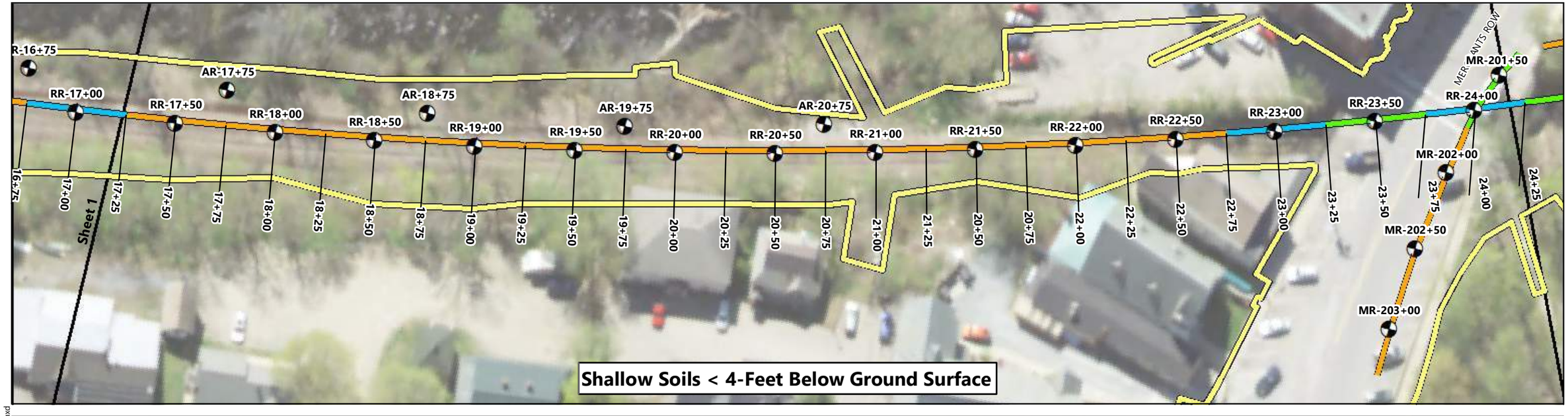
- Soil Borings (VHB)
- Project Alignment - No Sample Collected at Depth*
- No Detected Analytes above Screening Values
- Limited Urban Reuse Soils
- Contaminated, Non-Hazardous
- Limit of Disturbance (VHB)
- Stationing (VHB)

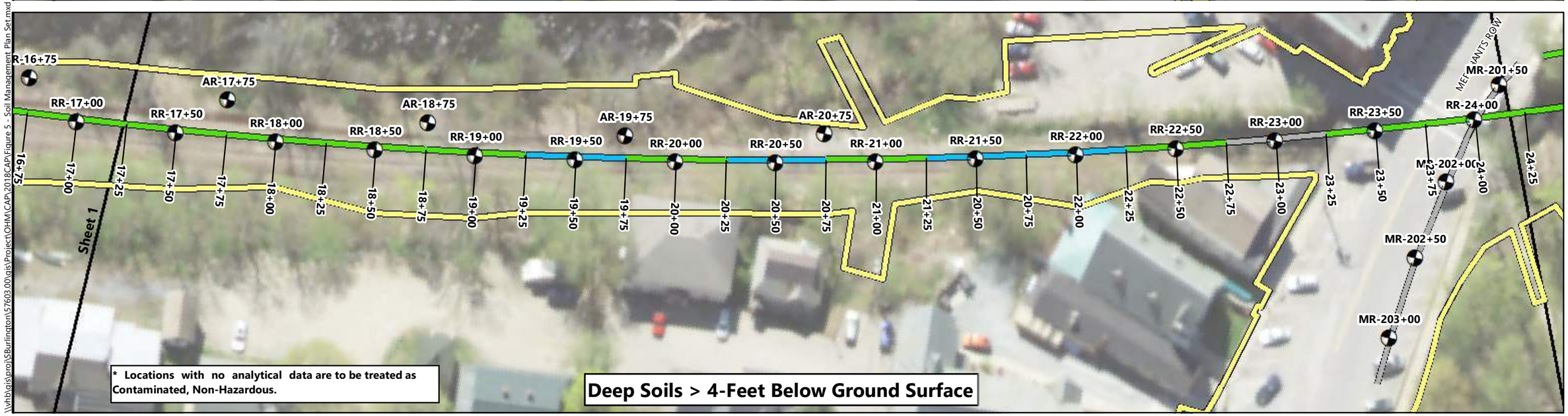
Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2017)
VTrans (Vermont Agency of Transportation - 2017)
VHB (Various Years)

Soil Management Plan Set
Sheet 1 of 5

\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 5 - Soil Management Plan Set.mxd





0 20 40 80 Feet

Soil Borings (VHB)

Project Alignment - No Sample Collected at Depth*

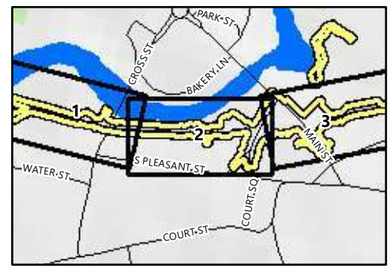
No Detected Analytes above Screening Values

Limited Urban Reuse Soils

Contaminated, Non-Hazardous

Limit of Disturbance (VHB)

Stationing (VHB)

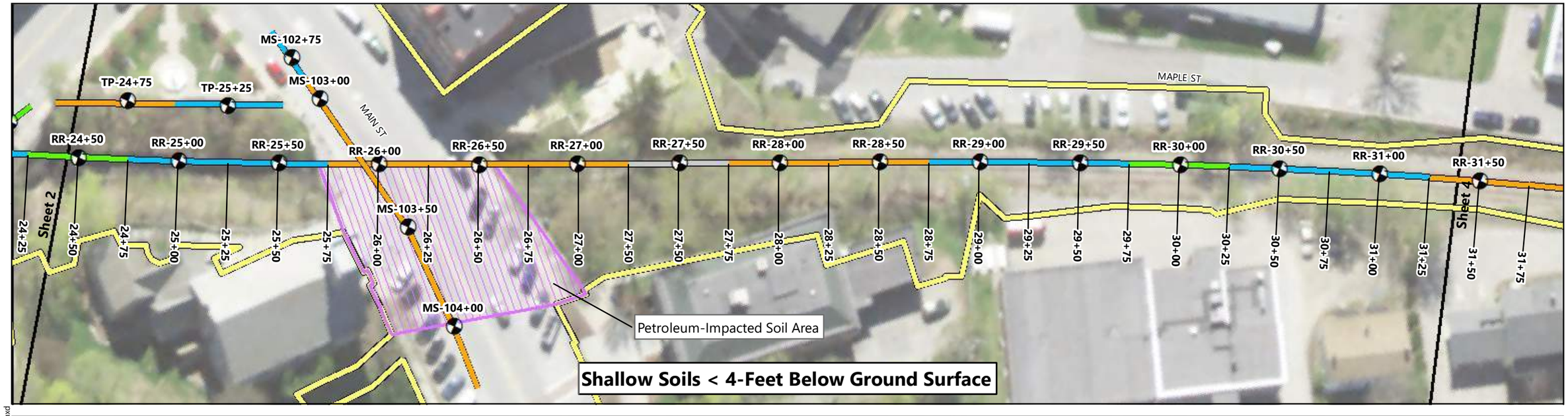


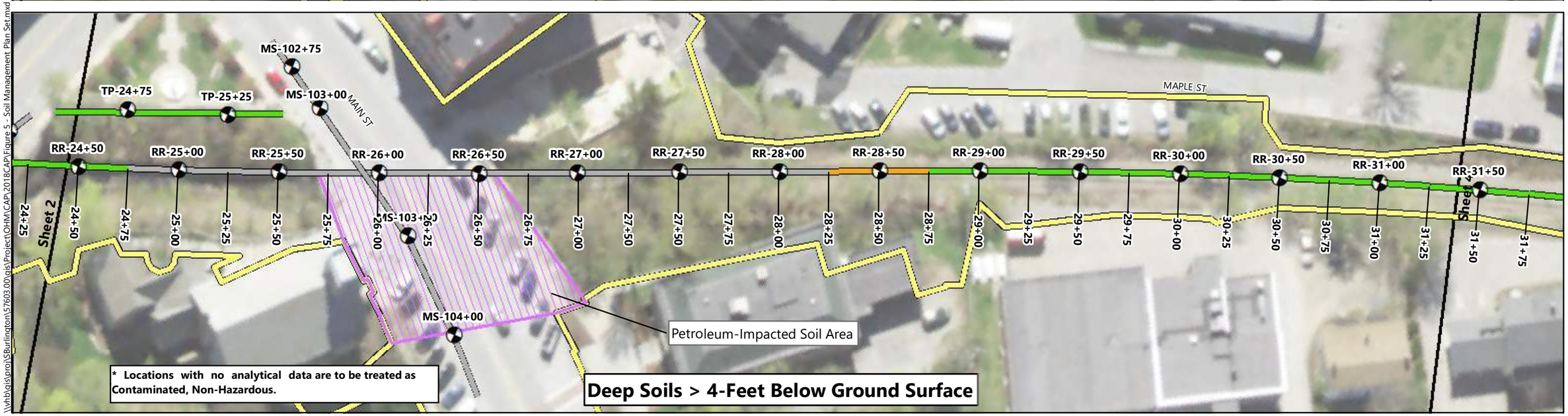
Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2017)
VTrans (Vermont Agency of Transportation - 2017)
VHB (Various Years)

Soil Management Plan Set
Sheet 2 of 5

\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 5 - Soil Management Plan Set.mxd





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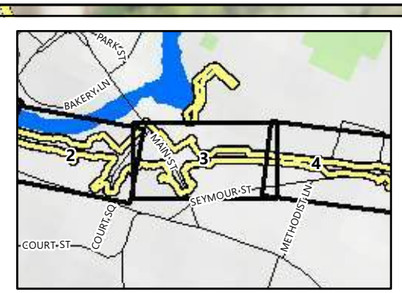
0 20 40 80 Feet

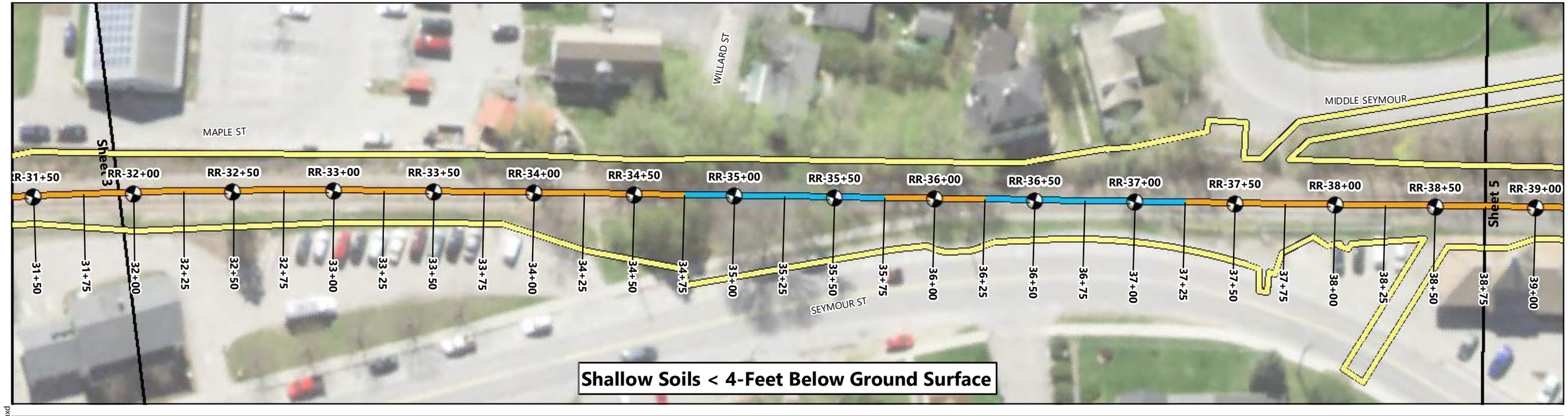
- Soil Borings (VHB)
- Project Alignment - No Sample Collected at Depth*
- No Detected Analytes above Screening Values
- Limited Urban Reuse Soils
- Contaminated, Non-Hazardous
- Limit of Disturbance (VHB)
- Stationing (VHB)

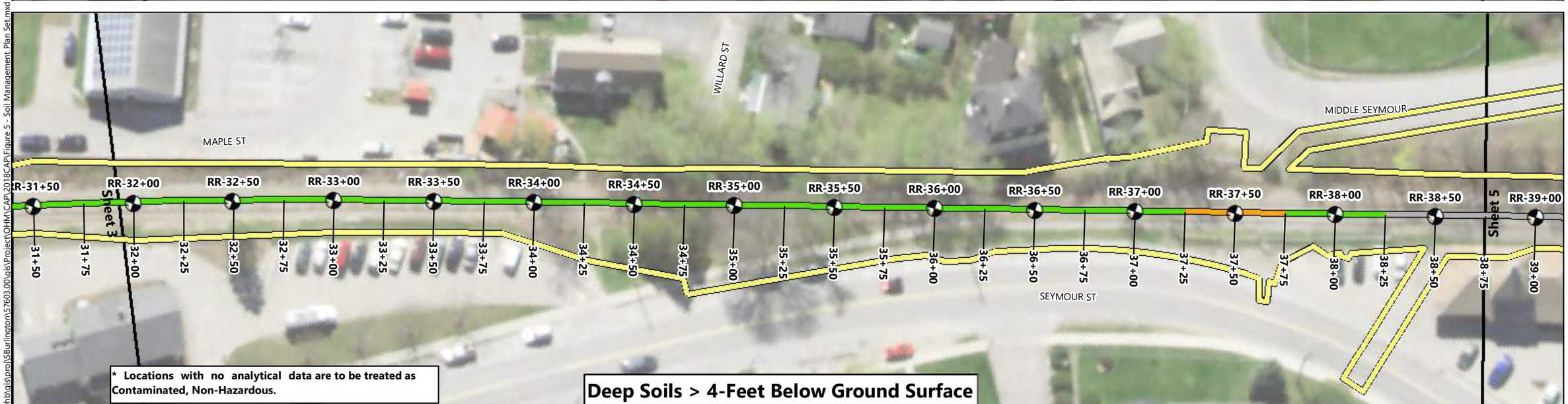


Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2017)
VTrans (Vermont Agency of Transportation - 2017)
VHB (Various Years)

Soil Management Plan Set
Sheet 3 of 5

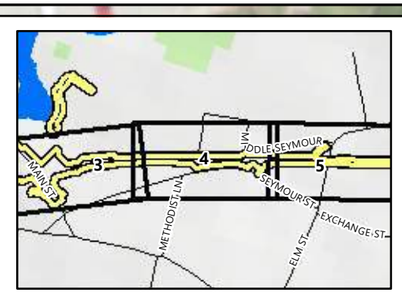




\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 5 - Soil Management Plan Set.mxd

0 20 40 80 Feet

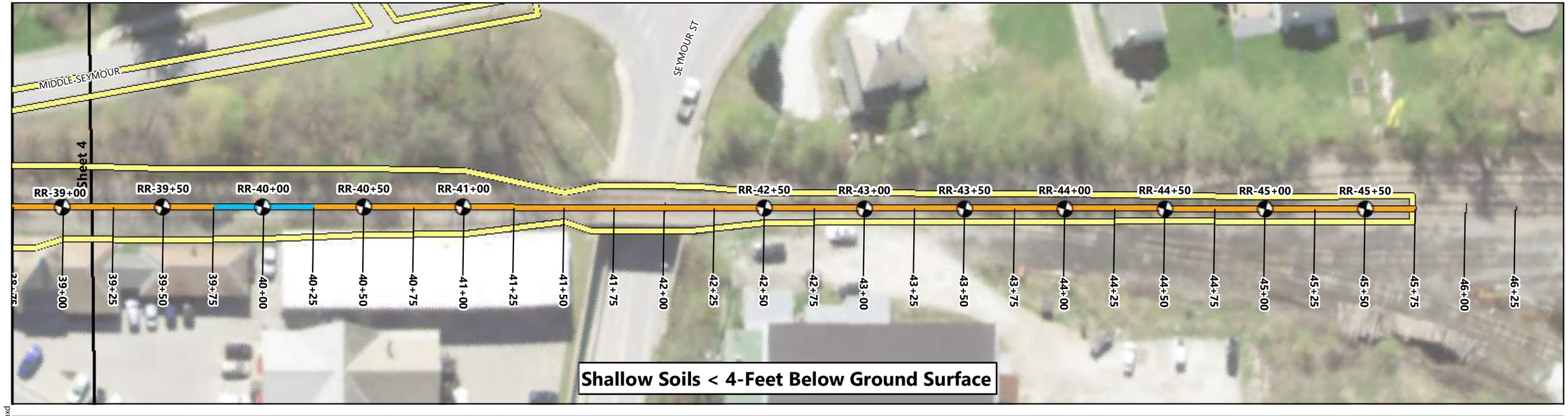
- Soil Borings (VHB)
- Project Alignment - No Sample Collected at Depth*
- No Detected Analytes above Screening Values
- Limited Urban Reuse Soils
- Contaminated, Non-Hazardous
- Limit of Disturbance (VHB)
- Stationing (VHB)

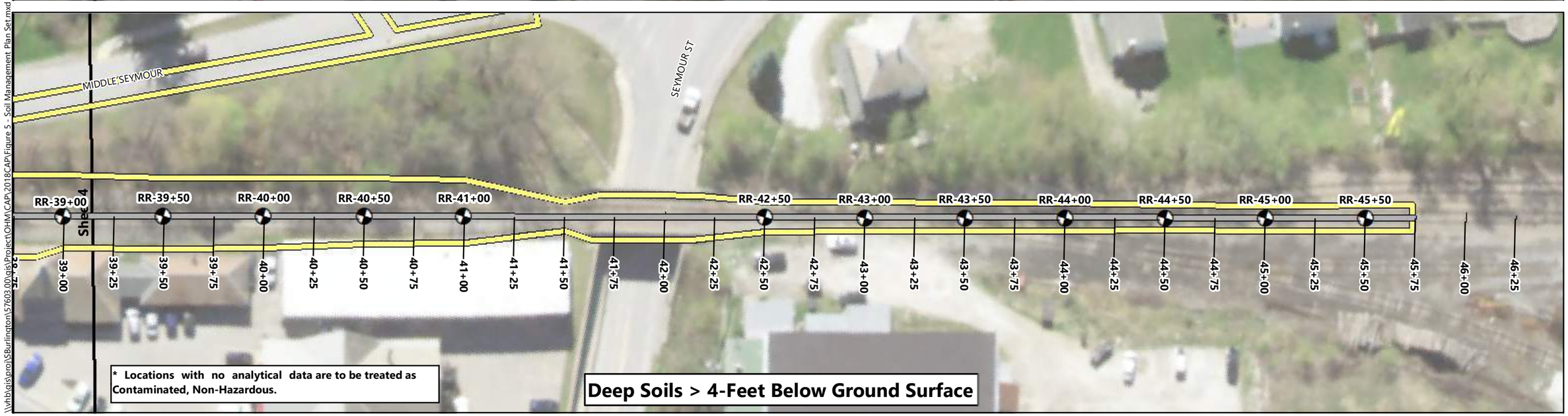


Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2017)
VTrans (Vermont Agency of Transportation - 2017)
VHB (Various Years)

Soil Management Plan Set
Sheet 4 of 5





\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 5 - Soil Management Plan Set.mxd

0 20 40 80 Feet

- Soil Borings (VHB)
- Project Alignment - No Sample Collected at Depth*
- No Detected Analytes above Screening Values
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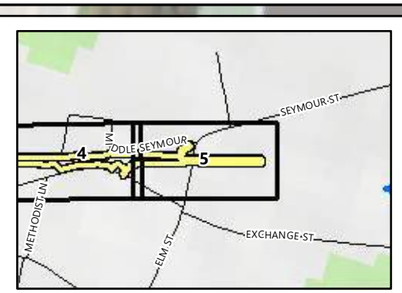
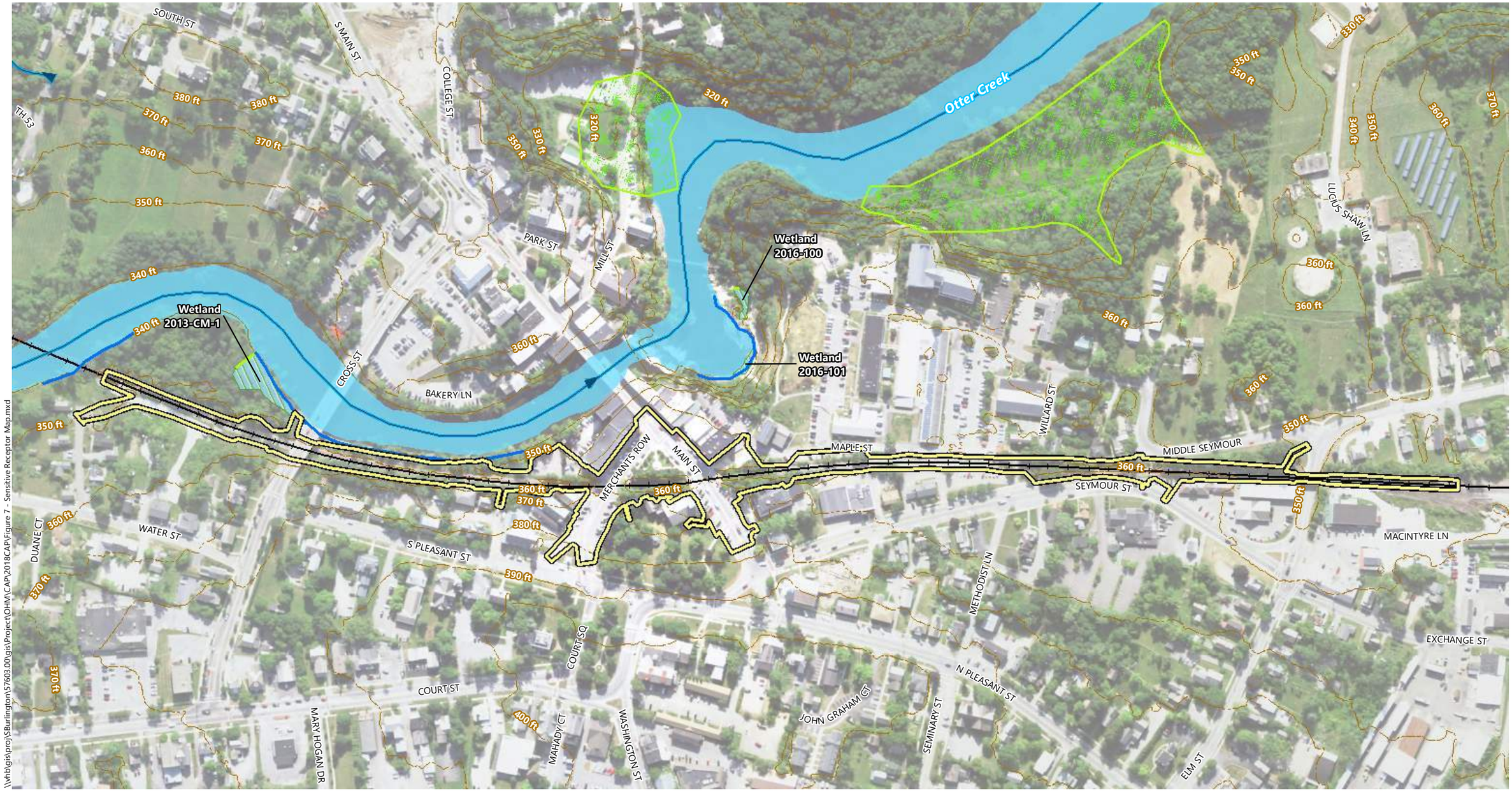
- Contaminated, Non-Hazardous
- Limit of Disturbance (VHB)
- Stationing (VHB)



Middlebury WCRS (23) - Main Project | Middlebury, Vermont

Sources:
Background Imagery by VCGI (2017)
VTrans (Vermont Agency of Transportation - 2017)
VHB (Various Years)

Soil Management Plan Set
Sheet 5 of 5

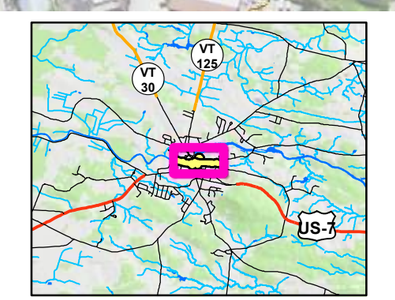


\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 7 - Sensitive Receptor Map.mxd

0 125 250 500 Feet

- Limit of Disturbance (VHB)
- Surface Water (VCGI)
- Delineated Ordinary High Water (VHB)
- Delineated Wetland (VHB)
- Wetland Continues (VHB)
- VHD Stream (VCGI)
- Wetlands (VCGI)
- 10 ft. Contour (VCGI)
- Railroad (VTrans)

Layers Not Present in Current Extent: - Public Wells, - Private Wells, - Ground Water Protection Area, - Surface Water Protection Area
- Digital Flood Zone Maps were not available for the Project areas. According to the 1985 FIRM, a detailed flood study area (Zone A7) can be found at 321.8' (cross section F) and 322.2' (cross section G) near the stormwater outfall. Flood study area Zone A7 can be found at elevations 346.0' (Cross Section J) near Battel bridge and 348.6 (Cross Section I) near Cross Street bridge.

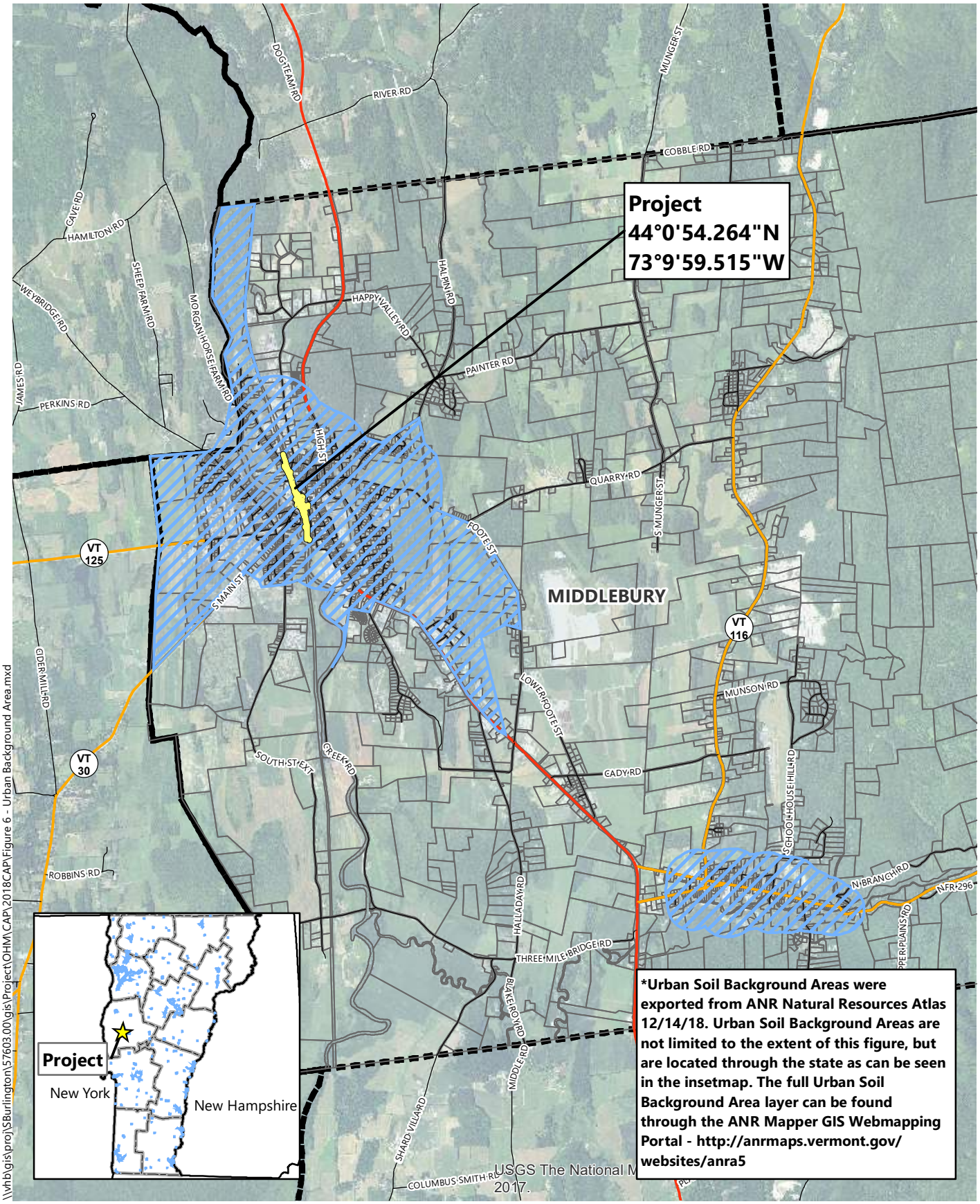


Middlebury WCRS (23) - Main Project

Burlington, Vermont

Sensitive Receptor Map

Sources:
NAIP Imagery by USDAI (2016)
VCGI (Vermont Center for Geographic Information - Various Dates)
ANR (Vermont Agency of Natural Resources - 2015)
VTrans (Vermont Department of Transportation - 2014)
FEMA Approximate Zone A7 from FEMA FIRM (1985)
VHB (2015-2017)



\\vhb\gis\proj\SBurlington\57603.00\gis\Project\OHM\CAP\2018CAP\Figure 6 - Urban Background Area.mxd

0 0.5 1 Miles

Project Limit of Disturbance (VHB)
Urban Soil Background Areas (VCGI)*
Town Boundary (VCGI)

Roads (VTrans)
US Highway
State Highway
Town Road
Parcel Boundary (VCGI)

Middlebury WCRS (23) - Main Project | Middlebury, VT

Sources:
USGS Topo Background (2015)
VHB - Various Years
VCGI - Vermont Center for Geographic Information (Various Years)
VTrans - Vermont Agency of Transportation

Urban Soil Background Areas

TABLES

Middlebury WRCS (23) Bridge Project
Table 1 - Public Notice List

Parcel ID	Owner*	Street Address	Second Owner	Mailing Address	City	State	Span
024196	ADDISON COUNTY COMMUNITY TRUST INC	42 SEYMOUR STREET	--	PO BOX 311	VERGENNES	VT	387-120-10028
024113	ARMSTRONG PHYLLIS REV TRUST	29 MIDDLE SEYMOUR STREET	--	PO BOX 310	MIDDLEBURY	VT	387-120-10105
024114	BAKER GARY F TTEE	4 MAPLE STREET	GARY F BAKER REVOCABLE TRUST	4 MAPLE STREET	MIDDLEBURY	VT	387-120-10146
024235	BATTELL LLC	10 MERCHANTS ROW	--	P O BOX 614	MIDDLEBURY	VT	387-120-10185
024151	WALSH THOMAS	20 SEYMOUR STREET	--	951 SHELLHOUSE MOUNTAIN ROAD	FERRISBURGH	VT	387-120-10207
024233	BOURDON ANDRE J TTEE	44 MERCHANTS ROW	BOURDON ELIZABETH C TTEE	28 EVERGREEN LANE	MIDDLEBURY	VT	387-120-10327
024137	BRISSON RANDALL L & KATHLEEN A	7 SEYMOUR STREET	C/O BRISSON PROPERTIES AT 7 SEYMOUR LLC	1047 BARNUM HILL ROAD	SHOREHAM	VT	387-120-10367
024121	CIEMNIEWSKI JEANNE	11 WILLARD STREET	MAYER JEANNETTE & ELEANNA	11 WILLARD STREET	MIDDLEBURY	VT	387-120-10554
024227	AEJ PROPERTIES LLC	150 SOUTH PLEASANT STREET	C/O ILLICK JOHN R, ELIZABETH & ADRIENNE	55 COMMUNITY DRIVE, SUITE 402	SO BURLINGTON	VT	387-120-10589
024226	CADORET BRIAN B	160 SOUTH PLEASANT STREET	--	160 SOUTH PLEASANT STREET	MIDDLEBURY	VT	387-120-10591
024198	COTRONEO PROPERTIES LLC	21 MACINTYRE LANE	--	254 BITTERSWEET FALLS ROAD	WEYBRIDGE	VT	387-120-10648
024232	CARL CAETLIN LLC	66 MERCHANTS ROW	--	66 MERCHANTS ROW	MIDDLEBURY	VT	387-120-10832
024228	EATON TIMOTHY H	140 SOUTH PLEASANT STREET	BALSER-EATON LUCINDA	11 MOUNTAIN ST	BRISTOL	VT	387-120-10907
024229	EATON TIMOTHY H	112 SOUTH PLEASANT STREET	BALSER-EATON LUCINDA	11 MOUNTAIN ST	BRISTOL	VT	387-120-10908
024117	JUNIPER HOLDINGS LLC	40 MIDDLE SEYMOUR STREET	--	3112 18TH ST NW	WASHINGTON	DC	387-120-10925
024128	TOMB GREGORY H &	40 MAIN STREET	TOMB BARBARA L, TRUSTEES	217 CHIPMAN PARK	MIDDLEBURY	VT	387-120-10967
024195	MCMENAMIN ANNE	40 SEYMOUR STREET	--	PO BOX 925	MIDDLEBURY	VT	387-120-11008
024198	COTRONEO PROPERTIES LLC	73 MACINTYRE LANE	--	254 BITTERSWEET FALLS ROAD	WEYBRIDGE	VT	387-120-11014
024126	FULLER-LOWELL THEO	34 MAIN STREET	DUPOISE GARY J	P.O. BOX 267	MIDDLEBURY	VT	387-120-11113
024232	GRACE BAPTIST CHURCH	62 MERCHANTS ROW	C/O RON CLARK	PO BOX 1037	MIDDLEBURY	VT	387-120-11188
024194	JONES BRYAN E	36 SEYMOUR STREET	--	65 JONES RD	SALISBURY	VT	387-120-11422
024237	340 NORTH STREET LLC	30 WATER STREET	--	76 NORTH WILLARD STREET	BURLINGTON	VT	387-120-11520
024127	770 COMPANY LLC	38 MAIN STREET	--	770 CIDER MILL ROAD	CORNWALL	VT	387-120-11625
024122	MARBLEWORKS PARTNERSHIP	137 MAPLE STREET	--	PO BOX 567	MIDDLEBURY	VT	387-120-11719

Middlebury WRCS (23) Bridge Project
Table 1 - Public Notice List

Parcel ID	Owner*	Street Address	Second Owner	Mailing Address	City	State	Span
024217	MIDDLEBURY COLLEGE PRESIDENT & FELLOWS	2 COURT STREET	C/O BUSINESS SERVICES	152 MAPLE ST SUITE 102	MIDDLEBURY	VT	387-120-11892
024124	MIDDLEBURY NATIONAL CORPORATION	30 MAIN STREET	--	P.O. BOX 189	MIDDLEBURY	VT	387-120-11978

Middlebury WRCS (23) Bridge Project
Table 1 - Public Notice List

Parcel ID	Owner*	Street Address	Second Owner	Mailing Address	City	State	Span
027037	MORSE DAVID	124 WATER STREET	MORSE LORRAINE (GONZALEZ)	124 WATER STREET	MIDDLEBURY	VT	387-120-12087
027034	BRAKELEY AUGUST	127 WATER STREET	--	127 WATER STREET	MIDDLEBURY	VT	387-120-12097
024125	NATIONAL BANK OF MIDDLEBURY	32 MAIN STREET	--	PO BOX 189	MIDDLEBURY	VT	387-120-12142
024138	NATIONAL BANK OF MIDDLEBURY	15 SEYMOUR STREET	--	PO BOX 189	MIDDLEBURY	VT	387-120-12143
024218	GROVE PROPERTIES LLC	71 SOUTH PLEASANT STREET	--	71 SOUTH PLEASANT STREET	MIDDLEBURY	VT	387-120-12284
024130	EICHINGER BRUCE EDWARD	44 MAIN STREET	JACKSON SANDRA SOBLEY	3703 S EDMUNDS STREET	SEATTLE	WA	387-120-12358
024152	BRISSON RANDALL L KATHLEEN A	20 SEYMOUR STREET	C/O BRISSON PROP AT TWENTY POINT FIVE	1047 BARNUM HILL ROAD	SHOREHAM	VT	387-120-12389
024224	MIDDLEBURY TOWN OF	182 SOUTH PLEASANT STREET	--	94 MAIN STREET	MIDDLEBURY	VT	387-120-12394
024154	RAMSEY RICHARD	22 SEYMOUR STREET	RAMSEY JACQUELINE	22 SEYMOUR STREET	MIDDLEBURY	VT	387-120-12505
024193	TRACKSIDE DEPOT LLC	29 SEYMOUR STREET	--	1217 ETHAN ALLEN HIGHWAY	NEW HAVEN	VT	387-120-12644
024155	SEYMOUR EAST INC	26 SEYMOUR STREET	--	26 SEYMOUR STREET	MIDDLEBURY	VT	387-120-12702
027036	SLATER JAMES R	117 WATER STREET	SLATER CYNTHIA C	117 WATER STREET	MIDDLEBURY	VT	387-120-12734
024118	COBURN SOLON	15 MAPLE STREET	CASSIDY SARA	15 MAPLE STREET APT 3	MIDDLEBURY	VT	387-120-12743
024230	SMITH HOUSING LTD PARTNERSHIP	76 SOUTH PLEASANT STREET	--	PO BOX 415	MIDDLEBURY	VT	387-120-12747
024225	SMITH PAMELA R	168 SOUTH PLEASANT STREET	SMITH DYLAN SMITH ERIN	168 SOUTH PLEASANT STREET	MIDDLEBURY	VT	387-120-12753
024134	UNITED STATES OF AMERICA	10 MAIN STREET	--	10 MAIN STREET	MIDDLEBURY	VT	387-120-12985
024197	WOOD MARK	44 SEYMOUR STREET	--	44 SEYMOUR ST	MIDDLEBURY	VT	387-120-13191
024133	GREEN MOUNTAIN POWER	0 MARBLEWORKS SUBSTATION	--	PO BOX 608	RUTLAND	VT	387-120-23726
024122	L W REAL ESTATE LLC	228 MAPLE STREET	--	228 MAPLE STREET SUITE 32	MIDDLEBURY	VT	387-120-24046
024135	MIDDLEBURY TOWN OF	6 MAIN STREET	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-11955
024123	TOWN OF MIDDLEBURY	20 MAIN STREET	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-11590
024136	MIDDLEBURY TOWN OF	5 SEYMOUR STREET	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-12019
024234	MIDDLEBURY TOWN OF	42 MERCHANTS ROW	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-12020
024266	MIDDLEBURY TOWN OF	0 MAIN STREET/ MERCHANTS ROW	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-12025

Middlebury WRCS (23) Bridge Project
Table 1 - Public Notice List

Parcel ID	Owner*	Street Address	Second Owner	Mailing Address	City	State	Span
024267	MIDDLEBURY TOWN OF	10 MAIN STREET	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-12026
024270	MIDDLEBURY TOWN OF	0 COURT HOUSE SQUARE	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	387-120-12027
TWN01, ROW**	MIDDLEBURY TOWN OF	--	Kathleen Ramsay	94 MAIN STREET	MIDDLEBURY	VT	TWN01, ROW**
RR01, RR02, RR03, RR04, RR05	Vermont Railway Inc	--	Dave Wulfson	ONE RAILWAY LANE	BURLINGTON	VT	RR01, RR02, RR03, RR04, RR05**

Owner information sourced from the Town of Middlebury Interactive Tax Map (2018), Property Record Cards (2018) and Grand List (2017).
-- : No information available.
** : ROW refers to the Town of Middlebury owned road right-of-way.

Table 2
Groundwater Analytical Results: All Data
Middlebury WCRS (23) - Main Project
Last Revised: January 29, 2019

	VGES	CAS	RR-12+00 (OW)	GBD-5 (OW)	GBD-5 (OW)	RR-11 (OW)	RR-11 (OW)	RR-16 (OW)	RR-16 (OW)	DRIVE 2-REC
Date of Sample			8/4/2016	8/3/2016	4/27/2017	8/3/2016	4/27/2017	8/2/2016	4/27/2017	8/2/2016
Metals										
Arsenic	10	7440-38-2	5.6 J	7.8 J	-	ND< 5.6	-	ND< 5.6	-	ND< 5.6
Barium	2000	7440-39-3	300	150	-	82	-	300	-	220
Cadmium	5	7440-43-9	ND< 0.5	ND< 0.5	-	ND< 0.5	-	ND< 0.5	-	ND< 0.5
Chromium	100	7440-47-3	37	ND< 1	-	1.4 J	-	ND< 1	-	1.4 J
Lead Dissolved	15	7439-92-1	-	-	6.3 J	-	5 J	-	3.7 J	-
Lead	15	7439-92-1	26	3.7 J	8.9 J	ND< 3	32	ND< 3	25	ND< 3
Selenium	50	7782-49-2	ND< 8.7	ND< 8.7	-	ND< 8.7	-	ND< 8.7	-	ND< 8.7
Silver	--	7440-22-4	ND< 1.7	ND< 1.7	-	ND< 1.7	-	ND< 1.7	-	ND< 1.7
Mercury	2	7439-97-6	ND< 0.12	ND< 0.12	-	ND< 0.12	-	ND< 0.12	-	ND< 0.12
Total Petroleum Hydrocarbons (TPH)**										
Diesel Range Organics [C10-C28]	--	--	-	ND< 350	-	ND< 340	-	ND< 340	-	ND< 330
GRO (C6-C10)	--	8006-61-9	ND< 4.2 *	ND< 4.2 *	-	ND< 4.2 *	-	10 J *	-	11 J *
Polychlorinated Bisphenols (PCBs)										
Aroclor-1016	--	12674-11-2	-	ND< 0.056 H	-	ND< 0.056 *	-	ND< 0.054 H	-	ND< 0.052 H
Aroclor-1221	--	11104-28-2	-	ND< 0.1 H	-	ND< 0.1	-	ND< 0.098 H	-	ND< 0.093 H
Aroclor-1232	--	11141-16-5	-	ND< 0.078 H	-	ND< 0.078	-	ND< 0.076 H	-	ND< 0.072 H
Aroclor-1242	--	53469-21-9	-	ND< 0.067 H	-	ND< 0.067	-	ND< 0.065 H	-	ND< 0.062 H
Aroclor-1248	--	12672-29-6	-	ND< 0.056 H	-	ND< 0.056	-	ND< 0.054 H	-	ND< 0.052 H
Aroclor-1254	--	11097-69-1	-	ND< 0.033 H	-	ND< 0.033	-	ND< 0.033 H	-	ND< 0.031 H
Aroclor-1260	--	11096-82-5	-	ND< 0.044 H	-	ND< 0.044 *	-	ND< 0.043 H	-	ND< 0.041 H
Aroclor-1262	--	37324-23-5	-	ND< 0.056 H	-	ND< 0.056	-	ND< 0.054 H	-	ND< 0.052 H
Aroclor-1268	--	11100-14-4	-	ND< 0.1 H	-	ND< 0.1	-	ND< 0.098 H	-	ND< 0.093 H
Volatile Organic Compounds (VOCs)										
Acetone	--	67-64-1	4.7 J	41	-	ND< 3	-	ND< 3	-	ND< 3
Benzene	5	71-43-2	ND< 0.41	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-	ND< 0.41
Bromoform	--	75-25-2	ND< 0.26	ND< 0.26	-	ND< 0.26	-	ND< 0.26	-	ND< 0.26
Bromomethane	10	74-83-9	ND< 0.69	ND< 0.69	-	ND< 0.69	-	ND< 0.69	-	ND< 0.69
2-Butanone (MEK)	4200	78-93-3	ND< 1.3	ND< 1.3	-	ND< 1.3	-	ND< 1.3	-	ND< 1.3
Carbon disulfide	--	75-15-0	ND< 0.19	ND< 0.19	-	ND< 0.19	-	ND< 0.19	-	ND< 0.19
Carbon tetrachloride	5	56-23-5	ND< 0.27	ND< 0.27	-	ND< 0.27	-	ND< 0.27	-	ND< 0.27
Chlorobenzene	100	108-90-7	ND< 0.75	ND< 0.75	-	ND< 0.75	-	ND< 0.75	-	ND< 0.75
Chlorobromomethane	90	74-97-5	ND< 0.87	ND< 0.87	-	ND< 0.87	-	ND< 0.87	-	ND< 0.87
Chloroethane	--	75-00-3	ND< 0.32	ND< 0.32	-	ND< 0.32	-	ND< 0.32	-	ND< 0.32
Chloroform	--	67-66-3	ND< 0.34	ND< 0.34	-	ND< 0.34	-	ND< 0.34	-	ND< 0.34
Chloromethane	30	74-87-3	ND< 0.35	ND< 0.35	-	ND< 0.35	-	ND< 0.35	-	ND< 0.35
Cyclohexane	--	110-82-7	ND< 0.18	ND< 0.18	-	ND< 0.18	-	ND< 0.18	-	ND< 0.18
1,2-Dibromo-3-Chloropropane	0.2	96-12-8	ND< 0.39	ND< 0.39	-	ND< 0.39	-	ND< 0.39	-	ND< 0.39
1,2-Dichlorobenzene	600	95-50-1	ND< 0.79	ND< 0.79	-	ND< 0.79	-	ND< 0.79	-	ND< 0.79
1,3-Dichlorobenzene	600	541-73-1	ND< 0.78	ND< 0.78	-	ND< 0.78	-	ND< 0.78	-	ND< 0.78
1,4-Dichlorobenzene	75	106-46-7	ND< 0.84	ND< 0.84	-	ND< 0.84	-	ND< 0.84	-	ND< 0.84
Dichlorobromomethane	--	75-27-4	ND< 0.39	ND< 0.39	-	ND< 0.39	-	ND< 0.39	-	ND< 0.39
Dichlorodifluoromethane	1000	75-71-8	ND< 0.68	ND< 0.68	-	ND< 0.68	-	ND< 0.68	-	ND< 0.68
Trihalomethanes (Total)	80		ND< 0.99	ND< 0.99	-	ND< 0.99	-	ND< 0.99	-	ND< 0.99
1,1-Dichloroethane	70	75-34-3	ND< 0.38	ND< 0.38	-	ND< 0.38	-	ND< 0.38	-	ND< 0.38
1,2-Dichloroethane	5	107-06-2	ND< 0.21	ND< 0.21	-	ND< 0.21	-	ND< 0.21	-	ND< 0.21
1,1-Dichloroethene	7	75-35-4	ND< 0.29	ND< 0.29	-	ND< 0.29	-	ND< 0.29	-	ND< 0.29
cis-1,2-Dichloroethene	70	156-59-2	ND< 0.81	ND< 0.81	-	ND< 0.81	-	ND< 0.81	-	ND< 0.81
trans-1,2-Dichloroethene	100	156-60-5	ND< 0.9	ND< 0.9	-	ND< 0.9	-	ND< 0.9	-	ND< 0.9
1,2-Dichloropropane	5	78-87-5	ND< 0.72	ND< 0.72	-	ND< 0.72	-	ND< 0.72	-	ND< 0.72
cis-1,3-Dichloropropene	0.5	10061-01-5	ND< 0.36	ND< 0.36	-	ND< 0.36	-	ND< 0.36	-	ND< 0.36
trans-1,3-Dichloropropene	--	10061-02-6	ND< 0.37	ND< 0.37	-	ND< 0.37	-	ND< 0.37	-	ND< 0.37
1,4-Dioxane	20	123-91-1	ND< 9.3	ND< 9.3	-	ND< 9.3	-	ND< 9.3	-	ND< 9.3
Ethylbenzene	700	100-41-4	ND< 0.74	ND< 0.74	-	ND< 0.74	-	ND< 0.74	-	ND< 0.74
Ethylene Dibromide	0.05	106-93-4	ND< 0.73	ND< 0.73	-	ND< 0.73	-	ND< 0.73	-	ND< 0.73
Hexachlorobutadiene	1	87-68-3	-	ND< 0.75	-	ND< 0.76	-	ND< 0.73	-	ND< 0.71
2-Hexanone	--	591-78-6	ND< 1.2	ND< 1.2	-	ND< 1.2	-	ND< 1.2	-	ND< 1.2
Isopropylbenzene	--	98-82-8	ND< 0.79	ND< 0.79	-	ND< 0.79	-	ND< 0.79	-	ND< 0.79
Methyl acetate	--	79-20-9	ND< 1.3	ND< 1.3	-	ND< 1.3	-	ND< 1.3	-	ND< 1.3
4-Methyl-2-pentanone (MIBK)	560	108-10-1	ND< 2.1	ND< 2.1	-	ND< 2.1	-	ND< 2.1	-	ND< 2.1
Methyl tert-butyl ether	40	1634-04-4	ND< 0.16	ND< 0.16	-	ND< 0.16	-	ND< 0.16	-	ND< 0.16
Methylcyclohexane	--	108-87-2	ND< 0.16	ND< 0.16	-	ND< 0.16	-	ND< 0.16	-	ND< 0.16
Methylene Chloride	5	75-09-2	ND< 0.44	ND< 0.44	-	ND< 0.44	-	ND< 0.44	-	ND< 0.44
Naphthalene	20	91-20-3	-	ND< 0.84	-	ND< 0.85	-	ND< 0.82	-	ND< 0.79
Styrene	100	100-42-5	ND< 0.73	ND< 0.73	-	ND< 0.73	-	ND< 0.73	-	ND< 0.73
1,1,2,2-Tetrachloroethane	70	79-34-5	ND< 0.21	ND< 0.21	-	ND< 0.21	-	ND< 0.21	-	ND< 0.21
Tetrachloroethene	5	127-18-4	ND< 0.36	ND< 0.36	-	ND< 0.36	-	ND< 0.36	-	0.91 J
Toluene	1000	108-88-3	ND< 0.51	ND< 0.51	-	ND< 0.51	-	ND< 0.51	-	ND< 0.51
1,1,2-Trichloro-1,2,2-trifluoroethane	--	76-13-1	ND< 0.31	ND< 0.31	-	ND< 0.31	-	ND< 0.31	-	ND< 0.31
1,2,3-Trichlorobenzene	--	87-61-6	ND< 0.41	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-	ND< 0.41
1,2,4-Trichlorobenzene	70	120-82-1	ND< 0.41	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-	ND< 0.41
1,1,1-Trichloroethane	200	71-55-6	ND< 0.82	ND< 0.82	-	ND< 0.82	-	ND< 0.82	-	ND< 0.82
1,1,2-Trichloroethane	5	79-00-5	ND< 0.23	ND< 0.23	-	ND< 0.23	-	ND< 0.23	-	ND< 0.23
Trichloroethene	5	79-01-6	ND< 0.46	ND< 0.46	-	ND< 0.46	-	0.79 J	-	ND< 0.46
Trichlorofluoromethane	2100	75-69-4	ND< 0.88	ND< 0.88	-	ND< 0.88	-	ND< 0.88	-	ND< 0.88
1,2,4-Trimethylbenzene	5	95-63-6	ND< 0.75	ND< 0.75	-	ND< 0.75	-	ND< 0.75	-	ND< 0.75
1,3,5-Trimethylbenzene	4	108-67-8	ND< 0.77	ND< 0.77	-	ND< 0.77	-	ND< 0.77	-	ND< 0.77
Vinyl chloride	2	75-01-4	ND< 0.9	ND< 0.9	-	ND< 0.9	-	ND< 0.9	-	ND< 0.9
m-Xylene & p-Xylene	--	179601-23-1	ND< 0.66	ND< 0.66	-	ND< 0.66	-	ND< 0.66	-	ND< 0.66
o-Xylene	--	95-47-6	ND< 0.76	ND< 0.76	-	ND< 0.76	-	ND< 0.76	-	ND< 0.76
Xylenes	10000	1330-20-7	ND< 1.42	ND< 1.42	-	ND< 1.42	-	ND< 1.42	-	ND< 1.42
Semi- Volatile Organic Compounds (SVOCs)										
Acenaphthene	--	83-32-9	-	ND< 0.45	-	ND< 0.46	-	0.7 J	-	ND< 0.43
Acenaphthylene	--	208-96-8	-	ND< 0.42	-	ND< 0.42	-	ND< 0.41	-	ND< 0.4
Acetophenone	--	98-86-2	-	ND< 0.59	-	ND< 0.6	-	ND< 0.58	-	ND< 0.56
Anthracene	2100	120-12-7	-	ND< 0.31	-	ND< 0.31	-	ND< 0.3	-	ND< 0.29
Atrazine	3	1912-24-9	-	ND< 0.51	-	ND< 0.51	-	ND< 0.49	-	ND< 0.48
Benzaldehyde	--	100-52-7	-	ND< 0.29	-	ND< 0.3	-	ND< 0.29	-	ND< 0.28
Benzo[a]anthracene	--	56-55-3	-	ND< 0.4	-	ND< 0.4	-	ND< 0.39	-	ND< 0.38
Benzo[a]pyrene	0.2	50-32-8	-	ND< 0.52	-	ND< 0.52	-	ND< 0.51	-	ND< 0.49
Benzo[b]fluoranthene	--	205-99-2	-	ND< 0.37	-	ND< 0.38	-	ND< 0.37	-	ND< 0.35 F2
Benzo[g,h,i]perylene	--	191-24-2	-	ND< 0.39	-	ND< 0.39	-	ND< 0.38	-	ND< 0.36
Benzo[k]fluoranthene	--	207-08-9	-	ND< 0.8	-	ND< 0.81	-	ND< 0.78	-	ND< 0.76
Biphenyl	--	92-52-4	-	ND< 0.72	-	ND< 0.73	-	ND< 0.7	-	ND< 0.68
4-Bromophenyl phenyl ether	--	101-55-3	-	ND< 0.5	-	ND< 0.5	-	ND< 0.48	-	ND< 0.47
Butyl benzyl phthalate	--	85-68-7	-	ND< 1.1	-	ND< 1.1	-	ND< 1.1	-	ND< 1
Caprolactam	--	105-60-2	-	ND< 2.4	-	ND< 2.4	-	ND< 2.4	-	ND< 2.3
Carbazole	--	86-74-8	-	ND< 0.33	-	ND< 0.33	-	ND< 0.32	-	ND< 0.31
4-Chloro-3-methylphenol	--	59-50-7	-	ND< 0.5	-	ND< 0.5	-	ND< 0.48	-	ND< 0.47
4-Chloroaniline	--	106-47-8	-	ND< 0.65	-	ND< 0.66	-	ND< 0.63	-	ND< 0.62
Bis(2-chloroethoxy)methane	--	111-91-1	-	ND< 0.39	-	ND< 0.39	-	ND< 0.38	-	ND< 0.36

Table 2
Groundwater Analytical Results: All Data
Middlebury WCRS (23) - Main Project
Last Revised: January 29, 2019

	VGES	CAS	RR-12+00 (OW)	GBD-5 (OW)	GBD-5 (OW)	RR-11 (OW)	RR-11 (OW)	RR-16 (OW)	RR-16 (OW)	DRIVE 2-REC
Date of Sample			8/4/2016	8/3/2016	4/27/2017	8/3/2016	4/27/2017	8/2/2016	4/27/2017	8/2/2016
Bis(2-chloroethyl)ether	--	111-44-4	-	ND< 0.44	-	ND< 0.45	-	ND< 0.43	-	ND< 0.42
bis (2-chloroisopropyl) ether	--	108-60-1	-	ND< 0.57	-	ND< 0.58	-	ND< 0.56	-	ND< 0.54
2-Chloronaphthalene	--	91-58-7	-	ND< 0.51	-	ND< 0.51	-	ND< 0.49	-	ND< 0.48
2-Chlorophenol	--	95-57-8	-	ND< 0.58	-	ND< 0.59	-	ND< 0.57	-	ND< 0.55
4-Chlorophenyl phenyl ether	--	7005-72-3	-	ND< 0.39	-	ND< 0.39	-	ND< 0.38	-	ND< 0.36
Chrysene	--	218-01-9	-	ND< 0.36	-	ND< 0.37	-	ND< 0.35	-	ND< 0.34
Dibenz(a,h)anthracene	--	53-70-3	-	ND< 0.46	-	ND< 0.47	-	ND< 0.45	-	ND< 0.44
Dibenzofuran	--	132-64-9	-	ND< 0.56	-	ND< 0.57	-	ND< 0.55	-	ND< 0.53
3,3'-Dichlorobenzidine	--	91-94-1	-	ND< 0.44	-	ND< 0.45	-	ND< 0.43	-	ND< 0.42
2,4-Dichlorophenol	--	120-83-2	-	ND< 0.56	-	ND< 0.57	-	ND< 0.55	-	ND< 0.53 F1
Diethyl phthalate	--	84-66-2	-	ND< 0.24	-	ND< 0.24	-	ND< 0.24	-	ND< 0.23
Dimethyl phthalate	--	131-11-3	-	ND< 0.4	-	ND< 0.4	-	ND< 0.39	-	ND< 0.38
2,4-Dimethylphenol	--	105-67-9	-	ND< 0.55	-	ND< 0.56	-	ND< 0.54	-	ND< 0.52
Di-n-butyl phthalate	--	84-74-2	-	ND< 0.34	-	ND< 0.34	-	ND< 0.33	-	ND< 0.32
4,6-Dinitro-2-methylphenol	--	534-52-1	-	ND< 2.4	-	ND< 2.4	-	ND< 2.4	-	ND< 2.3
2,4-Dinitrophenol	--	51-28-5	-	ND< 2.4	-	ND< 2.5	-	ND< 2.4	-	ND< 2.3
2,4-Dinitrotoluene	--	121-14-2	-	ND< 0.49	-	ND< 0.5	-	ND< 0.48	-	ND< 0.47
2,6-Dinitrotoluene	--	606-20-2	-	ND< 0.44	-	ND< 0.45	-	ND< 0.43	-	ND< 0.42
Di-n-octyl phthalate	--	117-84-0	-	ND< 0.52	-	ND< 0.52	-	ND< 0.51	-	ND< 0.49
Bis(2-ethylhexyl) phthalate	6	117-81-7	-	ND< 2.4	-	ND< 2.4	-	ND< 2.4	-	ND< 2.3
Fluoranthene	280	206-44-0	-	ND< 0.44	-	ND< 0.45	-	ND< 0.43	-	ND< 0.42
Fluorene	280	86-73-7	-	ND< 0.4	-	ND< 0.4	-	0.5 J	-	ND< 0.38
Hexachlorobenzene	1	118-74-1	-	ND< 0.56	-	ND< 0.57	-	ND< 0.55	-	ND< 0.53
Hexachlorobutadiene	1	87-68-3	-	ND< 0.75	-	ND< 0.76	-	ND< 0.73	-	ND< 0.71
Hexachlorocyclopentadiene	50	77-47-4	-	ND< 0.65	-	ND< 0.66	-	ND< 0.63	-	ND< 0.62
Hexachloroethane	--	67-72-1	-	ND< 0.65	-	ND< 0.66	-	ND< 0.63	-	ND< 0.62
Indeno[1,2,3-cd]pyrene	--	193-39-5	-	ND< 0.52	-	ND< 0.52	-	ND< 0.51	-	ND< 0.49
Isophorone	100	78-59-1	-	ND< 0.47	-	ND< 0.48	-	ND< 0.46	-	ND< 0.45
2-Methylnaphthalene	--	91-57-6	-	ND< 0.66	-	ND< 0.67	-	ND< 0.65	-	ND< 0.63
2-Methylphenol	--	95-48-7	-	ND< 0.44	-	ND< 0.45	-	ND< 0.43	-	ND< 0.42
4-Methylphenol	--	106-44-5	-	ND< 0.4	-	ND< 0.4	-	ND< 0.39	-	ND< 0.38
Naphthalene	20	91-20-3	-	ND< 0.84	-	ND< 0.85	-	ND< 0.82	-	ND< 0.79
2-Nitroaniline	--	88-74-4	-	ND< 0.46	-	ND< 0.47	-	ND< 0.45	-	ND< 0.44
3-Nitroaniline	--	99-09-2	-	ND< 0.53	-	ND< 0.53	-	ND< 0.52	-	ND< 0.5 F1
4-Nitroaniline	--	100-01-6	-	ND< 0.28	-	ND< 0.28	-	ND< 0.27	-	ND< 0.26 F1
Nitrobenzene	--	98-95-3	-	ND< 0.32	-	ND< 0.32	-	ND< 0.31	-	ND< 0.3
2-Nitrophenol	--	88-75-5	-	ND< 0.53	-	ND< 0.53	-	ND< 0.52	-	ND< 0.5 F1
4-Nitrophenol	--	100-02-7	-	ND< 1.7	-	ND< 1.7	-	ND< 1.6	-	ND< 1.6
N-Nitrosodi-n-propylamine	--	621-64-7	-	ND< 0.59	-	ND< 0.6	-	ND< 0.58	-	ND< 0.56
N-Nitrosodiphenylamine	--	86-30-6	-	ND< 0.56	-	ND< 0.57	-	ND< 0.55	-	ND< 0.53
Pentachlorophenol	1	87-86-5	-	ND< 2.4	-	ND< 2.4	-	ND< 2.4	-	ND< 2.3
Phenanthrene	--	85-01-8	-	ND< 0.48	-	ND< 0.49	-	ND< 0.47	-	ND< 0.46
Phenol	2100	108-95-2	-	ND< 0.43	-	ND< 0.43	-	ND< 0.42	-	ND< 0.41
Pyrene	--	129-00-0	-	ND< 0.37	-	ND< 0.38	-	ND< 0.37	-	ND< 0.35
1,2,4,5-Tetrachlorobenzene	--	95-94-3	-	ND< 0.64	-	ND< 0.65	-	ND< 0.62	-	ND< 0.6
2,3,4,6-Tetrachlorophenol	--	58-90-2	-	ND< 0.35	-	ND< 0.36	-	ND< 0.34	-	ND< 0.33
2,4,5-Trichlorophenol	--	95-95-4	-	ND< 0.53	-	ND< 0.53	-	ND< 0.52	-	ND< 0.5
2,4,6-Trichlorophenol	--	88-06-2	-	ND< 0.67	-	ND< 0.68	-	ND< 0.66	-	ND< 0.64
Pesticides and Herbicides										
Aldrin	0.05	309-00-2	-	ND< 0.0095	-	ND< 0.009	-	ND< 0.009	-	ND< 0.0081
alpha-Chlordane	--	5103-71-9	-	ND< 0.017	-	ND< 0.016	-	ND< 0.016	-	ND< 0.015
alpha-BHC	--	319-84-6	-	ND< 0.009	-	ND< 0.0085	-	ND< 0.0085	-	ND< 0.0077
beta-BHC	--	319-85-7	-	ND< 0.029	-	ND< 0.027	-	ND< 0.027	-	ND< 0.025
delta-BHC	--	319-86-8	-	ND< 0.012	-	ND< 0.011	-	ND< 0.011	-	ND< 0.01
4,4'-DDD	--	72-54-8	-	ND< 0.011	-	ND< 0.01	-	ND< 0.01	-	ND< 0.0092
4,4'-DDE	--	72-55-9	-	ND< 0.014	-	ND< 0.013	-	ND< 0.013	-	ND< 0.012
4,4'-DDT	--	50-29-3	-	ND< 0.013	-	ND< 0.012	-	ND< 0.012	-	ND< 0.011
Dieldrin	0.02	60-57-1	-	ND< 0.011	-	ND< 0.011	-	ND< 0.011	-	ND< 0.0098
Endosulfan I	--	959-98-8	-	ND< 0.013	-	ND< 0.012	-	ND< 0.012	-	ND< 0.011
Endosulfan II	--	33213-65-9	-	ND< 0.014	-	ND< 0.013	-	ND< 0.013	-	ND< 0.012
Endosulfan sulfate	--	1031-07-8	-	ND< 0.018	-	ND< 0.017	-	ND< 0.017	-	ND< 0.016
Endrin	2	72-20-8	-	ND< 0.016	-	ND< 0.015	-	ND< 0.015	-	ND< 0.014
Endrin aldehyde	--	7421-93-4	-	ND< 0.019	-	ND< 0.018	-	ND< 0.018	-	ND< 0.016
Endrin ketone	--	53494-70-5	-	ND< 0.014	-	ND< 0.013	-	ND< 0.013	-	ND< 0.012
gamma-BHC (Lindane)	0.2	58-89-9	-	ND< 0.0093	-	ND< 0.0088	-	ND< 0.0089	-	ND< 0.008
gamma-Chlordane	--	5103-74-2	-	ND< 0.013	-	ND< 0.012	-	ND< 0.012	-	ND< 0.011
Heptachlor	0.4	76-44-8	-	ND< 0.0099	-	ND< 0.0094	-	ND< 0.0094	-	ND< 0.0085
Heptachlor epoxide	0.2	1024-57-3	-	ND< 0.0086	-	ND< 0.0082	-	ND< 0.0082	-	ND< 0.0074
Methoxychlor	40	72-43-5	-	ND< 0.016	-	ND< 0.016	-	ND< 0.016	-	ND< 0.014
Toxaphene	3	8001-35-2	-	ND< 0.14	-	ND< 0.13	-	ND< 0.13	-	ND< 0.12
2,4-D	70	94-75-7	-	ND< 0.2	-	ND< 0.19	-	ND< 0.18	-	ND< 0.33
2,4,5-T	70	93-76-5	-	ND< 0.079	-	ND< 0.074	-	ND< 0.07	-	ND< 0.13
Silvex (2,4,5-TP)	--	93-72-1	-	ND< 0.058	-	ND< 0.054	-	ND< 0.052	-	ND< 0.095

Notes:
Shaded - Exceeds the VGES
All values in ug/L unless otherwise noted
Shaded - Exceeds the VGES
ND - Not detected below the indicated value
"-" Not Analyzed
"--" - Not Applicable or Available
Blank - No data available
VGES - Vermont Groundwater Enforcement Standard (2018)

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H - Sample was prepped or analyzed beyond the specified holding time.
F1 - MS and/or MSD Recovery is outside acceptance limits.
* - Lab Control Sample is outside acceptance limits.
** - Results less than the MDL.
Xylenes is not a laboratory analysis, but the sum of m, p, and o xylene
Trihalomethanes (Total) is not a laboratory analysis, but the sum of Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane.

Table 2
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	VGES	CAS	DRIVE 2-REC	RR-01 (OW)	RR-01 (OW)	DRIVE 3-REC	DRIVE 3-REC	GBD-16 (OW)	GBD-16 (OW)
Date of Sample			4/27/2017	8/2/2016	4/27/2017	8/2/2016	4/27/2017	8/3/2016	4/28/2017
Metals									
Arsenic	10	7440-38-2	-	6.7 J	-	ND< 5.6	-	ND< 5.6	-
Barium	2000	7440-39-3	-	270	-	120	-	230	-
Cadmium	5	7440-43-9	-	ND< 0.5	-	ND< 0.5	-	ND< 0.5	-
Chromium	100	7440-47-3	-	12	-	5.5	-	4.3	-
Lead Dissolved	15	7439-92-1	5.4 J	-	3.8 J	-	6.8 J	-	3.7 J
Lead	15	7439-92-1	6.4 J	13	100	25	6.8 J	3.7 J	10
Selenium	50	7782-49-2	-	ND< 8.7	-	ND< 8.7	-	ND< 8.7	-
Silver	--	7440-22-4	-	ND< 1.7	-	ND< 1.7	-	ND< 1.7	-
Mercury	2	7439-97-6	-	ND< 0.12	-	ND< 0.12	-	ND< 0.12	-
Total Petroleum Hydrocarbons (TPH)**									
Diesel Range Organics [C10-C28]	--	--	-	ND< 3100	-	ND< 340	-	-	-
GRO (C6-C10)	--	8006-61-9	-	ND< 4.2 *	-	ND< 4.2 *	-	ND< 4.2 *	-
Polychlorinated Bisphenols (PCBs)									
Aroclor-1016	--	12674-11-2	-	ND< 0.076 H	-	ND< 0.27 H	-	-	-
Aroclor-1221	--	11104-28-2	-	ND< 0.14 H	-	ND< 0.49 H	-	-	-
Aroclor-1232	--	11141-16-5	-	ND< 0.11 H	-	ND< 0.38 H	-	-	-
Aroclor-1242	--	53469-21-9	-	ND< 0.091 H	-	ND< 0.33 H	-	-	-
Aroclor-1248	--	12672-29-6	-	ND< 0.076 H	-	ND< 0.27 H	-	-	-
Aroclor-1254	--	11097-69-1	-	ND< 0.045 H	-	ND< 0.16 H	-	-	-
Aroclor-1260	--	11096-82-5	-	ND< 0.061 H	-	ND< 0.22 H	-	-	-
Aroclor-1262	--	37324-23-5	-	ND< 0.076 H	-	ND< 0.27 H	-	-	-
Aroclor-1268	--	11100-14-4	-	ND< 0.14 H	-	ND< 0.49 H	-	-	-
Volatile Organic Compounds (VOCs)									
Acetone	--	67-64-1	-	ND< 3	-	ND< 3	-	ND< 3	-
Benzene	5	71-43-2	-	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-
Bromoform	--	75-25-2	-	ND< 0.26	-	ND< 0.26	-	ND< 0.26	-
Bromomethane	10	74-83-9	-	ND< 0.69	-	ND< 0.69	-	ND< 0.69	-
2-Butanone (MEK)	4200	78-93-3	-	ND< 1.3	-	ND< 1.3	-	ND< 1.3	-
Carbon disulfide	--	75-15-0	-	ND< 0.19	-	ND< 0.19	-	ND< 0.19	-
Carbon tetrachloride	5	56-23-5	-	ND< 0.27	-	ND< 0.27	-	ND< 0.27	-
Chlorobenzene	100	108-90-7	-	ND< 0.75	-	ND< 0.75	-	ND< 0.75	-
Chlorobromomethane	90	74-97-5	-	ND< 0.87	-	ND< 0.87	-	ND< 0.87	-
Chloroethane	--	75-00-3	-	ND< 0.32	-	ND< 0.32	-	ND< 0.32	-
Chloroform	--	67-66-3	-	ND< 0.34	-	ND< 0.34	-	ND< 0.34	-
Chloromethane	30	74-87-3	-	ND< 0.35	-	ND< 0.35	-	ND< 0.35	-
Cyclohexane	--	110-82-7	-	ND< 0.18	-	ND< 0.18	-	ND< 0.18	-
1,2-Dibromo-3-Chloropropane	0.2	96-12-8	-	ND< 0.39	-	ND< 0.39	-	ND< 0.39	-
1,2-Dichlorobenzene	600	95-50-1	-	ND< 0.79	-	ND< 0.79	-	ND< 0.79	-
1,3-Dichlorobenzene	600	541-73-1	-	ND< 0.78	-	ND< 0.78	-	ND< 0.78	-
1,4-Dichlorobenzene	75	106-46-7	-	ND< 0.84	-	ND< 0.84	-	ND< 0.84	-
Dichlorobromomethane	--	75-27-4	-	ND< 0.39	-	ND< 0.39	-	ND< 0.39	-
Dichlorodifluoromethane	1000	75-71-8	-	ND< 0.68	-	ND< 0.68	-	ND< 0.68	-
Trihalomethanes (Total)	80		-	ND< 0.99	-	ND< 0.99	-	ND< 0.99	-
1,1-Dichloroethane	70	75-34-3	-	ND< 0.38	-	ND< 0.38	-	ND< 0.38	-
1,2-Dichloroethane	5	107-06-2	-	ND< 0.21	-	ND< 0.21	-	ND< 0.21	-
1,1-Dichloroethene	7	75-35-4	-	ND< 0.29	-	ND< 0.29	-	ND< 0.29	-
cis-1,2-Dichloroethene	70	156-59-2	-	ND< 0.81	-	ND< 0.81	-	ND< 0.81	-
trans-1,2-Dichloroethene	100	156-60-5	-	ND< 0.9	-	ND< 0.9	-	ND< 0.9	-
1,2-Dichloropropane	5	78-87-5	-	ND< 0.72	-	ND< 0.72	-	ND< 0.72	-
cis-1,3-Dichloropropene	0.5	10061-01-5	-	ND< 0.36	-	ND< 0.36	-	ND< 0.36	-
trans-1,3-Dichloropropene	--	10061-02-6	-	ND< 0.37	-	ND< 0.37	-	ND< 0.37	-
1,4-Dioxane	20	123-91-1	-	ND< 9.3	-	ND< 9.3	-	ND< 9.3	-
Ethylbenzene	700	100-41-4	-	ND< 0.74	-	ND< 0.74	-	ND< 0.74	-
Ethylene Dibromide	0.05	106-93-4	-	ND< 0.73	-	ND< 0.73	-	ND< 0.73	-
Hexachlorobutadiene	1	87-68-3	-	ND< 0.69	-	ND< 0.76	-	ND< 0.88	-
2-Hexanone	--	591-78-6	-	ND< 1.2	-	ND< 1.2	-	ND< 1.2	-
Isopropylbenzene	--	98-82-8	-	ND< 0.79	-	ND< 0.79	-	ND< 0.79	-
Methyl acetate	--	79-20-9	-	ND< 1.3	-	ND< 1.3	-	ND< 1.3	-
4-Methyl-2-pentanone (MIBK)	560	108-10-1	-	ND< 2.1	-	ND< 2.1	-	ND< 2.1	-
Methyl tert-butyl ether	40	1634-04-4	-	ND< 0.16	-	ND< 0.16	-	ND< 0.16	-
Methylcyclohexane	--	108-87-2	-	ND< 0.16	-	ND< 0.16	-	ND< 0.16	-
Methylene Chloride	5	75-09-2	-	ND< 0.44	-	ND< 0.44	-	ND< 0.44	-
Naphthalene	20	91-20-3	-	ND< 0.77	-	ND< 0.85	-	ND< 0.99	-
Styrene	100	100-42-5	-	ND< 0.73	-	ND< 0.73	-	ND< 0.73	-
1,1,2,2-Tetrachloroethane	70	79-34-5	-	ND< 0.21	-	ND< 0.21	-	ND< 0.21	-
Tetrachloroethene	5	127-18-4	-	ND< 0.36	-	0.68 J	-	ND< 0.36	-
Toluene	1000	108-88-3	-	ND< 0.51	-	ND< 0.51	-	ND< 0.51	-
1,1,2-Trichloro-1,2,2-trifluoroethane	--	76-13-1	-	ND< 0.31	-	ND< 0.31	-	ND< 0.31	-
1,2,3-Trichlorobenzene	--	87-61-6	-	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-
1,2,4-Trichlorobenzene	70	120-82-1	-	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-
1,1,1-Trichloroethane	200	71-55-6	-	ND< 0.82	-	ND< 0.82	-	ND< 0.82	-
1,1,2-Trichloroethane	5	79-00-5	-	ND< 0.23	-	ND< 0.23	-	ND< 0.23	-
Trichloroethene	5	79-01-6	-	ND< 0.46	-	ND< 0.46	-	ND< 0.46	-
Trichlorofluoromethane	2100	75-69-4	-	ND< 0.88	-	ND< 0.88	-	ND< 0.88	-
1,2,4-Trimethylbenzene	5	95-63-6	-	ND< 0.75	-	ND< 0.75	-	ND< 0.75	-
1,3,5-Trimethylbenzene	4	108-67-8	-	ND< 0.77	-	ND< 0.77	-	ND< 0.77	-
Vinyl chloride	2	75-01-4	-	ND< 0.9	-	ND< 0.9	-	ND< 0.9	-
m-Xylene & p-Xylene	--	179601-23-1	-	ND< 0.66	-	ND< 0.66	-	ND< 0.66	-
o-Xylene	--	95-47-6	-	ND< 0.76	-	ND< 0.76	-	ND< 0.76	-
Xylenes	10000	1330-20-7	-	ND< 1.42	-	ND< 1.42	-	ND< 1.42	-
Semi- Volatile Organic Compounds (SVOCs)									
Acenaphthene	--	83-32-9	-	2.3 J	-	ND< 0.46	-	ND< 0.53	-
Acenaphthylene	--	208-96-8	-	ND< 0.39	-	ND< 0.42	-	ND< 0.49	-
Acetophenone	--	98-86-2	-	ND< 0.55	-	ND< 0.6	-	ND< 0.7	-
Anthracene	2100	120-12-7	-	ND< 0.28	-	ND< 0.31	-	ND< 0.36	-
Atrazine	3	1912-24-9	-	ND< 0.47	-	ND< 0.51	-	ND< 0.6	-
Benzaldehyde	--	100-52-7	-	ND< 0.27	-	ND< 0.3	-	ND< 0.35	-
Benzo[a]anthracene	--	56-55-3	-	ND< 0.37	-	ND< 0.4	-	ND< 0.47	-
Benzo[a]pyrene	0.2	50-32-8	-	ND< 0.48	-	ND< 0.52	-	ND< 0.61	-
Benzo[b]fluoranthene	--	205-99-2	-	ND< 0.35	-	ND< 0.38	-	ND< 0.44	-
Benzo[g,h,i]perylene	--	191-24-2	-	ND< 0.36	-	ND< 0.39	-	ND< 0.46	-
Benzo[k]fluoranthene	--	207-08-9	-	ND< 0.74	-	ND< 0.81	-	ND< 0.95	-
Biphenyl	--	92-52-4	-	ND< 0.66	-	ND< 0.73	-	ND< 0.85	-
4-Bromophenyl phenyl ether	--	101-55-3	-	ND< 0.46	-	ND< 0.5	-	ND< 0.59	-
Butyl benzyl phthalate	--	85-68-7	-	ND< 1	-	ND< 1.1	-	ND< 1.3	-
Caprolactam	--	105-60-2	-	ND< 2.2	-	ND< 2.4	-	ND< 2.9	-
Carbazole	--	86-74-8	-	1.3 J	-	ND< 0.33	-	ND< 0.39	-
4-Chloro-3-methylphenol	--	59-50-7	-	ND< 0.46	-	ND< 0.5	-	ND< 0.59	-
4-Chloroaniline	--	106-47-8	-	ND< 0.6	-	ND< 0.66	-	ND< 0.77	-
Bis(2-chloroethoxy)methane	--	111-91-1	-	ND< 0.36	-	ND< 0.39	-	ND< 0.46	-

Table 2
Groundwater Analytical Results: All Data
Middlebury WCRS (23) - Main Project
Last Revised: January 29, 2019

	VGES	CAS	DRIVE 2-REC	RR-01 (OW)	RR-01 (OW)	DRIVE 3-REC	DRIVE 3-REC	GBD-16 (OW)	GBD-16 (OW)
Date of Sample			4/27/2017	8/2/2016	4/27/2017	8/2/2016	4/27/2017	8/3/2016	4/28/2017
Bis(2-chloroethyl)ether	--	111-44-4	-	ND< 0.41	-	ND< 0.44	-	ND< 0.52	-
bis (2-chloroisopropyl) ether	--	108-60-1	-	ND< 0.53	-	ND< 0.58	-	ND< 0.68	-
2-Chloronaphthalene	--	91-58-7	-	ND< 0.47	-	ND< 0.51	-	ND< 0.6	-
2-Chlorophenol	--	95-57-8	-	ND< 0.54	-	ND< 0.59	-	ND< 0.69	-
4-Chlorophenyl phenyl ether	--	7005-72-3	-	ND< 0.36	-	ND< 0.39	-	ND< 0.46	-
Chrysene	--	218-01-9	-	ND< 0.34	-	ND< 0.37	-	ND< 0.43	-
Dibenz(a,h)anthracene	--	53-70-3	-	ND< 0.43	-	ND< 0.47	-	ND< 0.55	-
Dibenzofuran	--	132-64-9	-	1 J	-	ND< 0.57	-	ND< 0.66	-
3,3'-Dichlorobenzidine	--	91-94-1	-	ND< 0.41	-	ND< 0.44	-	ND< 0.52	-
2,4-Dichlorophenol	--	120-83-2	-	ND< 0.52	-	ND< 0.57	-	ND< 0.66	-
Diethyl phthalate	--	84-66-2	-	ND< 0.22	-	ND< 0.24	-	ND< 0.29	-
Dimethyl phthalate	--	131-11-3	-	ND< 0.37	-	ND< 0.4	-	ND< 0.47	-
2,4-Dimethylphenol	--	105-67-9	-	ND< 0.51	-	ND< 0.56	-	ND< 0.65	-
Di-n-butyl phthalate	--	84-74-2	-	ND< 0.31	-	ND< 0.34	-	ND< 0.4	-
4,6-Dinitro-2-methylphenol	--	534-52-1	-	ND< 2.2	-	ND< 2.4	-	ND< 2.9	-
2,4-Dinitrophenol	--	51-28-5	-	ND< 2.3	-	ND< 2.5	-	ND< 2.9	-
2,4-Dinitrotoluene	--	121-14-2	-	ND< 0.45	-	ND< 0.5	-	ND< 0.58	-
2,6-Dinitrotoluene	--	606-20-2	-	ND< 0.41	-	ND< 0.44	-	ND< 0.52	-
Di-n-octyl phthalate	--	117-84-0	-	ND< 0.48	-	ND< 0.52	-	ND< 0.61	-
Bis(2-ethylhexyl) phthalate	6	117-81-7	-	ND< 2.2	-	ND< 2.4	-	ND< 2.9	-
Fluoranthene	280	206-44-0	-	0.72 J	-	ND< 0.44	-	ND< 0.52	-
Fluorene	280	86-73-7	-	1.7 J	-	ND< 0.4	-	ND< 0.47	-
Hexachlorobenzene	1	118-74-1	-	ND< 0.52	-	ND< 0.57	-	ND< 0.66	-
Hexachlorobutadiene	1	87-68-3	-	ND< 0.69	-	ND< 0.76	-	ND< 0.88	-
Hexachlorocyclopentadiene	50	77-47-4	-	ND< 0.6	-	ND< 0.66	-	ND< 0.77	-
Hexachloroethane	--	67-72-1	-	ND< 0.6	-	ND< 0.66	-	ND< 0.77	-
Indeno[1,2,3-cd]pyrene	--	193-39-5	-	ND< 0.48	-	ND< 0.52	-	ND< 0.61	-
Isophorone	100	78-59-1	-	ND< 0.44	-	ND< 0.48	-	ND< 0.56	-
2-Methylnaphthalene	--	91-57-6	-	ND< 0.61	-	ND< 0.67	-	ND< 0.78	-
2-Methylphenol	--	95-48-7	-	ND< 0.41	-	ND< 0.44	-	ND< 0.52	-
4-Methylphenol	--	106-44-5	-	0.46 J	-	ND< 0.4	-	ND< 0.47	-
Naphthalene	20	91-20-3	-	ND< 0.77	-	ND< 0.85	-	ND< 0.99	-
2-Nitroaniline	--	88-74-4	-	ND< 0.43	-	ND< 0.47	-	ND< 0.55	-
3-Nitroaniline	--	99-09-2	-	ND< 0.49	-	ND< 0.53	-	ND< 0.62	-
4-Nitroaniline	--	100-01-6	-	ND< 0.25	-	ND< 0.28	-	ND< 0.33	-
Nitrobenzene	--	98-95-3	-	ND< 0.29	-	ND< 0.32	-	ND< 0.38	-
2-Nitrophenol	--	88-75-5	-	ND< 0.49	-	ND< 0.53	-	ND< 0.62	-
4-Nitrophenol	--	100-02-7	-	ND< 1.5	-	ND< 1.7	-	ND< 2	-
N-Nitrosodi-n-propylamine	--	621-64-7	-	ND< 0.55	-	ND< 0.6	-	ND< 0.7	-
N-Nitrosodiphenylamine	--	86-30-6	-	ND< 0.52	-	ND< 0.57	-	ND< 0.66	-
Pentachlorophenol	1	87-86-5	-	ND< 2.2	-	ND< 2.4	-	ND< 2.9	-
Phenanthrene	--	85-01-8	-	0.52 J	-	ND< 0.49	-	ND< 0.57	-
Phenol	2100	108-95-2	-	ND< 0.4	-	ND< 0.43	-	ND< 0.51	-
Pyrene	--	129-00-0	-	0.46 J	-	ND< 0.38	-	ND< 0.44	-
1,2,4,5-Tetrachlorobenzene	--	95-94-3	-	ND< 0.59	-	ND< 0.65	-	ND< 0.75	-
2,3,4,6-Tetrachlorophenol	--	58-90-2	-	ND< 0.33	-	ND< 0.36	-	ND< 0.42	-
2,4,5-Trichlorophenol	--	95-95-4	-	ND< 0.49	-	ND< 0.53	-	ND< 0.62	-
2,4,6-Trichlorophenol	--	88-06-2	-	ND< 0.62	-	ND< 0.68	-	ND< 0.79	-
Pesticides and Herbicides									
Aldrin	0.05	309-00-2	-	ND< 0.0092	-	ND< 0.0088 F1	-	-	-
alpha-Chlordane	--	5103-71-9	-	ND< 0.017	-	ND< 0.016	-	-	-
alpha-BHC	--	319-84-6	-	ND< 0.0087	-	ND< 0.0084	-	-	-
beta-BHC	--	319-85-7	-	ND< 0.028	-	ND< 0.027	-	-	-
delta-BHC	--	319-86-8	-	ND< 0.011	-	ND< 0.011	-	-	-
4,4'-DDD	--	72-54-8	-	ND< 0.01	-	ND< 0.01	-	-	-
4,4'-DDE	--	72-55-9	-	ND< 0.013	-	ND< 0.013 F1	-	-	-
4,4'-DDT	--	50-29-3	-	ND< 0.012	-	ND< 0.012 F1	-	-	-
Dieldrin	0.02	60-57-1	-	ND< 0.011	-	ND< 0.011	-	-	-
Endosulfan I	--	959-98-8	-	ND< 0.012	-	ND< 0.012	-	-	-
Endosulfan II	--	33213-65-9	-	ND< 0.014	-	ND< 0.013	-	-	-
Endosulfan sulfate	--	1031-07-8	-	ND< 0.018	-	ND< 0.017	-	-	-
Endrin	2	72-20-8	-	ND< 0.016	-	ND< 0.015	-	-	-
Endrin aldehyde	--	7421-93-4	-	ND< 0.018	-	ND< 0.018	-	-	-
Endrin ketone	--	53494-70-5	-	ND< 0.014	-	ND< 0.013	-	-	-
gamma-BHC (Lindane)	0.2	58-89-9	-	ND< 0.0091	-	ND< 0.0087	-	-	-
gamma-Chlordane	--	5103-74-2	-	ND< 0.012	-	ND< 0.012 F1	-	-	-
Heptachlor	0.4	76-44-8	-	ND< 0.0096	-	ND< 0.0092	-	-	-
Heptachlor epoxide	0.2	1024-57-3	-	ND< 0.0084	-	ND< 0.008	-	-	-
Methoxychlor	40	72-43-5	-	ND< 0.016	-	ND< 0.015	-	-	-
Toxaphene	3	8001-35-2	-	ND< 0.14	-	ND< 0.13	-	-	-
2,4-D	70	94-75-7	-	ND< 1.4	-	ND< 0.19	-	ND< 0.24	-
2,4,5-T	70	93-76-5	-	ND< 0.54	-	ND< 0.074	-	ND< 0.095	-
Silvex (2,4,5-TP)	--	93-72-1	-	ND< 0.4	-	ND< 0.054	-	ND< 0.07	-

Notes:
Shaded - Exceeds the VGES
All values in ug/L unless otherwise noted
Shaded - Exceeds the VGES
ND - Not detected below the indicated value
"-" Not Analyzed
"--" - Not Applicable or Available
Blank - No data available
VGES - Vermont Groundwater Enforcement Standard (2018)

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H - Sample was prepped or analyzed beyond the specified holding time.
F1 - MS and/or MSD Recovery is outside acceptance limits.
* - Lab Control Sample is outside acceptance limits.
** - Results less than the MDL.
Xylenes is not a laboratory analysis, but the sum of m, p, and o xylene
Trihalomethanes (Total) is not a laboratory analysis, but the sum of Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane.

Table 2
Groundwater Analytical Results: All Data
Middlebury WCRS (23) - Main Project
Last Revised: January 29, 2019

	VGES	CAS	GBD-20 (OW)	GBD-20 (OW)	RR-40+00 (OW)	RR-40+00 (OW)	RR-44+00 (OW)	RR-44+00 (OW)
Date of Sample			8/3/2016	4/28/2017	8/4/2016	4/28/2017	8/4/2016	4/28/2017
Metals								
Arsenic	10	7440-38-2	10 J	-	ND< 5.6	-	ND< 5.6	-
Barium	2000	7440-39-3	100	-	170	-	100	-
Cadmium	5	7440-43-9	ND< 0.5	-	ND< 0.5	-	ND< 0.5	-
Chromium	100	7440-47-3	1.7 J	-	6.1	-	10	-
Lead Dissolved	15	7439-92-1	-	3.1 J	-	3.3 J	-	3.8 J
Lead	15	7439-92-1	ND< 3	4 J	4 J	44	5 J	21
Selenium	50	7782-49-2	ND< 8.7	-	ND< 8.7	-	ND< 8.7	-
Silver	--	7440-22-4	ND< 1.7	-	ND< 1.7	-	ND< 1.7	-
Mercury	2	7439-97-6	ND< 0.12	-	ND< 0.12	-	ND< 0.12	-
Total Petroleum Hydrocarbons (TPH)**								
Diesel Range Organics [C10-C28]	--	--	ND< 370	-	ND< 350	-	ND< 3100	-
GRO (C6-C10)	--	8006-61-9	ND< 4.2 *	-	ND< 4.2 *	-	ND< 4.2 *	-
Polychlorinated Bisphenols (PCBs)								
Aroclor-1016	--	12674-11-2	ND< 0.056 *	-	ND< 0.057 *	-	ND< 0.061 *	-
Aroclor-1221	--	11104-28-2	ND< 0.1	-	ND< 0.1	-	ND< 0.11	-
Aroclor-1232	--	11141-16-5	ND< 0.078	-	ND< 0.08	-	ND< 0.085	-
Aroclor-1242	--	53469-21-9	ND< 0.067	-	ND< 0.068	-	ND< 0.073	-
Aroclor-1248	--	12672-29-6	ND< 0.056	-	ND< 0.057	-	ND< 0.061	-
Aroclor-1254	--	11097-69-1	ND< 0.033	-	ND< 0.034	-	ND< 0.037	-
Aroclor-1260	--	11096-82-5	ND< 0.044 *	-	ND< 0.045 *	-	ND< 0.049 *	-
Aroclor-1262	--	37324-23-5	ND< 0.056	-	ND< 0.057	-	ND< 0.061	-
Aroclor-1268	--	11100-14-4	ND< 0.1	-	ND< 0.1	-	ND< 0.11	-
Volatile Organic Compounds (VOCs)								
Acetone	--	67-64-1	ND< 3	-	ND< 3	-	ND< 3	-
Benzene	5	71-43-2	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-
Bromoform	--	75-25-2	ND< 0.26	-	ND< 0.26	-	ND< 0.26	-
Bromomethane	10	74-83-9	ND< 0.69	-	ND< 0.69	-	ND< 0.69	-
2-Butanone (MEK)	4200	78-93-3	ND< 1.3	-	ND< 1.3	-	ND< 1.3	-
Carbon disulfide	--	75-15-0	ND< 0.19	-	ND< 0.19	-	ND< 0.19	-
Carbon tetrachloride	5	56-23-5	ND< 0.27	-	ND< 0.27	-	ND< 0.27	-
Chlorobenzene	100	108-90-7	ND< 0.75	-	ND< 0.75	-	ND< 0.75	-
Chlorobromomethane	90	74-97-5	ND< 0.87	-	ND< 0.87	-	ND< 0.87	-
Chloroethane	--	75-00-3	ND< 0.32	-	ND< 0.32	-	ND< 0.32	-
Chloroform	--	67-66-3	ND< 0.34	-	ND< 0.34	-	ND< 0.34	-
Chloromethane	30	74-87-3	ND< 0.35	-	ND< 0.35	-	ND< 0.35	-
Cyclohexane	--	110-82-7	ND< 0.18	-	ND< 0.18	-	ND< 0.18	-
1,2-Dibromo-3-Chloropropane	0.2	96-12-8	ND< 0.39	-	ND< 0.39	-	ND< 0.39	-
1,2-Dichlorobenzene	600	95-50-1	ND< 0.79	-	ND< 0.79	-	ND< 0.79	-
1,3-Dichlorobenzene	600	541-73-1	ND< 0.78	-	ND< 0.78	-	ND< 0.78	-
1,4-Dichlorobenzene	75	106-46-7	ND< 0.84	-	ND< 0.84	-	ND< 0.84	-
Dichlorobromomethane	--	75-27-4	ND< 0.39	-	ND< 0.39	-	ND< 0.39	-
Dichlorodifluoromethane	1000	75-71-8	ND< 0.68	-	ND< 0.68	-	ND< 0.68	-
Trihalomethanes (Total)	80		ND< 0.99	-	ND< 0.99	-	0.99	-
1,1-Dichloroethane	70	75-34-3	ND< 0.38	-	ND< 0.38	-	ND< 0.38	-
1,2-Dichloroethane	5	107-06-2	ND< 0.21	-	ND< 0.21	-	ND< 0.21	-
1,1-Dichloroethene	7	75-35-4	ND< 0.29	-	ND< 0.29	-	ND< 0.29	-
cis-1,2-Dichloroethene	70	156-59-2	ND< 0.81	-	ND< 0.81	-	ND< 0.81	-
trans-1,2-Dichloroethene	100	156-60-5	ND< 0.9	-	ND< 0.9	-	ND< 0.9	-
1,2-Dichloropropane	5	78-87-5	ND< 0.72	-	ND< 0.72	-	ND< 0.72	-
cis-1,3-Dichloropropene	0.5	10061-01-5	ND< 0.36	-	ND< 0.36	-	ND< 0.36	-
trans-1,3-Dichloropropene	--	10061-02-6	ND< 0.37	-	ND< 0.37	-	ND< 0.37	-
1,4-Dioxane	20	123-91-1	ND< 9.3	-	ND< 9.3	-	ND< 9.3	-
Ethylbenzene	700	100-41-4	ND< 0.74	-	ND< 0.74	-	ND< 0.74	-
Ethylene Dibromide	0.05	106-93-4	ND< 0.73	-	ND< 0.73	-	ND< 0.73	-
Hexachlorobutadiene	1	87-68-3	ND< 0.79	-	ND< 0.79	-	ND< 0.81	-
2-Hexanone	--	591-78-6	ND< 1.2	-	ND< 1.2	-	ND< 1.2	-
Isopropylbenzene	--	98-82-8	ND< 0.79	-	ND< 0.79	-	ND< 0.79	-
Methyl acetate	--	79-20-9	ND< 1.3	-	ND< 1.3	-	ND< 1.3	-
4-Methyl-2-pentanone (MIBK)	560	108-10-1	ND< 2.1	-	ND< 2.1	-	ND< 2.1	-
Methyl tert-butyl ether	40	1634-04-4	ND< 0.16	-	4.1	-	0.67 J	-
Methylcyclohexane	--	108-87-2	ND< 0.16	-	ND< 0.16	-	ND< 0.16	-
Methylene Chloride	5	75-09-2	ND< 0.44	-	ND< 0.44	-	ND< 0.44	-
Naphthalene	20	91-20-3	ND< 0.88	-	ND< 0.88	-	ND< 0.9	-
Styrene	100	100-42-5	ND< 0.73	-	ND< 0.73	-	ND< 0.73	-
1,1,2,2-Tetrachloroethane	70	79-34-5	ND< 0.21	-	ND< 0.21	-	ND< 0.21	-
Tetrachloroethene	5	127-18-4	ND< 0.36	-	ND< 0.36	-	ND< 0.36	-
Toluene	1000	108-88-3	ND< 0.51	-	ND< 0.51	-	ND< 0.51	-
1,1,2-Trichloro-1,2,2-trifluoroethane	--	76-13-1	ND< 0.31	-	ND< 0.31	-	ND< 0.31	-
1,2,3-Trichlorobenzene	--	87-61-6	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-
1,2,4-Trichlorobenzene	70	120-82-1	ND< 0.41	-	ND< 0.41	-	ND< 0.41	-
1,1,1-Trichloroethane	200	71-55-6	ND< 0.82	-	ND< 0.82	-	ND< 0.82	-
1,1,2-Trichloroethane	5	79-00-5	ND< 0.23	-	ND< 0.23	-	ND< 0.23	-
Trichloroethene	5	79-01-6	ND< 0.46	-	ND< 0.46	-	ND< 0.46	-
Trichlorofluoromethane	2100	75-69-4	ND< 0.88	-	ND< 0.88	-	ND< 0.88	-
1,2,4-Trimethylbenzene	5	95-63-6	ND< 0.75	-	ND< 0.75	-	ND< 0.75	-
1,3,5-Trimethylbenzene	4	108-67-8	ND< 0.77	-	ND< 0.77	-	ND< 0.77	-
Vinyl chloride	2	75-01-4	ND< 0.9	-	ND< 0.9	-	ND< 0.9	-
m-Xylene & p-Xylene	--	179601-23-1	ND< 0.66	-	ND< 0.66	-	ND< 0.66	-
o-Xylene	--	95-47-6	ND< 0.76	-	ND< 0.76	-	ND< 0.76	-
Xylenes	10000	1330-20-7	ND< 1.42	-	ND< 1.42	-	ND< 1.42	-
Semi- Volatile Organic Compounds (SVOCs)								
Acenaphthene	--	83-32-9	ND< 0.47	-	ND< 0.48	-	ND< 0.49	-
Acenaphthylene	--	208-96-8	ND< 0.44	-	ND< 0.44	-	ND< 0.45	-
Acetophenone	--	98-86-2	ND< 0.62	-	ND< 0.63	-	ND< 0.64	-
Anthracene	2100	120-12-7	ND< 0.32	-	ND< 0.33	-	ND< 0.33	-
Atrazine	3	1912-24-9	ND< 0.53	-	ND< 0.53	-	ND< 0.55	-
Benzaldehyde	--	100-52-7	ND< 0.31	-	ND< 0.31	-	ND< 0.32	-
Benzo[a]anthracene	--	56-55-3	ND< 0.42	-	ND< 0.42	-	ND< 0.43	-
Benzo[a]pyrene	0.2	50-32-8	ND< 0.54	-	ND< 0.55	-	ND< 0.56	-
Benzo[b]fluoranthene	--	205-99-2	ND< 0.39	-	ND< 0.4	-	ND< 0.4	-
Benzo[g,h,i]perylene	--	191-24-2	ND< 0.4	-	ND< 0.41	-	ND< 0.42	-
Benzo[k]fluoranthene	--	207-08-9	ND< 0.84	-	ND< 0.85	-	ND< 0.87	-
Biphenyl	--	92-52-4	ND< 0.75	-	ND< 0.76	-	ND< 0.78	-
4-Bromophenyl phenyl ether	--	101-55-3	ND< 0.52	-	ND< 0.52	-	ND< 0.54	-
Butyl benzyl phthalate	--	85-68-7	ND< 1.2	-	ND< 1.2	-	ND< 1.2	-
Caprolactam	--	105-60-2	ND< 2.5	-	ND< 2.6	-	ND< 2.6	-
Carbazole	--	86-74-8	ND< 0.35	-	ND< 0.35	-	ND< 0.36	-
4-Chloro-3-methylphenol	--	59-50-7	ND< 0.52	-	ND< 0.52	-	ND< 0.54	-
4-Chloroaniline	--	106-47-8	ND< 0.68	-	ND< 0.69	-	ND< 0.7	-
Bis(2-chloroethoxy)methane	--	111-91-1	ND< 0.4	-	ND< 0.41	-	ND< 0.42	-

Table 2
Groundwater Analytical Results: All Data
Middlebury WCRS (23) - Main Project
Last Revised: January 29, 2019

	VGES	CAS	GBD-20 (OW)	GBD-20 (OW)	RR-40+00 (OW)	RR-40+00 (OW)	RR-44+00 (OW)	RR-44+00 (OW)
Date of Sample			8/3/2016	4/28/2017	8/4/2016	4/28/2017	8/4/2016	4/28/2017
Bis(2-chloroethyl)ether	--	111-44-4	ND< 0.46	-	ND< 0.47	-	ND< 0.48	-
bis (2-chloroisopropyl) ether	--	108-60-1	ND< 0.6	-	ND< 0.6	-	ND< 0.62	-
2-Chloronaphthalene	--	91-58-7	ND< 0.53	-	ND< 0.53	-	ND< 0.55	-
2-Chlorophenol	--	95-57-8	ND< 0.61	-	ND< 0.62	-	ND< 0.63	-
4-Chlorophenyl phenyl ether	--	7005-72-3	ND< 0.4	-	ND< 0.41	-	ND< 0.42	-
Chrysene	--	218-01-9	ND< 0.38	-	ND< 0.38	-	ND< 0.39	-
Dibenz(a,h)anthracene	--	53-70-3	ND< 0.49	-	ND< 0.49	-	ND< 0.5	-
Dibenzofuran	--	132-64-9	ND< 0.59	-	ND< 0.59	-	ND< 0.61	-
3,3'-Dichlorobenzidine	--	91-94-1	ND< 0.46	-	ND< 0.47	-	ND< 0.48	-
2,4-Dichlorophenol	--	120-83-2	ND< 0.59	-	ND< 0.59	-	ND< 0.61	-
Diethyl phthalate	--	84-66-2	ND< 0.25	-	ND< 0.26	-	ND< 0.26	-
Dimethyl phthalate	--	131-11-3	ND< 0.42	-	ND< 0.42	-	ND< 0.43	-
2,4-Dimethylphenol	--	105-67-9	ND< 0.58	-	ND< 0.58	-	ND< 0.6	-
Di-n-butyl phthalate	--	84-74-2	ND< 0.36	-	ND< 0.36	-	ND< 0.37	-
4,6-Dinitro-2-methylphenol	--	534-52-1	ND< 2.5	-	ND< 2.6	-	ND< 2.6	-
2,4-Dinitrophenol	--	51-28-5	ND< 2.6	-	ND< 2.6	-	ND< 2.6	-
2,4-Dinitrotoluene	--	121-14-2	ND< 0.52	-	ND< 0.52	-	ND< 0.53	-
2,6-Dinitrotoluene	--	606-20-2	ND< 0.46	-	ND< 0.47	-	ND< 0.48	-
Di-n-octyl phthalate	--	117-84-0	ND< 0.54	-	ND< 0.55	-	ND< 0.56	-
Bis(2-ethylhexyl) phthalate	6	117-81-7	ND< 2.5	-	ND< 2.6	-	ND< 2.6	-
Fluoranthene	280	206-44-0	ND< 0.46	-	ND< 0.47	-	ND< 0.48	-
Fluorene	280	86-73-7	ND< 0.42	-	ND< 0.42	-	ND< 0.43	-
Hexachlorobenzene	1	118-74-1	ND< 0.59	-	ND< 0.59	-	ND< 0.61	-
Hexachlorobutadiene	1	87-68-3	ND< 0.79	-	ND< 0.79	-	ND< 0.81	-
Hexachlorocyclopentadiene	50	77-47-4	ND< 0.68	-	ND< 0.69	-	ND< 0.7	-
Hexachloroethane	--	67-72-1	ND< 0.68	-	ND< 0.69	-	ND< 0.7	-
Indeno[1,2,3-cd]pyrene	--	193-39-5	ND< 0.54	-	ND< 0.55	-	ND< 0.56	-
Isophorone	100	78-59-1	ND< 0.5	-	ND< 0.5	-	ND< 0.51	-
2-Methylnaphthalene	--	91-57-6	ND< 0.69	-	ND< 0.7	-	ND< 0.71	-
2-Methylphenol	--	95-48-7	ND< 0.46	-	ND< 0.47	-	ND< 0.48	-
4-Methylphenol	--	106-44-5	ND< 0.42	-	ND< 0.42	-	ND< 0.43	-
Naphthalene	20	91-20-3	ND< 0.88	-	ND< 0.88	-	ND< 0.9	-
2-Nitroaniline	--	88-74-4	ND< 0.49	-	ND< 0.49	-	ND< 0.5	-
3-Nitroaniline	--	99-09-2	ND< 0.55	-	ND< 0.56	-	ND< 0.57	-
4-Nitroaniline	--	100-01-6	ND< 0.29	-	ND< 0.29	-	ND< 0.3	-
Nitrobenzene	--	98-95-3	ND< 0.33	-	ND< 0.34	-	ND< 0.35	-
2-Nitrophenol	--	88-75-5	ND< 0.55	-	ND< 0.56	-	ND< 0.57	-
4-Nitrophenol	--	100-02-7	ND< 1.8	-	ND< 1.8	-	ND< 1.8	-
N-Nitrosodi-n-propylamine	--	621-64-7	ND< 0.62	-	ND< 0.63	-	ND< 0.64	-
N-Nitrosodiphenylamine	--	86-30-6	ND< 0.59	-	ND< 0.59	-	ND< 0.61	-
Pentachlorophenol	1	87-86-5	ND< 2.5	-	ND< 2.6	-	ND< 2.6	-
Phenanthrene	--	85-01-8	ND< 0.51	-	ND< 0.51	-	ND< 0.52	-
Phenol	2100	108-95-2	ND< 0.45	-	ND< 0.45	-	ND< 0.46	-
Pyrene	--	129-00-0	ND< 0.39	-	ND< 0.4	-	ND< 0.4	-
1,2,4,5-Tetrachlorobenzene	--	95-94-3	ND< 0.67	-	ND< 0.67	-	ND< 0.69	-
2,3,4,6-Tetrachlorophenol	--	58-90-2	ND< 0.37	-	ND< 0.37	-	ND< 0.38	-
2,4,5-Trichlorophenol	--	95-95-4	ND< 0.55	-	ND< 0.56	-	ND< 0.57	-
2,4,6-Trichlorophenol	--	88-06-2	ND< 0.7	-	ND< 0.71	-	ND< 0.73	-
Pesticides and Herbicides								
Aldrin	0.05	309-00-2	ND< 0.0088	-	ND< 0.0092	-	ND< 0.0093	-
alpha-Chlordane	--	5103-71-9	ND< 0.016	-	ND< 0.017	-	ND< 0.017	-
alpha-BHC	--	319-84-6	ND< 0.0083	-	ND< 0.0088	-	ND< 0.0088	-
beta-BHC	--	319-85-7	ND< 0.027	-	ND< 0.028	-	ND< 0.028	-
delta-BHC	--	319-86-8	ND< 0.011	-	ND< 0.011	-	ND< 0.011	-
4,4'-DDD	--	72-54-8	ND< 0.01	-	ND< 0.01	-	ND< 0.011	-
4,4'-DDE	--	72-55-9	ND< 0.013	-	ND< 0.013	-	ND< 0.013	-
4,4'-DDT	--	50-29-3	ND< 0.012	-	ND< 0.013	-	ND< 0.013	-
Dieldrin	0.02	60-57-1	ND< 0.011	-	ND< 0.011	-	ND< 0.011	-
Endosulfan I	--	959-98-8	ND< 0.012	-	ND< 0.013	-	ND< 0.013	-
Endosulfan II	--	33213-65-9	ND< 0.013	-	ND< 0.014	-	ND< 0.014	-
Endosulfan sulfate	--	1031-07-8	ND< 0.017	-	ND< 0.018	-	ND< 0.018	-
Endrin	2	72-20-8	ND< 0.015	-	ND< 0.016	-	ND< 0.016	-
Endrin aldehyde	--	7421-93-4	ND< 0.018	-	ND< 0.019	-	ND< 0.019	-
Endrin ketone	--	53494-70-5	ND< 0.013	-	ND< 0.014	-	ND< 0.014	-
gamma-BHC (Lindane)	0.2	58-89-9	ND< 0.0087	-	ND< 0.0091	-	ND< 0.0092	-
gamma-Chlordane	--	5103-74-2	ND< 0.012	-	ND< 0.013	-	ND< 0.013	-
Heptachlor	0.4	76-44-8	ND< 0.0092	-	ND< 0.0097	-	ND< 0.0097	-
Heptachlor epoxide	0.2	1024-57-3	ND< 0.008	-	ND< 0.0084	-	ND< 0.0085	-
Methoxychlor	40	72-43-5	ND< 0.015	-	ND< 0.016	-	ND< 0.016	-
Toxaphene	3	8001-35-2	ND< 0.13	-	ND< 0.14	-	ND< 0.14	-
2,4-D	70	94-75-7	ND< 0.19	-	ND< 0.4	-	ND< 1.1	-
2,4,5-T	70	93-76-5	ND< 0.077	-	ND< 0.16	-	ND< 0.43	-
Silvex (2,4,5-TP)	--	93-72-1	ND< 0.057	-	ND< 0.12	-	ND< 0.32	-

Notes:
Shaded - Exceeds the VGES
All values in ug/L unless otherwise noted
Shaded - Exceeds the VGES
ND - Not detected below the indicated value
"-" Not Analyzed
"--" - Not Applicable or Available
Blank - No data available
VGES - Vermont Groundwater Enforcement Standard (2018)

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
H - Sample was prepped or analyzed beyond the specified holding time.
F1 - MS and/or MSD Recovery is outside acceptance limits.
* - Lab Control Sample is outside acceptance limits.
** - Results less than the MDL.
Xylenes is not a laboratory analysis, but the sum of m, p, and o xylene
Trihalomethanes (Total) is not a laboratory analysis, but the sum of Bromodichloromethane, Bromoform, Chloroform, and Dibromochloromethane.

Table 3
Soil Screening Value Summary of Exceedances
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	AR-14+75 - 1FT	AR-15+75 - 1FT	AR-16+75 - 1FT	AR-17+75 - 1FT	AR-18+75 - 1FT	AR-19+75 - 1FT	AR-20+75 - 1FT	TP-24+75-2FT	TP-24+75-14FT	TP-25+25-2FT	TP-25+25-8FT	MR-201+50-2FT	MR-202+00-1FT	MR-202+00-2FT	MR-202+50-2FT	MR-203+00-2FT	MS-102+75-2FT	MS-103+00-2FT	MS-103+50-2FT	MS-104+00-2FT
Date of Sample						7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016
Depth of Sample (ft. bgs)						1	1	1	1	1	1	1	2	14	2	8	2	1	2	2	2	2	2	2	2
PID Field Measurement (ppm)						0.3	0.2	1.8	0.5	0.2	0.1	0.3	0.4	0.4	0.5	0.3	0.2	0.3	0.3	0.8	11.5	0.4	0.3	196.4	0.8
Total Petroleum Hydrocarbons (TPH) 8015D [3]																									
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	11 J B	ND< 5.1	20 B	23 B	29 B	49 B	80 B	26	10 J	16 J	9.7 J	ND< 5.5	**280**	6.7 J	8.3 J	60 J	18	7.5 J	**1200**	46
Volatile Organic Compounds (VOCs) 8260																									
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.24	ND< 0.27	ND< 0.12	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	0.61 J	ND< 0.024	ND< 0.12	ND< 0.44	ND< 0.12	ND< 0.12	**63**	ND< 0.48
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0068	ND< 0.007	ND< 0.011	ND< 0.0082	ND< 0.01	ND< 0.0087	ND< 0.01	ND< 0.0078	ND< 0.0072	ND< 0.0082	ND< 0.0081	ND< 0.0066	ND< 0.0076	ND< 0.0064	ND< 0.0067	ND< 0.006	ND< 0.009	ND< 0.0066	ND< 0.0085	ND< 0.0082
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																									
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**ND< 0.15745**	**ND< 0.15745**	**0.19266**	**0.30147**	**0.86625**	**4.7959**	**1.9912**	**1.8772**	ND< 0.03309	**0.13571**	ND< 0.03424	0.0421	**31.042**	**0.37937**	**1.05046**	**1.01859**	**0.18496**	**0.65263**	**30.652**	**2.8695**
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.086	ND< 0.086	ND< 0.098	ND< 0.093	0.39 J	**2.4**	0.87 J	**1.3**	ND< 0.018	0.096 J	ND< 0.019	0.033 J	**25**	0.26	0.7 J	0.48 J	ND< 0.095	0.42 J	**27**	**1.5 J**
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**ND< 0.13**	**ND< 0.13**	**ND< 0.14**	**0.17 J**	**0.55 J**	**3.5**	**1.4 J**	**1.4**	ND< 0.027	**0.092 J**	ND< 0.028	ND< 0.027	**20**	**0.28**	**0.74 J**	**0.52 J**	**ND< 0.14**	**0.43 J**	**21**	**2 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.14	ND< 0.14	0.26 J K	0.35 J K	**1.4 K**	**5.9**	**2.2**	**1.6**	ND< 0.029	0.099 J	ND< 0.03	0.038 J	**26**	0.34	0.91 J	0.62 J	ND< 0.15	0.59 J	**21**	**2 J**
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	2.3	1.1 J	0.79 J	ND< 0.024	0.071 J	ND< 0.024	0.028 J	**12**	0.16 J	0.37 J	ND< 0.44	ND< 0.12	0.32 J	**13**	1.3 J
Chrysene	218-01-9	110	2100	--	--	ND< 0.19	ND< 0.19	ND< 0.22	0.22 J	0.6 J	2.9	1.2 J	1.3	ND< 0.041	0.098 J	ND< 0.042	ND< 0.042	22	0.27	0.76 J	ND< 0.77	ND< 0.21	0.43 J	22	1.5 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.15**	**ND< 0.15**	**ND< 0.17**	**ND< 0.16**	**ND< 0.18**	**ND< 0.32**	**ND< 0.37**	**ND< 0.16**	ND< 0.032	ND< 0.031	ND< 0.033	ND< 0.033	**4.7**	ND< 0.033	**ND< 0.17**	**ND< 0.61**	**ND< 0.17**	**ND< 0.16**	**3.6 J**	**ND< 0.65**
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.11	ND< 0.11	ND< 0.12	0.11 J	0.46 J	**2.8**	0.87 J	0.98	ND< 0.022	0.079 J	ND< 0.023	0.047 J	**11**	0.21	0.6 J	0.81 J	0.17 J	0.38 J	**11**	**1.8 J**
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.24	ND< 0.27	ND< 0.12	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	0.61 J	ND< 0.024	ND< 0.12	ND< 0.44	ND< 0.12	ND< 0.12	**63**	ND< 0.48

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1 - MS and/or MSD Recovery is outside acceptance limits.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.

Table 3
Soil Screening Value Summary of Exceedances
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-10+50-2FT	RR-11+00-2FT	RR-11+50-2FT	RR-12+00-2FT	RR-12+50-2FT	RR-13+00-2FT	RR-13+50-2FT	RR-14+00-2FT	RR-14+50-2FT	RR-15+00-2FT	RR-15+50-2FT	RR-15+50-6FT	RR-16+00-2FT	RR-16+00-6FT	RR-16+50-2FT	RR-16+50-6FT	RR-17+00-2FT	RR-17+00-6FT	RR-17+50-2FT	RR-17+50-6FT
Date of Sample						7/27/2016	7/27/2016	7/27/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	8/3/2016	8/3/2016
Depth of Sample (ft. bgs)						2	2	2	2	2	2	2	2	2	2	2	6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.1	0.1	0.1	0	0.3	2	0.3	0.2	0.1	0.1	0.2	0.3	1.8	0.1	0.7	0.3	0.2	0.2	0.2	0.3
Total Petroleum Hydrocarbons (TPH) 8015D [3]																									
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	30	13 J	10 J	14 J	13 J	27	27	28	43	10 J	76	ND< 5.4	25	ND< 6.1	6.7 J	6.3 J	8.9 J	ND< 5.5	27	ND< 6.3
Volatile Organic Compounds (VOCs) 8260																									
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	ND< 0.45	ND< 0.024	0.043 J	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0094	ND< 0.0084	ND< 0.0084	ND< 0.0074	ND< 0.0067	ND< 0.0071	ND< 0.008	ND< 0.0078	ND< 0.007	ND< 0.0066	ND< 0.0082	ND< 0.0072	ND< 0.0072	ND< 0.0083	ND< 0.0099	ND< 0.011	ND< 0.0099	ND< 0.008	ND< 0.0065	ND< 0.01
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																									
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**ND< 0.17396**	**0.16593**	**0.33407**	**4.0403**	**0.5916**	**1.34545**	**1.07537**	**1.1341**	**3.6738**	**0.56577**	**3.0749**	ND< 0.03309	**0.47205**	ND< 0.03871	**0.75835**	ND< 0.037	**0.21884**	ND< 0.03314	**0.7031**	ND< 0.03816
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.095	0.07 J	0.14 J	**1.9**	0.24 J	0.61 J	0.59 J	0.67 J	**2.3**	0.34	**1.3 J**	ND< 0.018	0.24	ND< 0.021	0.37	ND< 0.02	0.1 J	ND< 0.018	0.37	ND< 0.021
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**ND< 0.14**	**0.11 J**	**0.23**	**2.6**	**0.37 J**	**0.93**	**0.73 J**	**0.74 J**	**2.7**	**0.41**	**2 J**	ND< 0.027	**0.33**	ND< 0.031	**0.57**	ND< 0.03	**0.15 J**	ND< 0.027	**0.51**	ND< 0.031
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.15	0.2	0.52	**4.4**	0.67 J	**1.7**	**1.3**	**1.6**	**4.4**	0.7	**3.8**	ND< 0.029	0.65	ND< 0.034	0.9 F1	ND< 0.032	0.26	ND< 0.029	0.85	ND< 0.033
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.12	0.082 J	0.18	1.8	0.23 J	0.66 J	0.55 J	0.7 J	2.1	0.33	2.2 J	ND< 0.024	0.27	ND< 0.028	0.44	ND< 0.026	0.12 J	ND< 0.024	0.41	ND< 0.027
Chrysene	218-01-9	110	2100	--	--	ND< 0.21	0.11 J	0.27	2.3	0.3 J	0.85 J	0.87 J	1.1	2.8	0.47	2.9 J	ND< 0.041	0.35	ND< 0.048	0.45	ND< 0.046	0.14 J	ND< 0.041	0.5	ND< 0.047
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.17**	ND< 0.032	ND< 0.032	**0.6 J**	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.17**	**ND< 0.16**	ND< 0.032	**ND< 0.62**	ND< 0.032	ND< 0.032	ND< 0.038	ND< 0.031	ND< 0.036	ND< 0.035	ND< 0.032	ND< 0.033	ND< 0.037
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.12	0.12 J	0.2	**1.9**	0.48 J	0.97	0.65 J	0.74 J	**2**	0.32	**2.3 J**	ND< 0.022	0.34	ND< 0.026	0.41	ND< 0.025	0.14 J	ND< 0.023	0.5	ND< 0.026
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	ND< 0.45	ND< 0.024	0.043 J	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027

All values in mg/kg unless otherwise noted
ppm - parts per million
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ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1 - MS and/or MSD Recovery is outside acceptance limits.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.

Table 3
Soil Screening Value Summary of Exceedances
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-18+00-2FT	RR-18+00-6FT	RR-18+50-2FT	RR-18+50-6FT	RR-19+00-2FT	RR-19+00-6FT	RR-19+50-2FT	RR-19+50-6FT	RR-20+00-2FT	RR-20+00-6FT	RR-20+50-2FT	RR-20+50-6FT	RR-21+00-2FT	RR-21+00-6FT	RR-21+50-2FT	RR-21+50-6FT	RR-22+00-2FT	RR-22+00-6FT	RR-22+00-11FT
Date of Sample						8/3/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/10/2016	8/9/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	11
PID Field Measurement (ppm)						0.4	0	0.2	0.2	0.4	0.3	0.8	0.6	0.4	0.4	1.2	0.6	0.7	0.3	1.7	0.1	0.6	0.3	0.4
Total Petroleum Hydrocarbons (TPH) 8015D [3]																								
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	35	7.7 J	28	8.4 J	8.3 J	ND< 6.3	16 J	8.2 J	ND< 5.7	ND< 5.8	16 J	ND< 5.8	15 J	ND< 5.1	**360**	ND< 5.2	36	ND< 5.3	ND< 5.1
Volatile Organic Compounds (VOCs) 8260																								
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.15	ND< 0.29	ND< 0.24	ND< 0.13	0.027 J	ND< 0.028	0.41	ND< 0.028	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	0.21 J	ND< 0.023	1	ND< 0.11	ND< 0.23	ND< 0.024	ND< 0.023
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.016	ND< 0.011	ND< 0.0065	ND< 0.0082	ND< 0.0061	ND< 0.0087	ND< 0.0072	ND< 0.0089	ND< 0.0074	ND< 0.004	ND< 0.007	ND< 0.007	ND< 0.0064	ND< 0.0058	ND< 0.0061	ND< 0.0064	ND< 0.0061	ND< 0.0066	ND< 0.0055
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																								
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**1.2699**	**ND< 0.4037**	**1.7988**	**ND< 0.18527**	**0.25682**	ND< 0.03931	**0.47472**	**0.08386**	ND< 0.0359	ND< 0.036	**1.5214**	**0.20325**	**1.3531**	0.05166	**6.0362**	**0.37477**	**5.1853**	**0.07718**	ND< 0.03254
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.77 J	ND< 0.22	**1.4 J**	ND< 0.1	0.15 J	ND< 0.022	0.34	0.05 J	ND< 0.02	ND< 0.02	0.78 J	0.13 J	**1.2**	0.02 J	**6.6**	0.22 J	**3.3**	0.033 J	ND< 0.018
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.84 J**	**ND< 0.33**	**1.2 J**	**ND< 0.15**	**0.17 J**	ND< 0.032	**0.29**	0.048 J	ND< 0.029	ND< 0.029	**1.1**	**0.14 J**	**0.94**	0.027 J	**4.4**	**0.22 J**	**3.8**	0.047 J	ND< 0.026
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**1.6**	ND< 0.35	**1.9**	ND< 0.16	0.33	ND< 0.034	0.39	0.073 J	ND< 0.031	ND< 0.032	**1.9**	0.24	**1.5**	0.059 J K	**6.4**	0.36 J	**6.4**	0.071 J	ND< 0.028
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.68 J	ND< 0.29	0.99 J	ND< 0.13	0.11 J	ND< 0.028	0.23	ND< 0.028	ND< 0.025	ND< 0.026	0.62 J	0.08 J	0.65 J	ND< 0.023	2.9	ND< 0.11	2.1	ND< 0.024	ND< 0.023
Chrysene	218-01-9	110	2100	--	--	1.1	ND< 0.5	1.9	ND< 0.23	0.22	ND< 0.049	0.42	ND< 0.049	ND< 0.044	ND< 0.045	1.2	0.15 J	1.6	0.04 J	7.2	0.22 J	4.3	0.057 J	ND< 0.04
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.2**	**ND< 0.39**	**ND< 0.32**	**ND< 0.18**	ND< 0.033	ND< 0.038	0.084 J	ND< 0.038	ND< 0.035	ND< 0.035	**ND< 0.17**	ND< 0.034	**ND< 0.16**	ND< 0.031	**ND< 0.16**	**ND< 0.16**	**ND< 0.32**	ND< 0.032	ND< 0.032
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.85 J	ND< 0.27	0.97 J	ND< 0.13	0.21	ND< 0.027	0.25	0.044 J	ND< 0.024	ND< 0.025	0.61 J	0.083 J	0.55 J	ND< 0.022	**2.2**	0.16 J	**2.3**	0.036 J	ND< 0.022
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.15	ND< 0.29	ND< 0.24	ND< 0.13	0.027 J	ND< 0.028	0.41	ND< 0.028	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	0.21 J	ND< 0.023	1	ND< 0.11	ND< 0.23	ND< 0.024	ND< 0.023

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Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
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EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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Table 3
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Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-22+50-2FT	RR-22+50-6FT	RR-23+00-2FT	RR-23+50-2FT	RR-23+50-6FT	RR-23+50-10FT	RR-24+00-2FT	RR-24+00-6FT	RR-24+50-2FT	RR-24+50-6FT	RR-25+00-2FT	RR-25+50-2FT	RR-26+00-2FT	RR-26+50-2FT	RR-27+00-2FT	RR-28+00-2FT	RR-28+50-2FT	RR-28+50-6FT
Date of Sample						8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	2	2	6	10	2	6	2	6	2	2	2	2	2	2	2	6
PID Field Measurement (ppm)						0.2	0.4	0.1	0.5	0.5	0.6	0.1	0.3	0.3	0.6	0.3	0.6	1.2	0.5	2	--	0.2	0.4
Total Petroleum Hydrocarbons (TPH) 8015D [3]																							
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	30	ND< 5.2	ND< 5.3	ND< 5.2	ND< 5.4	ND< 5.3	ND< 5.4	ND< 5.7	ND< 5.9	ND< 5.2	ND< 7.3	9.7 J	74	18 J	10 J	31	45	27
Volatile Organic Compounds (VOCs) 8260																							
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.24	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026	ND< 0.022	ND< 0.16	ND< 0.12	ND< 0.24	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	0.53 J
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0066	ND< 0.0074	ND< 0.0063	ND< 0.0059	ND< 0.0062	ND< 0.0063	ND< 0.0061	ND< 0.0066	ND< 0.0063	ND< 0.0055	ND< 0.011	ND< 0.0072	0.014 J	0.028 J	ND< 0.0058	0.019 J	0.39	ND< 0.0061
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																							
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**3.4818**	0.05274	**0.38483**	0.07086	ND< 0.03309	**ND< 0.66226**	**0.34035**	**ND< 0.70244**	ND< 0.037	0.03323	**0.35944**	**0.48799**	**2.0133**	**1.2899**	**0.74025**	**2.863**	**1.8643**	**10.2817**
Benzo[a]anthracene	56-55-3	1.1	21	--	--	**2.6**	0.029 J	0.26 J	0.038 J	ND< 0.018	ND< 0.36	ND< 0.18	ND< 0.39	ND< 0.02	ND< 0.017	0.15 J	0.22 J	**1.2 J**	0.89 J	0.44 J	**2 J**	0.87 J	**8.2**
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**2.5**	0.028 J	**0.23 J**	0.042 J	ND< 0.027	**ND< 0.54**	**ND< 0.26**	**ND< 0.57**	ND< 0.03	ND< 0.025	**0.19 J**	**0.32 J**	**1.4 J**	**0.9 J**	**0.5 J**	**2 J**	**1.3 J**	**7**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**4**	0.046 J	0.33 J	0.067 J	ND< 0.029	ND< 0.58	0.29 J K	ND< 0.62	ND< 0.032	0.032 J	0.36 J	0.42 J	**2.1**	**1.5**	0.81 J	**3.5**	**2.1**	**8.7**
Benzo[k]fluoranthene	207-08-9	11	210	--	--	1.8	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026	ND< 0.022	ND< 0.16	ND< 0.12	0.66 J	0.27 J	0.15 J	0.97 J	0.6 J	3.4
Chrysene	218-01-9	110	2100	--	--	3.8	ND< 0.04	0.28 J	0.043 J	ND< 0.04	ND< 0.81	ND< 0.4	ND< 0.87	ND< 0.045	ND< 0.039	ND< 0.28	0.39 J	1.7 J	1.2	0.75 J	3.3	1.3 J	7.7
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.32**	ND< 0.032	**ND< 0.16**	ND< 0.031	ND< 0.032	**ND< 0.64**	**ND< 0.32**	**ND< 0.68**	ND< 0.036	ND< 0.031	**ND< 0.22**	**ND< 0.16**	**ND< 0.33**	**ND< 0.19**	**ND< 0.16**	**ND< 0.38**	**ND< 0.36**	**1.2 J**
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	**1.4 J**	ND< 0.022	0.15 J	0.027 J	ND< 0.022	ND< 0.45	ND< 0.22	ND< 0.48	ND< 0.025	ND< 0.021	ND< 0.15	0.23 J	**1.1 J**	0.52 J	0.33 J	**1.1 J**	0.8 J	**3.5**
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.24	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026	ND< 0.022	ND< 0.16	ND< 0.12	ND< 0.24	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	0.53 J

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EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
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Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-29+00-2FT	RR-29+00-6FT	RR-29+50-2FT	RR-29+50-4FT	RR-30+00-2FT	RR-30+00-6FT	RR-30+50-2FT	RR-30+50-6FT	RR-31+00-2FT	RR-31+00-6FT	RR-31+50-2FT	RR-31+50-6FT	RR-32+00-2FT	RR-32+00-6FT	RR-32+50-2FT	RR-32+50-6FT	RR-33+00-2FT	RR-33+00-6FT
Date of Sample						8/10/2016	8/10/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016
Depth of Sample (ft. bgs)						2	6	2	4	2	6	2	6	2	6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.2	0.7	0.3	0.5	0.3	0.4	2	0.7	0.5	0.5	0.3	0	0.3	0	0.2	--	0.2	0.2
Total Petroleum Hydrocarbons (TPH) 8015D [3]																							
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	13 J	ND< 7	13 J	ND< 7	17 J	ND< 6.7	15 J	ND< 7.4	45	ND< 7.5	66	ND< 7.8	78	ND< 7.4	41	ND< 7.5	20	ND< 6.6
Volatile Organic Compounds (VOCs) 8260																							
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	**ND< 1.6**	ND< 0.12	ND< 0.033	ND< 0.26	ND< 0.034	0.08 J	ND< 0.033	0.058 J	ND< 0.033	0.028 J	ND< 0.029
Tetrachloroethene	127-18-4	1.46	100	--	14	0.2	ND< 0.011	ND< 0.0072	ND< 0.01	ND< 0.0095	ND< 0.0099	ND< 0.0063	ND< 0.013	ND< 0.0075	ND< 0.012	ND< 0.0084	ND< 0.013	ND< 0.026	ND< 0.012	ND< 0.0093	ND< 0.012	ND< 0.0079	ND< 0.009
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																							
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.36597**	**ND< 0.86465**	**0.35846**	ND< 0.04318	**ND< 0.19632**	ND< 0.04213	**0.2793**	**ND< 2.2444**	**0.414**	ND< 0.04664	**3.3521**	ND< 0.04825	**0.63741**	ND< 0.04599	**1.32208**	ND< 0.04599	**0.20555**	ND< 0.04097
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.19	ND< 0.48	ND< 0.19	ND< 0.024	ND< 0.11	ND< 0.023	0.17 J	**ND< 1.2**	0.21 J	ND< 0.026	**1.4 J**	ND< 0.026	0.42 J	ND< 0.025	0.69	ND< 0.025	0.14 J	ND< 0.022
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**ND< 0.28**	**ND< 0.7**	**ND< 0.28**	ND< 0.035	**ND< 0.16**	ND< 0.034	**0.15 J**	**ND< 1.8**	**0.25 J**	ND< 0.038	**2.4**	ND< 0.039	**0.45**	ND< 0.037	**0.82**	ND< 0.037	**0.14 J**	ND< 0.033
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.33 J	ND< 0.75	0.31 J	ND< 0.037	ND< 0.17	ND< 0.037	0.26 J	**ND< 2**	0.44 J	ND< 0.041	**4.4**	ND< 0.042	0.67	ND< 0.04	**1.3**	ND< 0.04	0.22	ND< 0.036
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	ND< 1.6	ND< 0.12	ND< 0.033	0.99 J	ND< 0.034	0.28 J	ND< 0.033	0.62	ND< 0.033	0.085 J	ND< 0.029
Chrysene	218-01-9	110	2100	--	--	ND< 0.43	ND< 1.1	ND< 0.42	ND< 0.053	ND< 0.24	ND< 0.052	0.25 J	ND< 2.8	0.4 J	ND< 0.057	2.2	ND< 0.059	0.61	ND< 0.057	0.88	ND< 0.057	0.2	ND< 0.05
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.34**	**ND< 0.84**	**ND< 0.33**	ND< 0.042	**ND< 0.19**	ND< 0.041	**ND< 0.16**	**ND< 2.2**	**ND< 0.17**	ND< 0.045	**ND< 0.36**	ND< 0.047	ND< 0.076	ND< 0.045	**0.23**	ND< 0.045	ND< 0.033	ND< 0.04
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.24	ND< 0.59	ND< 0.23	ND< 0.029	ND< 0.13	ND< 0.029	ND< 0.11	**ND< 1.5**	0.13 J	ND< 0.032	**1.8 J**	ND< 0.033	0.37 J	ND< 0.031	0.66	ND< 0.031	0.12 J	ND< 0.028
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	**ND< 1.6**	ND< 0.12	ND< 0.033	ND< 0.26	ND< 0.034	0.08 J	ND< 0.033	0.058 J	ND< 0.033	0.028 J	ND< 0.029

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1 - MS and/or MSD Recovery is outside acceptance limits.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.

Table 3
Soil Screening Value Summary of Exceedances
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-33+50-2FT	RR-33+50-6FT	RR-34+00-2FT	RR-34+00-6FT	RR-34+50-2FT	RR-34+50-6FT	RR-35+00-2FT	RR-35+00-6FT	RR-35+50-2FT	RR-35+50-6FT	RR-36+00-2FT	RR-36+00-6FT	RR-36+50-2FT	RR-36+50-6FT	RR-37+00-2FT	RR-37+00-6FT	RR-37+50-2FT	RR-37+50-6FT
Date of Sample						8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/3/2016	8/11/2016	8/3/2016	8/3/2016	8/3/2016	8/3/2016	8/2/2016	8/3/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.3	--	0.2	0.1	0.7	0.2	0.3	0.2	0.4	0.3	0.3	3	0.2	0	0.1	0.2	0.6	0.2
Total Petroleum Hydrocarbons (TPH) 8015D [3]																							
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	48	ND< 6.5	62	ND< 7.1	62	ND< 6.8	34	ND< 7.1	13 J	ND< 6.6	27	ND< 7.5	15 J	ND< 7.4	15 J	ND< 7	65	ND< 7.6
Volatile Organic Compounds (VOCs) 8260																							
Naphthalene	91-20-3	1.42	17	--	--	0.07 J	ND< 0.028	ND< 0.12	ND< 0.031	0.13 J	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	0.13 J	ND< 0.16
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.007	ND< 0.0097	ND< 0.0073	ND< 0.011	ND< 0.0067	ND< 0.0096	ND< 0.0094	ND< 0.011	ND< 0.0065	ND< 0.01	ND< 0.0086	ND< 0.013	ND< 0.0063	ND< 0.012	ND< 0.0068	ND< 0.015	ND< 0.0071	ND< 0.013
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																							
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**1.46134**	ND< 0.03986	**1.7177**	ND< 0.04378	**1.9684**	ND< 0.04102	**0.52696**	ND< 0.04544	**0.44986**	ND< 0.04097	**1.3648**	ND< 0.04599	**0.2568**	ND< 0.04599	**0.26031**	ND< 0.04323	**1.18644**	**1.76408**
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.8	ND< 0.022	**1.2**	ND< 0.024	0.96	ND< 0.023	0.27 J	ND< 0.025	0.19 J	ND< 0.022	0.9 J	ND< 0.025	0.14 J	ND< 0.025	ND< 0.092	ND< 0.024	0.62 J	0.61 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**1.1**	ND< 0.032	**1.2**	ND< 0.035	**1.4**	ND< 0.033	**0.33 J**	ND< 0.037	**0.28 J**	ND< 0.033	**1**	ND< 0.037	**0.18**	ND< 0.037	**0.14 J**	ND< 0.035	**0.81 J**	**1.1 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**1.7**	ND< 0.035	**2.1**	ND< 0.038	**2.5**	ND< 0.036	0.61 J	ND< 0.039	0.48 J	ND< 0.036	**1.2**	ND< 0.04	0.28	ND< 0.04	0.21 J	ND< 0.038	**1.6 K**	**1.8**
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.69	ND< 0.028	0.91	ND< 0.031	1.1	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11	ND< 0.029	0.48 J	ND< 0.033	0.11 J	ND< 0.033	ND< 0.12	ND< 0.031	ND< 0.12	0.43 J
Chrysene	218-01-9	110	2100	--	--	0.94	ND< 0.049	1.6	ND< 0.054	1.4	ND< 0.05	0.41 J	ND< 0.056	0.31 J	ND< 0.05	1	ND< 0.057	0.2	ND< 0.057	ND< 0.21	ND< 0.053	0.84 J	0.78 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.031	ND< 0.039	**ND< 0.16**	ND< 0.043	**ND< 0.16**	ND< 0.04	**ND< 0.16**	ND< 0.044	**ND< 0.16**	ND< 0.04	**ND< 0.16**	ND< 0.045	ND< 0.031	ND< 0.045	**ND< 0.16**	ND< 0.042	**ND< 0.16**	**0.32 J**
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.88	ND< 0.027	0.97	ND< 0.03	**1.3**	ND< 0.028	0.28 J	ND< 0.031	0.22 J	ND< 0.028	0.69 J	ND< 0.031	0.18	ND< 0.031	0.14 J	ND< 0.029	0.73 J	0.98 J
Naphthalene	91-20-3	1.42	17	--	--	0.07 J	ND< 0.028	ND< 0.12	ND< 0.031	0.13 J	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	0.13 J	ND< 0.16

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EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
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Table 3
Soil Screening Value Summary of Exceedances
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-38+00-2FT	RR-38+00-6FT	RR-38+50-2FT	RR-39+00-2FT	RR-39+50-2FT	RR-40+00-2FT	RR-40+50-2FT	RR-41+00-2FT	RR-42+50-2FT	RR-43+00-2FT	RR-43+50-2FT	RR-44+00-2FT	RR-44+50-2FT	RR-45+00-2FT	RR-45+50-2FT
Date of Sample						8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	7/27/2016	7/27/2016	7/27/2016	8/2/2016	7/27/2016	7/27/2016	7/27/2016
Depth of Sample (ft. bgs)						2	6	2	2	2	2	2	2	2	2	2	2	2	2	2
PID Field Measurement (ppm)						0.4	0.1	0.4	0.5	0.6	1.5	0.2	0.8	0.3	0.3	0.2	0.3	0.1	0.2	0.5
Total Petroleum Hydrocarbons (TPH) 8015D [3]																				
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	51	ND< 7	26	44	65	75	67	37	29	80	27	25	**190**	**170**	63
Volatile Organic Compounds (VOCs) 8260																				
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	0.13 J	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.52	ND< 0.53	ND< 0.14
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0068	ND< 0.012	ND< 0.0069	ND< 0.0071	ND< 0.0085	ND< 0.0056	ND< 0.008	**5.9**	ND< 0.0095	ND< 0.0085	ND< 0.0092	ND< 0.0094	ND< 0.014	0.35	ND< 0.017
Semi- Volatile Organic Compounds (SVOCs) 8270D LL																				
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.88624**	ND< 0.04318	**1.5698**	**0.69263**	**0.91242**	**0.2887**	**1.04344**	**0.59122**	**0.72768**	**0.66813**	**2.0416**	**0.80491**	**5.3045**	**12.1159**	**1.0188**
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.44 J	ND< 0.024	0.9 J	0.38 J	0.36 J	0.11 J	0.47 J	0.32 J	0.29 J	0.36 J	0.91	0.48 J	**3.2 J**	**6.2**	0.63 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.62 J**	ND< 0.035	**1.1**	**0.44 J**	**0.62 J**	**0.14 J**	**0.71 J**	**0.36 J**	**0.47 J**	**0.41 J**	**1.5**	**0.51 J**	**3.5 J**	**7.5**	**0.68 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.88	ND< 0.037	**1.9**	0.77 J	0.96	0.3 J	**1.2**	0.66 J	0.94	1 K	**2.4**	**1.1**	**8.1**	**16**	**1.3**
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.27 J	ND< 0.03	0.86 J	0.31 J	0.39 J	ND< 0.12	0.48 J	0.27 J	0.42 J	ND< 0.12	0.94	0.42 J	2.4 J	5.7	0.67 J
Chrysene	218-01-9	110	2100	--	--	0.54 J	ND< 0.053	1.2	0.53 J	0.52 J	ND< 0.2	0.64 J	0.52 J	0.48 J	0.53 J	1.2	0.71 J	5.5	8.9	1.1
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.16**	ND< 0.042	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.16**	**ND< 0.16**	**ND< 0.16**	**ND< 0.16**	**ND< 0.71**	**1.8 J**	**ND< 0.18**
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.51 J	ND< 0.029	1	0.54 J	0.71 J	0.27 J	0.81 J	0.45 J	0.5 J	0.41 J	**1.2**	0.52 J	**2.9 J**	**5.3**	0.48 J
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	0.13 J	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.52	ND< 0.53	ND< 0.14

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EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.

[1] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
Lab Qualifiers
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F1 - MS and/or MSD Recovery is outside acceptance limits.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	AR-14+75 - 1FT	AR-15+75 - 1FT	AR-16+75 - 1FT	AR-17+75 - 1FT	AR-18+75 - 1FT	AR-19+75 - 1FT	AR-20+75 - 1FT	TP-24+75-2FT
Date of Sample						7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	8/1/2016
Depth of Sample (ft. bgs)						1	1	1	1	1	1	1	2
PID Field Measurement (ppm)						0.3	0.2	1.8	0.5	0.2	0.1	0.3	0.4
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.22 HF	8.1 HF	8.53 HF	8.55 HF	8.36 HF	8.22 HF	8.09 HF	8.93 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	7	2.6	3.6	12.6	9.9	5.6	3	3.6
Barium	7440-39-3	11700	220000	--	2000	25.5 F1	21.5	103	120	78.9	71.8	41.5	64.2
Cadmium	7440-43-9	7.15	980	--	20	ND< 0.03	ND< 0.032	0.16 J	0.28	0.12 J	0.18 J	0.096 J	0.16 J B
Chromium	7440-47-3	1800000	41900	--	100	3.9	3.4	23	17.1	12.5	12.4	8.9	14.4
Lead	7439-92-1	400	800	111	100	8.3	7.4	20.4	170	72.6	98.7	34.7	58.7
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	0.018 J	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.41	ND< 0.43	ND< 0.46	ND< 0.45	ND< 0.48	ND< 0.42	ND< 0.51	ND< 0.49
Silver	7440-22-4	247	5800	--	100	ND< 0.2	ND< 0.22	ND< 0.23	ND< 0.23	ND< 0.24	ND< 0.21	ND< 0.26	ND< 0.24
Mercury	7439-97-6	10.9	46	--	4	ND< 0.0084	ND< 0.0083	0.047	0.36	0.15	0.28	0.065	0.1 F1
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	11 J B	ND< 5.1	20 B	23 B	29 B	49 B	80 B	26
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.34	ND< 0.34	2.6	ND< 0.36	1.6	0.73 J	ND< 0.41	ND< 1.2 H
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.038	ND< 0.038	ND< 0.041	ND< 0.041	ND< 0.043	ND< 0.04	ND< 0.045	ND< 0.039
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.051	ND< 0.051	ND< 0.055	ND< 0.054	ND< 0.058	ND< 0.053	ND< 0.059	ND< 0.052
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.064	ND< 0.064	ND< 0.069	ND< 0.068	ND< 0.072	ND< 0.066	ND< 0.074	ND< 0.065
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.035	ND< 0.035	ND< 0.038	ND< 0.037	ND< 0.04	ND< 0.036	ND< 0.041	ND< 0.036
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.026	ND< 0.026	ND< 0.027	ND< 0.027	ND< 0.029	ND< 0.026	ND< 0.03	ND< 0.026
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.045	ND< 0.045	ND< 0.048	ND< 0.048	ND< 0.051	ND< 0.046	ND< 0.052	ND< 0.046
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.029	ND< 0.029	ND< 0.031	ND< 0.031	ND< 0.033	ND< 0.03	ND< 0.033	ND< 0.029
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.032	ND< 0.032	ND< 0.034	ND< 0.034	ND< 0.036	ND< 0.033	ND< 0.037	ND< 0.033
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.042	ND< 0.042	ND< 0.045	ND< 0.044	ND< 0.047	ND< 0.043	ND< 0.048	ND< 0.042
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.25 *	ND< 0.21	ND< 0.42 *	ND< 0.31 *	ND< 0.38 *	ND< 0.27	ND< 0.38 *	ND< 0.24
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0096	ND< 0.0098	ND< 0.016	ND< 0.012	ND< 0.015	ND< 0.012	ND< 0.015	ND< 0.011
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.011	ND< 0.011	ND< 0.018	ND< 0.013	ND< 0.017	ND< 0.014	ND< 0.017	ND< 0.013
Bromoform	75-25-2	19	86	--	--	ND< 0.025	ND< 0.026	ND< 0.042	ND< 0.031	ND< 0.038	ND< 0.032	ND< 0.038	ND< 0.029
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.011	ND< 0.011	ND< 0.018	ND< 0.013	ND< 0.017	ND< 0.014	ND< 0.017	ND< 0.013
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.25 *	ND< 0.15	ND< 0.42 *	ND< 0.31 *	ND< 0.38 *	ND< 0.19	ND< 0.38 *	ND< 0.17
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.015	ND< 0.015	ND< 0.024	ND< 0.018	0.022 J	ND< 0.019	ND< 0.022	ND< 0.017
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.019	ND< 0.019	ND< 0.031	ND< 0.023	ND< 0.028	ND< 0.024	ND< 0.028	ND< 0.021
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.014	ND< 0.014	ND< 0.023	ND< 0.017	ND< 0.021	ND< 0.018	ND< 0.021	ND< 0.016
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.023	ND< 0.024	ND< 0.038	ND< 0.028	ND< 0.035	ND< 0.029	ND< 0.035	ND< 0.027
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.013	ND< 0.013	ND< 0.021	ND< 0.016	ND< 0.02	ND< 0.016	ND< 0.019	ND< 0.015
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0067	ND< 0.0068	ND< 0.011	ND< 0.0081	ND< 0.01	ND< 0.0085	ND< 0.01	ND< 0.0077
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.018	ND< 0.019	ND< 0.03	ND< 0.022	ND< 0.028	ND< 0.023	ND< 0.028	ND< 0.058 *
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.024	ND< 0.025	ND< 0.04	ND< 0.03	ND< 0.037	ND< 0.031	ND< 0.037	ND< 0.028
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.01	ND< 0.011	ND< 0.017	ND< 0.013	ND< 0.016	ND< 0.013	ND< 0.016	ND< 0.012
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.016	ND< 0.017	ND< 0.027	ND< 0.02	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.019
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.035	ND< 0.036	ND< 0.057	ND< 0.042	ND< 0.053	ND< 0.044	ND< 0.052	ND< 0.04
Chloromethane	74-87-3	110	460	--	--	ND< 0.012	ND< 0.012	ND< 0.02	ND< 0.015	ND< 0.018	ND< 0.015	ND< 0.018	ND< 0.014
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.019	ND< 0.02	ND< 0.032	ND< 0.023	ND< 0.029	ND< 0.025	ND< 0.029	ND< 0.022
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.01	ND< 0.011	ND< 0.017	ND< 0.012	ND< 0.016	ND< 0.013	ND< 0.016	ND< 0.012
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.011	ND< 0.012	ND< 0.019	ND< 0.014	ND< 0.017	0.091	ND< 0.017	ND< 0.013
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.025**	**ND< 0.026**	**ND< 0.042**	**ND< 0.031**	**ND< 0.038**	**ND< 0.032**	**ND< 0.038**	**ND< 0.029**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.016	ND< 0.017	ND< 0.027	ND< 0.02	ND< 0.025	ND< 0.021	ND< 0.025	ND< 0.019
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.013	ND< 0.013	ND< 0.021	ND< 0.016	ND< 0.02	ND< 0.016	ND< 0.019	ND< 0.015
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.013	ND< 0.014	ND< 0.022	ND< 0.016	ND< 0.02	ND< 0.017	ND< 0.02	ND< 0.016
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0071	ND< 0.0073	ND< 0.012	ND< 0.0086	ND< 0.011	ND< 0.009	ND< 0.011	ND< 0.0082
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.01	ND< 0.01	ND< 0.017	ND< 0.012	ND< 0.015	ND< 0.013	ND< 0.015	ND< 0.012
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.022	ND< 0.023	ND< 0.036	ND< 0.027	ND< 0.033	ND< 0.028	ND< 0.033	ND< 0.025
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.016	ND< 0.016	ND< 0.026	ND< 0.019	ND< 0.024	ND< 0.02	ND< 0.024	ND< 0.058 *
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.021	ND< 0.021	ND< 0.034	ND< 0.025	ND< 0.031	ND< 0.026	ND< 0.031	ND< 0.024
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.017	ND< 0.018	ND< 0.029	ND< 0.021	ND< 0.027	ND< 0.022	ND< 0.026	ND< 0.02
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.014	ND< 0.014	ND< 0.023	ND< 0.017	ND< 0.021	ND< 0.018	ND< 0.021	ND< 0.016
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.012	ND< 0.012	ND< 0.02	ND< 0.014	ND< 0.018	ND< 0.015	ND< 0.018	ND< 0.014
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0082	ND< 0.0084	ND< 0.014	ND< 0.0099	ND< 0.012	ND< 0.01	ND< 0.012	ND< 0.058 *
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0092	ND< 0.0094	ND< 0.015	ND< 0.011	ND< 0.014	ND< 0.012	ND< 0.014	ND< 0.011
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.011	ND< 0.012	ND< 0.019	ND< 0.014	ND< 0.017	ND< 0.015	ND< 0.017	ND< 0.013
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.013	ND< 0.013	ND< 0.021	ND< 0.015	ND< 0.019	ND< 0.016	ND< 0.019	ND< 0.015
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.012	ND< 0.012	ND< 0.02	ND< 0.015	ND< 0.018	ND< 0.015	ND< 0.018	ND< 0.058 *
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.005	ND< 0.0051	ND< 0.0082	ND< 0.006	ND< 0.0075	ND< 0.0063	ND< 0.0075	ND< 0.0057
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.96 *	ND< 0.26	ND< 1.6 *	ND< 1.2 *	ND< 1.5 *	ND< 0.33	ND< 1.5 *	ND< 0.3
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.015	ND< 0.015	0.03 J	ND< 0.018	0.1	0.026 J	ND< 0.022	ND< 0.017
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0088	ND< 0.0091	ND< 0.015	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.013	ND< 0.01
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.02	ND< 0.021	ND< 0.033	ND< 0.024	ND< 0.03	ND< 0.026	ND< 0.03	ND< 0.023
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.1	ND< 0.11	ND< 0.17	ND< 0.13	ND< 0.16	ND< 0.13	ND< 0.16	ND< 0.12
Iodomethane	74-88-4	--	--	--	--	ND< 0.015	ND< 0.016	ND< 0.026	ND< 0.019	ND< 0.024	ND< 0.02	ND< 0.023	ND< 0.058 *
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.27	ND< 0.28	ND< 0.44	ND< 0.33	ND< 0.41	ND< 0.34	ND< 0.41	ND< 0.31
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0076	ND< 0.0078	ND< 0.013	ND< 0.0092	0.014 J	0.011 J	ND< 0.011	ND< 0.0087
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.017	ND< 0.017	ND< 0.028	ND< 0.021	ND< 0.026	ND< 0.022	ND< 0.026	ND< 0.02
Methyl acetate	79-20-9	78000	1200000	--	--	0.17	ND< 0.025	0.5	0.3	0.16	0.3	0.26	0.13
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.016	ND< 0.017	ND< 0.027	ND< 0.02	ND< 0.025	ND< 0.32 *	ND< 0.024	ND< 0.019
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.019	ND< 0.02	ND< 0.032	ND< 0.023	ND< 0.029	ND< 0.024	ND< 0.029	ND< 0.022
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.024	ND< 0.024	ND< 0.039	0.047 J	0.092	0.21	ND< 0.036	ND< 0.027
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.01	ND< 0.01	ND< 0.017	ND< 0.012	ND< 0.015	0.066	ND< 0.015	ND< 0.058 *
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.24	ND< 0.27	ND< 0.12
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.013	ND< 0.014	ND< 0.022	ND< 0.016	0.045 J	0.019 J	ND< 0.02	ND< 0.015
Styrene	100-42-5	6000	35000	--	--	ND< 0.012	ND< 0.012	ND< 0.02	ND< 0.015	ND< 0.018	ND< 0.016	ND< 0.018	ND< 0.014
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.014	ND< 0.015	ND< 0.024	ND< 0.017	ND< 0.022	ND< 0.018	ND< 0.022	ND< 0.058 *
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0082	ND< 0.0084	ND< 0.014	ND< 0.0099	ND< 0.012	ND< 0.01	ND< 0.012	ND< 0.0095
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0068	ND< 0.007	ND< 0.011	ND< 0.0082	ND< 0.01	ND< 0.0087	ND< 0.01	ND< 0.0078
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.025	ND< 0.026	ND< 0.042	ND< 0.031	ND< 0.038	ND< 0.032	ND< 0.038	ND< 0.029
Toluene	108-88-3	4640	47000	--	--	ND< 0.014	ND< 0.014	0.11	ND< 0.016	0.24	0.053 J	ND< 0.02	ND< 0.016
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.025	ND< 0.026	ND< 0.042	ND< 0.031	ND< 0.038	ND< 0.032	ND< 0.038	ND< 0.029
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.023	ND< 0.024	ND< 0.038	ND< 0.028	ND< 0.035	ND< 0.03	ND< 0.035	ND< 0.027
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.019	ND< 0.02	ND< 0.032	ND< 0.023	ND< 0.029	ND< 0.024	ND< 0.029	ND< 0.022
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.014	ND< 0.014	ND< 0.023	ND< 0.017	ND< 0.021	ND< 0.018	ND< 0.021	ND< 0.016
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.011	ND< 0.018	ND< 0.013	ND< 0.016	ND< 0.014	ND< 0.016	ND< 0.012
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.014	ND< 0.014	ND< 0.023	ND< 0.017	ND< 0.021	ND< 0.018	ND< 0.021	ND< 0.016
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.024	ND< 0.024	ND< 0.039	ND< 0.029	ND< 0.036	ND< 0.03	ND< 0.036	ND< 0.027
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.011**	**ND< 0.012**	**ND< 0.019**	**ND< 0.014**	**ND< 0.017**	**ND< 0.014**	**ND< 0.017**	**ND< 0.013**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.014	ND< 0.014	0.049 J	ND< 0.017	0.21	0.053 J	ND< 0.021	ND< 0.016
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.015	ND< 0.016	ND< 0.025	ND< 0.018	0.073 J	ND< 0.019	ND< 0.023	ND< 0.018
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	0.029	ND< 0.029	0.029	0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.09	ND< 0.092	ND< 0.15	ND< 0.11	ND< 0.14	ND< 0.11	ND< 0.14	ND< 0.1
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.017	ND< 0.017	ND< 0.028	ND< 0.021	ND< 0.026	ND< 0.022	ND< 0.026	ND< 0.058 *
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.028	ND< 0.029	0.096 J	ND< 0.034	0.36	0.096 J	ND< 0.042	ND< 0.032
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0066	ND< 0.0067	0.044 J	ND< 0.008	0.11	0.067	ND< 0.0099	ND< 0.0076
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0346	ND< 0.0357	0.14	ND< 0.042	0.47	0.163	ND< 0.0519	ND< 0.0396

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	AR-14+75 - 1FT	AR-15+75 - 1FT	AR-16+75 - 1FT	AR-17+75 - 1FT	AR-18+75 - 1FT	AR-19+75 - 1FT	AR-20+75 - 1FT	TP-24+75-2FT
Date of Sample						7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	7/26/2016	8/1/2016
Depth of Sample (ft. bgs)						1	1	1	1	1	1	1	2
PID Field Measurement (ppm)						0.3	0.2	1.8	0.5	0.2	0.1	0.3	0.4
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**ND< 0.15745**	**ND< 0.15745**	**0.19266**	**0.30147**	**0.86625**	**4.7959**	**1.9912**	**1.8772**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.27	ND< 0.31	ND< 0.14
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	0.16 J	0.94 J	0.36 J	0.17 J
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.13	ND< 0.25	ND< 0.28	ND< 0.13
Anthracene	120-12-7	18000	230000	--	--	ND< 0.21	ND< 0.21	ND< 0.24	ND< 0.23	ND< 0.25	0.78 J	ND< 0.52	ND< 0.23
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.3	ND< 0.3	ND< 0.34	ND< 0.32	ND< 0.34	ND< 0.64	ND< 0.73	ND< 0.32
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.68	ND< 0.69	ND< 0.78	ND< 0.74	ND< 0.79	ND< 1.5	ND< 1.7	ND< 0.74
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.086	ND< 0.086	ND< 0.098	ND< 0.093	0.39 J	**2.4**	0.87 J	**1.3**
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**ND< 0.13**	**ND< 0.13**	**ND< 0.14**	**0.17 J**	**0.55 J**	**3.5**	**1.4 J**	**1.4**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.14	ND< 0.14	0.26 J K	0.35 J K	**1.4 K**	**5.9**	**2.2**	**1.6**
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.091	ND< 0.091	ND< 0.1	0.12 J	0.49 J	3	0.94 J	0.93
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	2.3	1.1 J	0.79 J
Biphenyl	92-52-4	47	200	--	--	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.27	ND< 0.31	ND< 0.14
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.12	ND< 0.12	ND< 0.14	ND< 0.13	ND< 0.14	ND< 0.26	ND< 0.3	ND< 0.13
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.14	ND< 0.14	ND< 0.16	ND< 0.15	ND< 0.16	ND< 0.3	ND< 0.35	ND< 0.15
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.26	ND< 0.26	ND< 0.29	ND< 0.28	ND< 0.3	ND< 0.55	ND< 0.63	ND< 0.28
Carbazole	86-74-8	--	--	--	--	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	0.26 J	ND< 0.25	ND< 0.11
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.21	ND< 0.21	ND< 0.24	ND< 0.23	ND< 0.25	ND< 0.45	ND< 0.52	ND< 0.23
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.21	ND< 0.21	ND< 0.24	ND< 0.23	ND< 0.25	ND< 0.45	ND< 0.52	ND< 0.23
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.18	ND< 0.18	ND< 0.21	ND< 0.2	ND< 0.21	ND< 0.39	ND< 0.44	ND< 0.2
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	**ND< 0.24**	**ND< 0.27**	ND< 0.12
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.17	ND< 0.17	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.37	ND< 0.42	ND< 0.19
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.14	ND< 0.14	ND< 0.16	ND< 0.15	ND< 0.16	ND< 0.3	ND< 0.35	ND< 0.15
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.16	ND< 0.16	ND< 0.18	ND< 0.17	ND< 0.18	ND< 0.33	ND< 0.38	ND< 0.17
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.23	ND< 0.26	ND< 0.11
Chrysene	218-01-9	110	2100	--	--	ND< 0.19	ND< 0.19	ND< 0.22	0.22 J	0.6 J	2.9	1.2 J	1.3
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.15**	**ND< 0.15**	**ND< 0.17**	**ND< 0.16**	**ND< 0.18**	**ND< 0.32**	**ND< 0.37**	**ND< 0.16**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.22	ND< 0.25	ND< 0.11
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 1	ND< 1	**ND< 1.2**	ND< 1.1	**ND< 1.2**	**ND< 2.2**	**ND< 2.5**	ND< 1.1
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.091	ND< 0.091	ND< 0.1	ND< 0.098	ND< 0.11	ND< 0.19	ND< 0.22	ND< 0.098
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.24	ND< 0.27	ND< 0.12
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.22	ND< 0.25	ND< 0.11
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.21	ND< 0.21	ND< 0.24	ND< 0.22	ND< 0.24	ND< 0.44	ND< 0.51	ND< 0.22
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.15	ND< 0.15	ND< 0.17	ND< 0.16	ND< 0.17	ND< 0.31	ND< 0.36	ND< 0.16
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.86	ND< 0.86	ND< 0.98	ND< 0.93	ND< 0.99	ND< 1.8	ND< 2.1	ND< 0.93
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 4	ND< 4	ND< 4.5	ND< 4.3	ND< 4.6	ND< 8.4	ND< 9.7	ND< 4.3
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.18	ND< 0.18	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.38	ND< 0.43	ND< 0.19
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.22	ND< 0.25	ND< 0.11
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	0.3 J	ND< 0.22	ND< 0.25	ND< 0.11
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.29	ND< 0.29	ND< 0.33	ND< 0.32	ND< 0.34	ND< 0.62	ND< 0.72	ND< 0.32
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.091	ND< 0.091	ND< 0.1	0.31 J	0.59 J	3.4	0.91 J	2.5
Fluorene	86-73-7	2400	30000	--	--	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.22	ND< 0.25	ND< 0.11
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.12**	**ND< 0.12**	**ND< 0.13**	**ND< 0.13**	**ND< 0.13**	**ND< 0.25**	**ND< 0.28**	**ND< 0.13**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.02	ND< 0.021	ND< 0.033	ND< 0.024	ND< 0.03	ND< 0.026	ND< 0.03	ND< 0.023
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.13	ND< 0.25	ND< 0.28	ND< 0.13
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.24	ND< 0.27	ND< 0.12
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.11	ND< 0.11	ND< 0.12	0.11 J	0.46 J	**2.8**	0.87 J	0.98
Isophorone	78-59-1	570	2400	--	--	ND< 0.18	ND< 0.18	ND< 0.21	ND< 0.2	ND< 0.21	ND< 0.39	ND< 0.44	ND< 0.2
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.17	ND< 0.17	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.37	ND< 0.42	ND< 0.19
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.22	ND< 0.25	ND< 0.11
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.1	ND< 0.1	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.22	ND< 0.25	ND< 0.11
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.24	ND< 0.27	ND< 0.12
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.27	ND< 0.31	ND< 0.14
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.24	ND< 0.24	ND< 0.27	ND< 0.26	ND< 0.27	ND< 0.51	ND< 0.58	ND< 0.26
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.45	ND< 0.45	ND< 0.51	ND< 0.49	ND< 0.52	ND< 0.96	ND< 1.1	ND< 0.49
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.096	ND< 0.097	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.2	ND< 0.23	ND< 0.1
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.24	ND< 0.24	ND< 0.28	ND< 0.26	ND< 0.28	ND< 0.52	ND< 0.59	ND< 0.26
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.6	ND< 0.6	ND< 0.69	ND< 0.65	ND< 0.7	ND< 1.3	ND< 1.5	ND< 0.65
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.15**	**ND< 0.15**	**ND< 0.17**	**ND< 0.16**	**ND< 0.17**	**ND< 0.31**	**ND< 0.36**	**ND< 0.16**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.7	ND< 0.7	ND< 0.8	ND< 0.75	ND< 0.81	ND< 1.5	ND< 1.7	ND< 0.75
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 0.86**	**ND< 0.86**	**ND< 0.98**	**ND< 0.93**	**ND< 0.99**	**ND< 1.8**	**ND< 2.1**	**ND< 0.93**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.13	ND< 0.13	ND< 0.14	0.16 J	0.18 J	0.62 J	ND< 0.31	0.87 J
Phenol	108-95-2	19000	250000	--	--	ND< 0.13	ND< 0.13	ND< 0.15	ND< 0.14	ND< 0.15	ND< 0.28	ND< 0.32	ND< 0.14
Pyrene	129-00-0	1800	23000	--	--	ND< 0.1	ND< 0.1	ND< 0.12	0.26 J	0.62 J	3.4	1.2 J	2.1
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.15	ND< 0.15	ND< 0.17	ND< 0.16	ND< 0.17	ND< 0.31	ND< 0.36	ND< 0.16
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.18	ND< 0.18	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.38	ND< 0.43	ND< 0.19
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.23	ND< 0.23	ND< 0.27	ND< 0.25	ND< 0.27	ND< 0.5	ND< 0.57	ND< 0.25
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.17	ND< 0.17	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.37	ND< 0.42	ND< 0.19
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00042	ND< 0.00042	ND< 0.0024	ND< 0.0045	ND< 0.00096	ND< 0.0089	ND< 0.00099	ND< 0.0022
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.00085	ND< 0.00085	ND< 0.0048	ND< 0.0091	ND< 0.002	ND< 0.018	ND< 0.002	ND< 0.0045
alpha-BHC	319-84-6	0.086	0.36	--	--	0.00046 J B	0.00047 J B	ND< 0.0017	ND< 0.0033	0.0011 J B	0.0085 J B	0.0013 J B	ND< 0.0016
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00031	ND< 0.00031	ND< 0.0017	ND< 0.0033	ND< 0.0007	ND< 0.0065	ND< 0.00073	ND< 0.0016
delta-BHC	319-86-8	--	--	--	--	ND< 0.00032	ND< 0.00032	ND< 0.0018	ND< 0.0034	ND< 0.00073	ND< 0.0067	ND< 0.00075	ND< 0.0017
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00033	ND< 0.00033	ND< 0.0019	ND< 0.0036	ND< 0.00076	ND< 0.007	ND< 0.00078	ND< 0.0018
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00036	ND< 0.00036	ND< 0.002	0.11	0.0065	ND< 0.0076	ND< 0.00085	ND< 0.0019
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.0004	ND< 0.0004	ND< 0.0023	0.041	0.0052	0.03 J	0.0065	ND< 0.0021
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00041	ND< 0.00041	ND< 0.0023	ND< 0.0044	ND< 0.00094	ND< 0.0087	ND< 0.00097	ND< 0.0022
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00033	ND< 0.00033	ND< 0.0019	ND< 0.0035	ND< 0.00075	ND< 0.007	ND< 0.00077	ND< 0.0017
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00031	ND< 0.00031	ND< 0.0017	ND< 0.0033	ND< 0.0039 F2	ND< 0.0065	ND< 0.00073	ND< 0.0016
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00032	ND< 0.00032	ND< 0.0018	ND< 0.0034	ND< 0.00073	ND< 0.0068	ND< 0.00075	ND< 0.0017
Endrin	72-20-8	19	250	--	0.4	ND< 0.00034	ND< 0.00034	ND< 0.0019	ND< 0.0036	ND< 0.00078	ND< 0.0072	ND< 0.0008	ND< 0.0018
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00044	ND< 0.00043	ND< 0.0025	ND< 0.0047	ND< 0.001	ND< 0.0093	ND< 0.001	ND< 0.0023
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00042	ND< 0.00042	ND< 0.0024	ND< 0.0045	ND< 0.00096	ND< 0.0089	ND< 0.00099	ND< 0.0022
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00031	ND< 0.00031	ND< 0.0018	ND< 0.0034	ND< 0.00072	ND< 0.0067	ND< 0.00074	ND< 0.0017
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.00054	ND< 0.00054	ND< 0.0031	ND< 0.0058	ND< 0.0012	ND< 0.012	ND< 0.0013	ND< 0.0029
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00037	ND< 0.00037	ND< 0.0021	ND< 0.004	ND< 0.00085	ND< 0.0078	ND< 0.00087	ND< 0.002
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00044	ND< 0.00044	ND< 0.0025	ND< 0.0047	ND< 0.001	ND< 0.0093	ND< 0.001	ND< 0.0023
Methoxychlor	72-43-5	320	4100	--	200	0.00036 J	ND< 0.00035	ND< 0.002	ND< 0.0037	ND< 0.0008	ND< 0.0074	ND< 0.00082	ND< 0.0019
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.0099	ND< 0.0099	ND< 0.056	ND< 0.11	ND< 0.023	ND< 0.21	ND< 0.023	ND< 0.053
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.013	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0055	ND< 0.0055	ND< 0.0062	ND< 0.0058	ND< 0.0062	ND< 0.0059	ND< 0.0065	ND< 0.0058
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0062	ND< 0.0061	ND< 0.0069	ND< 0.0066	ND< 0.007	ND< 0.0066	ND< 0.0073	ND< 0.0065

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	TP-24+75-14FT	TP-25+25-2FT	TP-25+25-8FT	MR-201+50-2FT	MR-202+00-1FT	MR-202+00-2FT	MR-202+50-2FT	MR-203+00-2FT
Date of Sample						8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016
Depth of Sample (ft. bgs)						14	2	8	2	1	2	2	2
PID Field Measurement (ppm)						0.4	0.5	0.3	0.2	0.3	0.3	0.8	11.5
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	9.01 HF	7.97 HF	8.01 HF	9.45 HF	9.44 HF	9.29 HF	9.27 HF	9.44 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>180	>180	>180	>180	>176
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	1.6 J	4.7	3.4	2.8	3.7	2.9	3.8	4
Barium	7440-39-3	11700	220000	--	2000	8.8	39.4	109	52.2 ^ F1	39.8	40.4	59.9	37.2
Cadmium	7440-43-9	7.15	980	--	20	0.065 J B	0.21 B	0.13 J B	0.14 J B	0.18 J B	0.11 J B	0.19 J B	0.19 J B
Chromium	7440-47-3	1800000	41900	--	100	2.4	5.8	14.4	9.5	6	7.8	13.6	6.9
Lead	7439-92-1	400	800	111	100	3.6	10	10.7	63.9	38.6	44.1	52.4	41.1
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.42	0.59 J	ND< 0.47	ND< 0.43	ND< 0.43	ND< 0.47	ND< 0.43	0.44 J
Silver	7440-22-4	247	5800	--	100	ND< 0.21	ND< 0.21	ND< 0.23	ND< 0.21	ND< 0.21	ND< 0.24	ND< 0.22	ND< 0.2
Mercury	7439-97-6	10.9	46	--	4	0.017 J	0.018 J	0.12	0.2	0.028	0.23	0.068	0.15
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	10 J	16 J	9.7 J	ND< 5.5	**280**	6.7 J	8.3 J	60 J
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 1.2 H	ND< 1.1 H	ND< 1.3 H	ND< 1.4 H	4.8 H	ND< 1.3 H	ND< 1.2 H	0.9 J H
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.039	ND< 0.037	ND< 0.04	ND< 0.039	ND< 0.038	ND< 0.04	ND< 0.04	ND< 0.037
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.052	ND< 0.049	ND< 0.053	ND< 0.053	ND< 0.05	ND< 0.053	ND< 0.053	ND< 0.049
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.065	ND< 0.062	ND< 0.067	ND< 0.066	ND< 0.063	ND< 0.066	ND< 0.067	ND< 0.062
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.036	ND< 0.034	ND< 0.037	ND< 0.036	ND< 0.034	ND< 0.036	ND< 0.037	ND< 0.034
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.026	ND< 0.025	ND< 0.027	ND< 0.026	ND< 0.025	ND< 0.026	ND< 0.027	ND< 0.025
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.045	ND< 0.043	ND< 0.047	ND< 0.046	ND< 0.044	ND< 0.046	ND< 0.047	ND< 0.043
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.029	ND< 0.028	ND< 0.03	ND< 0.03	ND< 0.028	ND< 0.03	ND< 0.03	ND< 0.028
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.032	ND< 0.031	ND< 0.033	ND< 0.033	ND< 0.031	ND< 0.033	ND< 0.033	ND< 0.031
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.042	ND< 0.04	ND< 0.043	ND< 0.043	ND< 0.041	ND< 0.043	ND< 0.043	ND< 0.04
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.22	ND< 0.25	ND< 0.25	ND< 0.2	ND< 0.23	ND< 0.2	ND< 0.2	0.2 J
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.01	ND< 0.012	ND< 0.012	ND< 0.0093	ND< 0.011	ND< 0.009	ND< 0.0094	ND< 0.0084
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.01	ND< 0.011	ND< 0.0097
Bromoform	75-25-2	19	86	--	--	ND< 0.027	ND< 0.031	ND< 0.03	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.025	ND< 0.022
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.01	ND< 0.011	ND< 0.0098
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.16	ND< 0.18	ND< 0.18	ND< 0.15	ND< 0.17	ND< 0.14	ND< 0.15	ND< 0.13
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.016	ND< 0.018	ND< 0.018	ND< 0.014	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.013
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.02	ND< 0.022	ND< 0.022	ND< 0.018	ND< 0.021	ND< 0.018	ND< 0.018	ND< 0.016
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.014	ND< 0.016	ND< 0.013	ND< 0.014	ND< 0.012
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.024	ND< 0.028	ND< 0.028	ND< 0.022	ND< 0.026	ND< 0.022	ND< 0.023	ND< 0.02
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.014	ND< 0.016	ND< 0.015	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.011
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.007	ND< 0.0081	ND< 0.008	ND< 0.0065	ND< 0.0074	ND< 0.0063	ND< 0.0066	ND< 0.0059
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.026	ND< 0.03	ND< 0.029	ND< 0.024	ND< 0.027	ND< 0.023	ND< 0.024	ND< 0.021
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.011	ND< 0.013	ND< 0.013	ND< 0.01	ND< 0.012	ND< 0.0099	ND< 0.01	ND< 0.0092
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.017	ND< 0.02	ND< 0.019	ND< 0.016	ND< 0.018	ND< 0.015	ND< 0.016	ND< 0.014
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.037	ND< 0.042	ND< 0.042	ND< 0.034	ND< 0.039	ND< 0.033	ND< 0.034	ND< 0.03
Chloromethane	74-87-3	110	460	--	--	ND< 0.013	ND< 0.015	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.011
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.02	ND< 0.023	ND< 0.023	ND< 0.019	ND< 0.022	ND< 0.018	ND< 0.019	ND< 0.017
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.0099	ND< 0.011	ND< 0.0097	ND< 0.01	ND< 0.009
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.012	ND< 0.014	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.011	0.073
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.027**	**ND< 0.031**	**ND< 0.03**	**ND< 0.024**	**ND< 0.028**	**ND< 0.024**	**ND< 0.025**	**ND< 0.022**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.017	ND< 0.02	ND< 0.02	ND< 0.016	ND< 0.018	ND< 0.015	ND< 0.016	ND< 0.014
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.014	ND< 0.016	ND< 0.015	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.011
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.014	ND< 0.016	ND< 0.016	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.013	ND< 0.012
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0075	ND< 0.0086	ND< 0.0085	ND< 0.0069	ND< 0.0079	ND< 0.0067	ND< 0.0069	ND< 0.0062
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.0098	ND< 0.011	ND< 0.0095	ND< 0.0099	ND< 0.0089
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.023	ND< 0.027	ND< 0.026	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.022	ND< 0.019
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.022	ND< 0.025	ND< 0.025	ND< 0.02	ND< 0.023	ND< 0.019	ND< 0.02	ND< 0.018
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.018	ND< 0.021	ND< 0.021	ND< 0.017	ND< 0.019	ND< 0.016	ND< 0.017	ND< 0.015
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.014	ND< 0.016	ND< 0.013	ND< 0.014	ND< 0.012
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.01
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0097	ND< 0.011	ND< 0.011	ND< 0.0089	ND< 0.01	ND< 0.0087	ND< 0.009	ND< 0.0081
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.012	ND< 0.014	ND< 0.014	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.011	ND< 0.01
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.013	ND< 0.015	ND< 0.015	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.012	ND< 0.011
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0052	ND< 0.006	ND< 0.006	ND< 0.0048	ND< 0.0055	ND< 0.0047	ND< 0.0049	ND< 0.0044
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.27	ND< 0.31	ND< 0.31	ND< 0.25	ND< 0.29	ND< 0.24	ND< 0.25	ND< 0.23
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.015	ND< 0.018	ND< 0.018	ND< 0.014	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.013
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0093	ND< 0.011	ND< 0.011	ND< 0.0086	ND< 0.0098	ND< 0.0083	ND< 0.0087	ND< 0.0078
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.019	ND< 0.022	ND< 0.019	ND< 0.02	ND< 0.018
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.11	ND< 0.13	ND< 0.12	ND< 0.1	ND< 0.12	ND< 0.097	ND< 0.1	ND< 0.091
Iodomethane	74-88-4	--	--	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	0.037 J *	ND< 0.05 *	ND< 0.044 *
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.28	ND< 0.33	ND< 0.32	ND< 0.26	ND< 0.3	ND< 0.25	ND< 0.26	ND< 0.24
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.008	ND< 0.0092	ND< 0.0091	ND< 0.0073	ND< 0.0084	ND< 0.0071	ND< 0.0074	ND< 0.0067
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.018	ND< 0.021	ND< 0.02	ND< 0.017	ND< 0.019	ND< 0.016	ND< 0.017	ND< 0.015
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.025	0.17	ND< 0.029	0.042 J	0.15	ND< 0.023	ND< 0.024	0.13
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.017	ND< 0.02	ND< 0.019	ND< 0.016	ND< 0.018	ND< 0.015	ND< 0.016	ND< 0.014
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.02	ND< 0.023	ND< 0.023	ND< 0.019	ND< 0.021	ND< 0.018	ND< 0.019	ND< 0.017
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.025	ND< 0.029	ND< 0.028	ND< 0.023	0.028 J	ND< 0.022	ND< 0.023	0.24
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	0.61 J	ND< 0.024	ND< 0.12	ND< 0.44
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.014	ND< 0.016	ND< 0.016	ND< 0.013	ND< 0.015	ND< 0.012	ND< 0.013	ND< 0.012
Styrene	100-42-5	6000	35000	--	--	ND< 0.013	ND< 0.015	ND< 0.015	ND< 0.012	ND< 0.014	ND< 0.011	ND< 0.012	ND< 0.011
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.053 *	ND< 0.061 *	ND< 0.061 *	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0086	ND< 0.0099	ND< 0.0098	ND< 0.008	ND< 0.0091	ND< 0.0077	ND< 0.0081	ND< 0.0072
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0072	ND< 0.0082	ND< 0.0081	ND< 0.0066	ND< 0.0076	ND< 0.0064	ND< 0.0067	ND< 0.006
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.027	ND< 0.031	ND< 0.03	ND< 0.025	ND< 0.028	ND< 0.024	ND< 0.025	ND< 0.022
Toluene	108-88-3	4640	47000	--	--	ND< 0.014	ND< 0.016	ND< 0.016	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.013	ND< 0.012
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.027	ND< 0.031	ND< 0.03	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.025	ND< 0.022
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.024	ND< 0.028	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.022	ND< 0.023	ND< 0.02
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.02	ND< 0.023	ND< 0.023	ND< 0.019	ND< 0.021	ND< 0.018	ND< 0.019	ND< 0.017
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.014	ND< 0.016	ND< 0.013	ND< 0.014	ND< 0.012
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.013	ND< 0.013	ND< 0.01	ND< 0.012	ND< 0.01	ND< 0.01	ND< 0.0093
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.014	ND< 0.016	ND< 0.013	ND< 0.014	ND< 0.012
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.025	ND< 0.029	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.022	ND< 0.023	ND< 0.021
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.012**	**ND< 0.014**	**ND< 0.014**	**ND< 0.011**	**ND< 0.013**	**ND< 0.011**	**ND< 0.011**	**ND< 0.0099**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.014	0.057	ND< 0.013	ND< 0.014	0.019 J
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.016	ND< 0.018	ND< 0.018	ND< 0.015	0.031 J	ND< 0.014	ND< 0.015	0.014 J
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029	ND< 0.029	0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.095	ND< 0.11	ND< 0.11	ND< 0.087	ND< 0.1	ND< 0.085	ND< 0.088	ND< 0.079
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.053 *	**ND< 0.061 ***	**ND< 0.061 ***	ND< 0.049 *	ND< 0.056 *	ND< 0.048 *	ND< 0.05 *	ND< 0.044 *
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.03	ND< 0.034	ND< 0.034	ND< 0.027	0.052 J	ND< 0.026	ND< 0.027	ND< 0.025
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0069	ND< 0.0079	ND< 0.0079	ND< 0.0064	0.026 J	ND< 0.0062	ND< 0.0065	0.016 J
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0369	ND< 0.0419	ND< 0.0419	ND< 0.0334	0.078	ND< 0.0322	ND< 0.0335	0.041

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	TP-24+75-14FT	TP-25+25-2FT	TP-25+25-8FT	MR-201+50-2FT	MR-202+00-1FT	MR-202+00-2FT	MR-202+50-2FT	MR-203+00-2FT
Date of Sample						8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016	8/1/2016
Depth of Sample (ft. bgs)						14	2	8	2	1	2	2	2
PID Field Measurement (ppm)						0.4	0.5	0.3	0.2	0.3	0.3	0.8	11.5
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	ND< 0.03309	**0.13571**	ND< 0.03424	0.0421	**31.042**	**0.37937**	**1.05046**	**1.01859**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.027	ND< 0.026	ND< 0.028	ND< 0.027	ND< 0.52	ND< 0.028	ND< 0.14	ND< 0.51
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	5.3	0.036 J	ND< 0.12	ND< 0.44
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.025	ND< 0.18 F1	ND< 0.025	ND< 0.025	ND< 0.48	ND< 0.025	ND< 0.13	ND< 0.46
Anthracene	120-12-7	18000	230000	--	--	ND< 0.045	ND< 0.043	ND< 0.046	ND< 0.046	5.4	ND< 0.047	ND< 0.23	ND< 0.85
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.063	ND< 0.061	ND< 0.065	ND< 0.065	ND< 1.2	ND< 0.065	ND< 0.33	ND< 1.2
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.15	ND< 2.8	ND< 0.15	ND< 0.75	ND< 2.7
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.018	0.096 J	ND< 0.019	0.033 J	**25**	0.26	0.7 J	0.48 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	ND< 0.027	**0.092 J**	ND< 0.028	ND< 0.027	**20**	**0.28**	**0.74 J**	**0.52 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.029	0.099 J	ND< 0.03	0.038 J	**26**	0.34	0.91 J	0.62 J
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.019	0.066 J	ND< 0.02	0.03 J	11	0.21	0.52 J	0.4 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.024	0.071 J	ND< 0.024	0.028 J	**12**	0.16 J	0.37 J	ND< 0.44
Biphenyl	92-52-4	47	200	--	--	ND< 0.027	ND< 0.18 F1	ND< 0.028	ND< 0.027	ND< 0.52	ND< 0.028	ND< 0.14	ND< 0.51
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.026	ND< 0.025	ND< 0.027	ND< 0.026	ND< 0.5	ND< 0.027	ND< 0.13	ND< 0.48
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.03	ND< 0.029	ND< 0.031	ND< 0.031	ND< 0.58	ND< 0.031	ND< 0.16	ND< 0.57
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.054	ND< 0.053	ND< 0.056	ND< 0.056	ND< 1.1	ND< 0.056	ND< 0.28	ND< 1
Carbazole	86-74-8	--	--	--	--	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	0.45 J	ND< 0.022	ND< 0.11	ND< 0.4
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.045	ND< 0.043	ND< 0.046	ND< 0.046	ND< 0.87	ND< 0.047	ND< 0.23	ND< 0.85
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.045	ND< 0.043	ND< 0.046	ND< 0.046	ND< 0.87	ND< 0.047	ND< 0.23	ND< 0.85
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.038	ND< 0.037	ND< 0.04	ND< 0.04	ND< 0.75	ND< 0.04	ND< 0.2	ND< 0.73
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	**ND< 0.46**	ND< 0.024	ND< 0.12	**ND< 0.44**
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.036	ND< 0.035	ND< 0.038	ND< 0.037	ND< 0.71	ND< 0.038	ND< 0.19	ND< 0.69
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.03	ND< 0.029	ND< 0.031	ND< 0.031	ND< 0.58	ND< 0.031	ND< 0.16	ND< 0.57
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.033	ND< 0.032	ND< 0.034	ND< 0.034	ND< 0.64	ND< 0.034	ND< 0.17	ND< 0.63
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.022	ND< 0.022	ND< 0.023	ND< 0.023	ND< 0.44	ND< 0.023	ND< 0.12	ND< 0.42
Chrysene	218-01-9	110	2100	--	--	ND< 0.041	0.098 J	ND< 0.042	ND< 0.042	22	0.27	0.76 J	ND< 0.77
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.032	ND< 0.031	ND< 0.033	ND< 0.033	**4.7**	ND< 0.033	**ND< 0.17**	**ND< 0.61**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	0.47 J	ND< 0.022	ND< 0.11	ND< 0.4
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.21	ND< 0.21	ND< 0.22	ND< 0.22	**ND< 4.2**	ND< 0.22	ND< 1.1	**ND< 4**
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.019	ND< 0.019	ND< 0.02	ND< 0.02	ND< 0.37	ND< 0.02	ND< 0.1	ND< 0.36
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	ND< 0.46	ND< 0.024	ND< 0.12	ND< 0.44
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	ND< 0.42	ND< 0.022	ND< 0.11	ND< 0.4
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.044	ND< 0.042	ND< 0.045	ND< 0.045	ND< 0.85	ND< 0.045	ND< 0.23	ND< 0.83
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.031	ND< 0.03	ND< 0.032	ND< 0.032	ND< 0.6	ND< 0.032	ND< 0.16	ND< 0.59
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.18	ND< 0.18	ND< 0.19	ND< 0.19	ND< 3.5	ND< 0.19	ND< 0.95	ND< 3.4
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 0.84	ND< 0.81	ND< 0.87	ND< 0.86	ND< 16	ND< 0.87	ND< 4.4	ND< 16
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.037	ND< 0.036	ND< 0.039	ND< 0.038	ND< 0.73	ND< 0.039	ND< 0.19	ND< 0.71
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	**ND< 0.42**	ND< 0.022	ND< 0.11	**ND< 0.4**
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	ND< 0.42	ND< 0.022	ND< 0.11	ND< 0.4
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.062	0.082 J	ND< 0.064	ND< 0.064	ND< 1.2	ND< 0.064	ND< 0.32	ND< 1.2
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.019	0.17 J	ND< 0.02	0.041 J	43	0.46	1.3	0.58 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	1.5 J	ND< 0.022	ND< 0.11	ND< 0.4
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.025	ND< 0.024	ND< 0.025	ND< 0.025	**ND< 0.48**	ND< 0.025	**ND< 0.13**	**ND< 0.46**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.019	ND< 0.022	ND< 0.019	ND< 0.02	ND< 0.018
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.025	ND< 0.024	ND< 0.025	ND< 0.025	ND< 0.48	ND< 0.025	ND< 0.13	ND< 0.46
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	ND< 0.46	ND< 0.024	ND< 0.12	ND< 0.44
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.022	0.079 J	ND< 0.023	0.047 J	**11**	0.21	0.6 J	0.81 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.038	ND< 0.037	ND< 0.04	ND< 0.04	ND< 0.75	ND< 0.04	ND< 0.2	ND< 0.73
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.036	ND< 0.035	ND< 0.038	ND< 0.037	ND< 0.71	ND< 0.038	ND< 0.19	ND< 0.69
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	ND< 0.42	ND< 0.022	ND< 0.11	ND< 0.4
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.022	ND< 0.42	ND< 0.022	ND< 0.11	ND< 0.4
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024	0.61 J	ND< 0.024	ND< 0.12	ND< 0.44
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.027	ND< 0.026	ND< 0.028	ND< 0.027	ND< 0.52	ND< 0.028	ND< 0.14	ND< 0.51
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.05	ND< 0.049	ND< 0.052	ND< 0.052	ND< 0.98	ND< 0.052	ND< 0.26	ND< 0.95
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.095	ND< 0.092	ND< 0.098	ND< 0.098	ND< 1.9	ND< 0.099	ND< 0.49	ND< 1.8
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.02	ND< 0.02	ND< 0.021	ND< 0.021	ND< 0.4	ND< 0.021	ND< 0.11	ND< 0.38
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.051	ND< 0.05	ND< 0.053	ND< 0.053	ND< 1	ND< 0.053	ND< 0.27	ND< 0.97
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.13	ND< 2.5	ND< 0.13	ND< 0.66	ND< 2.4
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.031	ND< 0.03	ND< 0.032	ND< 0.032	**ND< 0.6**	ND< 0.032	**ND< 0.16**	**ND< 0.59**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.15	ND< 0.14	ND< 0.15	ND< 0.15	ND< 2.9	ND< 0.15	ND< 0.77	ND< 2.8
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.18	ND< 0.18	ND< 0.19	ND< 0.19	**ND< 3.5**	ND< 0.19	**ND< 0.95**	**ND< 3.4**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.027	0.069 J	ND< 0.028	ND< 0.027	12	0.2	0.59 J	ND< 0.51
Phenol	108-95-2	19000	250000	--	--	ND< 0.028	ND< 0.027	ND< 0.029	ND< 0.029	ND< 0.54	ND< 0.029	ND< 0.14	ND< 0.53
Pyrene	129-00-0	1800	23000	--	--	ND< 0.021	0.17 J	ND< 0.022	0.041 J	35	0.42	1.1	0.68 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.031	ND< 0.03	ND< 0.032	ND< 0.032	ND< 0.6	ND< 0.032	ND< 0.16	ND< 0.59
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.037	ND< 0.036	ND< 0.039	ND< 0.038	ND< 0.73	ND< 0.039	ND< 0.19	ND< 0.71
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.049	ND< 0.048	ND< 0.051	ND< 0.051	ND< 0.96	ND< 0.051	ND< 0.26	ND< 0.93
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.036	ND< 0.035	ND< 0.038	ND< 0.037	ND< 0.71	ND< 0.038	ND< 0.19	ND< 0.69
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00043	ND< 0.00042	ND< 0.00046	ND< 0.00045	ND< 0.0086	ND< 0.00045	ND< 0.00092	**ND< 0.021**
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.00088	ND< 0.00085	ND< 0.00092	ND< 0.00092	ND< 0.017	ND< 0.00091	ND< 0.0019	ND< 0.042
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.00032	ND< 0.00031	0.00039 J	ND< 0.00033	ND< 0.0063	0.00039 J	ND< 0.00068	ND< 0.015
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00032	ND< 0.00031	ND< 0.00033	ND< 0.00033	ND< 0.0063	ND< 0.00033	ND< 0.00068	ND< 0.015
delta-BHC	319-86-8	--	--	--	--	0.00035 J	ND< 0.00032	ND< 0.00035	ND< 0.00034	ND< 0.0065	ND< 0.00034	ND< 0.0007	ND< 0.016
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00034	ND< 0.00033	ND< 0.00036	ND< 0.00036	ND< 0.0068	ND< 0.00035	ND< 0.00073	ND< 0.016
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00037	0.00078 J	ND< 0.00039	ND< 0.00039	ND< 0.0073	ND< 0.00038	ND< 0.00079	ND< 0.018
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.00041	ND< 0.0004	ND< 0.00043	ND< 0.00043	ND< 0.0082	ND< 0.00043	ND< 0.00088	ND< 0.02
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00042	ND< 0.00041	ND< 0.00045	ND< 0.00044	ND< 0.0084	ND< 0.00044	ND< 0.0009	ND< 0.02
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00034	ND< 0.00033	ND< 0.00036	ND< 0.00035	ND< 0.0067	ND< 0.00035	ND< 0.00072	ND< 0.016
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00032	ND< 0.00031	ND< 0.00033	ND< 0.00033	ND< 0.0063	ND< 0.00033	ND< 0.00068	ND< 0.015
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00033	ND< 0.00032	ND< 0.00035	ND< 0.00034	ND< 0.0065	ND< 0.00034	ND< 0.0007	ND< 0.016
Endrin	72-20-8	19	250	--	0.4	ND< 0.00035	0.00057 J	ND< 0.00037	ND< 0.00037	ND< 0.0069	ND< 0.00036	ND< 0.00074	ND< 0.017
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00045	ND< 0.00043	ND< 0.00047	ND< 0.00047	ND< 0.0089	ND< 0.00047	ND< 0.00096	ND< 0.021
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00043	ND< 0.00042	ND< 0.00046	ND< 0.00045	ND< 0.0086	ND< 0.00045	ND< 0.00092	ND< 0.021
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00032	ND< 0.00031	ND< 0.00034	ND< 0.00034	ND< 0.0064	ND< 0.00033	ND< 0.00069	ND< 0.015
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.00056	ND< 0.00054	ND< 0.00059	ND< 0.00059	ND< 0.011	ND< 0.00058	ND< 0.0012	ND< 0.027
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00038	ND< 0.00037	ND< 0.0004	ND< 0.0004	ND< 0.0076	ND< 0.00039	ND< 0.00081	ND< 0.018
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00046	ND< 0.00044	ND< 0.00048	ND< 0.00048	ND< 0.009	ND< 0.00047	ND< 0.00097	ND< 0.022
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00036	ND< 0.00035	ND< 0.00038	ND< 0.00038	ND< 0.0071	ND< 0.00037	ND< 0.00077	ND< 0.017
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.01	ND< 0.0099	ND< 0.011	ND< 0.011	ND< 0.2	ND< 0.011	ND< 0.022	**ND< 0.49**
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0057	ND< 0.0054	ND< 0.0058	ND< 0.0059	ND< 0.0056	ND< 0.0059	ND< 0.0059	ND< 0.0055
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0065	ND< 0.0061	ND< 0.0065	ND< 0.0066	ND< 0.0063	ND< 0.0066	ND< 0.0066	ND< 0.0062

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	MS-102+75-2FT	MS-103+00-2FT	MS-103+50-2FT	MS-104+00-2FT	RR-10+50-2FT	RR-11+00-2FT	RR-11+50-2FT	RR-12+00-2FT
Date of Sample						8/1/2016	8/1/2016	8/1/2016	8/1/2016	7/27/2016	7/27/2016	7/27/2016	7/29/2016
Depth of Sample (ft. bgs)						2	2	2	2	2	2	2	2
PID Field Measurement (ppm)						0.4	0.3	196.4	0.8	0.1	0.1	0.1	0
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.53 HF	9.98 HF	8.07 HF	8.45 HF	7.98 HF	8.22 HF	8.67 HF	8.16 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>176.0	>176.0	>176.0	>176.0
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	2.4	4.3	3.1	2.7	3.3	2.7	2.9	3.3
Barium	7440-39-3	11700	220000	--	2000	26.3	35.9	64.1	43.8	33.8	30.7	21.8	13.5
Cadmium	7440-43-9	7.15	980	--	20	0.069 J B	0.11 J B	0.11 J B	0.085 J B	0.11 J	0.082 J	0.087 J	ND< 0.038
Chromium	7440-47-3	1800000	41900	--	100	6.4	6.1	10.2	7.5	6.8 ^	4.4	5.3	13.7
Lead	7439-92-1	400	800	111	100	6.2	20.1	70.9	61.7	49.6	9.5	18.5	4.5
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.45	ND< 0.45	ND< 0.46	ND< 0.43	ND< 0.47	ND< 0.42	ND< 0.43	0.55 J
Silver	7440-22-4	247	5800	--	100	ND< 0.22	ND< 0.23	ND< 0.23	ND< 0.21	ND< 0.24	ND< 0.21	ND< 0.22	ND< 0.26
Mercury	7439-97-6	10.9	46	--	4	ND< 0.0089	0.029	0.28	0.16	0.066	0.013 J	0.016 J	0.083 F1
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	18	7.5 J	**1200**	46	30	13 J	10 J	14 J
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 1.2 H	ND< 1.2 H	48 H	0.46 J H	ND< 0.36	ND< 0.36	ND< 0.36	ND< 0.39
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.04	ND< 0.038	ND< 0.04	ND< 0.04	ND< 0.04	ND< 0.039	ND< 0.039	ND< 0.014
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.053	ND< 0.05	ND< 0.054	ND< 0.053	ND< 0.054	ND< 0.051	ND< 0.052	ND< 0.019
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.066	ND< 0.063	ND< 0.067	ND< 0.066	ND< 0.067	ND< 0.064	ND< 0.064	ND< 0.023
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.036	ND< 0.035	ND< 0.037	ND< 0.036	ND< 0.037	ND< 0.035	ND< 0.035	ND< 0.013
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.026	ND< 0.025	ND< 0.027	ND< 0.027	ND< 0.027	ND< 0.026	ND< 0.026	ND< 0.0093
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.046	ND< 0.044	ND< 0.047	ND< 0.046	ND< 0.047	ND< 0.045	ND< 0.045	ND< 0.016
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.03	ND< 0.028	ND< 0.03	ND< 0.03	ND< 0.03	ND< 0.029	ND< 0.029	ND< 0.01
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.033	ND< 0.031	ND< 0.034	ND< 0.033	ND< 0.034	ND< 0.032	ND< 0.032	ND< 0.012
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.043	ND< 0.041	ND< 0.044	ND< 0.043	ND< 0.044	ND< 0.042	ND< 0.042	ND< 0.015
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.27	ND< 0.2	ND< 0.26	ND< 0.25	ND< 0.29	ND< 0.26	ND< 0.26	ND< 0.27 *
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.013	ND< 0.0094	0.068	ND< 0.012	ND< 0.013	ND< 0.012	ND< 0.012	ND< 0.01
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.015	ND< 0.011	ND< 0.014	ND< 0.013	ND< 0.015	ND< 0.014	ND< 0.014	ND< 0.012
Bromoform	75-25-2	19	86	--	--	ND< 0.033	ND< 0.025	ND< 0.032	ND< 0.031	ND< 0.035	ND< 0.031	ND< 0.031	ND< 0.027
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.015	ND< 0.011	ND< 0.014	ND< 0.013	ND< 0.015	ND< 0.014	ND< 0.014	ND< 0.012
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.2	ND< 0.15	ND< 0.19	ND< 0.18	ND< 0.21	ND< 0.19	ND< 0.18	ND< 0.16
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.019	ND< 0.014	ND< 0.019	ND< 0.018	ND< 0.02	ND< 0.018	ND< 0.018	ND< 0.016
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.025	ND< 0.018	0.21	ND< 0.022	ND< 0.026	ND< 0.023	ND< 0.023	ND< 0.02
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.019	ND< 0.014	ND< 0.018	ND< 0.017	ND< 0.019	ND< 0.017	ND< 0.017	ND< 0.015
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.03	ND< 0.022	ND< 0.029	ND< 0.028	ND< 0.032	ND< 0.029	ND< 0.028	ND< 0.025
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.017	ND< 0.013	ND< 0.016	ND< 0.016	ND< 0.018	ND< 0.016	ND< 0.016	ND< 0.014
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0088	ND< 0.0065	ND< 0.0084	ND< 0.0081	ND< 0.0092	ND< 0.0083	ND< 0.0082	ND< 0.0072
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	ND< 0.025	ND< 0.023	ND< 0.022	ND< 0.02
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.032	ND< 0.024	ND< 0.031	ND< 0.03	ND< 0.034	ND< 0.03	ND< 0.03	ND< 0.027
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.014	ND< 0.01	ND< 0.013	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.013	ND< 0.011
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.021	ND< 0.016	ND< 0.02	ND< 0.02	ND< 0.022	ND< 0.02	ND< 0.02	ND< 0.018
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.046	ND< 0.034	ND< 0.043	ND< 0.042	ND< 0.048	ND< 0.043	ND< 0.043	ND< 0.038
Chloromethane	74-87-3	110	460	--	--	ND< 0.016	ND< 0.012	ND< 0.015	ND< 0.015	ND< 0.017	ND< 0.015	ND< 0.015	ND< 0.013
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.026	ND< 0.019	ND< 0.024	ND< 0.023	ND< 0.027	ND< 0.024	ND< 0.024	ND< 0.021
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.014	ND< 0.01	ND< 0.013	ND< 0.012	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.011
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.015	ND< 0.011	ND< 0.014	0.067	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.012
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.033**	**ND< 0.025**	**ND< 0.032**	**ND< 0.031**	**ND< 0.035**	**ND< 0.031**	**ND< 0.031**	**ND< 0.027**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.022	ND< 0.016	ND< 0.021	ND< 0.02	ND< 0.023	ND< 0.02	ND< 0.02	ND< 0.018
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.017	ND< 0.013	ND< 0.016	ND< 0.016	ND< 0.018	ND< 0.016	ND< 0.016	ND< 0.014
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.018	ND< 0.013	ND< 0.017	ND< 0.016	ND< 0.019	ND< 0.017	ND< 0.017	ND< 0.015
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0093	ND< 0.0069	ND< 0.0089	ND< 0.0085	ND< 0.0098	ND< 0.0088	ND< 0.0087	ND< 0.0077
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.013	ND< 0.0099	ND< 0.013	ND< 0.012	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.011
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.029	ND< 0.022	ND< 0.028	ND< 0.027	ND< 0.03	ND< 0.027	ND< 0.027	ND< 0.024
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	ND< 0.022	ND< 0.019	ND< 0.019	ND< 0.017
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.027	ND< 0.02	ND< 0.026	ND< 0.025	ND< 0.029	ND< 0.026	ND< 0.025	ND< 0.022
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.023	ND< 0.017	ND< 0.022	ND< 0.021	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.019
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.018	ND< 0.014	ND< 0.017	ND< 0.017	ND< 0.019	ND< 0.017	ND< 0.017	ND< 0.015
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.016	ND< 0.012	ND< 0.015	ND< 0.014	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.013
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	ND< 0.011	ND< 0.01	ND< 0.01	ND< 0.0089
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.012	ND< 0.009	ND< 0.012	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.011	ND< 0.01
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.015	ND< 0.011	ND< 0.014	ND< 0.014	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.012
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.017	ND< 0.012	ND< 0.016	ND< 0.015	ND< 0.017	ND< 0.016	ND< 0.015	ND< 0.014
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	ND< 0.017	ND< 0.015	ND< 0.015	ND< 0.013
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0066	ND< 0.0049	ND< 0.0062	ND< 0.006	ND< 0.0069	ND< 0.0062	ND< 0.0061	ND< 0.0054
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.34	ND< 0.25	ND< 0.32	ND< 0.31	ND< 0.36	ND< 0.32	ND< 0.32	ND< 0.28
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.019	ND< 0.014	1.1	ND< 0.018	ND< 0.02	ND< 0.018	ND< 0.018	ND< 0.016
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.012	ND< 0.0086	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.0096
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.026	ND< 0.02	ND< 0.025	ND< 0.024	ND< 0.028	ND< 0.025	ND< 0.025	ND< 0.055 *
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.14	ND< 0.1	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.13	ND< 0.13	ND< 0.11
Iodomethane	74-88-4	--	--	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	ND< 0.021	ND< 0.019	ND< 0.019	ND< 0.017
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.36	ND< 0.26	ND< 0.34	ND< 0.32	ND< 0.37	ND< 0.33	ND< 0.33	ND< 0.29
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.01	ND< 0.0074	0.12	ND< 0.0092	ND< 0.01	ND< 0.0094	ND< 0.0093	ND< 0.0082
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.023	ND< 0.017	0.13	0.065	ND< 0.024	ND< 0.021	ND< 0.021	ND< 0.018
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.032	0.058	0.18	0.16	ND< 0.033	ND< 0.03	ND< 0.03	ND< 0.026
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.021	ND< 0.016	ND< 0.02	ND< 0.02	ND< 0.35 *	ND< 0.31 *	ND< 0.31 *	ND< 0.018
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.025	ND< 0.019	ND< 0.024	ND< 0.023	ND< 0.026	ND< 0.024	ND< 0.023	ND< 0.021
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.031	ND< 0.023	ND< 0.03	0.22	ND< 0.033	ND< 0.029	ND< 0.029	0.072
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	0.016 J	0.028 J	0.05 J	ND< 0.011
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.12	**63**	ND< 0.48	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.017	ND< 0.013	0.068	ND< 0.016	ND< 0.018	ND< 0.016	ND< 0.016	ND< 0.014
Styrene	100-42-5	6000	35000	--	--	ND< 0.016	ND< 0.012	0.7	ND< 0.015	ND< 0.017	ND< 0.015	ND< 0.015	ND< 0.013
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.067 *	ND< 0.049 *	ND< 0.063 *	ND< 0.061 *	ND< 0.02	ND< 0.018	ND< 0.018	ND< 0.016
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.011	ND< 0.008	ND< 0.01	ND< 0.0099	ND< 0.011	ND< 0.01	ND< 0.01	ND< 0.0089
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.009	ND< 0.0066	ND< 0.0085	ND< 0.0082	ND< 0.0094	ND< 0.0084	ND< 0.0084	ND< 0.0074
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.033	ND< 0.025	ND< 0.032	ND< 0.031	ND< 0.035	ND< 0.031	ND< 0.031	ND< 0.027
Toluene	108-88-3	4640	47000	--	--	ND< 0.018	ND< 0.013	0.26	0.018 J	ND< 0.019	ND< 0.017	ND< 0.017	ND< 0.015
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.033	ND< 0.025	ND< 0.032	ND< 0.031	ND< 0.035	ND< 0.031	ND< 0.031	ND< 0.027
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.031	ND< 0.023	ND< 0.029	ND< 0.028	ND< 0.032	ND< 0.029	ND< 0.029	ND< 0.025
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.025	ND< 0.019	ND< 0.024	ND< 0.023	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.021
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.018	ND< 0.014	ND< 0.018	ND< 0.017	ND< 0.019	ND< 0.017	ND< 0.017	ND< 0.015
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.014	ND< 0.01	ND< 0.013	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.013	ND< 0.012
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.019	ND< 0.014	ND< 0.018	ND< 0.017	ND< 0.019	ND< 0.017	ND< 0.017	ND< 0.015
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.031	ND< 0.023	ND< 0.03	ND< 0.029	ND< 0.033	ND< 0.029	ND< 0.029	ND< 0.026
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.015**	**ND< 0.011**	**ND< 0.014**	**ND< 0.014**	**ND< 0.016**	**ND< 0.014**	**ND< 0.014**	**ND< 0.012**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.019	ND< 0.014	3	0.017 J	ND< 0.019	ND< 0.018	ND< 0.017	ND< 0.015
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.02	ND< 0.015	1.4	ND< 0.018	ND< 0.021	ND< 0.019	ND< 0.019	ND< 0.017
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	0.029	0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.12	ND< 0.088	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.11	ND< 0.098
Vinyl chloride	75-01-4	0.059	1.7	--	4	**ND< 0.067 ***	ND< 0.049 *	**ND< 0.063 ***	**ND< 0.061 ***	ND< 0.023	ND< 0.021	ND< 0.021	ND< 0.018
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.037	ND< 0.027	7.6 D	ND< 0.034	ND< 0.039	ND< 0.035	ND< 0.034	ND< 0.03
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0087	ND< 0.0064	4.2	0.02 J	ND< 0.0091	ND< 0.0082	ND< 0.0081	ND< 0.0071
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0457	ND< 0.0334	11.8	0.054	ND< 0.0481	ND< 0.0432	ND< 0.0421	ND< 0.0371

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	MS-102+75-2FT	MS-103+00-2FT	MS-103+50-2FT	MS-104+00-2FT	RR-10+50-2FT	RR-11+00-2FT	RR-11+50-2FT	RR-12+00-2FT
Date of Sample						8/1/2016	8/1/2016	8/1/2016	8/1/2016	7/27/2016	7/27/2016	7/27/2016	7/29/2016
Depth of Sample (ft. bgs)						2	2	2	2	2	2	2	2
PID Field Measurement (ppm)						0.4	0.3	196.4	0.8	0.1	0.1	0.1	0
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.18496**	**0.65263**	**30.652**	**2.8695**	**ND< 0.17396**	**0.16593**	**0.33407**	**4.0403**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.14	ND< 0.13	14	ND< 0.55	ND< 0.14	ND< 0.027	ND< 0.027	ND< 0.15
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.12	ND< 0.12	3.4 J	1.1 J	ND< 0.12	0.033 J	0.059 J	0.48 J
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.13	ND< 0.12	ND< 0.51	ND< 0.5	ND< 0.13	ND< 0.024	ND< 0.025	ND< 0.13
Anthracene	120-12-7	18000	230000	--	--	ND< 0.23	ND< 0.22	29	ND< 0.92	ND< 0.23	ND< 0.045	0.052 J	0.4 J
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.33	ND< 0.31	ND< 1.3	ND< 1.3	ND< 0.33	ND< 0.063	ND< 0.063	ND< 0.34
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.75	ND< 0.72	ND< 3	ND< 2.9	ND< 0.75	ND< 0.14	ND< 0.14	ND< 0.79
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.095	0.42 J	**27**	**1.5 J**	ND< 0.095	0.07 J	0.14 J	**1.9**
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**ND< 0.14**	**0.43 J**	**21**	**2 J**	**ND< 0.14**	**0.11 J**	**0.23**	**2.6**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.15	0.59 J	**21**	**2 J**	ND< 0.15	0.2	0.52	**4.4**
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.1	0.28 J	11	1.4 J	ND< 0.1	0.12 J	0.23	1.9
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.12	0.32 J	**13**	1.3 J	ND< 0.12	0.082 J	0.18	1.8
Biphenyl	92-52-4	47	200	--	--	ND< 0.14	ND< 0.13	4.4	ND< 0.55	ND< 0.14	ND< 0.027	ND< 0.027	ND< 0.15
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.13	ND< 0.13	ND< 0.53	ND< 0.52	ND< 0.13	ND< 0.026	ND< 0.026	ND< 0.14
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.16	ND< 0.15	ND< 0.62	ND< 0.61	ND< 0.16	ND< 0.03	ND< 0.03	ND< 0.16
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.28	ND< 0.27	ND< 1.1	ND< 1.1	ND< 0.28	ND< 0.054	ND< 0.055	ND< 0.3
Carbazole	86-74-8	--	--	--	--	ND< 0.11	ND< 0.11	12	ND< 0.44	ND< 0.11	ND< 0.021	0.034 J	0.21 J
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.23	ND< 0.22	ND< 0.93	ND< 0.92	ND< 0.23	ND< 0.045	ND< 0.045	ND< 0.24
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.23	ND< 0.22	ND< 0.93	ND< 0.92	ND< 0.23	ND< 0.045	ND< 0.045	ND< 0.24
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.2	ND< 0.19	ND< 0.8	ND< 0.79	ND< 0.2	ND< 0.038	ND< 0.038	ND< 0.21
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.12	ND< 0.12	**ND< 0.49**	**ND< 0.48**	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.19	ND< 0.18	ND< 0.75	ND< 0.74	ND< 0.19	ND< 0.036	ND< 0.036	ND< 0.2
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.16	ND< 0.15	ND< 0.62	ND< 0.61	ND< 0.16	ND< 0.03	ND< 0.03	ND< 0.16
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.17	ND< 0.16	ND< 0.68	ND< 0.68	ND< 0.17	ND< 0.033	ND< 0.033	ND< 0.18
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.12	ND< 0.11	ND< 0.46	ND< 0.46	ND< 0.12	ND< 0.022	ND< 0.022	ND< 0.12
Chrysene	218-01-9	110	2100	--	--	ND< 0.21	0.43 J	22	1.5 J	ND< 0.21	0.11 J	0.27	2.3
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.17**	**ND< 0.16**	**3.6 J**	**ND< 0.65**	**ND< 0.17**	ND< 0.032	ND< 0.032	**0.6 J**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.11	ND< 0.11	19	ND< 0.44	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 1.1	ND< 1.1	**ND< 4.4**	**ND< 4.4**	ND< 1.1	ND< 0.21	ND< 0.21	**ND< 1.2**
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.1	ND< 0.095	ND< 0.4	ND< 0.39	ND< 0.1	ND< 0.019	ND< 0.019	ND< 0.1
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.12	ND< 0.12	ND< 0.49	ND< 0.48	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.44	ND< 0.44	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.23	ND< 0.22	2.4 J	ND< 0.89	ND< 0.23	ND< 0.044	ND< 0.044	ND< 0.24
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.16	ND< 0.15	ND< 0.64	ND< 0.63	ND< 0.16	ND< 0.031	ND< 0.031	ND< 0.17
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.95	ND< 0.9	ND< 3.8	ND< 3.7	ND< 0.95	ND< 0.18	ND< 0.18	ND< 0.99
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 4.4	ND< 4.2	ND< 17	ND< 17	ND< 4.4	ND< 0.83	ND< 0.84	ND< 4.6
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.2	ND< 0.19	ND< 0.77	ND< 0.76	ND< 0.2	ND< 0.037	ND< 0.037	ND< 0.2
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.11	ND< 0.11	**ND< 0.44**	**ND< 0.44**	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.11	ND< 0.11	ND< 0.44	ND< 0.44	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.32	ND< 0.31	ND< 1.3	ND< 1.3	ND< 0.32	ND< 0.062	ND< 0.062	0.34 J
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.1	0.6 J	65	2.9 J	0.13 J	0.078 J	0.22	3
Fluorene	86-73-7	2400	30000	--	--	ND< 0.11	ND< 0.11	25	ND< 0.44	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.13**	**ND< 0.12**	**ND< 0.51**	**ND< 0.5**	**ND< 0.13**	ND< 0.024	ND< 0.025	**ND< 0.13**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.026	ND< 0.02	ND< 0.025	ND< 0.024	ND< 0.028	ND< 0.025	ND< 0.025	ND< 0.055 *
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.13	ND< 0.12	ND< 0.51	ND< 0.5	ND< 0.13	ND< 0.024	ND< 0.025	ND< 0.13
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.12	ND< 0.12	ND< 0.49	ND< 0.48	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.17 J	0.38 J	**11**	**1.8 J**	ND< 0.12	0.12 J	0.2	**1.9**
Isophorone	78-59-1	570	2400	--	--	ND< 0.2	ND< 0.19	ND< 0.8	ND< 0.79	ND< 0.2	ND< 0.038	ND< 0.038	ND< 0.21
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.19	ND< 0.18	26	ND< 0.74	ND< 0.19	ND< 0.036	ND< 0.036	ND< 0.2
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.11	ND< 0.11	0.65 J	ND< 0.44	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.11	ND< 0.11	1.6 J	ND< 0.44	ND< 0.11	ND< 0.021	ND< 0.021	ND< 0.12
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.12	**63**	ND< 0.48	ND< 0.12	ND< 0.023	ND< 0.024	ND< 0.13
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.14	ND< 0.13	ND< 0.55	ND< 0.55	ND< 0.14	ND< 0.027	ND< 0.027	ND< 0.15
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.26	ND< 0.25	ND< 1	ND< 1	ND< 0.26	ND< 0.05	ND< 0.05	ND< 0.27
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.5	ND< 0.47	ND< 2	ND< 1.9	ND< 0.5	ND< 0.095	ND< 0.095	ND< 0.52
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.11	ND< 0.1	ND< 0.42	ND< 0.41	ND< 0.11	ND< 0.02	ND< 0.02	ND< 0.11
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.27	ND< 0.25	ND< 1.1	ND< 1	ND< 0.27	ND< 0.051	ND< 0.051	ND< 0.28
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.66	ND< 0.63	ND< 2.6	ND< 2.6	ND< 0.66	ND< 0.13	ND< 0.13	ND< 0.69
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.16**	**ND< 0.15**	**ND< 0.64**	**ND< 0.63**	**ND< 0.16**	ND< 0.031	ND< 0.031	**ND< 0.17**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.77	ND< 0.73	ND< 3	ND< 3	ND< 0.77	ND< 0.15	ND< 0.15	ND< 0.8
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 0.95**	**ND< 0.9**	**ND< 3.8**	**ND< 3.7**	**ND< 0.95**	ND< 0.18	ND< 0.18	**ND< 0.99**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.14	ND< 0.13	92 D	1.6 J	ND< 0.14	ND< 0.027	0.048 J	1
Phenol	108-95-2	19000	250000	--	--	ND< 0.15	ND< 0.14	ND< 0.57	ND< 0.57	ND< 0.15	ND< 0.028	ND< 0.028	ND< 0.15
Pyrene	129-00-0	1800	23000	--	--	ND< 0.11	0.59 J	49	2.6 J	ND< 0.11	0.1 J	0.24	3.3
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.16	ND< 0.15	ND< 0.64	ND< 0.63	ND< 0.16	ND< 0.031	ND< 0.031	ND< 0.17
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.2	ND< 0.19	ND< 0.77	ND< 0.76	ND< 0.2	ND< 0.037	ND< 0.037	ND< 0.2
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.26	ND< 0.24	ND< 1	ND< 1	ND< 0.26	ND< 0.049	ND< 0.049	ND< 0.27
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.19	ND< 0.18	ND< 0.75	ND< 0.74	ND< 0.19	ND< 0.036	ND< 0.036	ND< 0.2
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.009	ND< 0.00086	ND< 0.0093	ND< 0.0092	ND< 0.00046	ND< 0.00087	ND< 0.00043	ND< 0.0024
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.018	ND< 0.0017	ND< 0.019	ND< 0.019	ND< 0.00094	ND< 0.0018	ND< 0.00088	ND< 0.0048
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.0066	0.00076 J	ND< 0.0068	ND< 0.0067	0.00041 J B	ND< 0.00064	ND< 0.00032	ND< 0.0017
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.0066	ND< 0.00063	ND< 0.0068	ND< 0.0067	ND< 0.00034	ND< 0.00064	ND< 0.00032	ND< 0.0017
delta-BHC	319-86-8	--	--	--	--	ND< 0.0068	ND< 0.00065	ND< 0.0071	ND< 0.007	ND< 0.00035	ND< 0.00066	ND< 0.00033	ND< 0.0018
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.0071	ND< 0.00068	ND< 0.0074	ND< 0.0073	ND< 0.00037	ND< 0.00069	ND< 0.00034	ND< 0.0019
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.0077	ND< 0.00073	ND< 0.008	ND< 0.0079	ND< 0.0004	ND< 0.00074	ND< 0.00037	ND< 0.002
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.0086	ND< 0.00081	ND< 0.0089	ND< 0.0088	ND< 0.00044	ND< 0.00083	ND< 0.00041	ND< 0.0023
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0088	ND< 0.00084	ND< 0.0091	ND< 0.009	ND< 0.00045	ND< 0.00085	ND< 0.00042	ND< 0.0023
Endosulfan I	959-98-8	--	--	--	--	ND< 0.0071	ND< 0.00067	ND< 0.0073	ND< 0.0072	ND< 0.00036	ND< 0.00068	ND< 0.00034	ND< 0.0019
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.0066	ND< 0.00063	ND< 0.0068	ND< 0.0067	ND< 0.00034	ND< 0.00064	ND< 0.00032	ND< 0.0017
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.0069	ND< 0.00065	ND< 0.0071	ND< 0.007	ND< 0.00035	ND< 0.00066	ND< 0.00033	ND< 0.0018
Endrin	72-20-8	19	250	--	0.4	ND< 0.0073	ND< 0.00069	ND< 0.0075	ND< 0.0074	ND< 0.00037	ND< 0.0007	ND< 0.00035	ND< 0.0019
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.0094	ND< 0.00089	ND< 0.0097	ND< 0.0096	ND< 0.00048	ND< 0.00091	ND< 0.00045	ND< 0.0025
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.009	ND< 0.00086	ND< 0.0093	ND< 0.0092	ND< 0.00046	ND< 0.00087	ND< 0.00043	ND< 0.0024
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.0067	ND< 0.00064	ND< 0.007	ND< 0.0069	ND< 0.00035	ND< 0.00065	ND< 0.00032	ND< 0.0018
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.012	ND< 0.0011	ND< 0.012	ND< 0.012	ND< 0.0006	ND< 0.0011	ND< 0.00056	ND< 0.0031
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.008	ND< 0.00075	ND< 0.0082	ND< 0.0081	ND< 0.00041	ND< 0.00077	ND< 0.00038	ND< 0.0021
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.0095	ND< 0.0009	ND< 0.0098	ND< 0.0097	ND< 0.00049	ND< 0.00091	ND< 0.00046	ND< 0.0025
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.0075	ND< 0.00071	ND< 0.0077	ND< 0.0076	ND< 0.00039	ND< 0.00072	ND< 0.00036	ND< 0.002
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.21	ND< 0.02	ND< 0.22	ND< 0.22	ND< 0.011	ND< 0.021	ND< 0.01	ND< 0.056
2,4-D	94-75-7	700	9600	--	200	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.012
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0058	ND< 0.0056	ND< 0.006	ND< 0.0059	ND< 0.006	ND< 0.0057	ND< 0.0057	ND< 0.0062
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0066	ND< 0.0063	ND< 0.0067	ND< 0.0067	ND< 0.0068	ND< 0.0064	ND< 0.0065	ND< 0.007

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-12+50-2FT	RR-13+00-2FT	RR-13+50-2FT	RR-14+00-2FT	RR-14+50-2FT	RR-15+00-2FT	RR-15+50-2FT	RR-15+50-6FT
Date of Sample						7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016
Depth of Sample (ft. bgs)						2	2	2	2	2	2	2	6
PID Field Measurement (ppm)						0.3	2	0.3	0.2	0.1	0.1	0.2	0.3
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.46 HF	8.31 HF	8.41 HF	8.38 HF	8.37 HF	8.56 HF	8.72 HF	8.7 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	3	3.7	5.5	4.2	5.2	2.4	3.2	3.8
Barium	7440-39-3	11700	220000	--	2000	32.1	75.6	44.5	26.2	37.5 F1	26.1	40.3 ^ B	33.2 ^ B
Cadmium	7440-43-9	7.15	980	--	20	0.13 J	0.2 J	0.18 J	0.13 J	0.11 J	0.15 J	0.12 J	0.099 J
Chromium	7440-47-3	1800000	41900	--	100	10.4	8	8.7	5.6	6.8	5.5	12.7	6.3
Lead	7439-92-1	400	800	111	100	47.6	65.4	139	36.4	48 F1 F2	29.4	33.8	10.9
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	0.0056 J	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.4	ND< 0.44	ND< 0.47	ND< 0.47	ND< 0.43	ND< 0.44	ND< 0.45	ND< 0.46
Silver	7440-22-4	247	5800	--	100	ND< 0.2	ND< 0.22	ND< 0.23	ND< 0.23	ND< 0.21	ND< 0.22	ND< 0.22	ND< 0.23
Mercury	7439-97-6	10.9	46	--	4	0.07	0.15	0.096	0.021 J	0.024	0.022	0.013 J	ND< 0.0085
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	13 J	27	27	28	43	10 J	76	ND< 5.4
GRO (C6-C10)	8006-61-9	82	420	--	--	0.45 J B	0.38 J B	ND< 0.38	ND< 0.39	0.36 J B	ND< 0.35	ND< 0.34	ND< 0.36
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.013
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.018	ND< 0.018	ND< 0.019	ND< 0.019	ND< 0.018	ND< 0.018	ND< 0.017	ND< 0.017
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.022	ND< 0.022	ND< 0.024	ND< 0.023	ND< 0.022	ND< 0.022	ND< 0.021	ND< 0.022
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.012	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.012
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.0089	ND< 0.0088	ND< 0.0094	ND< 0.0093	ND< 0.0088	ND< 0.0088	ND< 0.0084	ND< 0.0087
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.016	ND< 0.015	ND< 0.016	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.015
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.01	ND< 0.0099	ND< 0.011	ND< 0.01	ND< 0.0099	ND< 0.0099	ND< 0.0095	ND< 0.0098
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.014	ND< 0.014	ND< 0.015	ND< 0.015	ND< 0.014	ND< 0.014	ND< 0.014	ND< 0.014
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.25 *	ND< 0.27 *	ND< 0.3 *	ND< 0.29 *	ND< 0.26 *	ND< 0.25 *	ND< 0.31 *	ND< 0.27 *
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0095	ND< 0.01	ND< 0.011	ND< 0.011	ND< 0.0099	0.069	ND< 0.012	ND< 0.01
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.011	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.011	ND< 0.011	ND< 0.013	ND< 0.012
Bromoform	75-25-2	19	86	--	--	ND< 0.025	ND< 0.027	ND< 0.03	ND< 0.029	ND< 0.026	ND< 0.025	ND< 0.031	ND< 0.027
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.011	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.011	ND< 0.011	ND< 0.013	ND< 0.012
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.15	ND< 0.16	ND< 0.18	ND< 0.17	ND< 0.15	ND< 0.15	ND< 0.18	ND< 0.16
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.015	ND< 0.016	ND< 0.017	ND< 0.017	ND< 0.015	ND< 0.014	ND< 0.018	ND< 0.016
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.018	ND< 0.02	ND< 0.022	ND< 0.021	ND< 0.019	ND< 0.018	ND< 0.023	ND< 0.02
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.017	ND< 0.015
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.023	ND< 0.024	ND< 0.027	ND< 0.027	ND< 0.024	ND< 0.022	ND< 0.028	ND< 0.024
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.013	ND< 0.014	ND< 0.015	ND< 0.015	ND< 0.013	ND< 0.013	ND< 0.016	ND< 0.014
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0066	ND< 0.007	ND< 0.0079	ND< 0.0077	ND< 0.0068	ND< 0.0065	ND< 0.0081	ND< 0.0071
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.018	ND< 0.019	ND< 0.022	ND< 0.021	ND< 0.019	ND< 0.018	ND< 0.022	ND< 0.019
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.024	ND< 0.026	ND< 0.029	ND< 0.028	ND< 0.025	ND< 0.024	ND< 0.03	ND< 0.026
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.01	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.013	ND< 0.011
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.016	ND< 0.017	ND< 0.019	ND< 0.019	ND< 0.017	ND< 0.016	ND< 0.02	ND< 0.017
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.034	ND< 0.036	ND< 0.041	ND< 0.04	ND< 0.036	ND< 0.034	ND< 0.042	ND< 0.037
Chloromethane	74-87-3	110	460	--	--	ND< 0.012	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.012	ND< 0.012	ND< 0.015	ND< 0.013
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.019	ND< 0.02	ND< 0.023	ND< 0.022	ND< 0.02	ND< 0.019	ND< 0.023	ND< 0.021
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.01	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.012	ND< 0.011
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.011	0.051 J	ND< 0.013	0.068	ND< 0.012	0.072	ND< 0.014	ND< 0.012
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.025**	**ND< 0.027**	**ND< 0.03**	**ND< 0.029**	**ND< 0.026**	**ND< 0.025**	**ND< 0.031**	**ND< 0.027**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.016	ND< 0.017	ND< 0.019	ND< 0.019	ND< 0.017	ND< 0.016	ND< 0.02	ND< 0.017
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.013	ND< 0.014	ND< 0.015	ND< 0.015	ND< 0.013	ND< 0.013	ND< 0.016	ND< 0.014
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.013	ND< 0.014	ND< 0.016	ND< 0.016	ND< 0.014	ND< 0.013	ND< 0.016	ND< 0.014
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.007	ND< 0.0074	ND< 0.0084	ND< 0.0082	ND< 0.0073	ND< 0.0069	ND< 0.0086	ND< 0.0075
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.01	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.01	ND< 0.0098	ND< 0.012	ND< 0.011
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.022	ND< 0.023	ND< 0.026	ND< 0.025	ND< 0.023	ND< 0.021	ND< 0.027	ND< 0.023
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.016	ND< 0.016	ND< 0.019	ND< 0.018	ND< 0.016	ND< 0.015	ND< 0.019	ND< 0.017
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.021	ND< 0.022	ND< 0.024	ND< 0.024	ND< 0.021	ND< 0.02	ND< 0.025	ND< 0.022
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.017	ND< 0.018	ND< 0.021	ND< 0.02	ND< 0.018	ND< 0.017	ND< 0.021	ND< 0.019
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.017	ND< 0.015
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.012	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.012	ND< 0.012	ND< 0.014	ND< 0.013
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0081	ND< 0.0086	ND< 0.0097	ND< 0.0095	ND< 0.0084	ND< 0.0079	ND< 0.0099	ND< 0.0087
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0091	ND< 0.0097	ND< 0.011	ND< 0.011	ND< 0.0094	ND< 0.0089	ND< 0.011	ND< 0.0097
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.011	ND< 0.012	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.011	ND< 0.014	ND< 0.012
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.012	ND< 0.013	ND< 0.015	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.015	ND< 0.013
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.012	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.012	ND< 0.012	ND< 0.015	ND< 0.013
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0049	ND< 0.0052	ND< 0.0059	ND< 0.0057	ND< 0.0051	ND< 0.0048	ND< 0.006	ND< 0.0053
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.26	ND< 0.27	ND< 0.31	ND< 0.3	ND< 0.26	ND< 0.25	ND< 0.31	ND< 0.27
Ethylbenzene	100-41-4	2.21	25	--	--	0.019 J	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.015	0.024 J	ND< 0.018	ND< 0.016
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0088	ND< 0.0093	ND< 0.01	ND< 0.01	ND< 0.0091	ND< 0.0086	ND< 0.011	ND< 0.0094
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.05 *	ND< 0.053 *	ND< 0.06 *	ND< 0.058 *	ND< 0.052 *	ND< 0.049 *	ND< 0.061 *	ND< 0.054 *
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.1	ND< 0.11	ND< 0.12	ND< 0.12	ND< 0.11	ND< 0.1	ND< 0.13	ND< 0.11
Iodomethane	74-88-4	--	--	--	--	ND< 0.015	ND< 0.016	ND< 0.018	ND< 0.018	ND< 0.016	ND< 0.015	ND< 0.019	ND< 0.016
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.27	ND< 0.28	ND< 0.32	ND< 0.31	ND< 0.28	ND< 0.26	ND< 0.33	ND< 0.28
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0075	ND< 0.008	ND< 0.009	ND< 0.0088	ND< 0.0078	ND< 0.0074	ND< 0.0092	ND< 0.008
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.017	ND< 0.018	ND< 0.02	ND< 0.02	ND< 0.017	ND< 0.017	ND< 0.021	ND< 0.018
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.024	ND< 0.025	ND< 0.029	ND< 0.028	ND< 0.025	ND< 0.023	ND< 0.029	ND< 0.025
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.016	ND< 0.017	ND< 0.019	ND< 0.019	ND< 0.017	ND< 0.016	ND< 0.02	ND< 0.017
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.019	ND< 0.02	ND< 0.023	ND< 0.022	ND< 0.02	ND< 0.019	ND< 0.023	ND< 0.02
Methylcyclohexane	108-87-2	--	--	--	--	0.025 J	0.15	0.15	0.22	0.13	0.16	0.055 J	ND< 0.025
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.0099	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.01	ND< 0.0097	ND< 0.012	0.016 J B
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	ND< 0.45	ND< 0.024
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.013	ND< 0.014	ND< 0.016	ND< 0.015	ND< 0.014	ND< 0.013	ND< 0.016	ND< 0.014
Styrene	100-42-5	6000	35000	--	--	ND< 0.012	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.012	ND< 0.012	ND< 0.015	ND< 0.013
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.015	ND< 0.014	ND< 0.017	ND< 0.015
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0081	ND< 0.0086	ND< 0.0097	ND< 0.0095	ND< 0.0084	ND< 0.008	ND< 0.0099	ND< 0.0087
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0067	ND< 0.0071	ND< 0.008	ND< 0.0078	ND< 0.007	ND< 0.0066	ND< 0.0082	ND< 0.0072
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.025	ND< 0.027	ND< 0.03	ND< 0.029	ND< 0.026	ND< 0.025	ND< 0.031	ND< 0.027
Toluene	108-88-3	4640	47000	--	--	0.16	0.049 J	0.026 J	0.05 J	0.031 J	0.21	ND< 0.016	ND< 0.014
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.025	ND< 0.027	ND< 0.03	ND< 0.029	ND< 0.026	ND< 0.025	ND< 0.031	ND< 0.027
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.023	ND< 0.024	ND< 0.028	ND< 0.027	ND< 0.024	ND< 0.023	ND< 0.028	ND< 0.025
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.019	ND< 0.02	ND< 0.023	ND< 0.022	ND< 0.02	ND< 0.019	ND< 0.023	ND< 0.02
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.017	ND< 0.015
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.011	ND< 0.013	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.013	ND< 0.011
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.016	ND< 0.014	ND< 0.014	ND< 0.017	ND< 0.015
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.024	ND< 0.025	ND< 0.028	ND< 0.027	ND< 0.024	ND< 0.023	ND< 0.029	ND< 0.025
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.011**	**ND< 0.012**	**ND< 0.013**	**ND< 0.013**	**ND< 0.012**	**ND< 0.011**	**ND< 0.014**	**ND< 0.012**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	0.045 J	0.023 J	0.02 J	0.028 J	0.017 J	0.028 J	ND< 0.017	ND< 0.015
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	0.038 J	ND< 0.016	ND< 0.018	ND< 0.018	ND< 0.016	ND< 0.015	ND< 0.018	ND< 0.016
Trimethylbenzene - Sum of Isomers		--	--	--	--	0.029	0.029	0.029	0.029	0.029	0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.089	ND< 0.095	ND< 0.11	ND< 0.1	ND< 0.092	ND< 0.087	ND< 0.11	ND< 0.095
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.017	ND< 0.018	ND< 0.02	ND< 0.02	ND< 0.017	ND< 0.016	ND< 0.02	ND< 0.018
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	0.058 J	0.037 J	ND< 0.033	0.057 J	0.029 J	0.088 J	ND< 0.034	ND< 0.03
o-Xylene	95-47-6	650	2800	--	--	0.029 J	0.022 J	ND< 0.0078	0.044 J	0.024 J	0.049	ND< 0.008	ND< 0.007
Xylenes	1330-20-7	575	2500	--	--	0.087	0.059	ND< 0.0408	0.101	0.053	0.137	ND< 0.042	ND< 0.037

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-12+50-2FT	RR-13+00-2FT	RR-13+50-2FT	RR-14+00-2FT	RR-14+50-2FT	RR-15+00-2FT	RR-15+50-2FT	RR-15+50-6FT
Date of Sample						7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016
Depth of Sample (ft. bgs)						2	2	2	2	2	2	2	6
PID Field Measurement (ppm)						0.3	2	0.3	0.2	0.1	0.1	0.2	0.3
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.5916**	**1.34545**	**1.07537**	**1.1341**	**3.6738**	**0.56577**	**3.0749**	ND< 0.03309
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.13	ND< 0.027	ND< 0.52	ND< 0.027
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.12	0.28 J	0.19 J	0.24 J	0.75 J	0.087 J	0.67 J	ND< 0.024
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.025	ND< 0.48	ND< 0.025
Anthracene	120-12-7	18000	230000	--	--	ND< 0.23	ND< 0.23	ND< 0.24	ND< 0.24	0.32 J	0.052 J	ND< 0.87	ND< 0.045
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.32	ND< 0.32	ND< 0.34	ND< 0.34	ND< 0.32	ND< 0.063	ND< 1.2	ND< 0.063
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.73	ND< 0.74	ND< 0.77	ND< 0.78	ND< 0.73	ND< 0.14	ND< 2.8	ND< 0.14
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.24 J	0.61 J	0.59 J	0.67 J	**2.3**	0.34	**1.3 J**	ND< 0.018
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.37 J**	**0.93**	**0.73 J**	**0.74 J**	**2.7**	**0.41**	**2 J**	ND< 0.027
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.67 J	**1.7**	**1.3**	**1.6**	**4.4**	0.7	**3.8**	ND< 0.029
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	0.43 J	1	0.63 J	0.67 J	2	0.33	3 J	ND< 0.019
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.23 J	0.66 J	0.55 J	0.7 J	2.1	0.33	2.2 J	ND< 0.024
Biphenyl	92-52-4	47	200	--	--	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.13	ND< 0.027	ND< 0.52	ND< 0.027
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.13	ND< 0.026	ND< 0.5	ND< 0.026
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.16	ND< 0.15	ND< 0.03	ND< 0.58	ND< 0.03
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.28	ND< 0.28	ND< 0.29	ND< 0.3	ND< 0.27	ND< 0.055	ND< 1.1	ND< 0.055
Carbazole	86-74-8	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.11	0.13 J	0.17 J	0.035 J	0.5 J	ND< 0.021
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.23	ND< 0.23	ND< 0.24	ND< 0.24	ND< 0.23	ND< 0.045	ND< 0.87	ND< 0.045
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.23	ND< 0.23	ND< 0.24	ND< 0.24	ND< 0.23	ND< 0.045	ND< 0.87	ND< 0.045
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.19	ND< 0.2	ND< 0.2	ND< 0.21	ND< 0.19	ND< 0.039	ND< 0.74	ND< 0.039
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	**ND< 0.45**	ND< 0.024
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.18	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.18	ND< 0.036	ND< 0.7	ND< 0.036
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.16	ND< 0.15	ND< 0.03	ND< 0.58	ND< 0.03
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.17	ND< 0.17	ND< 0.18	ND< 0.18	ND< 0.17	ND< 0.033	ND< 0.64	ND< 0.033
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.11	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	ND< 0.022	ND< 0.43	ND< 0.022
Chrysene	218-01-9	110	2100	--	--	0.3 J	0.85 J	0.87 J	1.1	2.8	0.47	2.9 J	ND< 0.041
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.17**	**ND< 0.16**	ND< 0.032	**ND< 0.62**	ND< 0.032
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	ND< 0.41	ND< 0.021
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 1.1	ND< 1.1	ND< 1.1	**ND< 1.2**	ND< 1.1	ND< 0.21	**ND< 4.1**	ND< 0.21
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.097	ND< 0.099	ND< 0.1	ND< 0.1	ND< 0.097	ND< 0.019	ND< 0.37	ND< 0.019
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	ND< 0.45	ND< 0.024
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	ND< 0.41	ND< 0.021
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.22	ND< 0.23	ND< 0.23	ND< 0.24	ND< 0.22	ND< 0.044	ND< 0.85	ND< 0.044
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.16	ND< 0.16	ND< 0.16	ND< 0.17	ND< 0.16	ND< 0.031	ND< 0.6	ND< 0.031
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.92	ND< 0.93	ND< 0.97	ND< 0.99	ND< 0.92	ND< 0.18	ND< 3.5	ND< 0.18
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 4.2	ND< 4.3	ND< 4.5	ND< 4.5	ND< 4.2	ND< 0.84	ND< 16	ND< 0.84
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.2	ND< 0.19	ND< 0.037	ND< 0.72	ND< 0.037
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	**ND< 0.41**	ND< 0.021
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	ND< 0.41	ND< 0.021
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.31	ND< 0.32	ND< 0.33	ND< 0.34	ND< 0.31	ND< 0.062	ND< 1.2	ND< 0.062
Fluoranthene	206-44-0	2400	30000	--	--	0.27 J	0.81 J	0.94 J	1.3	3	0.49	3.9	ND< 0.019
Fluorene	86-73-7	2400	30000	--	--	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	ND< 0.41	ND< 0.021
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.12**	**ND< 0.13**	**ND< 0.13**	**ND< 0.13**	**ND< 0.12**	ND< 0.025	**ND< 0.48**	ND< 0.025
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.05 *	ND< 0.053 *	ND< 0.06 *	ND< 0.058 *	ND< 0.052 *	ND< 0.049 *	ND< 0.061 *	ND< 0.054 *
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.025	ND< 0.48	ND< 0.025
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	ND< 0.45	ND< 0.024
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.48 J	0.97	0.65 J	0.74 J	**2**	0.32	**2.3 J**	ND< 0.022
Isophorone	78-59-1	570	2400	--	--	ND< 0.19	ND< 0.2	ND< 0.2	ND< 0.21	ND< 0.19	ND< 0.039	ND< 0.74	ND< 0.039
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.18	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.18	ND< 0.036	ND< 0.7	ND< 0.036
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	ND< 0.41	ND< 0.021
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.021	ND< 0.41	ND< 0.021
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.024	ND< 0.45	ND< 0.024
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.13	ND< 0.027	ND< 0.52	ND< 0.027
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.25	ND< 0.26	ND< 0.27	ND< 0.27	ND< 0.25	ND< 0.05	ND< 0.97	ND< 0.05
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.48	ND< 0.49	ND< 0.51	ND< 0.52	ND< 0.48	ND< 0.095	ND< 1.8	ND< 0.095
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.1	ND< 0.1	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.02	ND< 0.39	ND< 0.02
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.26	ND< 0.26	ND< 0.27	ND< 0.28	ND< 0.26	ND< 0.051	ND< 0.99	ND< 0.051
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.64	ND< 0.65	ND< 0.68	ND< 0.69	ND< 0.64	ND< 0.13	ND< 2.5	ND< 0.13
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.16**	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.16**	ND< 0.031	**ND< 0.6**	ND< 0.031
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.74	ND< 0.76	ND< 0.78	ND< 0.8	ND< 0.74	ND< 0.15	ND< 2.9	ND< 0.15
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 0.92**	**ND< 0.93**	**ND< 0.97**	**ND< 0.99**	**ND< 0.92**	ND< 0.18	**ND< 3.5**	ND< 0.18
Phenanthrene	85-01-8	--	--	--	--	ND< 0.13	0.2 J	0.22 J	0.2 J	0.45 J	0.065 J	0.58 J	ND< 0.027
Phenol	108-95-2	19000	250000	--	--	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.15	ND< 0.14	ND< 0.028	ND< 0.54	ND< 0.028
Pyrene	129-00-0	1800	23000	--	--	0.28 J	0.91 J	0.99	1.2	3.2	0.54	4.5	ND< 0.021
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.16	ND< 0.16	ND< 0.16	ND< 0.17	ND< 0.16	ND< 0.031	ND< 0.6	ND< 0.031
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.2	ND< 0.19	ND< 0.037	ND< 0.72	ND< 0.037
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.25	ND< 0.25	ND< 0.26	ND< 0.27	ND< 0.25	ND< 0.049	ND< 0.95	ND< 0.049
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.18	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.18	ND< 0.036	ND< 0.7	ND< 0.036
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00045	ND< 0.0022	ND< 0.0024	ND< 0.0023	ND< 0.0022	ND< 0.00044	ND< 0.0084	ND< 0.00044
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.00091	ND< 0.0045	ND< 0.0048	ND< 0.0047	ND< 0.0045	ND< 0.00089	ND< 0.017	ND< 0.00089
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.00033	0.0019 J B	ND< 0.0017	0.002 J B	0.002 J B	0.0004 J B	ND< 0.0061	0.00052 J B
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00033	ND< 0.0016	ND< 0.0017	ND< 0.0017	ND< 0.0016	ND< 0.00032	ND< 0.0061	ND< 0.00032
delta-BHC	319-86-8	--	--	--	--	ND< 0.00034	ND< 0.0017	ND< 0.0018	ND< 0.0018	ND< 0.0017	ND< 0.00033	ND< 0.0063	ND< 0.00033
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00035	ND< 0.0018	ND< 0.0019	ND< 0.0018	ND< 0.0017	ND< 0.00035	ND< 0.0066	ND< 0.00035
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00038	ND< 0.0019	ND< 0.002	ND< 0.002	ND< 0.0019	ND< 0.00037	ND< 0.0071	ND< 0.00038
4,4'-DDT	50-29-3	1.9	8.5	--	--	0.0045	ND< 0.0021	ND< 0.0022	ND< 0.0022	ND< 0.0021	ND< 0.00042	ND< 0.008	ND< 0.00042
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00044	ND< 0.0022	ND< 0.0023	ND< 0.0023	ND< 0.0022	ND< 0.00043	ND< 0.0082	ND< 0.00043
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00035	ND< 0.0017	ND< 0.0018	ND< 0.0018	ND< 0.0017	ND< 0.00034	ND< 0.0065	ND< 0.00034
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00033	ND< 0.0016	ND< 0.0017	ND< 0.0017	ND< 0.0016	ND< 0.00032	ND< 0.0061	ND< 0.00032
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00034	ND< 0.0017	ND< 0.0018	ND< 0.0018	ND< 0.0017	ND< 0.00033	ND< 0.0063	ND< 0.00033
Endrin	72-20-8	19	250	--	0.4	ND< 0.00036	ND< 0.0018	ND< 0.0019	ND< 0.0019	ND< 0.0018	ND< 0.00035	ND< 0.0067	ND< 0.00036
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00047	ND< 0.0023	ND< 0.0025	ND< 0.0024	ND< 0.0023	ND< 0.00045	ND< 0.0087	ND< 0.00046
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00045	ND< 0.0022	ND< 0.0024	ND< 0.0023	ND< 0.0022	ND< 0.00044	ND< 0.0084	ND< 0.00044
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00033	ND< 0.0017	ND< 0.0018	ND< 0.0017	ND< 0.0017	ND< 0.00033	ND< 0.0062	ND< 0.00033
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.00058	ND< 0.0029	ND< 0.0031	ND< 0.003	ND< 0.0029	ND< 0.00057	ND< 0.011	ND< 0.00057
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.0004	ND< 0.002	ND< 0.0021	ND< 0.002	ND< 0.0019	ND< 0.00039	ND< 0.0074	ND< 0.00039
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00047	ND< 0.0024	ND< 0.0025	ND< 0.0024	ND< 0.0023	ND< 0.00046	ND< 0.0088	ND< 0.00046
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00037	0.0075 J	ND< 0.002	ND< 0.0019	ND< 0.0018	ND< 0.00036	ND< 0.0069	ND< 0.00037
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.011	ND< 0.053	ND< 0.056	ND< 0.055	ND< 0.052	ND< 0.01	ND< 0.2	ND< 0.01
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0058	ND< 0.0059	ND< 0.0061	ND< 0.0061	ND< 0.0058	ND< 0.0057	ND< 0.0055	ND< 0.0057
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0065	ND< 0.0066	ND< 0.0069	ND< 0.0069	ND< 0.0065	ND< 0.0065	ND< 0.0062	ND< 0.0064

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-16+00-2FT	RR-16+00-6FT	RR-16+50-2FT	RR-16+50-6FT	RR-17+00-2FT	RR-17+00-6FT	RR-17+50-2FT	RR-17+50-6FT
Date of Sample						7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	8/3/2016	8/3/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						1.8	0.1	0.7	0.3	0.2	0.2	0.2	0.3
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.45 HF	7.33 HF	8.64 HF	7.13 HF	8.25 HF	8.19 HF	8.29 HF	7.71 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176.0	>176.0	>176.0	>176.0	>176.0	>176.0	>176	>176
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	2.3	3.2	2.5	2.3	3.8	2.3	3.7	2.1 J
Barium	7440-39-3	11700	220000	--	2000	21 ^ B	63.1 ^ B	22.1 ^ B	76.3 ^ B	31.7	48.3	34.7	19.6
Cadmium	7440-43-9	7.15	980	--	20	0.069 J	0.11 J	0.066 J	0.12 J	0.14 J	0.082 J	0.09 J B	0.095 J B
Chromium	7440-47-3	1800000	41900	--	100	4.1	15.6	3.9	17.3	3.9	10	5.9	9.9
Lead	7439-92-1	400	800	111	100	17.7	10.1	17.4	9.9	7.4	6.8	33.4	2.4
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.45	ND< 0.55	ND< 0.42	ND< 0.45	ND< 0.54	ND< 0.41	ND< 0.49	ND< 0.49
Silver	7440-22-4	247	5800	--	100	ND< 0.22	ND< 0.28	ND< 0.21	ND< 0.22	ND< 0.27	ND< 0.2	ND< 0.25	ND< 0.25
Mercury	7439-97-6	10.9	46	--	4	0.019	0.011 J	0.012 J	0.035	ND< 0.0096	ND< 0.0088	0.027	ND< 0.0096
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	25	ND< 6.1	6.7 J	6.3 J	8.9 J	ND< 5.5	27	ND< 6.3
GRO (C6-C10)	8006-61-9	82	420	--	--	3.3 B	ND< 0.42	ND< 0.35	ND< 0.4	ND< 0.4	ND< 0.36	ND< 0.35	ND< 0.41
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.015	ND< 0.015	ND< 0.013	ND< 0.04	ND< 0.045
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.017	ND< 0.02	ND< 0.017	ND< 0.02	ND< 0.02	ND< 0.018	ND< 0.053	ND< 0.06
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.021	ND< 0.026	ND< 0.022	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.066	ND< 0.075
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.012	ND< 0.036	ND< 0.042
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.0086	ND< 0.01	ND< 0.0087	ND< 0.0098	ND< 0.0098	ND< 0.0089	ND< 0.026	ND< 0.03
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.015	ND< 0.018	ND< 0.015	ND< 0.017	ND< 0.017	ND< 0.016	ND< 0.046	ND< 0.053
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.0097	ND< 0.012	ND< 0.0097	ND< 0.011	ND< 0.011	ND< 0.01	ND< 0.03	ND< 0.034
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.033	ND< 0.038
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.014	ND< 0.017	ND< 0.014	ND< 0.016	ND< 0.016	ND< 0.014	ND< 0.043	ND< 0.049
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.27 *	ND< 0.31 *	ND< 0.37 *	ND< 0.4 *	ND< 0.37 *	ND< 0.3 *	ND< 0.2	ND< 0.32
Benzene	71-43-2	0.442	5.1	--	10	0.088	ND< 0.012	ND< 0.014	ND< 0.015	ND< 0.014	ND< 0.011	ND< 0.0092	ND< 0.015
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.012	ND< 0.013	ND< 0.016	ND< 0.017	ND< 0.016	ND< 0.013	ND< 0.011	ND< 0.017
Bromoform	75-25-2	19	86	--	--	ND< 0.027	ND< 0.031	ND< 0.037	ND< 0.04	ND< 0.037	ND< 0.03	ND< 0.024	ND< 0.039
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.012	ND< 0.014	ND< 0.016	ND< 0.018	ND< 0.016	ND< 0.013	ND< 0.011	ND< 0.017
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.16	ND< 0.18	ND< 0.22	ND< 0.24	ND< 0.22	ND< 0.18	ND< 0.14	ND< 0.23
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.016	ND< 0.018	ND< 0.022	ND< 0.023	ND< 0.022	ND< 0.017	ND< 0.014	ND< 0.023
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.02	ND< 0.023	ND< 0.027	ND< 0.029	ND< 0.027	ND< 0.022	ND< 0.018	ND< 0.028
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.015	ND< 0.017	ND< 0.021	ND< 0.022	ND< 0.021	ND< 0.016	ND< 0.013	ND< 0.021
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.024	ND< 0.028	ND< 0.034	ND< 0.036	ND< 0.034	ND< 0.027	ND< 0.022	ND< 0.035
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.014	ND< 0.016	ND< 0.019	ND< 0.02	ND< 0.019	ND< 0.015	ND< 0.012	ND< 0.02
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.007	ND< 0.0081	ND< 0.0097	ND< 0.011	ND< 0.0097	ND< 0.0078	ND< 0.0064	ND< 0.01
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.019	ND< 0.022	ND< 0.027	ND< 0.029	ND< 0.027	ND< 0.021	ND< 0.048 *	ND< 0.077 *
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.026	ND< 0.03	ND< 0.036	ND< 0.039	ND< 0.036	ND< 0.029	ND< 0.023	ND< 0.037
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.011	ND< 0.013	ND< 0.015	ND< 0.017	ND< 0.015	ND< 0.012	ND< 0.01	ND< 0.016
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.017	ND< 0.02	ND< 0.024	ND< 0.026	ND< 0.024	ND< 0.019	ND< 0.016	ND< 0.025
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.037	ND< 0.042	ND< 0.051	ND< 0.055	ND< 0.051	ND< 0.041	ND< 0.033	ND< 0.053
Chloromethane	74-87-3	110	460	--	--	ND< 0.013	ND< 0.015	ND< 0.018	ND< 0.019	ND< 0.018	ND< 0.014	ND< 0.012	ND< 0.018
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.02	ND< 0.024	ND< 0.028	ND< 0.031	ND< 0.028	ND< 0.023	ND< 0.019	ND< 0.03
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.011	ND< 0.012	ND< 0.015	ND< 0.016	ND< 0.015	ND< 0.012	ND< 0.0098	ND< 0.016
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.012	ND< 0.014	ND< 0.016	ND< 0.018	ND< 0.016	ND< 0.013	ND< 0.011	ND< 0.017
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.027**	**ND< 0.031**	**ND< 0.037**	**ND< 0.04**	**ND< 0.037**	**ND< 0.03**	**ND< 0.024**	**ND< 0.039**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.017	ND< 0.02	ND< 0.024	ND< 0.026	ND< 0.024	ND< 0.019	ND< 0.016	ND< 0.025
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.014	ND< 0.016	ND< 0.019	ND< 0.02	ND< 0.019	ND< 0.015	ND< 0.012	ND< 0.02
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.014	ND< 0.016	ND< 0.02	ND< 0.021	ND< 0.02	ND< 0.016	ND< 0.013	ND< 0.021
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0075	ND< 0.0086	ND< 0.01	ND< 0.011	ND< 0.01	ND< 0.0083	ND< 0.0068	ND< 0.011
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.011	ND< 0.012	ND< 0.015	ND< 0.016	ND< 0.015	ND< 0.012	ND< 0.0097	ND< 0.015
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.023	ND< 0.027	ND< 0.032	ND< 0.035	ND< 0.032	ND< 0.026	ND< 0.021	ND< 0.034
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.016	ND< 0.019	ND< 0.023	ND< 0.025	ND< 0.023	ND< 0.018	ND< 0.048 *	ND< 0.077 *
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.022	ND< 0.025	ND< 0.03	ND< 0.033	ND< 0.03	ND< 0.024	ND< 0.02	ND< 0.032
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.018	ND< 0.021	ND< 0.026	ND< 0.028	ND< 0.026	ND< 0.021	ND< 0.017	ND< 0.027
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.015	ND< 0.017	ND< 0.02	ND< 0.022	ND< 0.02	ND< 0.016	ND< 0.013	ND< 0.021
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.013	ND< 0.015	ND< 0.017	ND< 0.019	ND< 0.017	ND< 0.014	ND< 0.011	ND< 0.018
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0086	ND< 0.01	ND< 0.012	ND< 0.013	ND< 0.012	ND< 0.0096	ND< 0.048 *	ND< 0.077 *
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0097	ND< 0.011	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.011	ND< 0.0088	ND< 0.014
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.012	ND< 0.014	ND< 0.017	ND< 0.018	ND< 0.017	ND< 0.013	ND< 0.011	ND< 0.017
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.013	ND< 0.015	ND< 0.018	ND< 0.02	ND< 0.018	ND< 0.015	ND< 0.012	ND< 0.019
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.013	ND< 0.015	ND< 0.018	ND< 0.019	ND< 0.018	ND< 0.014	ND< 0.048 *	ND< 0.077 *
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0052	ND< 0.006	ND< 0.0073	ND< 0.0078	ND< 0.0073	ND< 0.0058	ND< 0.0048	ND< 0.0076
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.27	ND< 0.31	ND< 0.38	ND< 0.41	ND< 0.38	ND< 0.3	ND< 0.25	ND< 0.39
Ethylbenzene	100-41-4	2.21	25	--	--	0.23	ND< 0.018	ND< 0.021	ND< 0.023	ND< 0.021	ND< 0.017	ND< 0.014	ND< 0.022
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0093	ND< 0.011	ND< 0.013	ND< 0.014	ND< 0.013	ND< 0.01	ND< 0.0085	ND< 0.013
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.053 *	ND< 0.061 *	ND< 0.074 *	ND< 0.08 *	ND< 0.074 *	ND< 0.059 *	ND< 0.019	ND< 0.031
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.11	ND< 0.13	ND< 0.15	ND< 0.16	ND< 0.15	ND< 0.12	ND< 0.099	ND< 0.16
Iodomethane	74-88-4	--	--	--	--	ND< 0.016	ND< 0.019	ND< 0.023	ND< 0.024	ND< 0.023	ND< 0.018	ND< 0.048 *	ND< 0.077 *
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.28	ND< 0.33	ND< 0.39	ND< 0.42	ND< 0.39	ND< 0.32	ND< 0.26	ND< 0.41
Isopropylbenzene	98-82-8	1900	9900	--	--	0.015 J	ND< 0.0092	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.0089	ND< 0.0073	ND< 0.012
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.018	ND< 0.021	ND< 0.025	ND< 0.027	ND< 0.025	ND< 0.02	ND< 0.016	ND< 0.026
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.025	0.075	ND< 0.035	0.29	ND< 0.035	0.099	0.078	ND< 0.037
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.017	ND< 0.02	ND< 0.024	ND< 0.026	ND< 0.024	ND< 0.019	ND< 0.016	ND< 0.025
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.02	ND< 0.023	ND< 0.028	ND< 0.03	ND< 0.028	ND< 0.022	ND< 0.018	ND< 0.029
Methylcyclohexane	108-87-2	--	--	--	--	0.058	ND< 0.029	ND< 0.035	ND< 0.037	ND< 0.035	ND< 0.028	0.055	ND< 0.036
Methylene Chloride	75-09-2	57	1000	--	--	0.029 J B	0.019 J B	0.036 J B	0.038 J B	0.032 J B	0.021 J B	ND< 0.048 *	ND< 0.077 *
Naphthalene	91-20-3	1.42	17	--	--	0.043 J	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027
N-Propylbenzene	103-65-1	3800	24000	--	--	0.056	ND< 0.016	ND< 0.019	ND< 0.021	ND< 0.019	ND< 0.016	ND< 0.013	ND< 0.02
Styrene	100-42-5	6000	35000	--	--	ND< 0.013	ND< 0.015	ND< 0.018	ND< 0.019	ND< 0.018	ND< 0.014	ND< 0.012	ND< 0.019
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.015	ND< 0.018	ND< 0.021	ND< 0.023	ND< 0.021	ND< 0.017	ND< 0.048 *	ND< 0.077 *
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0087	ND< 0.01	ND< 0.012	ND< 0.013	ND< 0.012	ND< 0.0096	ND< 0.0079	ND< 0.013
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0072	ND< 0.0083	ND< 0.0099	ND< 0.011	ND< 0.0099	ND< 0.008	ND< 0.0065	ND< 0.01
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.027	ND< 0.031	ND< 0.037	ND< 0.04	ND< 0.037	ND< 0.03	ND< 0.024	ND< 0.039
Toluene	108-88-3	4640	47000	--	--	1.2	ND< 0.016	0.058 J	ND< 0.021	ND< 0.02	ND< 0.016	ND< 0.013	ND< 0.021
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.027	ND< 0.031	ND< 0.037	ND< 0.04	ND< 0.037	ND< 0.03	ND< 0.024	ND< 0.039
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.025	ND< 0.028	ND< 0.034	ND< 0.037	ND< 0.034	ND< 0.027	ND< 0.022	ND< 0.035
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.02	ND< 0.023	ND< 0.028	ND< 0.03	ND< 0.028	ND< 0.022	ND< 0.018	ND< 0.029
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.015	ND< 0.017	ND< 0.02	ND< 0.022	ND< 0.02	ND< 0.016	ND< 0.013	ND< 0.021
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.013	ND< 0.015	ND< 0.017	ND< 0.015	ND< 0.012	ND< 0.01	ND< 0.016
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.015	ND< 0.017	ND< 0.021	ND< 0.022	ND< 0.021	ND< 0.016	ND< 0.013	ND< 0.021
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.025	ND< 0.029	ND< 0.035	ND< 0.037	ND< 0.035	ND< 0.028	ND< 0.023	ND< 0.036
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.012**	**ND< 0.014**	**ND< 0.016**	**ND< 0.018**	**ND< 0.016**	**ND< 0.013**	**ND< 0.011**	**ND< 0.017**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	0.66	ND< 0.017	ND< 0.021	ND< 0.022	ND< 0.021	ND< 0.017	ND< 0.014	ND< 0.022
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	0.31	ND< 0.019	ND< 0.022	ND< 0.024	ND< 0.022	ND< 0.018	ND< 0.015	ND< 0.023
Trimethylbenzene - Sum of Isomers		--	--	--	--	0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.095	ND< 0.11	ND< 0.13	ND< 0.14	ND< 0.13	ND< 0.11	ND< 0.086	ND< 0.14
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.018	ND< 0.021	ND< 0.025	ND< 0.027	ND< 0.025	ND< 0.02	ND< 0.048 *	**ND< 0.077 ***
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	1.1	ND< 0.034	ND< 0.041	ND< 0.044	ND< 0.041	ND< 0.033	ND< 0.027	ND< 0.043
o-Xylene	95-47-6	650	2800	--	--	0.43	ND< 0.008	ND< 0.0096	ND< 0.01	ND< 0.0096	ND< 0.0077	0.0094 J	ND< 0.01
Xylenes	1330-20-7	575	2500	--	--	1.53	ND< 0.042	ND< 0.0506	ND< 0.054	ND< 0.0506	ND< 0.0407	0.0364	ND< 0.053

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-16+00-2FT	RR-16+00-6FT	RR-16+50-2FT	RR-16+50-6FT	RR-17+00-2FT	RR-17+00-6FT	RR-17+50-2FT	RR-17+50-6FT
Date of Sample						7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	7/29/2016	8/3/2016	8/3/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						1.8	0.1	0.7	0.3	0.2	0.2	0.2	0.3
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.47205**	ND< 0.03871	**0.75835**	ND< 0.037	**0.21884**	ND< 0.03314	**0.7031**	ND< 0.03816
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.027	ND< 0.031	ND< 0.026	ND< 0.03	ND< 0.03	ND< 0.027	ND< 0.027	ND< 0.031
Acenaphthylene	208-96-8	--	--	--	--	0.13 J	ND< 0.028	0.099 J	ND< 0.026	0.041 J	ND< 0.024	0.27	ND< 0.027
Acetophenone	98-86-2	7800	120000	--	--	0.075 J	ND< 0.029	ND< 0.18 F1	ND< 0.028	ND< 0.027	ND< 0.025	ND< 0.025	ND< 0.028
Anthracene	120-12-7	18000	230000	--	--	0.056 J	ND< 0.053	0.049 J	ND< 0.051	ND< 0.05	ND< 0.045	0.11 J	ND< 0.052
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.063	ND< 0.074	ND< 0.061	ND< 0.071	ND< 0.07	ND< 0.063	ND< 0.064	ND< 0.073
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.14	ND< 0.17	ND< 0.14	ND< 0.16	ND< 0.16	ND< 0.15	ND< 0.15	ND< 0.17
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.24	ND< 0.021	0.37	ND< 0.02	0.1 J	ND< 0.018	0.37	ND< 0.021
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.33**	ND< 0.031	**0.57**	ND< 0.03	**0.15 J**	ND< 0.027	**0.51**	ND< 0.031
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.65	ND< 0.034	0.9 F1	ND< 0.032	0.26	ND< 0.029	0.85	ND< 0.033
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	0.37	ND< 0.023	0.45	ND< 0.022	0.13 J	ND< 0.019	0.54	ND< 0.022
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.27	ND< 0.028	0.44	ND< 0.026	0.12 J	ND< 0.024	0.41	ND< 0.027
Biphenyl	92-52-4	47	200	--	--	ND< 0.027	ND< 0.031	ND< 0.026	ND< 0.03	ND< 0.03	ND< 0.027	ND< 0.027	ND< 0.031
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.025	ND< 0.03	ND< 0.025	ND< 0.029	ND< 0.028	ND< 0.026	ND< 0.026	ND< 0.03
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.03	ND< 0.035	ND< 0.029	ND< 0.034	ND< 0.033	ND< 0.03	ND< 0.03	ND< 0.035
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.054	ND< 0.064	ND< 0.053	ND< 0.061	ND< 0.06	ND< 0.055	ND< 0.055	ND< 0.063
Carbazole	86-74-8	--	--	--	--	0.026 J	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	0.042 J	ND< 0.025
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.045	ND< 0.053	ND< 0.044	ND< 0.051	ND< 0.05	ND< 0.045	ND< 0.046	ND< 0.052
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.045	ND< 0.053	ND< 0.044	ND< 0.051	ND< 0.05	ND< 0.045	ND< 0.046	ND< 0.052
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.038	ND< 0.045	ND< 0.038	ND< 0.043	ND< 0.043	ND< 0.039	ND< 0.039	ND< 0.045
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.023	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.036	ND< 0.043	ND< 0.035	ND< 0.041	ND< 0.04	ND< 0.037	ND< 0.037	ND< 0.042
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.03	ND< 0.035	ND< 0.029	ND< 0.034	ND< 0.033	ND< 0.03	ND< 0.03	ND< 0.035
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.033	ND< 0.039	ND< 0.032	ND< 0.037	ND< 0.037	ND< 0.033	ND< 0.034	ND< 0.038
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.022	ND< 0.026	ND< 0.022	ND< 0.025	ND< 0.025	ND< 0.023	ND< 0.023	ND< 0.026
Chrysene	218-01-9	110	2100	--	--	0.35	ND< 0.048	0.45	ND< 0.046	0.14 J	ND< 0.041	0.5	ND< 0.047
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.032	ND< 0.038	ND< 0.031	ND< 0.036	ND< 0.035	ND< 0.032	ND< 0.033	ND< 0.037
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.21	ND< 0.25	ND< 0.21	ND< 0.24	ND< 0.24	ND< 0.22	ND< 0.22	ND< 0.25
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.019	ND< 0.023	ND< 0.019	ND< 0.022	ND< 0.021	ND< 0.019	ND< 0.02	ND< 0.022
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.023	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.043	ND< 0.051	ND< 0.043	ND< 0.049	ND< 0.048	ND< 0.044	ND< 0.045	ND< 0.051
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.031	ND< 0.036	ND< 0.03	ND< 0.035	ND< 0.034	ND< 0.031	ND< 0.032	ND< 0.036
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.18	ND< 0.21	ND< 0.18	ND< 0.2	ND< 0.2	ND< 0.18	ND< 0.18	ND< 0.21
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 0.83	ND< 0.98	ND< 0.82	ND< 0.94	ND< 0.93	ND< 0.84	ND< 0.85	ND< 0.97
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.037	ND< 0.044	ND< 0.036	ND< 0.042	ND< 0.041	ND< 0.038	ND< 0.038	ND< 0.043
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.061	ND< 0.073	ND< 0.06	ND< 0.07	ND< 0.069	ND< 0.062	ND< 0.063	ND< 0.072
Fluoranthene	206-44-0	2400	30000	--	--	0.27	ND< 0.023	0.34	ND< 0.022	0.12 J	ND< 0.019	0.55	ND< 0.022
Fluorene	86-73-7	2400	30000	--	--	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.024	ND< 0.029	ND< 0.024	ND< 0.028	ND< 0.027	ND< 0.025	ND< 0.025	ND< 0.028
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.053 *	ND< 0.061 *	ND< 0.074 *	ND< 0.08 *	ND< 0.074 *	ND< 0.059 *	ND< 0.019	ND< 0.031
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.024	ND< 0.029	ND< 0.024	ND< 0.028	ND< 0.027	ND< 0.025	ND< 0.025	ND< 0.028
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.023	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.34	ND< 0.026	0.41	ND< 0.025	0.14 J	ND< 0.023	0.5	ND< 0.026
Isophorone	78-59-1	570	2400	--	--	ND< 0.038	ND< 0.045	ND< 0.038	ND< 0.043	ND< 0.043	ND< 0.039	ND< 0.039	ND< 0.045
2-Methylnaphthalene	91-57-6	240	3000	--	--	0.043 J	ND< 0.043	ND< 0.035	ND< 0.041	ND< 0.04	ND< 0.037	ND< 0.037	ND< 0.042
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.021	ND< 0.025	ND< 0.021	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.022	ND< 0.025
Naphthalene	91-20-3	1.42	17	--	--	0.043 J	ND< 0.028	ND< 0.023	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.027
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.027	ND< 0.031	ND< 0.026	ND< 0.03	ND< 0.03	ND< 0.027	ND< 0.027	ND< 0.031
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.05	ND< 0.059	ND< 0.049	ND< 0.057	ND< 0.056	ND< 0.051	ND< 0.051	ND< 0.058
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.094	ND< 0.11	ND< 0.093	ND< 0.11	ND< 0.11	ND< 0.096	ND< 0.097	ND< 0.11
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.02	ND< 0.024	ND< 0.02	ND< 0.023	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.023
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.051	ND< 0.06	ND< 0.05	ND< 0.058	ND< 0.057	ND< 0.052	ND< 0.052	ND< 0.059
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.13	ND< 0.15	ND< 0.12	ND< 0.14	ND< 0.14	ND< 0.13	ND< 0.13	ND< 0.15
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.031	ND< 0.036	ND< 0.03	ND< 0.035	ND< 0.034	ND< 0.031	ND< 0.032	ND< 0.036
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.15	ND< 0.17	ND< 0.14	ND< 0.17	ND< 0.16	ND< 0.15	ND< 0.15	ND< 0.17
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.18	ND< 0.21	ND< 0.18	ND< 0.2	ND< 0.2	ND< 0.18	ND< 0.18	ND< 0.21
Phenanthrene	85-01-8	--	--	--	--	0.032 J	ND< 0.031	0.035 J	ND< 0.03	ND< 0.03	ND< 0.027	0.11 J	ND< 0.031
Phenol	108-95-2	19000	250000	--	--	ND< 0.028	ND< 0.033	ND< 0.027	ND< 0.031	ND< 0.031	ND< 0.028	ND< 0.028	ND< 0.032
Pyrene	129-00-0	1800	23000	--	--	0.35	ND< 0.025	0.53	ND< 0.024	0.15 J	ND< 0.022	0.61	ND< 0.025
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.031	ND< 0.036	ND< 0.03	ND< 0.035	ND< 0.034	ND< 0.031	ND< 0.032	ND< 0.036
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.037	ND< 0.044	ND< 0.036	ND< 0.042	ND< 0.041	ND< 0.038	ND< 0.038	ND< 0.043
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.049	ND< 0.058	ND< 0.048	ND< 0.055	ND< 0.054	ND< 0.05	ND< 0.05	ND< 0.057
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.036	ND< 0.043	ND< 0.035	ND< 0.041	ND< 0.04	ND< 0.037	ND< 0.037	ND< 0.042
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00087	ND< 0.00051	ND< 0.00086	ND< 0.00049	ND< 0.00048	ND< 0.00044	ND< 0.00089	ND< 0.00051
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0018	ND< 0.001	ND< 0.0017	ND< 0.001	ND< 0.00098	ND< 0.00089	ND< 0.0018	ND< 0.001
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.00064	0.0005 J B	0.00075 J B	0.00043 J B	0.0004 J B	0.00042 J B	0.00082 J	0.00045 J
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00064	ND< 0.00038	ND< 0.00063	ND< 0.00036	ND< 0.00035	ND< 0.00032	ND< 0.00065	ND< 0.00037
delta-BHC	319-86-8	--	--	--	--	ND< 0.00066	ND< 0.00039	ND< 0.00065	ND< 0.00037	ND< 0.00037	ND< 0.00033	ND< 0.00068	ND< 0.00038
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00069	ND< 0.00041	ND< 0.00068	ND< 0.00039	ND< 0.00038	ND< 0.00035	ND< 0.00071	ND< 0.0004
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00075	ND< 0.00044	ND< 0.00073	ND< 0.00042	ND< 0.00041	ND< 0.00038	ND< 0.00076	ND< 0.00043
4,4'-DDT	50-29-3	1.9	8.5	--	--	0.0027 J	ND< 0.00049	0.0023 J	ND< 0.00047	0.001 J	ND< 0.00042	ND< 0.00085	ND< 0.00048
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00085	ND< 0.0005	ND< 0.00084	ND< 0.00048	ND< 0.00047	ND< 0.00043	ND< 0.00087	ND< 0.0005
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00068	ND< 0.0004	ND< 0.00067	ND< 0.00038	ND< 0.00038	ND< 0.00034	ND< 0.0007	ND< 0.0004
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00064	ND< 0.00038	ND< 0.00063	ND< 0.00036	ND< 0.00035	ND< 0.00032	ND< 0.00065	ND< 0.00037
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00066	ND< 0.00039	ND< 0.00065	ND< 0.00037	ND< 0.00037	ND< 0.00033	ND< 0.00068	ND< 0.00039
Endrin	72-20-8	19	250	--	0.4	ND< 0.0007	ND< 0.00041	ND< 0.00069	ND< 0.0004	ND< 0.00039	ND< 0.00036	ND< 0.00072	ND< 0.00041
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00091	ND< 0.00053	ND< 0.00089	ND< 0.00051	ND< 0.0005	ND< 0.00046	ND< 0.00093	ND< 0.00053
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00087	ND< 0.00051	ND< 0.00086	0.00092 J	ND< 0.00048	ND< 0.00044	ND< 0.00089	ND< 0.00051
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00065	ND< 0.00038	ND< 0.00064	ND< 0.00037	ND< 0.00036	ND< 0.00033	ND< 0.00067	ND< 0.00038
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0011	ND< 0.00066	ND< 0.0011	ND< 0.00064	ND< 0.00063	ND< 0.00057	ND< 0.0012	ND< 0.00066
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00077	ND< 0.00045	ND< 0.00076	ND< 0.00043	ND< 0.00043	ND< 0.00039	ND< 0.00079	ND< 0.00045
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00092	ND< 0.00054	ND< 0.0009	ND< 0.00052	ND< 0.00051	ND< 0.00046	ND< 0.00094	ND< 0.00053
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00072	ND< 0.00043	ND< 0.00071	ND< 0.00041	ND< 0.0004	ND< 0.00037	ND< 0.00074	ND< 0.00042
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.021	ND< 0.012	ND< 0.02	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.021	ND< 0.012
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.013	ND< 0.013	ND< 0.011	ND< 0.011	ND< 0.013
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0057	ND< 0.0067	ND< 0.0056	ND< 0.0065	ND< 0.0064	ND< 0.0058	ND< 0.0058	ND< 0.0066
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0064	ND< 0.0075	ND< 0.0063	ND< 0.0073	ND< 0.0072	ND< 0.0066	ND< 0.0065	ND< 0.0074

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-18+00-2FT	RR-18+00-6FT	RR-18+50-2FT	RR-18+50-6FT	RR-19+00-2FT	RR-19+00-6FT	RR-19+50-2FT	RR-19+50-6FT
Date of Sample						8/3/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.4	0	0.2	0.2	0.4	0.3	0.8	0.6
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.17 HF	7.8 HF	8.7 HF	8 HF	8.5 HF	7.7 HF	8.8 HF	7.7 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 9.6	ND< 9.9	ND< 9.9	ND< 9.7
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 9.6	ND< 9.9	ND< 9.9	ND< 9.7
Flashpoint °C	--	--	--	--	<=60	>176	>176	>180	>176	>180	>176	>180	>176
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	2.7	3.8	4.8	3.2	2.7	3.4	2.4	3
Barium	7440-39-3	11700	220000	--	2000	20.2	157	34.2 F1	39.2	36.9	56.1	22.9	78.8
Cadmium	7440-43-9	7.15	980	--	20	0.047 J	0.12 J	0.096 J	0.086 J	0.074 J	0.11 J	0.054 J	0.13 J
Chromium	7440-47-3	1800000	41900	--	100	3.3	37.5 B	6.6 B	10.3 B	7.8 B	11.9 B	5.2 B	16.5 B
Lead	7439-92-1	400	800	111	100	28.1	19.3	44.9	29.7	17.1	18.1	16.4	34.3
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.51	ND< 0.57	ND< 0.44	ND< 0.52	ND< 0.47	ND< 0.51	ND< 0.4	ND< 0.53
Silver	7440-22-4	247	5800	--	100	ND< 0.26	ND< 0.29	ND< 0.22	ND< 0.26	ND< 0.23	ND< 0.25	ND< 0.2	ND< 0.26
Mercury	7439-97-6	10.9	46	--	4	0.031	0.011 J	0.033	0.065	0.025	0.058	0.09	0.045
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	35	7.7 J	28	8.4 J	8.3 J	ND< 6.3	16 J	8.2 J
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.37	ND< 0.37	0.75 J	ND< 0.38	ND< 0.3	ND< 0.42	ND< 0.31	ND< 0.43
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.047	ND< 0.031	ND< 0.026	ND< 0.029	ND< 0.026	ND< 0.031	ND< 0.026	ND< 0.031
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.063	ND< 0.03	ND< 0.025	ND< 0.028	ND< 0.025	ND< 0.03	ND< 0.025	ND< 0.03
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.079	ND< 0.021	ND< 0.017	ND< 0.019	ND< 0.017	ND< 0.021	ND< 0.017	ND< 0.021
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.043	ND< 0.026	ND< 0.021	ND< 0.024	ND< 0.022	ND< 0.026	ND< 0.022	ND< 0.026
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.032	ND< 0.022	ND< 0.018	ND< 0.021	ND< 0.018	ND< 0.022	ND< 0.018	ND< 0.022
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.055	ND< 0.018	ND< 0.015	ND< 0.017	ND< 0.015	ND< 0.018	ND< 0.015	ND< 0.018
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.036	ND< 0.024	ND< 0.019	ND< 0.022	ND< 0.019	ND< 0.023	ND< 0.019	ND< 0.023
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.039	ND< 0.01	ND< 0.0086	ND< 0.0097	ND< 0.0086	ND< 0.01	ND< 0.0087	ND< 0.01
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.051	ND< 0.026	ND< 0.021	ND< 0.024	ND< 0.022	ND< 0.026	ND< 0.022	ND< 0.026
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.49	ND< 0.33	ND< 0.2	ND< 0.25	ND< 0.19	ND< 0.27	ND< 0.22	ND< 0.27
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.022	ND< 0.015	ND< 0.0092	ND< 0.012	ND< 0.0087	ND< 0.012	ND< 0.01	ND< 0.013
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.026	ND< 0.018	ND< 0.011	ND< 0.013	ND< 0.01	ND< 0.014	ND< 0.012	ND< 0.015
Bromoform	75-25-2	19	86	--	--	ND< 0.059	ND< 0.041	ND< 0.024	ND< 0.03	ND< 0.023	ND< 0.032	ND< 0.027	ND< 0.033
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.026	ND< 0.018	ND< 0.011	ND< 0.013	ND< 0.01	ND< 0.014	ND< 0.012	ND< 0.015
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.35	ND< 0.24	ND< 0.14	ND< 0.18	ND< 0.14	ND< 0.19	ND< 0.16	ND< 0.2
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.034	ND< 0.024	ND< 0.014	ND< 0.018	ND< 0.013	ND< 0.019	ND< 0.016	ND< 0.019
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.043	ND< 0.03	ND< 0.018	ND< 0.022	ND< 0.017	ND< 0.024	ND< 0.02	ND< 0.024
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.033	ND< 0.023	ND< 0.013	ND< 0.017	ND< 0.013	ND< 0.018	ND< 0.015	ND< 0.018
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.054	ND< 0.037	ND< 0.022	ND< 0.028	ND< 0.021	ND< 0.029	ND< 0.024	ND< 0.03
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.03	ND< 0.021	ND< 0.012	ND< 0.016	ND< 0.012	ND< 0.016	ND< 0.014	ND< 0.017
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.016	ND< 0.011	ND< 0.0064	ND< 0.008	ND< 0.006	ND< 0.0085	ND< 0.0071	ND< 0.0088
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.12 *	ND< 0.029	ND< 0.017	ND< 0.022	ND< 0.017	ND< 0.023	ND< 0.019	ND< 0.024
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.057	ND< 0.039	ND< 0.023	ND< 0.03	ND< 0.022	ND< 0.031	ND< 0.026	ND< 0.032
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.025	ND< 0.017	ND< 0.01	ND< 0.013	ND< 0.0095	ND< 0.013	ND< 0.011	ND< 0.014
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.038	ND< 0.41 *	ND< 0.24 *	ND< 0.3 *	ND< 0.23 *	ND< 0.32 *	ND< 0.27 *	ND< 0.33 *
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.081	ND< 0.056	ND< 0.033	ND< 0.042	ND< 0.031	ND< 0.044	ND< 0.037	ND< 0.046
Chloromethane	74-87-3	110	460	--	--	ND< 0.028	ND< 0.019	ND< 0.012	ND< 0.015	ND< 0.011	ND< 0.015	ND< 0.013	ND< 0.016
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.045	ND< 0.031	ND< 0.019	ND< 0.023	ND< 0.018	ND< 0.025	ND< 0.021	ND< 0.025
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.024	ND< 0.016	ND< 0.0098	ND< 0.012	ND< 0.0093	ND< 0.013	ND< 0.011	ND< 0.014
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.026	ND< 0.018	ND< 0.011	ND< 0.014	ND< 0.01	ND< 0.014	ND< 0.012	ND< 0.015
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.059**	**ND< 0.041**	**ND< 0.024**	**ND< 0.03**	**ND< 0.023**	**ND< 0.032**	**ND< 0.027**	**ND< 0.033**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.038	ND< 0.026	ND< 0.016	ND< 0.02	ND< 0.015	ND< 0.021	ND< 0.017	ND< 0.022
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.03	ND< 0.021	ND< 0.012	ND< 0.016	ND< 0.012	ND< 0.016	ND< 0.014	ND< 0.017
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.032	ND< 0.022	ND< 0.013	ND< 0.016	ND< 0.012	ND< 0.017	ND< 0.014	ND< 0.018
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.017	ND< 0.011	ND< 0.0068	ND< 0.0085	ND< 0.0064	ND< 0.009	ND< 0.0075	ND< 0.0093
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.024	ND< 0.016	ND< 0.0097	ND< 0.012	ND< 0.0091	ND< 0.013	ND< 0.011	ND< 0.013
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.051	ND< 0.035	ND< 0.021	ND< 0.027	ND< 0.02	ND< 0.028	ND< 0.023	ND< 0.029
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.12 *	ND< 0.025	ND< 0.015	ND< 0.019	ND< 0.014	ND< 0.02	ND< 0.017	ND< 0.021
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.048	ND< 0.033	ND< 0.02	ND< 0.025	ND< 0.019	ND< 0.026	ND< 0.022	ND< 0.027
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.041	ND< 0.028	ND< 0.017	ND< 0.021	ND< 0.016	ND< 0.022	ND< 0.019	ND< 0.023
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.033	ND< 0.022	ND< 0.013	ND< 0.017	ND< 0.013	ND< 0.018	ND< 0.015	ND< 0.018
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.028	ND< 0.019	ND< 0.011	ND< 0.014	ND< 0.011	ND< 0.015	ND< 0.013	ND< 0.016
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.12 *	ND< 0.013	ND< 0.0078	ND< 0.0099	ND< 0.0074	ND< 0.01	ND< 0.0087	ND< 0.011
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.021	ND< 0.015	ND< 0.0088	ND< 0.011	ND< 0.0083	ND< 0.012	ND< 0.0098	ND< 0.012
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.027	ND< 0.018	ND< 0.011	ND< 0.014	ND< 0.01	ND< 0.015	ND< 0.012	ND< 0.015
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.029	ND< 0.02	ND< 0.012	ND< 0.015	ND< 0.011	ND< 0.016	ND< 0.013	ND< 0.017
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.12 *	ND< 0.019	ND< 0.012	ND< 0.015	ND< 0.011	ND< 0.015	ND< 0.013	ND< 0.016
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.012	ND< 0.008	ND< 0.0048	ND< 0.006	ND< 0.0045	ND< 0.0063	ND< 0.0053	ND< 0.0065
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.6	ND< 0.41	ND< 0.25	ND< 0.31	ND< 0.23	ND< 0.33	ND< 0.27	ND< 0.34
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.034	ND< 0.024	ND< 0.014	ND< 0.018	ND< 0.013	ND< 0.019	ND< 0.016	ND< 0.019
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.021	ND< 0.014	ND< 0.0085	ND< 0.011	ND< 0.008	ND< 0.011	ND< 0.0094	ND< 0.012
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.047	ND< 0.032	ND< 0.019	ND< 0.024	ND< 0.018	ND< 0.026	ND< 0.021	ND< 0.026
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.24	ND< 0.17	ND< 0.099	ND< 0.13	ND< 0.094	ND< 0.13	ND< 0.11	ND< 0.14
Iodomethane	74-88-4	--	--	--	--	ND< 0.12 *	ND< 0.025	ND< 0.015	ND< 0.019	ND< 0.014	ND< 0.02	ND< 0.017	ND< 0.02
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.63	ND< 0.43	ND< 0.26	ND< 0.32	ND< 0.24	ND< 0.34	ND< 0.29	ND< 0.35
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.018	ND< 0.012	ND< 0.0072	ND< 0.0091	ND< 0.0069	ND< 0.0097	ND< 0.0081	ND< 0.01
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.04	ND< 0.027	ND< 0.016	ND< 0.021	ND< 0.015	ND< 0.022	ND< 0.018	ND< 0.022
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.056	0.67	0.12	0.42	ND< 0.022	0.39	0.11	0.27
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.038	ND< 0.026	ND< 0.015	ND< 0.02	ND< 0.015	ND< 0.021	ND< 0.017	ND< 0.021
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.045	ND< 0.031	ND< 0.018	ND< 0.023	ND< 0.017	ND< 0.024	ND< 0.02	ND< 0.025
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.055	ND< 0.038	0.25	ND< 0.029	0.03 J	ND< 0.03	0.081	ND< 0.031
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.12 *	ND< 0.016	ND< 0.0096	ND< 0.012	ND< 0.0091	ND< 0.013	ND< 0.011	ND< 0.013
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.15	ND< 0.29	ND< 0.24	ND< 0.13	0.027 J	ND< 0.028	0.41	ND< 0.028
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.031	ND< 0.021	ND< 0.013	ND< 0.016	ND< 0.012	ND< 0.017	ND< 0.014	ND< 0.017
Styrene	100-42-5	6000	35000	--	--	ND< 0.028	ND< 0.02	ND< 0.012	ND< 0.015	ND< 0.011	ND< 0.016	ND< 0.013	ND< 0.016
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.12 *	ND< 0.023	ND< 0.014	ND< 0.017	ND< 0.013	ND< 0.018	ND< 0.015	ND< 0.019
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.019	ND< 0.013	ND< 0.0078	ND< 0.0099	ND< 0.0074	ND< 0.01	ND< 0.0087	ND< 0.011
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.016	ND< 0.011	ND< 0.0065	ND< 0.0082	ND< 0.0061	ND< 0.0087	ND< 0.0072	ND< 0.0089
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.059	ND< 0.041	ND< 0.024	ND< 0.031	ND< 0.023	ND< 0.032	ND< 0.027	ND< 0.033
Toluene	108-88-3	4640	47000	--	--	ND< 0.032	ND< 0.022	0.039 J	ND< 0.016	ND< 0.012	ND< 0.017	ND< 0.014	ND< 0.018
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.059	ND< 0.041	ND< 0.024	ND< 0.03	ND< 0.023	ND< 0.032	ND< 0.027	ND< 0.033
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.054	ND< 0.037	ND< 0.022	ND< 0.028	ND< 0.021	ND< 0.03	ND< 0.025	ND< 0.031
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.045	ND< 0.031	ND< 0.018	ND< 0.023	ND< 0.017	ND< 0.024	ND< 0.02	ND< 0.025
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.033	ND< 0.023	ND< 0.013	ND< 0.017	ND< 0.013	ND< 0.018	ND< 0.015	ND< 0.018
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.025	ND< 0.017	ND< 0.01	ND< 0.013	ND< 0.0096	ND< 0.014	ND< 0.011	ND< 0.014
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.033	ND< 0.023	ND< 0.013	ND< 0.017	ND< 0.013	ND< 0.018	ND< 0.015	ND< 0.018
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.055	ND< 0.038	ND< 0.023	ND< 0.029	ND< 0.021	ND< 0.03	ND< 0.025	ND< 0.031
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.026**	**ND< 0.018**	**ND< 0.011**	**ND< 0.014**	**ND< 0.01**	**ND< 0.014**	**ND< 0.012**	**ND< 0.015**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.033	ND< 0.023	0.034 J	ND< 0.017	ND< 0.013	ND< 0.018	0.024 J	ND< 0.019
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.036	ND< 0.025	0.017 J	ND< 0.018	ND< 0.014	ND< 0.019	ND< 0.016	ND< 0.02
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	0.029	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.21	ND< 0.14	ND< 0.086	ND< 0.11	ND< 0.081	ND< 0.11	ND< 0.096	ND< 0.12
Vinyl chloride	75-01-4	0.059	1.7	--	4	**ND< 0.12 ***	ND< 0.027	ND< 0.016	ND< 0.02	ND< 0.015	ND< 0.022	ND< 0.018	ND< 0.022
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.065	ND< 0.045	0.049 J	ND< 0.034	ND< 0.025	ND< 0.036	ND< 0.03	ND< 0.037
o-Xylene	95-47-6	650	2800	--	--	ND< 0.015	ND< 0.011	0.046 J	ND< 0.0079	ND< 0.0059	ND< 0.0084	0.016 J	ND< 0.0086
Xylenes	1330-20-7	575	2500	--	--	ND< 0.08	ND< 0.056	0.095	ND< 0.0419	ND< 0.0309	ND< 0.0444	0.046	ND< 0.0456

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-18+00-2FT	RR-18+00-6FT	RR-18+50-2FT	RR-18+50-6FT	RR-19+00-2FT	RR-19+00-6FT	RR-19+50-2FT	RR-19+50-6FT
Date of Sample						8/3/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.4	0	0.2	0.2	0.4	0.3	0.8	0.6
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**1.2699**	**ND< 0.4037**	**1.7988**	**ND< 0.18527**	**0.25682**	ND< 0.03931	**0.47472**	**0.08386**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.17	ND< 0.33	ND< 0.27	ND< 0.15	ND< 0.027	ND< 0.032	0.69	ND< 0.032
Acenaphthylene	208-96-8	--	--	--	--	0.34 J	ND< 0.29	0.53 J	ND< 0.13	0.14 J	ND< 0.028	0.11 J	ND< 0.028
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.15	ND< 0.3	ND< 0.25	ND< 0.14	ND< 0.025	ND< 0.029	ND< 0.025	ND< 0.03
Anthracene	120-12-7	18000	230000	--	--	ND< 0.28	ND< 0.55	ND< 0.45	ND< 0.26	0.092 J	ND< 0.054	0.44	ND< 0.054
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.39	ND< 0.77	ND< 0.64	ND< 0.36	ND< 0.064	ND< 0.075	ND< 0.063	ND< 0.076
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.9	ND< 1.8	ND< 1.5	ND< 0.82	ND< 0.15	ND< 0.17	ND< 0.14	ND< 0.17
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.77 J	ND< 0.22	**1.4 J**	ND< 0.1	0.15 J	ND< 0.022	0.34	0.05 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.84 J**	**ND< 0.33**	**1.2 J**	**ND< 0.15**	**0.17 J**	ND< 0.032	**0.29**	0.048 J
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**1.6**	ND< 0.35	**1.9**	ND< 0.16	0.33	ND< 0.034	0.39	0.073 J
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	0.83 J	ND< 0.24	1 J	ND< 0.11	0.23	ND< 0.023	0.31	0.06 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.68 J	ND< 0.29	0.99 J	ND< 0.13	0.11 J	ND< 0.028	0.23	ND< 0.028
Biphenyl	92-52-4	47	200	--	--	ND< 0.17	ND< 0.33	ND< 0.27	ND< 0.15	ND< 0.027	ND< 0.032	0.13 J	ND< 0.032
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.16	ND< 0.31	ND< 0.26	ND< 0.15	ND< 0.026	ND< 0.031	ND< 0.026	ND< 0.031
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.19	ND< 0.37	ND< 0.3	ND< 0.17	ND< 0.031	ND< 0.036	ND< 0.03	ND< 0.036
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.34	ND< 0.67	ND< 0.55	ND< 0.31	ND< 0.056	ND< 0.065	ND< 0.055	ND< 0.065
Carbazole	86-74-8	--	--	--	--	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	0.042 J	ND< 0.026	0.14 J	ND< 0.026
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.28	ND< 0.55	ND< 0.45	ND< 0.26	ND< 0.046	ND< 0.054	ND< 0.045	ND< 0.054
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.28	ND< 0.55	ND< 0.45	ND< 0.26	ND< 0.046	ND< 0.054	ND< 0.045	ND< 0.054
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.24	ND< 0.47	ND< 0.39	ND< 0.22	ND< 0.039	ND< 0.046	ND< 0.039	ND< 0.046
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.15	**ND< 0.29**	**ND< 0.24**	ND< 0.13	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.028
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.23	ND< 0.44	ND< 0.37	ND< 0.21	ND< 0.037	ND< 0.043	ND< 0.036	ND< 0.044
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.19	ND< 0.37	ND< 0.3	ND< 0.17	ND< 0.031	ND< 0.036	ND< 0.03	ND< 0.036
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.21	ND< 0.41	ND< 0.34	ND< 0.19	ND< 0.034	ND< 0.04	ND< 0.033	ND< 0.04
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.14	ND< 0.27	ND< 0.23	ND< 0.13	ND< 0.023	ND< 0.027	ND< 0.023	ND< 0.027
Chrysene	218-01-9	110	2100	--	--	1.1	ND< 0.5	1.9	ND< 0.23	0.22	ND< 0.049	0.42	ND< 0.049
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.2**	**ND< 0.39**	**ND< 0.32**	**ND< 0.18**	ND< 0.033	ND< 0.038	0.084 J	ND< 0.038
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	0.023 J	ND< 0.026	0.48	0.029 J
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	**ND< 1.3**	**ND< 2.6**	**ND< 2.2**	**ND< 1.2**	ND< 0.22	ND< 0.26	ND< 0.21	ND< 0.26
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.12	ND< 0.24	ND< 0.19	ND< 0.11	ND< 0.02	ND< 0.023	ND< 0.019	ND< 0.023
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.15	ND< 0.29	ND< 0.24	ND< 0.13	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.028
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	ND< 0.022	ND< 0.026	ND< 0.021	ND< 0.026
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.27	ND< 0.54	ND< 0.44	ND< 0.25	ND< 0.045	ND< 0.052	ND< 0.044	ND< 0.053
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.19	ND< 0.38	ND< 0.31	ND< 0.18	ND< 0.032	ND< 0.037	ND< 0.031	ND< 0.037
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 1.1	ND< 2.2	ND< 1.8	ND< 1	ND< 0.19	ND< 0.22	ND< 0.18	ND< 0.22
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 5.2	ND< 10	ND< 8.5	ND< 4.8	ND< 0.85	ND< 1	ND< 0.84	ND< 1
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.23	ND< 0.46	ND< 0.38	ND< 0.21	ND< 0.038	ND< 0.045	ND< 0.038	ND< 0.045
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	ND< 0.022	ND< 0.026	ND< 0.021	ND< 0.026
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	ND< 0.022	ND< 0.026	ND< 0.021	ND< 0.026
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.38	ND< 0.76	ND< 0.63	ND< 0.35	ND< 0.063	ND< 0.074	ND< 0.062	ND< 0.074
Fluoranthene	206-44-0	2400	30000	--	--	1.6	ND< 0.24	3.2	0.14 J	0.23	ND< 0.023	0.94	0.085 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	ND< 0.022	ND< 0.026	0.54	0.031 J
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.15**	**ND< 0.3**	**ND< 0.25**	**ND< 0.14**	ND< 0.025	ND< 0.029	ND< 0.025	ND< 0.03
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.047	ND< 0.032	ND< 0.019	ND< 0.024	ND< 0.018	ND< 0.026	ND< 0.021	ND< 0.026
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.15	ND< 0.3	ND< 0.25	ND< 0.14	ND< 0.025	ND< 0.029	ND< 0.025	ND< 0.03
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.15	ND< 0.29	ND< 0.24	ND< 0.13	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.028
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.85 J	ND< 0.27	0.97 J	ND< 0.13	0.21	ND< 0.027	0.25	0.044 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.24	ND< 0.47	ND< 0.39	ND< 0.22	ND< 0.039	ND< 0.046	ND< 0.039	ND< 0.046
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.23	ND< 0.44	ND< 0.37	ND< 0.21	ND< 0.037	ND< 0.043	0.37	ND< 0.044
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	ND< 0.022	ND< 0.026	ND< 0.021	ND< 0.026
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.13	ND< 0.26	ND< 0.22	ND< 0.12	ND< 0.022	ND< 0.026	ND< 0.021	ND< 0.026
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.15	ND< 0.29	ND< 0.24	ND< 0.13	0.027 J	ND< 0.028	0.41	ND< 0.028
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.17	ND< 0.33	ND< 0.27	ND< 0.15	ND< 0.027	ND< 0.032	ND< 0.027	ND< 0.032
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.31	ND< 0.62	ND< 0.51	ND< 0.29	ND< 0.051	ND< 0.06	ND< 0.05	ND< 0.06
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.59	ND< 1.2	ND< 0.96	ND< 0.54	ND< 0.097	ND< 0.11	ND< 0.096	ND< 0.11
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.13	ND< 0.25	ND< 0.21	ND< 0.12	ND< 0.021	ND< 0.024	ND< 0.02	ND< 0.024
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.32	ND< 0.63	ND< 0.52	ND< 0.29	ND< 0.052	ND< 0.061	ND< 0.052	ND< 0.062
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.79	ND< 1.6	ND< 1.3	ND< 0.72	ND< 0.13	ND< 0.15	ND< 0.13	ND< 0.15
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.19**	**ND< 0.38**	**ND< 0.31**	**ND< 0.18**	ND< 0.032	ND< 0.037	ND< 0.031	ND< 0.037
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.92	ND< 1.8	ND< 1.5	ND< 0.84	ND< 0.15	ND< 0.18	ND< 0.15	ND< 0.18
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 1.1**	**ND< 2.2**	**ND< 1.8**	**ND< 1**	ND< 0.19	ND< 0.22	ND< 0.18	ND< 0.22
Phenanthrene	85-01-8	--	--	--	--	0.42 J	ND< 0.33	1.2 J	ND< 0.15	0.083 J	ND< 0.032	1.7	0.086 J
Phenol	108-95-2	19000	250000	--	--	ND< 0.17	ND< 0.34	ND< 0.28	ND< 0.16	ND< 0.028	ND< 0.033	ND< 0.028	ND< 0.033
Pyrene	129-00-0	1800	23000	--	--	1.5	ND< 0.26	3	ND< 0.12	0.22	ND< 0.026	0.98	0.087 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.19	ND< 0.38	ND< 0.31	ND< 0.18	ND< 0.032	ND< 0.037	ND< 0.031	ND< 0.037
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.23	ND< 0.46	ND< 0.38	ND< 0.21	ND< 0.038	ND< 0.045	ND< 0.038	ND< 0.045
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.31	ND< 0.6	ND< 0.5	ND< 0.28	ND< 0.05	ND< 0.059	ND< 0.049	ND< 0.059
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.23	ND< 0.44	ND< 0.37	ND< 0.21	ND< 0.037	ND< 0.043	ND< 0.036	ND< 0.044
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.0011	ND< 0.00053	ND< 0.0022	ND< 0.00049	ND< 0.00044	ND< 0.00051	ND< 0.00045	ND< 0.00053
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0022	ND< 0.0011	ND< 0.0044	ND< 0.001	ND< 0.00088	ND< 0.001	ND< 0.0009	ND< 0.0011
alpha-BHC	319-84-6	0.086	0.36	--	--	0.00099 J	ND< 0.00039	0.002 J B	ND< 0.00036	0.00043 J B	0.00046 J B	ND< 0.00033	ND< 0.00039
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00079	ND< 0.00039	ND< 0.0016	ND< 0.00036	ND< 0.00032	ND< 0.00038	ND< 0.00033	ND< 0.00039
delta-BHC	319-86-8	--	--	--	--	ND< 0.00082	ND< 0.0004	ND< 0.0017	ND< 0.00037	ND< 0.00033	ND< 0.00039	ND< 0.00034	ND< 0.0004
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00086	ND< 0.00042	ND< 0.0017	ND< 0.00039	ND< 0.00034	ND< 0.00041	ND< 0.00035	ND< 0.00042
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00093	ND< 0.00046	ND< 0.0019	ND< 0.00042	ND< 0.00037	ND< 0.00044	ND< 0.00038	ND< 0.00045
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.001	ND< 0.00051	0.0081 J	0.00068 J	0.0013 J	ND< 0.00049	0.0014 J	ND< 0.0005
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0011	ND< 0.00052	ND< 0.0021	ND< 0.00048	ND< 0.00043	ND< 0.0005	ND< 0.00043	ND< 0.00051
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00085	ND< 0.00042	ND< 0.0017	ND< 0.00039	ND< 0.00034	ND< 0.0004	ND< 0.00035	ND< 0.00041
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00079	ND< 0.00039	ND< 0.0016	ND< 0.00036	ND< 0.00032	ND< 0.00038	ND< 0.00033	ND< 0.00039
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00082	ND< 0.00041	ND< 0.0017	ND< 0.00038	ND< 0.00033	ND< 0.00039	ND< 0.00034	ND< 0.0004
Endrin	72-20-8	19	250	--	0.4	ND< 0.00087	ND< 0.00043	ND< 0.0018	ND< 0.0004	ND< 0.00035	ND< 0.00041	ND< 0.00036	ND< 0.00042
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.0011	ND< 0.00056	ND< 0.0023	ND< 0.00051	ND< 0.00045	ND< 0.00053	ND< 0.00046	ND< 0.00055
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.0011	ND< 0.00053	ND< 0.0022	ND< 0.00049	ND< 0.00044	ND< 0.00051	ND< 0.00045	ND< 0.00053
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00081	ND< 0.0004	ND< 0.0016	ND< 0.00037	ND< 0.00033	ND< 0.00038	ND< 0.00033	ND< 0.00039
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0014	ND< 0.00069	ND< 0.0028	ND< 0.00064	ND< 0.00056	ND< 0.00066	ND< 0.00058	ND< 0.00068
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00096	ND< 0.00047	ND< 0.0019	ND< 0.00044	ND< 0.00038	ND< 0.00045	ND< 0.00039	ND< 0.00046
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.0011	ND< 0.00056	ND< 0.0023	ND< 0.00052	ND< 0.00046	ND< 0.00054	ND< 0.00047	ND< 0.00055
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.0009	ND< 0.00044	ND< 0.0018	ND< 0.00041	ND< 0.00036	ND< 0.00043	ND< 0.00037	ND< 0.00044
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.026	ND< 0.013	ND< 0.052	ND< 0.012	ND< 0.01	ND< 0.012	ND< 0.011	ND< 0.012
2,4-D	94-75-7	700	9600	--	200	ND< 0.014	ND< 0.014	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.014
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.007	ND< 0.0071	ND< 0.0057	ND< 0.0064	ND< 0.0057	ND< 0.0067	ND< 0.0057	ND< 0.0069
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0078	ND< 0.008	ND< 0.0064	ND< 0.0072	ND< 0.0064	ND< 0.0075	ND< 0.0064	ND< 0.0077

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-20+00-2FT	RR-20+00-6FT	RR-20+50-2FT	RR-20+50-6FT	RR-21+00-2FT	RR-21+00-6FT	RR-21+50-2FT	RR-21+50-6FT
Date of Sample						8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.4	0.4	1.2	0.6	0.7	0.3	1.7	0.1
Waste Characteristics													
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.3 HF	8.4 HF	8.5 HF	8.7 HF	9.2 HF	9 HF	8.8 HF	9.1 HF
Cyanide, Reactive	--	--	--	--		ND< 9.6	ND< 9.9	ND< 9.8	ND< 9.7	ND< 10	ND< 9.7	ND< 9.9	ND< 9.7
Sulfide, Reactive	--	--	--	--		ND< 9.6	ND< 9.9	ND< 9.8	ND< 9.7	ND< 10	ND< 9.7	ND< 9.9	ND< 9.7
Flashpoint °C	--	--	--	--	<=60	>180	>176	>180	>176	>176	>176	>176	>176
Metals 6010C													
Arsenic	7440-38-2	--	--	16	100	2.1 J	3.7	3	3.3	2.2	2.5	2.8	3.6
Barium	7440-39-3	11700	220000	--	2000	17.9	40.7	52	39.8	28.4	28.1	26.4	24.7
Cadmium	7440-43-9	7.15	980	--	20	0.045 J	0.069 J	0.11 J	0.061 J	0.071 J	0.07 J	0.05 J	0.036 J
Chromium	7440-47-3	1800000	41900	--	100	2.5 B	16.6 B	10.2 B	10.3 B	6.3 B	6.9 B	6.4 B	7 B
Lead	7439-92-1	400	800	111	100	3.3	7.9	19.7	4.7	8.6	4.9	11	6
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.44	ND< 0.43	ND< 0.43	ND< 0.42	ND< 0.39	ND< 0.43	ND< 0.44	ND< 0.44
Silver	7440-22-4	247	5800	--	100	ND< 0.22	ND< 0.22	ND< 0.22	ND< 0.21	ND< 0.2	ND< 0.21	ND< 0.22	ND< 0.22
Mercury	7439-97-6	10.9	46	--	4	ND< 0.0085	ND< 0.0089	0.043	0.0099 J	ND< 0.022 F1	ND< 0.0077	0.012 J	ND< 0.0089
Total Petroleum Hydrocarbons (TPH) 8015D [3]													
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	ND< 5.7	ND< 5.8	16 J	ND< 5.8	15 J	ND< 5.1	**360**	ND< 5.2
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.34	ND< 0.35	ND< 0.38	ND< 0.33	ND< 0.32	ND< 0.29	ND< 0.31	ND< 0.3
Polchlorinated Biphenols (PCBs)													
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.028	ND< 0.028	ND< 0.028	ND< 0.027	ND< 0.025	ND< 0.025	ND< 0.026	ND< 0.025
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.027	ND< 0.027	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.024	ND< 0.025	ND< 0.024
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.019	ND< 0.019	ND< 0.018	ND< 0.018	ND< 0.017	ND< 0.017	ND< 0.018	ND< 0.017
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.023	ND< 0.024	ND< 0.023	ND< 0.023	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.021
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.02	ND< 0.02	ND< 0.019	ND< 0.019	ND< 0.018	ND< 0.018	ND< 0.019	ND< 0.018
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.016	ND< 0.016	ND< 0.016	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.015
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.02	ND< 0.019	ND< 0.019	ND< 0.02	ND< 0.019
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.0093	ND< 0.0094	ND< 0.0092	ND< 0.0091	ND< 0.0084	ND< 0.0084	ND< 0.0088	ND< 0.0084
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.023	ND< 0.024	ND< 0.023	ND< 0.023	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.021
Volatile Organic Compounds (VOCs) 8260													
Acetone	67-64-1	39900	670000	--	--	ND< 0.23	ND< 0.12	ND< 0.21	ND< 0.21	ND< 0.2	ND< 0.18	ND< 0.19	ND< 0.2
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.01	ND< 0.0056	ND< 0.0098	ND< 0.0099	ND< 0.009	ND< 0.0082	ND< 0.0087	ND< 0.0091
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.012	ND< 0.0065	ND< 0.011	ND< 0.011	ND< 0.01	ND< 0.0094	ND< 0.01	ND< 0.01
Bromoform	75-25-2	19	86	--	--	ND< 0.028	ND< 0.015	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.024
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.012	ND< 0.0065	ND< 0.011	ND< 0.011	ND< 0.01	ND< 0.0095	ND< 0.01	ND< 0.011
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.16	ND< 0.088	ND< 0.15	ND< 0.15	ND< 0.14	ND< 0.13	ND< 0.14	ND< 0.14
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.016	ND< 0.0086	ND< 0.015	ND< 0.015	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.014
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.02	ND< 0.011	ND< 0.019	ND< 0.019	ND< 0.017	ND< 0.016	ND< 0.017	ND< 0.018
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.015	ND< 0.0082	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.025	ND< 0.013	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.022
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.014	ND< 0.0075	ND< 0.013	ND< 0.013	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0073	ND< 0.0039	ND< 0.0068	ND< 0.0068	ND< 0.0063	ND< 0.0057	ND< 0.006	ND< 0.0063
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.02	ND< 0.011	ND< 0.019	ND< 0.019	ND< 0.017	ND< 0.016	ND< 0.016	ND< 0.017
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.027	ND< 0.014	ND< 0.025	ND< 0.025	ND< 0.023	ND< 0.021	ND< 0.022	ND< 0.023
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.011	ND< 0.0061	ND< 0.011	ND< 0.011	ND< 0.0099	ND< 0.009	ND< 0.0095	ND< 0.01
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.28 *	ND< 0.15 *	ND< 0.26 *	ND< 0.26 *	ND< 0.24 *	ND< 0.22 *	ND< 0.23 *	ND< 0.24 *
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.038	ND< 0.02	ND< 0.036	ND< 0.036	ND< 0.033	ND< 0.03	ND< 0.031	ND< 0.033
Chloromethane	74-87-3	110	460	--	--	ND< 0.013	ND< 0.007	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.021	ND< 0.011	ND< 0.02	ND< 0.02	ND< 0.018	ND< 0.016	ND< 0.017	ND< 0.018
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.011	ND< 0.006	ND< 0.011	ND< 0.011	ND< 0.0096	ND< 0.0087	ND< 0.0093	ND< 0.0097
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.012	ND< 0.0065	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.0096	ND< 0.01	ND< 0.011
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.028**	**ND< 0.015**	**ND< 0.026**	**ND< 0.026**	**ND< 0.024**	**ND< 0.022**	**ND< 0.023**	**ND< 0.024**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.018	ND< 0.0096	ND< 0.017	ND< 0.017	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.016
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.014	ND< 0.0075	ND< 0.013	ND< 0.013	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.015	ND< 0.0079	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.013
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0077	ND< 0.0041	ND< 0.0072	ND< 0.0073	ND< 0.0067	ND< 0.006	ND< 0.0064	ND< 0.0067
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.011	ND< 0.0059	ND< 0.01	ND< 0.01	ND< 0.0095	ND< 0.0086	ND< 0.0091	ND< 0.0096
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.024	ND< 0.013	ND< 0.023	ND< 0.023	ND< 0.021	ND< 0.019	ND< 0.02	ND< 0.021
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.017	ND< 0.0091	ND< 0.016	ND< 0.016	ND< 0.015	ND< 0.013	ND< 0.014	ND< 0.015
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.023	ND< 0.012	ND< 0.021	ND< 0.021	ND< 0.019	ND< 0.018	ND< 0.019	ND< 0.02
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.019	ND< 0.01	ND< 0.018	ND< 0.018	ND< 0.016	ND< 0.015	ND< 0.016	ND< 0.017
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.015	ND< 0.0081	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.013	ND< 0.007	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0089	ND< 0.0048	ND< 0.0084	ND< 0.0084	ND< 0.0077	ND< 0.007	ND< 0.0074	ND< 0.0078
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.01	ND< 0.0054	ND< 0.0094	ND< 0.0094	ND< 0.0086	ND< 0.0078	ND< 0.0083	ND< 0.0087
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.012	ND< 0.0067	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.0098	ND< 0.01	ND< 0.011
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.014	ND< 0.0073	ND< 0.013	ND< 0.013	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.012
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.013	ND< 0.007	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0054	ND< 0.0029	ND< 0.0051	ND< 0.0051	ND< 0.0047	ND< 0.0042	ND< 0.0045	ND< 0.0047
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.28	ND< 0.15	ND< 0.26	ND< 0.26	ND< 0.24	ND< 0.22	ND< 0.23	ND< 0.24
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.016	ND< 0.0086	ND< 0.015	ND< 0.015	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.014
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0096	ND< 0.0052	ND< 0.0091	ND< 0.0091	ND< 0.0083	ND< 0.0075	ND< 0.008	ND< 0.0084
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.022	ND< 0.012	ND< 0.021	ND< 0.021	ND< 0.019	ND< 0.017	ND< 0.018	ND< 0.019
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.11	ND< 0.06	ND< 0.11	ND< 0.11	ND< 0.097	ND< 0.088	ND< 0.093	ND< 0.098
Iodomethane	74-88-4	--	--	--	--	ND< 0.017	ND< 0.0091	ND< 0.016	ND< 0.016	ND< 0.015	ND< 0.013	ND< 0.014	ND< 0.015
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.29	ND< 0.16	ND< 0.28	ND< 0.28	ND< 0.25	ND< 0.23	ND< 0.24	ND< 0.25
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0083	ND< 0.0044	ND< 0.0078	ND< 0.0078	ND< 0.0071	ND< 0.0065	ND< 0.0068	ND< 0.0072
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.019	ND< 0.0099	ND< 0.017	ND< 0.017	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.016
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.026	ND< 0.014	0.091	ND< 0.025	ND< 0.023	ND< 0.02	0.12	ND< 0.023
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.018	ND< 0.0094	ND< 0.017	ND< 0.017	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.015
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.021	ND< 0.011	ND< 0.02	ND< 0.02	ND< 0.018	ND< 0.016	ND< 0.017	ND< 0.018
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.026	ND< 0.014	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.022
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.011	ND< 0.0058	ND< 0.01	ND< 0.01	ND< 0.0094	ND< 0.0085	ND< 0.009	ND< 0.0095
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	0.21 J	ND< 0.023	1	ND< 0.11
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.014	ND< 0.0077	ND< 0.014	ND< 0.014	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.013
Styrene	100-42-5	6000	35000	--	--	ND< 0.013	ND< 0.0071	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.012
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.016	ND< 0.0084	ND< 0.015	ND< 0.015	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.014
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0089	ND< 0.0048	ND< 0.0084	ND< 0.0084	ND< 0.0077	ND< 0.007	ND< 0.0074	ND< 0.0078
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0074	ND< 0.004	ND< 0.007	ND< 0.007	ND< 0.0064	ND< 0.0058	ND< 0.0061	ND< 0.0064
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.028	ND< 0.015	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.024
Toluene	108-88-3	4640	47000	--	--	ND< 0.015	ND< 0.0079	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.012	ND< 0.013
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.028	ND< 0.015	ND< 0.026	ND< 0.026	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.024
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.025	ND< 0.014	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.022
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.021	ND< 0.011	ND< 0.02	ND< 0.02	ND< 0.018	ND< 0.016	ND< 0.017	ND< 0.018
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.015	ND< 0.0082	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.012	ND< 0.0062	ND< 0.011	ND< 0.011	ND< 0.01	ND< 0.009	ND< 0.0096	ND< 0.01
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.015	ND< 0.0082	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.026	ND< 0.014	ND< 0.024	ND< 0.024	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.022
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.012**	**ND< 0.0066**	**ND< 0.012**	**ND< 0.012**	**ND< 0.011**	**ND< 0.0096**	**ND< 0.01**	**ND< 0.011**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.015	ND< 0.0082	ND< 0.014	ND< 0.014	ND< 0.013	ND< 0.012	0.034 J	ND< 0.013
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.017	ND< 0.0089	ND< 0.016	ND< 0.016	ND< 0.014	ND< 0.013	0.017 J	ND< 0.014
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.098	ND< 0.052	ND< 0.092	ND< 0.092	ND< 0.085	ND< 0.077	ND< 0.081	ND< 0.085
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.018	ND< 0.0099	ND< 0.017	ND< 0.017	ND< 0.016	ND< 0.014	ND< 0.015	ND< 0.016
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.031	ND< 0.016	ND< 0.029	ND< 0.029	ND< 0.026	ND< 0.024	ND< 0.025	ND< 0.027
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0072	ND< 0.0038	ND< 0.0067	ND< 0.0067	ND< 0.0062	ND< 0.0056	ND< 0.0059	ND< 0.0062
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0382	ND< 0.0198	ND< 0.0357	ND< 0.0357	ND< 0.0322	ND< 0.0296	ND< 0.0309	ND< 0.0332

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Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-20+00-2FT	RR-20+00-6FT	RR-20+50-2FT	RR-20+50-6FT	RR-21+00-2FT	RR-21+00-6FT	RR-21+50-2FT	RR-21+50-6FT
Date of Sample						8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.4	0.4	1.2	0.6	0.7	0.3	1.7	0.1
Semi- Volatile Organic Compounds (SVOCs) 8270D LL													
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	ND< 0.0359	ND< 0.036	**1.5214**	**0.20325**	**1.3531**	0.05166	**6.0362**	**0.37477**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.029	ND< 0.029	ND< 0.14	ND< 0.028	2	ND< 0.026	11	ND< 0.13
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.025	ND< 0.026	0.21 J	0.031 J	ND< 0.12	ND< 0.023	0.85 J	ND< 0.11
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.027	ND< 0.027	ND< 0.13	ND< 0.026	ND< 0.12	ND< 0.18 F1	ND< 0.12	ND< 0.12
Anthracene	120-12-7	18000	230000	--	--	ND< 0.049	ND< 0.049	ND< 0.24	ND< 0.048	1.7	ND< 0.044	7.9	ND< 0.22
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.068	ND< 0.069	ND< 0.34	ND< 0.067	ND< 0.31	ND< 0.061	ND< 0.32	ND< 0.31
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.16	ND< 0.16	ND< 0.78	ND< 0.15	ND< 0.71	ND< 0.14	ND< 0.73	ND< 0.7
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.02	ND< 0.02	0.78 J	0.13 J	**1.2**	0.02 J	**6.6**	0.22 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	ND< 0.029	ND< 0.029	**1.1**	**0.14 J**	**0.94**	0.027 J	**4.4**	**0.22 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.031	ND< 0.032	**1.9**	0.24	**1.5**	0.059 J K	**6.4**	0.36 J
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.021	ND< 0.021	0.68 J	0.096 J	0.65 J	0.023 J	2.4	0.18 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.025	ND< 0.026	0.62 J	0.08 J	0.65 J	ND< 0.023	2.9	ND< 0.11
Biphenyl	92-52-4	47	200	--	--	ND< 0.029	ND< 0.029	ND< 0.14	ND< 0.028	0.25 J	ND< 0.026	1.4	ND< 0.13
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.028	ND< 0.028	ND< 0.14	ND< 0.027	ND< 0.13	ND< 0.025	ND< 0.13	ND< 0.12
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.032	ND< 0.033	ND< 0.16	ND< 0.032	ND< 0.15	ND< 0.029	ND< 0.15	ND< 0.15
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.059	ND< 0.06	ND< 0.29	ND< 0.058	ND< 0.27	ND< 0.053	ND< 0.27	ND< 0.27
Carbazole	86-74-8	--	--	--	--	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	0.47 J	ND< 0.021	3.7	ND< 0.1
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.049	ND< 0.049	ND< 0.24	ND< 0.048	ND< 0.22	ND< 0.044	ND< 0.23	ND< 0.22
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.049	ND< 0.049	ND< 0.24	ND< 0.048	ND< 0.22	ND< 0.044	ND< 0.23	ND< 0.22
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.042	ND< 0.042	ND< 0.21	ND< 0.041	ND< 0.19	ND< 0.037	ND< 0.19	ND< 0.19
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	ND< 0.12	ND< 0.023	ND< 0.12	ND< 0.11
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.039	ND< 0.04	ND< 0.2	ND< 0.039	ND< 0.18	ND< 0.035	ND< 0.18	ND< 0.18
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.032	ND< 0.033	ND< 0.16	ND< 0.032	ND< 0.15	ND< 0.029	ND< 0.15	ND< 0.15
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.036	ND< 0.036	ND< 0.18	ND< 0.035	ND< 0.16	ND< 0.032	ND< 0.17	ND< 0.16
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.024	ND< 0.025	ND< 0.12	ND< 0.024	ND< 0.11	ND< 0.022	ND< 0.11	ND< 0.11
Chrysene	218-01-9	110	2100	--	--	ND< 0.044	ND< 0.045	1.2	0.15 J	1.6	0.04 J	7.2	0.22 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.035	ND< 0.035	**ND< 0.17**	ND< 0.034	**ND< 0.16**	ND< 0.031	**ND< 0.16**	**ND< 0.16**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	1.2	ND< 0.021	6.6	ND< 0.1
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.23	ND< 0.23	**ND< 1.2**	ND< 0.23	ND< 1.1	ND< 0.21	ND< 1.1	ND< 1
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.021	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.095	ND< 0.019	ND< 0.097	ND< 0.094
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	ND< 0.12	ND< 0.023	ND< 0.12	ND< 0.11
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	ND< 0.11	ND< 0.021	ND< 0.11	ND< 0.1
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.047	ND< 0.048	ND< 0.24	ND< 0.047	ND< 0.22	ND< 0.042	ND< 0.22	ND< 0.21
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.034	ND< 0.034	ND< 0.17	ND< 0.033	ND< 0.15	ND< 0.03	ND< 0.16	ND< 0.15
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.2	ND< 0.2	ND< 0.98	ND< 0.19	ND< 0.9	ND< 0.18	ND< 0.91	ND< 0.88
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 0.91	ND< 0.92	ND< 4.5	ND< 0.89	ND< 4.2	ND< 0.81	ND< 4.2	ND< 4.1
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.041	ND< 0.041	ND< 0.2	ND< 0.04	ND< 0.19	ND< 0.036	ND< 0.19	ND< 0.18
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	ND< 0.11	ND< 0.021	ND< 0.11	ND< 0.1
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	ND< 0.11	ND< 0.021	ND< 0.11	ND< 0.1
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.067	ND< 0.068	ND< 0.33	ND< 0.066	ND< 0.31	ND< 0.06	ND< 0.31	ND< 0.3
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.021	ND< 0.021	1.1	0.17 J	4.8	0.039 J	20	0.32 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	1.8	ND< 0.021	9.3	ND< 0.1
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.027	ND< 0.027	**ND< 0.13**	ND< 0.026	**ND< 0.12**	ND< 0.024	**ND< 0.12**	**ND< 0.12**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.022	ND< 0.012	ND< 0.021	ND< 0.021	ND< 0.019	ND< 0.017	ND< 0.018	ND< 0.019
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.027	ND< 0.027	ND< 0.13	ND< 0.026	ND< 0.12	ND< 0.024	ND< 0.12	ND< 0.12
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	ND< 0.12	ND< 0.023	ND< 0.12	ND< 0.11
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.024	ND< 0.025	0.61 J	0.083 J	0.55 J	ND< 0.022	**2.2**	0.16 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.042	ND< 0.042	ND< 0.21	ND< 0.041	ND< 0.19	ND< 0.037	ND< 0.19	ND< 0.19
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.039	ND< 0.04	ND< 0.2	ND< 0.039	0.64 J	ND< 0.035	2.1	ND< 0.18
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	ND< 0.11	ND< 0.021	ND< 0.11	ND< 0.1
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.023	ND< 0.023	ND< 0.12	ND< 0.023	ND< 0.11	ND< 0.021	ND< 0.11	ND< 0.1
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.025	ND< 0.026	ND< 0.13	ND< 0.025	0.21 J	ND< 0.023	1	ND< 0.11
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.029	ND< 0.029	ND< 0.14	ND< 0.028	ND< 0.13	ND< 0.026	ND< 0.13	ND< 0.13
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.054	ND< 0.055	ND< 0.27	ND< 0.054	ND< 0.25	ND< 0.049	ND< 0.25	ND< 0.24
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.1	ND< 0.1	ND< 0.51	ND< 0.1	ND< 0.47	ND< 0.092	ND< 0.48	ND< 0.46
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.022	ND< 0.022	ND< 0.11	ND< 0.022	ND< 0.1	ND< 0.02	ND< 0.1	ND< 0.099
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.056	ND< 0.056	ND< 0.28	ND< 0.055	ND< 0.25	ND< 0.05	ND< 0.26	ND< 0.25
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.14	ND< 0.14	ND< 0.68	ND< 0.14	ND< 0.63	ND< 0.12	ND< 0.64	ND< 0.62
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.034	ND< 0.034	**ND< 0.17**	ND< 0.033	**ND< 0.15**	ND< 0.03	**ND< 0.16**	**ND< 0.15**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.16	ND< 0.16	ND< 0.79	ND< 0.16	ND< 0.73	ND< 0.14	ND< 0.74	ND< 0.72
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.2	ND< 0.2	**ND< 0.98**	ND< 0.19	**ND< 0.9**	ND< 0.18	**ND< 0.91**	**ND< 0.88**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.14	ND< 0.028	5.7	ND< 0.026	27 D	ND< 0.13
Phenol	108-95-2	19000	250000	--	--	ND< 0.03	ND< 0.03	ND< 0.15	ND< 0.03	ND< 0.14	ND< 0.027	ND< 0.14	ND< 0.14
Pyrene	129-00-0	1800	23000	--	--	ND< 0.023	ND< 0.023	1.2	0.19	3.8	0.04 J	16	0.33 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.034	ND< 0.034	ND< 0.17	ND< 0.033	ND< 0.15	ND< 0.03	ND< 0.16	ND< 0.15
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.041	ND< 0.041	ND< 0.2	ND< 0.04	ND< 0.19	ND< 0.036	ND< 0.19	ND< 0.18
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.053	ND< 0.054	ND< 0.26	ND< 0.052	ND< 0.24	ND< 0.048	ND< 0.25	ND< 0.24
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.039	ND< 0.04	ND< 0.2	ND< 0.039	ND< 0.18	ND< 0.035	ND< 0.18	ND< 0.18
Pesticides and Herbicides 8081B													
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00048	ND< 0.00048	ND< 0.0047	ND< 0.00047	ND< 0.00086	ND< 0.00042	ND< 0.0045	ND< 0.00043
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.00096	ND< 0.00096	ND< 0.0096	ND< 0.00096	ND< 0.0017	ND< 0.00086	ND< 0.0091	ND< 0.00086
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.00035	0.00041 J B	0.0043 J B	0.00042 J B	0.00078 J B	0.00037 J B	0.0041 J B	0.00038 J B
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00035	ND< 0.00035	ND< 0.0035	ND< 0.00035	ND< 0.00063	ND< 0.00031	ND< 0.0033	ND< 0.00031
delta-BHC	319-86-8	--	--	--	--	ND< 0.00036	ND< 0.00036	ND< 0.0036	ND< 0.00036	ND< 0.00065	ND< 0.00032	ND< 0.0034	ND< 0.00032
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00038	ND< 0.00038	ND< 0.0037	ND< 0.00037	ND< 0.00068	ND< 0.00033	ND< 0.0036	ND< 0.00034
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00041	ND< 0.00041	ND< 0.004	ND< 0.0004	ND< 0.00073	ND< 0.00036	ND< 0.0039	ND< 0.00036
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.00045	ND< 0.00045	0.014 J	0.00084 J	0.0022 J	ND< 0.0004	0.012 J	0.0005 J
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00046	ND< 0.00046	ND< 0.0046	ND< 0.00046	ND< 0.00084	ND< 0.00041	ND< 0.0044	ND< 0.00042
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00037	ND< 0.00037	ND< 0.0037	ND< 0.00037	ND< 0.00067	ND< 0.00033	ND< 0.0035	ND< 0.00033
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00035	ND< 0.00035	ND< 0.0035	ND< 0.00035	ND< 0.00063	ND< 0.00031	ND< 0.0033	ND< 0.00031
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00036	ND< 0.00036	ND< 0.0036	ND< 0.00036	ND< 0.00065	ND< 0.00032	ND< 0.0034	ND< 0.00032
Endrin	72-20-8	19	250	--	0.4	ND< 0.00038	ND< 0.00038	ND< 0.0038	ND< 0.00038	ND< 0.00069	ND< 0.00034	ND< 0.0036	ND< 0.00034
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00049	ND< 0.00049	ND< 0.0049	ND< 0.00049	ND< 0.00089	ND< 0.00044	ND< 0.0047	ND< 0.00044
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00048	ND< 0.00048	ND< 0.0047	ND< 0.00047	ND< 0.00086	ND< 0.00042	ND< 0.0045	ND< 0.00043
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00035	ND< 0.00035	ND< 0.0035	ND< 0.00035	ND< 0.00064	ND< 0.00032	ND< 0.0034	ND< 0.00032
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.00061	ND< 0.00061	ND< 0.0061	ND< 0.00061	ND< 0.0011	ND< 0.00055	ND< 0.0058	ND< 0.00055
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00042	ND< 0.00042	ND< 0.0042	ND< 0.00042	ND< 0.00075	ND< 0.00037	ND< 0.004	ND< 0.00038
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.0005	ND< 0.0005	ND< 0.005	ND< 0.0005	ND< 0.0009	ND< 0.00044	ND< 0.0047	ND< 0.00045
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00039	ND< 0.00039	ND< 0.0039	ND< 0.00039	ND< 0.00071	ND< 0.00035	ND< 0.0037	ND< 0.00035
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.011	ND< 0.011	ND< 0.11	ND< 0.011	ND< 0.02	ND< 0.01	ND< 0.11	ND< 0.01
2,4-D	94-75-7	700	9600	--	200	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0061	ND< 0.0062	ND< 0.0061	ND< 0.0061	ND< 0.0056	ND< 0.0055	ND< 0.0058	ND< 0.0056
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0069	ND< 0.007	ND< 0.0068	ND< 0.0069	ND< 0.0064	ND< 0.0062	ND< 0.0065	ND< 0.0063

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-22+00-2FT	RR-22+00-6FT	RR-22+00-11FT
Date of Sample						8/9/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	11
PID Field Measurement (ppm)						0.6	0.3	0.4
Waste Characteristics								
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.7 HF	9.1 HF	8.9 HF
Cyanide, Reactive	--	--	--	--		ND< 9.9	ND< 9.8	ND< 9.9
Sulfide, Reactive	--	--	--	--		ND< 9.9	ND< 9.8	19.9
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176
Metals 6010C								
Arsenic	7440-38-2	--	--	16	100	2.9	1.9 J	2.2
Barium	7440-39-3	11700	220000	--	2000	28.9	19	26
Cadmium	7440-43-9	7.15	980	--	20	0.13 J	0.057 J	ND< 0.032
Chromium	7440-47-3	1800000	41900	--	100	6.8 B	5.9	6.4
Lead	7439-92-1	400	800	111	100	27.5	5.1	4.4
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.44	ND< 0.45	ND< 0.43
Silver	7440-22-4	247	5800	--	100	ND< 0.22	ND< 0.23	ND< 0.22
Mercury	7439-97-6	10.9	46	--	4	0.036	ND< 0.0087	ND< 0.0087
Total Petroleum Hydrocarbons (TPH) 8015D [3]								
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	36	ND< 5.3	ND< 5.1
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.33	ND< 0.35	ND< 0.31
Polchlorinated Biphenols (PCBs)								
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.025	ND< 0.025	ND< 0.025
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.024	ND< 0.024	ND< 0.024
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.017	ND< 0.017	ND< 0.017
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.021	ND< 0.021	ND< 0.021
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.018	ND< 0.018	ND< 0.018
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.015	ND< 0.015	ND< 0.015
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.019	ND< 0.019	ND< 0.019
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.0085	ND< 0.0085	ND< 0.0084
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.021	ND< 0.021	ND< 0.021
Volatile Organic Compounds (VOCs) 8260								
Acetone	67-64-1	39900	670000	--	--	ND< 0.19	ND< 0.2	ND< 0.17
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0087	ND< 0.0093	ND< 0.0078
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.01	ND< 0.011	ND< 0.009
Bromoform	75-25-2	19	86	--	--	ND< 0.023	ND< 0.024	ND< 0.02
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.01	ND< 0.011	ND< 0.009
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.14	ND< 0.15	ND< 0.12
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.013	ND< 0.014	ND< 0.012
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.017	ND< 0.018	ND< 0.015
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.013	ND< 0.014	ND< 0.011
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.021	ND< 0.022	ND< 0.019
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.012	ND< 0.012	ND< 0.01
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.006	ND< 0.0065	ND< 0.0054
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.016	ND< 0.018	ND< 0.015
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.022	ND< 0.024	ND< 0.02
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.0095	ND< 0.01	ND< 0.0085
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.23 *	ND< 0.24 *	ND< 0.2 *
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.031	ND< 0.034	ND< 0.028
Chloromethane	74-87-3	110	460	--	--	ND< 0.011	ND< 0.012	ND< 0.0097
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.017	ND< 0.019	ND< 0.016
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.0093	ND< 0.0099	ND< 0.0083
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.01	ND< 0.011	ND< 0.0091
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.023**	**ND< 0.024**	**ND< 0.02**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.015	ND< 0.016	ND< 0.013
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.012	ND< 0.012	ND< 0.01
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.012	ND< 0.013	ND< 0.011
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0064	ND< 0.0068	ND< 0.0057
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.0091	ND< 0.0098	ND< 0.0082
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.02	ND< 0.021	ND< 0.018
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.014	ND< 0.015	ND< 0.013
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.019	ND< 0.02	ND< 0.017
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.016	ND< 0.017	ND< 0.014
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.013	ND< 0.013	ND< 0.011
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.011	ND< 0.012	ND< 0.0097
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0074	ND< 0.0079	ND< 0.0066
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0083	ND< 0.0089	ND< 0.0075
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.01	ND< 0.011	ND< 0.0093
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.011	ND< 0.012	ND< 0.01
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.011	ND< 0.012	ND< 0.0098
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0045	ND< 0.0048	ND< 0.004
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.23	ND< 0.25	ND< 0.21
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.013	ND< 0.014	ND< 0.012
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.008	ND< 0.0086	ND< 0.0072
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.018	ND< 0.019	ND< 0.016
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.094	ND< 0.1	ND< 0.084
Iodomethane	74-88-4	--	--	--	--	ND< 0.014	ND< 0.015	ND< 0.013
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.24	ND< 0.26	ND< 0.22
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0068	ND< 0.0073	ND< 0.0061
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.015	ND< 0.016	ND< 0.014
Methyl acetate	79-20-9	78000	1200000	--	--	0.13	ND< 0.023	ND< 0.019
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.015	ND< 0.016	ND< 0.013
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.017	ND< 0.018	ND< 0.015
Methylcyclohexane	108-87-2	--	--	--	--	0.033 J	ND< 0.023	ND< 0.019
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.009	ND< 0.0097	ND< 0.0081
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.23	ND< 0.024	ND< 0.023
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.012	ND< 0.013	ND< 0.011
Styrene	100-42-5	6000	35000	--	--	ND< 0.011	ND< 0.012	ND< 0.0099
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.013	ND< 0.014	ND< 0.012
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0074	ND< 0.0079	ND< 0.0067
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0061	ND< 0.0066	ND< 0.0055
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.023	ND< 0.024	ND< 0.021
Toluene	108-88-3	4640	47000	--	--	ND< 0.012	ND< 0.013	ND< 0.011
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.023	ND< 0.024	ND< 0.02
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.021	ND< 0.022	ND< 0.019
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.017	ND< 0.019	ND< 0.016
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.013	ND< 0.014	ND< 0.011
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.0096	ND< 0.01	ND< 0.0086
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.013	ND< 0.014	ND< 0.011
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.021	ND< 0.023	ND< 0.019
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.01**	**ND< 0.011**	**ND< 0.0091**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.013	ND< 0.014	ND< 0.011
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.014	ND< 0.015	ND< 0.012
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.081	ND< 0.087	ND< 0.073
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.015	ND< 0.016	ND< 0.014
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.025	ND< 0.027	ND< 0.023
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0059	ND< 0.0064	ND< 0.0053
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0309	ND< 0.0334	ND< 0.0283

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-22+00-2FT	RR-22+00-6FT	RR-22+00-11FT
Date of Sample						8/9/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	11
PID Field Measurement (ppm)						0.6	0.3	0.4
Semi- Volatile Organic Compounds (SVOCs) 8270D LL								
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**5.1853**	**0.07718**	ND< 0.03254
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.27	ND< 0.027	ND< 0.026
Acenaphthylene	208-96-8	--	--	--	--	0.69 J	ND< 0.024	ND< 0.023
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.24	ND< 0.025	ND< 0.024
Anthracene	120-12-7	18000	230000	--	--	0.57 J	ND< 0.045	ND< 0.044
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.63	ND< 0.063	ND< 0.062
Benzaldehyde	100-52-7	170	820	--	--	ND< 1.4	ND< 0.14	ND< 0.14
Benzo[a]anthracene	56-55-3	1.1	21	--	--	**3.3**	0.033 J	ND< 0.018
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**3.8**	0.047 J	ND< 0.026
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**6.4**	0.071 J	ND< 0.028
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	2.4	0.04 J	ND< 0.019
Benzo[k]fluoranthene	207-08-9	11	210	--	--	2.1	ND< 0.024	ND< 0.023
Biphenyl	92-52-4	47	200	--	--	ND< 0.27	ND< 0.027	ND< 0.026
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.25	ND< 0.026	ND< 0.025
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.3	ND< 0.03	ND< 0.029
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.54	ND< 0.055	ND< 0.054
Carbazole	86-74-8	--	--	--	--	ND< 0.21	ND< 0.021	ND< 0.021
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.45	ND< 0.045	ND< 0.044
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.45	ND< 0.045	ND< 0.044
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.38	ND< 0.039	ND< 0.038
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	**ND< 0.23**	ND< 0.024	ND< 0.023
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.36	ND< 0.036	ND< 0.036
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.3	ND< 0.03	ND< 0.029
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.33	ND< 0.033	ND< 0.033
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.22	ND< 0.022	ND< 0.022
Chrysene	218-01-9	110	2100	--	--	4.3	0.057 J	ND< 0.04
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.32**	ND< 0.032	ND< 0.032
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.21	ND< 0.021	ND< 0.021
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	**ND< 2.1**	ND< 0.21	ND< 0.21
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.19	ND< 0.019	ND< 0.019
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.23	ND< 0.024	ND< 0.023
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.21	ND< 0.021	ND< 0.021
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.43	ND< 0.044	ND< 0.043
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.31	ND< 0.031	ND< 0.031
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 1.8	ND< 0.18	ND< 0.18
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 8.3	ND< 0.84	ND< 0.83
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.37	ND< 0.037	ND< 0.037
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.21	ND< 0.021	ND< 0.021
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.21	ND< 0.021	ND< 0.021
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.62	ND< 0.062	ND< 0.061
Fluoranthene	206-44-0	2400	30000	--	--	5	0.065 J	ND< 0.019
Fluorene	86-73-7	2400	30000	--	--	ND< 0.21	ND< 0.021	ND< 0.021
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.24**	ND< 0.025	ND< 0.024
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.018	ND< 0.019	ND< 0.016
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.24	ND< 0.025	ND< 0.024
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.23	ND< 0.024	ND< 0.023
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	**2.3**	0.036 J	ND< 0.022
Isophorone	78-59-1	570	2400	--	--	ND< 0.38	ND< 0.039	ND< 0.038
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.36	ND< 0.036	ND< 0.036
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.21	ND< 0.021	ND< 0.021
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.21	ND< 0.021	ND< 0.021
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.23	ND< 0.024	ND< 0.023
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.27	ND< 0.027	ND< 0.026
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.5	ND< 0.05	ND< 0.05
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.94	ND< 0.095	ND< 0.094
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.2	ND< 0.02	ND< 0.02
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.51	ND< 0.051	ND< 0.051
4-Nitrophenol	100-02-7	--	--	--	--	ND< 1.3	ND< 0.13	ND< 0.13
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.31**	ND< 0.031	ND< 0.031
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 1.5	ND< 0.15	ND< 0.15
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 1.8**	ND< 0.18	ND< 0.18
Phenanthrene	85-01-8	--	--	--	--	0.74 J	ND< 0.027	ND< 0.026
Phenol	108-95-2	19000	250000	--	--	ND< 0.28	ND< 0.028	ND< 0.027
Pyrene	129-00-0	1800	23000	--	--	5.5	0.085 J	ND< 0.021
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.31	ND< 0.031	ND< 0.031
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.37	ND< 0.037	ND< 0.037
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.49	ND< 0.049	ND< 0.048
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.36	ND< 0.036	ND< 0.036
Pesticides and Herbicides 8081B								
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.0043	ND< 0.00044	ND< 0.00043
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0087	ND< 0.00088	ND< 0.00087
alpha-BHC	319-84-6	0.086	0.36	--	--	0.0043 J	0.00045 J	0.00036 J
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.0031	ND< 0.00032	ND< 0.00031
delta-BHC	319-86-8	--	--	--	--	ND< 0.0033	ND< 0.00033	ND< 0.00032
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.0034	ND< 0.00034	ND< 0.00034
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.0037	ND< 0.00037	ND< 0.00037
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.0041	ND< 0.00042	ND< 0.00041
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0042	ND< 0.00043	ND< 0.00042
Endosulfan I	959-98-8	--	--	--	--	ND< 0.0034	ND< 0.00034	ND< 0.00034
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.0031	ND< 0.00032	ND< 0.00031
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.0033	ND< 0.00033	ND< 0.00033
Endrin	72-20-8	19	250	--	0.4	ND< 0.0035	ND< 0.00035	ND< 0.00035
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.0045	ND< 0.00045	ND< 0.00045
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.0043	ND< 0.00044	ND< 0.00043
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.0032	ND< 0.00033	ND< 0.00032
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0056	ND< 0.00056	ND< 0.00056
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.0038	ND< 0.00038	ND< 0.00038
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.0045	ND< 0.00046	ND< 0.00045
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.0036	ND< 0.00036	ND< 0.00036
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.1	ND< 0.01	ND< 0.01
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.011	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0056	ND< 0.0057	ND< 0.0056
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0063	ND< 0.0064	ND< 0.0063

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-22+50-2FT	RR-22+50-6FT	RR-23+00-2FT	RR-23+50-2FT	RR-23+50-6FT	RR-23+50-10FT	RR-24+00-2FT	RR-24+00-6FT	RR-24+50-2FT
Date of Sample						8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	2	2	6	10	2	6	2
PID Field Measurement (ppm)						0.2	0.4	0.1	0.5	0.5	0.6	0.1	0.3	0.3
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	9 HF	9.1 HF	9.1 HF	9.2 HF	9 HF	8.8 HF	9.2 HF	8.5 HF	8.9 HF
Cyanide, Reactive	--	--	--	--		ND< 9.9	14.5	ND< 10	ND< 9.9	ND< 9.7	ND< 9.7	ND< 9.9	ND< 9.8	ND< 9.5
Sulfide, Reactive	--	--	--	--		ND< 9.9	ND< 9.8	ND< 10	ND< 9.9	ND< 9.7	ND< 9.7	ND< 9.9	ND< 9.8	ND< 9.5
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>176	>176	>176	>176	>176
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	3.1	2.2 J	2	2.1	3.7	3	1.7 J	2.1 J	2.5 J
Barium	7440-39-3	11700	220000	--	2000	30.1	20.8	31.4	20.4 F1	23.9	23.8	24	10.9 ^	30.4 ^
Cadmium	7440-43-9	7.15	980	--	20	0.089 J	0.049 J	0.049 J	0.041 J	0.058 J	0.09 J	0.034 J	ND< 0.033	ND< 0.039
Chromium	7440-47-3	1800000	41900	--	100	9.5	8.6	7.2	6.7	6.3	6	6.1	3.4	8.1
Lead	7439-92-1	400	800	111	100	17	3.8	8	5.4	6.7	5.8	6.9	4.6	5.1
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.41	ND< 0.47	ND< 0.41	ND< 0.41	ND< 0.46	ND< 0.46	ND< 0.41	ND< 0.43	ND< 0.52
Silver	7440-22-4	247	5800	--	100	ND< 0.21	ND< 0.23	ND< 0.2	ND< 0.2	ND< 0.23	ND< 0.23	ND< 0.21	ND< 0.22	ND< 0.26
Mercury	7439-97-6	10.9	46	--	4	0.013 J	ND< 0.0086	ND< 0.0081	ND< 0.008	ND< 0.0084	ND< 0.0085	ND< 0.0088	ND< 0.009	ND< 0.0098
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	30	ND< 5.2	ND< 5.3	ND< 5.2	ND< 5.4	ND< 5.3	ND< 5.4	ND< 5.7	ND< 5.9
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.35	ND< 0.33	ND< 0.32	ND< 0.31	ND< 0.34	ND< 0.34	ND< 0.34	ND< 0.35	ND< 0.38
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.026	ND< 0.025	ND< 0.026	ND< 0.025	ND< 0.026	ND< 0.025	ND< 0.026	ND< 0.027	ND< 0.029
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.025	ND< 0.024	ND< 0.025	ND< 0.024	ND< 0.025	ND< 0.024	ND< 0.025	ND< 0.026	ND< 0.028
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.018	ND< 0.019
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.022	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.023	ND< 0.024
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.018	ND< 0.018	ND< 0.018	ND< 0.018	ND< 0.018	ND< 0.018	ND< 0.018	ND< 0.019	ND< 0.02
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.016	ND< 0.017
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.019	ND< 0.019	ND< 0.019	ND< 0.019	ND< 0.019	ND< 0.019	ND< 0.019	ND< 0.021	ND< 0.022
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.0087	ND< 0.0084	ND< 0.0085	ND< 0.0084	ND< 0.0086	ND< 0.0084	ND< 0.0086	ND< 0.0091	ND< 0.0096
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.022	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.023	ND< 0.024
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.2	ND< 0.23	ND< 0.19	ND< 0.18	ND< 0.19	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.19
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0093	ND< 0.011	ND< 0.0089	ND< 0.0083	ND< 0.0087	ND< 0.0089	ND< 0.0087	ND< 0.0093	ND< 0.0089
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.011	ND< 0.012	ND< 0.01	ND< 0.0096	ND< 0.01	ND< 0.01	ND< 0.01	ND< 0.011	ND< 0.01
Bromoform	75-25-2	19	86	--	--	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.011	ND< 0.012	ND< 0.01	ND< 0.0096	ND< 0.01	ND< 0.01	ND< 0.01	ND< 0.011	ND< 0.01
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.15	ND< 0.16	ND< 0.14	ND< 0.13	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.14
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.014	ND< 0.016	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013	ND< 0.014	ND< 0.014
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.018	ND< 0.02	ND< 0.017	ND< 0.016	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.018	ND< 0.017
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.014	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.022	ND< 0.025	ND< 0.021	ND< 0.02	ND< 0.021	ND< 0.021	ND< 0.021	ND< 0.022	ND< 0.021
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.012
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0065	ND< 0.0073	ND< 0.0062	ND< 0.0058	ND< 0.0061	ND< 0.0062	ND< 0.006	ND< 0.0065	ND< 0.0062
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.018	ND< 0.02	ND< 0.017	ND< 0.016	ND< 0.017	ND< 0.017	ND< 0.017	ND< 0.018	ND< 0.017
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.024	ND< 0.027	ND< 0.023	ND< 0.021	ND< 0.022	ND< 0.023	ND< 0.022	ND< 0.024	ND< 0.023
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.01	ND< 0.011	ND< 0.0098	ND< 0.0091	ND< 0.0095	ND< 0.0098	ND< 0.0095	ND< 0.01	ND< 0.0098
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.24 *	ND< 0.28 *	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.016	ND< 0.015
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.034	ND< 0.038	ND< 0.032	ND< 0.03	ND< 0.031	ND< 0.032	ND< 0.031	ND< 0.034	ND< 0.032
Chloromethane	74-87-3	110	460	--	--	ND< 0.012	ND< 0.013	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.019	ND< 0.021	ND< 0.018	ND< 0.017	ND< 0.018	ND< 0.018	ND< 0.018	ND< 0.019	ND< 0.018
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.0099	ND< 0.011	ND< 0.0096	ND< 0.0089	ND< 0.0093	ND< 0.0096	ND< 0.0093	ND< 0.0099	ND< 0.0096
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.011	ND< 0.012	ND< 0.01	ND< 0.0097	ND< 0.01	ND< 0.01	ND< 0.01	ND< 0.011	ND< 0.01
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.024**	**ND< 0.028**	**ND< 0.024**	**ND< 0.022**	**ND< 0.023**	**ND< 0.024**	**ND< 0.023**	**ND< 0.024**	**ND< 0.024**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.016	ND< 0.018	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.016	ND< 0.015
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.012
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.012	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0069	ND< 0.0077	ND< 0.0066	ND< 0.0061	ND< 0.0064	ND< 0.0066	ND< 0.0064	ND< 0.0068	ND< 0.0066
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.0098	ND< 0.011	ND< 0.0094	ND< 0.0087	ND< 0.0092	ND< 0.0094	ND< 0.0092	ND< 0.0098	ND< 0.0094
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.021	ND< 0.024	ND< 0.047 *	ND< 0.044 *	ND< 0.046 *	ND< 0.047 *	ND< 0.046 *	ND< 0.049 *	ND< 0.047 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.015	ND< 0.017	ND< 0.015	ND< 0.013	ND< 0.014	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.015
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.02	ND< 0.023	ND< 0.019	ND< 0.018	ND< 0.019	ND< 0.019	ND< 0.019	ND< 0.02	ND< 0.019
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.017	ND< 0.019	ND< 0.016	ND< 0.015	ND< 0.016	ND< 0.016	ND< 0.016	ND< 0.017	ND< 0.016
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.014	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.012	ND< 0.013	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0079	ND< 0.009	ND< 0.0076	ND< 0.0071	ND< 0.0074	ND< 0.0076	ND< 0.0074	ND< 0.0079	ND< 0.0076
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0089	ND< 0.01	ND< 0.0086	ND< 0.0079	ND< 0.0084	ND< 0.0086	ND< 0.0083	ND< 0.0089	ND< 0.0086
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.0099	ND< 0.01	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.012	ND< 0.014	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.012	ND< 0.013	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0048	ND< 0.0054	ND< 0.0046	ND< 0.0043	ND< 0.0045	ND< 0.0046	ND< 0.0045	ND< 0.0048	ND< 0.0046
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.25	ND< 0.28	ND< 0.24	ND< 0.22	ND< 0.23	ND< 0.24	ND< 0.23	ND< 0.25	ND< 0.24
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.014	ND< 0.016	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013	ND< 0.014	ND< 0.014
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0086	ND< 0.0097	ND< 0.0082	ND< 0.0076	ND< 0.008	ND< 0.0082	ND< 0.008	ND< 0.0086	ND< 0.0082
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.019	ND< 0.022	ND< 0.019	ND< 0.017	ND< 0.018	ND< 0.019	ND< 0.018	ND< 0.019	ND< 0.019
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.1	ND< 0.11	ND< 0.096	ND< 0.089	ND< 0.094	ND< 0.097	ND< 0.094	ND< 0.1	ND< 0.096
Iodomethane	74-88-4	--	--	--	--	ND< 0.015	ND< 0.017	ND< 0.014	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.014	ND< 0.015	ND< 0.014
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.26	ND< 0.29	ND< 0.25	ND< 0.23	ND< 0.24	ND< 0.25	ND< 0.24	ND< 0.26	ND< 0.25
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0073	ND< 0.0083	ND< 0.0071	ND< 0.0065	ND< 0.0069	ND< 0.0071	ND< 0.0069	ND< 0.0073	ND< 0.0071
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.016	ND< 0.019	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.016	ND< 0.015	ND< 0.016	ND< 0.016
Methyl acetate	79-20-9	78000	1200000	--	--	0.085	ND< 0.026	ND< 0.022	ND< 0.021	ND< 0.022	ND< 0.022	ND< 0.022	ND< 0.023	ND< 0.022
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.016	ND< 0.018	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.015	ND< 0.015	ND< 0.016	ND< 0.015
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.018	ND< 0.021	ND< 0.018	ND< 0.016	ND< 0.017	ND< 0.018	ND< 0.017	ND< 0.018	ND< 0.018
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.023	ND< 0.026	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.022	ND< 0.021	ND< 0.023	ND< 0.022
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.0097	ND< 0.011	ND< 0.0093	ND< 0.0086	ND< 0.0091	ND< 0.0093	ND< 0.0091	ND< 0.0097	ND< 0.0093
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.24	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.013	ND< 0.014	ND< 0.012	ND< 0.011	ND< 0.012	ND< 0.012	ND< 0.012	ND< 0.013	ND< 0.012
Styrene	100-42-5	6000	35000	--	--	ND< 0.012	ND< 0.013	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.014	ND< 0.016	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0079	ND< 0.009	ND< 0.0076	ND< 0.0071	ND< 0.0075	ND< 0.0076	ND< 0.0074	ND< 0.0079	ND< 0.0076
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0066	ND< 0.0074	ND< 0.0063	ND< 0.0059	ND< 0.0062	ND< 0.0063	ND< 0.0061	ND< 0.0066	ND< 0.0063
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.025	ND< 0.028	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.024	ND< 0.023	ND< 0.025	ND< 0.024
Toluene	108-88-3	4640	47000	--	--	ND< 0.013	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.012	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.024	ND< 0.028	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.024	ND< 0.023	ND< 0.024	ND< 0.024
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.023	ND< 0.025	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.022	ND< 0.021	ND< 0.023	ND< 0.022
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.019	ND< 0.021	ND< 0.018	ND< 0.017	ND< 0.017	ND< 0.018	ND< 0.017	ND< 0.019	ND< 0.018
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.014	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.01	ND< 0.012	ND< 0.0099	ND< 0.0092	ND< 0.0096	ND< 0.0099	ND< 0.0096	ND< 0.01	ND< 0.0099
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.014	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.023	ND< 0.026	ND< 0.022	ND< 0.02	ND< 0.022	ND< 0.022	ND< 0.021	ND< 0.023	ND< 0.022
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.011**	**ND< 0.012**	**ND< 0.01**	**ND< 0.0097**	**ND< 0.01**	**ND< 0.01**	**ND< 0.01**	**ND< 0.011**	**ND< 0.01**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.014	ND< 0.015	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.013	ND< 0.013	ND< 0.014	ND< 0.013
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.015	ND< 0.017	ND< 0.014	ND< 0.013	ND< 0.014	ND< 0.014	ND< 0.014	ND< 0.015	ND< 0.014
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.087	ND< 0.098	ND< 0.084	ND< 0.078	ND< 0.082	ND< 0.084	ND< 0.081	ND< 0.087	ND< 0.084
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.016	ND< 0.019	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.016	ND< 0.015	ND< 0.016	ND< 0.016
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.027	ND< 0.031	ND< 0.026	ND< 0.024	ND< 0.025	ND< 0.026	ND< 0.025	ND< 0.027	ND< 0.026
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0064	ND< 0.0072	ND< 0.0061	ND< 0.0057	ND< 0.006	ND< 0.0061	ND< 0.0059	ND< 0.0064	ND< 0.0061
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0334	ND< 0.0382	ND< 0.0321	ND< 0.0297	ND< 0.031	ND< 0.0321	ND< 0.0309	ND< 0.0334	ND< 0.0321

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-22+50-2FT	RR-22+50-6FT	RR-23+00-2FT	RR-23+50-2FT	RR-23+50-6FT	RR-23+50-10FT	RR-24+00-2FT	RR-24+00-6FT	RR-24+50-2FT
Date of Sample						8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						2	6	2	2	6	10	2	6	2
PID Field Measurement (ppm)						0.2	0.4	0.1	0.5	0.5	0.6	0.1	0.3	0.3
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**3.4818**	0.05274	**0.38483**	0.07086	ND< 0.03309	**ND< 0.66226**	**0.34035**	**ND< 0.70244**	ND< 0.037
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.27	ND< 0.026	ND< 0.13	ND< 0.026	ND< 0.027	ND< 0.54	ND< 0.26	ND< 0.57	ND< 0.03
Acenaphthylene	208-96-8	--	--	--	--	0.53 J	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.25	ND< 0.024	ND< 0.12	ND< 0.024	ND< 0.024	ND< 0.49	ND< 0.24	ND< 0.52	ND< 0.027
Anthracene	120-12-7	18000	230000	--	--	ND< 0.45	ND< 0.044	ND< 0.22	ND< 0.044	ND< 0.045	ND< 0.9	ND< 0.44	ND< 0.96	ND< 0.05
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.64	ND< 0.062	ND< 0.31	ND< 0.061	ND< 0.063	ND< 1.3	ND< 0.62	ND< 1.3	ND< 0.07
Benzaldehyde	100-52-7	170	820	--	--	ND< 1.5	ND< 0.14	ND< 0.71	ND< 0.14	ND< 0.14	ND< 2.9	ND< 1.4	ND< 3.1	ND< 0.16
Benzo[a]anthracene	56-55-3	1.1	21	--	--	**2.6**	0.029 J	0.26 J	0.038 J	ND< 0.018	ND< 0.36	ND< 0.18	ND< 0.39	ND< 0.02
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**2.5**	0.028 J	**0.23 J**	0.042 J	ND< 0.027	**ND< 0.54**	**ND< 0.26**	**ND< 0.57**	ND< 0.03
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**4**	0.046 J	0.33 J	0.067 J	ND< 0.029	ND< 0.58	0.29 J K	ND< 0.62	ND< 0.032
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	1.6 J	0.019 J	0.17 J	0.035 J	ND< 0.019	ND< 0.39	0.21 J	ND< 0.41	ND< 0.021
Benzo[k]fluoranthene	207-08-9	11	210	--	--	1.8	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026
Biphenyl	92-52-4	47	200	--	--	ND< 0.27	ND< 0.026	ND< 0.13	ND< 0.026	ND< 0.027	ND< 0.54	ND< 0.26	ND< 0.57	ND< 0.03
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.26	ND< 0.025	ND< 0.13	ND< 0.025	ND< 0.026	ND< 0.51	ND< 0.25	ND< 0.55	ND< 0.028
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.3	ND< 0.03	ND< 0.15	ND< 0.029	ND< 0.03	ND< 0.6	ND< 0.3	ND< 0.64	ND< 0.033
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.55	ND< 0.054	ND< 0.27	ND< 0.053	ND< 0.054	ND< 1.1	ND< 0.54	ND< 1.2	ND< 0.061
Carbazole	86-74-8	--	--	--	--	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.45	ND< 0.044	ND< 0.22	ND< 0.044	ND< 0.045	ND< 0.9	ND< 0.44	ND< 0.96	ND< 0.05
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.45	ND< 0.044	ND< 0.22	ND< 0.044	ND< 0.045	ND< 0.9	ND< 0.44	ND< 0.96	ND< 0.05
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.39	ND< 0.038	ND< 0.19	ND< 0.037	ND< 0.038	ND< 0.77	ND< 0.38	ND< 0.82	ND< 0.043
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	**ND< 0.24**	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	**ND< 0.47**	**ND< 0.23**	**ND< 0.5**	ND< 0.026
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.37	ND< 0.036	ND< 0.18	ND< 0.035	ND< 0.036	ND< 0.73	ND< 0.36	ND< 0.78	ND< 0.04
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.3	ND< 0.03	ND< 0.15	ND< 0.029	ND< 0.03	ND< 0.6	ND< 0.3	ND< 0.64	ND< 0.033
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.34	ND< 0.033	ND< 0.16	ND< 0.032	ND< 0.033	ND< 0.66	ND< 0.33	ND< 0.71	ND< 0.037
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.23	ND< 0.022	ND< 0.11	ND< 0.022	ND< 0.022	ND< 0.45	ND< 0.22	ND< 0.48	ND< 0.025
Chrysene	218-01-9	110	2100	--	--	3.8	ND< 0.04	0.28 J	0.043 J	ND< 0.04	ND< 0.81	ND< 0.4	ND< 0.87	ND< 0.045
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.32**	ND< 0.032	**ND< 0.16**	ND< 0.031	ND< 0.032	**ND< 0.64**	**ND< 0.32**	**ND< 0.68**	ND< 0.036
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	**ND< 2.2**	ND< 0.21	ND< 1	ND< 0.21	ND< 0.21	**ND< 4.3**	**ND< 2.1**	**ND< 4.6**	ND< 0.24
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.19	ND< 0.019	ND< 0.094	ND< 0.019	ND< 0.019	ND< 0.39	ND< 0.19	ND< 0.41	ND< 0.021
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.24	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.44	ND< 0.043	ND< 0.21	ND< 0.043	ND< 0.044	ND< 0.88	ND< 0.43	ND< 0.94	ND< 0.049
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.31	ND< 0.031	ND< 0.15	ND< 0.03	ND< 0.031	ND< 0.62	ND< 0.31	ND< 0.66	ND< 0.034
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 1.8	ND< 0.18	ND< 0.89	ND< 0.18	ND< 0.18	ND< 3.6	ND< 1.8	ND< 3.9	ND< 0.2
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 8.5	ND< 0.83	ND< 4.1	ND< 0.82	ND< 0.84	ND< 17	ND< 8.3	ND< 18	ND< 0.93
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.38	ND< 0.037	ND< 0.18	ND< 0.036	ND< 0.037	ND< 0.75	ND< 0.37	ND< 0.8	ND< 0.042
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	**ND< 0.43**	ND< 0.21	**ND< 0.46**	ND< 0.024
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.63	ND< 0.061	ND< 0.3	ND< 0.06	ND< 0.062	ND< 1.2	ND< 0.61	ND< 1.3	ND< 0.069
Fluoranthene	206-44-0	2400	30000	--	--	5.1	0.037 J	0.48 J	0.075 J	0.025 J	ND< 0.39	ND< 0.19	ND< 0.41	ND< 0.021
Fluorene	86-73-7	2400	30000	--	--	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.25**	ND< 0.024	**ND< 0.12**	ND< 0.024	ND< 0.024	**ND< 0.49**	**ND< 0.24**	**ND< 0.52**	ND< 0.027
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.019	ND< 0.022	ND< 0.019	ND< 0.017	ND< 0.018	ND< 0.019	ND< 0.018	ND< 0.019	ND< 0.019
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.25	ND< 0.024	ND< 0.12	ND< 0.024	ND< 0.024	ND< 0.49	ND< 0.24	ND< 0.52	ND< 0.027
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.24	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	**1.4 J**	ND< 0.022	0.15 J	0.027 J	ND< 0.022	ND< 0.45	ND< 0.22	ND< 0.48	ND< 0.025
Isophorone	78-59-1	570	2400	--	--	ND< 0.39	ND< 0.038	ND< 0.19	ND< 0.037	ND< 0.038	ND< 0.77	ND< 0.38	ND< 0.82	ND< 0.043
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.37	ND< 0.036	ND< 0.18	ND< 0.035	ND< 0.036	ND< 0.73	ND< 0.36	ND< 0.78	ND< 0.04
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.22	ND< 0.021	ND< 0.1	ND< 0.021	ND< 0.021	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.24	ND< 0.023	ND< 0.11	ND< 0.023	ND< 0.023	ND< 0.47	ND< 0.23	ND< 0.5	ND< 0.026
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.27	ND< 0.026	ND< 0.13	ND< 0.026	ND< 0.027	ND< 0.54	ND< 0.26	ND< 0.57	ND< 0.03
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.51	ND< 0.05	ND< 0.25	ND< 0.049	ND< 0.05	ND< 1	ND< 0.5	ND< 1.1	ND< 0.056
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.96	ND< 0.094	ND< 0.46	ND< 0.093	ND< 0.095	ND< 1.9	ND< 0.94	ND< 2	ND< 0.11
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.21	ND< 0.02	ND< 0.099	ND< 0.02	ND< 0.02	ND< 0.41	ND< 0.2	ND< 0.43	ND< 0.023
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.52	ND< 0.051	ND< 0.25	ND< 0.05	ND< 0.051	ND< 1	ND< 0.51	ND< 1.1	ND< 0.057
4-Nitrophenol	100-02-7	--	--	--	--	ND< 1.3	ND< 0.13	ND< 0.62	ND< 0.12	ND< 0.13	ND< 2.6	ND< 1.3	ND< 2.7	ND< 0.14
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.31**	ND< 0.031	**ND< 0.15**	ND< 0.03	ND< 0.031	**ND< 0.62**	**ND< 0.31**	**ND< 0.66**	ND< 0.034
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 1.5	ND< 0.15	ND< 0.72	ND< 0.14	ND< 0.15	ND< 3	ND< 1.5	ND< 3.1	ND< 0.16
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 1.8**	ND< 0.18	**ND< 0.89**	ND< 0.18	ND< 0.18	**ND< 3.6**	**ND< 1.8**	**ND< 3.9**	ND< 0.2
Phenanthrene	85-01-8	--	--	--	--	0.8 J	ND< 0.026	ND< 0.13	0.026 J	ND< 0.027	ND< 0.54	ND< 0.26	ND< 0.57	ND< 0.03
Phenol	108-95-2	19000	250000	--	--	ND< 0.28	ND< 0.028	ND< 0.14	ND< 0.027	ND< 0.028	ND< 0.56	ND< 0.27	ND< 0.59	ND< 0.031
Pyrene	129-00-0	1800	23000	--	--	5.8	0.039 J	0.42 J	0.092 J	0.025 J	ND< 0.43	ND< 0.21	ND< 0.46	ND< 0.024
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.31	ND< 0.031	ND< 0.15	ND< 0.03	ND< 0.031	ND< 0.62	ND< 0.31	ND< 0.66	ND< 0.034
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.38	ND< 0.037	ND< 0.18	ND< 0.036	ND< 0.037	ND< 0.75	ND< 0.37	ND< 0.8	ND< 0.042
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.5	ND< 0.049	ND< 0.24	ND< 0.048	ND< 0.049	ND< 0.99	ND< 0.49	ND< 1	ND< 0.055
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.37	ND< 0.036	ND< 0.18	ND< 0.035	ND< 0.036	ND< 0.73	ND< 0.36	ND< 0.78	ND< 0.04
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.0044	ND< 0.00044	ND< 0.00043	ND< 0.00044	ND< 0.00044	ND< 0.00044	ND< 0.00044	ND< 0.00046	ND< 0.00049
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.009	ND< 0.00088	ND< 0.00087	ND< 0.00088	ND< 0.0009	ND< 0.00089	ND< 0.00089	ND< 0.00093	ND< 0.00098
alpha-BHC	319-84-6	0.086	0.36	--	--	0.0041 J	0.00039 J	0.00041 J	0.00039 J	ND< 0.00033	ND< 0.00032	0.00046 J	0.00045 J	ND< 0.00036
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.0033	ND< 0.00032	ND< 0.00031	ND< 0.00032	ND< 0.00033	ND< 0.00032	ND< 0.00032	ND< 0.00034	ND< 0.00036
delta-BHC	319-86-8	--	--	--	--	ND< 0.0034	ND< 0.00033	ND< 0.00032	ND< 0.00033	ND< 0.00034	ND< 0.00033	ND< 0.00033	ND< 0.00035	ND< 0.00037
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.0035	ND< 0.00034	ND< 0.00034	ND< 0.00034	ND< 0.00035	ND< 0.00035	ND< 0.00035	ND< 0.00036	ND< 0.00038
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.0038	ND< 0.00037	ND< 0.00037	ND< 0.00037	ND< 0.00038	ND< 0.00037	ND< 0.00037	ND< 0.00039	ND< 0.00042
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.0042	ND< 0.00041	0.0022	ND< 0.00041	ND< 0.00042	ND< 0.00042	0.0012 J	ND< 0.00044	ND< 0.00046
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0043	ND< 0.00042	ND< 0.00042	ND< 0.00043	ND< 0.00043	ND< 0.00043	ND< 0.00043	ND< 0.00045	ND< 0.00047
Endosulfan I	959-98-8	--	--	--	--	ND< 0.0035	ND< 0.00034	ND< 0.00033	ND< 0.00034	ND< 0.00035	ND< 0.00034	ND< 0.00034	ND< 0.00036	ND< 0.00038
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.0033	ND< 0.00032	ND< 0.00031	ND< 0.00032	ND< 0.00033	ND< 0.00032	ND< 0.00032	ND< 0.00034	ND< 0.00036
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.0034	ND< 0.00033	ND< 0.00033	ND< 0.00033	ND< 0.00034	ND< 0.00033	ND< 0.00033	ND< 0.00035	ND< 0.00037
Endrin	72-20-8	19	250	--	0.4	ND< 0.0036	ND< 0.00035	ND< 0.00035	ND< 0.00035	ND< 0.00036	ND< 0.00035	ND< 0.00035	ND< 0.00037	ND< 0.00039
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.0046	ND< 0.00045	ND< 0.00045	ND< 0.00045	ND< 0.00046	ND< 0.00046	ND< 0.00045	ND< 0.00048	ND< 0.00051
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.0044	ND< 0.00044	ND< 0.00043	ND< 0.00044	ND< 0.00044	ND< 0.00044	ND< 0.00044	ND< 0.00046	ND< 0.00049
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.0033	ND< 0.00032	ND< 0.00032	ND< 0.00033	ND< 0.00033	ND< 0.00033	ND< 0.00033	ND< 0.00034	ND< 0.00036
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0057	ND< 0.00056	ND< 0.00055	ND< 0.00056	ND< 0.00058	ND< 0.00057	ND< 0.00057	ND< 0.0006	ND< 0.00063
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.0039	ND< 0.00038	ND< 0.00038	ND< 0.00038	ND< 0.00039	ND< 0.00039	ND< 0.00038	ND< 0.00041	ND< 0.00043
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.0047	ND< 0.00046	ND< 0.00045	ND< 0.00046	ND< 0.00047	ND< 0.00046	0.00096 J	ND< 0.00048	ND< 0.00051
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.0037	0.0005 J	0.0017	ND< 0.00036	ND< 0.00037	ND< 0.00036	0.0016 J	ND< 0.00038	ND< 0.0004
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.11	ND< 0.01	ND< 0.01	ND< 0.01	ND< 0.011	ND< 0.01	ND< 0.01	ND< 0.011	ND< 0.012
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.012
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0058	ND< 0.0056	ND< 0.0057	ND< 0.0057	ND< 0.0056	ND< 0.0056	ND< 0.0057	ND< 0.0061	ND< 0.0063
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0065	ND< 0.0063	ND< 0.0064	ND< 0.0064	ND< 0.0064	ND< 0.0063	ND< 0.0064	ND< 0.0068	ND< 0.0071

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to evaluate leaching potiential. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-24+50-6FT	RR-25+00-2FT	RR-25+50-2FT	RR-26+00-2FT	RR-26+50-2FT	RR-27+00-2FT	RR-28+00-2FT	RR-28+50-2FT	RR-28+50-6FT
Date of Sample						8/10/2016	8/10/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						6	2	2	2	2	2	2	2	6
PID Field Measurement (ppm)						0.6	0.3	0.6	1.2	0.5	2	--	0.2	0.4
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.9 HF	8.6 HF	8.5 HF	9 HF	8.8 HF	8.4 HF	7.9 HF	8.6 HF	8.4 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 9.5	ND< 10	ND< 9.8	ND< 9.9	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 9.5	ND< 10	ND< 9.8	ND< 9.9	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>176	>176	>176	>176	>176
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	1.5 J	4	3.4	2.8	3	2.3	3.8	11.4	3.2
Barium	7440-39-3	11700	220000	--	2000	16 ^	37.5 ^	44.7 ^	33.4 ^	25 ^	27.1 ^	46.5 ^	44.8	46.3
Cadmium	7440-43-9	7.15	980	--	20	ND< 0.033	ND< 0.042	0.11 J	0.17 J	0.14 J	0.074 J	0.089 J	0.25 J	0.091 J
Chromium	7440-47-3	1800000	41900	--	100	4.7	10.1	10.3	7.1	7.3	6.4	10.1	7.2	11.8
Lead	7439-92-1	400	800	111	100	6	15	37.3	64.1	24.6	17.6	35.6	269	20.7
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	0.0073 J	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.44	ND< 0.56	0.63 J	ND< 0.44	ND< 0.56	ND< 0.46	ND< 0.5	1.2 J	ND< 0.47
Silver	7440-22-4	247	5800	--	100	ND< 0.22	ND< 0.28	ND< 0.22	ND< 0.22	ND< 0.28	ND< 0.23	ND< 0.25	ND< 0.26	ND< 0.24
Mercury	7439-97-6	10.9	46	--	4	ND< 0.0077	ND< 0.012	0.022 F1	0.036	0.045	0.026	0.089	0.079	0.034
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	ND< 5.2	ND< 7.3	9.7 J	74	18 J	10 J	31	45	27
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.34	ND< 0.48	ND< 0.33	ND< 0.36	ND< 0.41	ND< 0.36	ND< 0.4	0.57 J	ND< 0.33
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.025	ND< 0.035	ND< 0.026	ND< 0.026	ND< 0.032	ND< 0.026	ND< 0.03	ND< 0.029	ND< 0.027
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.024	ND< 0.033	ND< 0.025	ND< 0.025	ND< 0.031	ND< 0.025	ND< 0.029	ND< 0.027	ND< 0.026
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.017	ND< 0.023	ND< 0.017	ND< 0.018	ND< 0.021	ND< 0.017	ND< 0.02	ND< 0.019	ND< 0.018
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.021	ND< 0.029	ND< 0.022	ND< 0.022	ND< 0.027	ND< 0.022	ND< 0.025	ND< 0.024	ND< 0.023
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.018	ND< 0.025	ND< 0.018	ND< 0.019	ND< 0.023	ND< 0.018	ND< 0.021	ND< 0.02	ND< 0.019
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.015	ND< 0.02	ND< 0.015	ND< 0.015	ND< 0.019	ND< 0.015	ND< 0.018	ND< 0.017	ND< 0.016
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.019	ND< 0.026	ND< 0.02	ND< 0.02	ND< 0.024	ND< 0.02	ND< 0.023	ND< 0.021	ND< 0.021
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.0083	ND< 0.012	ND< 0.0087	ND< 0.0088	ND< 0.011	ND< 0.0087	ND< 0.01	ND< 0.0095	ND< 0.0092
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.021	ND< 0.029	ND< 0.022	ND< 0.022	ND< 0.027	ND< 0.022	ND< 0.025	ND< 0.024	ND< 0.023
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.17	ND< 0.33	ND< 0.22	ND< 0.19	ND< 0.28	ND< 0.18	ND< 0.29	ND< 0.31	ND< 0.19
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0078	ND< 0.015	ND< 0.01	ND< 0.0086	ND< 0.013	ND< 0.0082	ND< 0.013	ND< 0.014	ND< 0.0086
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.009	ND< 0.017	ND< 0.012	ND< 0.0099	ND< 0.015	ND< 0.0094	ND< 0.015	ND< 0.016	ND< 0.01
Bromoform	75-25-2	19	86	--	--	ND< 0.021	ND< 0.04	ND< 0.027	ND< 0.023	ND< 0.034	ND< 0.021	ND< 0.035	ND< 0.037	ND< 0.023
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.0091	ND< 0.017	ND< 0.012	ND< 0.0099	ND< 0.015	ND< 0.0094	ND< 0.015	ND< 0.016	ND< 0.01
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.12	ND< 0.23	ND< 0.16	ND< 0.13	ND< 0.2	ND< 0.13	ND< 0.21	ND< 0.22	ND< 0.14
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.012	ND< 0.023	ND< 0.016	ND< 0.013	ND< 0.02	ND< 0.013	ND< 0.02	ND< 0.022	ND< 0.013
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.015	ND< 0.029	ND< 0.02	ND< 0.017	ND< 0.025	ND< 0.016	ND< 0.026	ND< 0.028	ND< 0.017
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.011	ND< 0.022	ND< 0.015	ND< 0.013	ND< 0.019	ND< 0.012	ND< 0.019	ND< 0.021	ND< 0.013
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.019	ND< 0.036	ND< 0.024	ND< 0.021	ND< 0.031	ND< 0.02	ND< 0.032	ND< 0.034	ND< 0.021
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.011	ND< 0.02	ND< 0.014	ND< 0.011	ND< 0.017	ND< 0.011	ND< 0.018	ND< 0.019	ND< 0.012
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0054	ND< 0.01	ND< 0.007	ND< 0.0059	ND< 0.0089	ND< 0.0057	ND< 0.0092	ND< 0.0099	ND< 0.006
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.015	ND< 0.029	ND< 0.019	ND< 0.016	ND< 0.024	ND< 0.015	ND< 0.025	ND< 0.027	ND< 0.016
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.02	ND< 0.038	ND< 0.026	ND< 0.022	ND< 0.033	ND< 0.021	ND< 0.034	ND< 0.036	ND< 0.022
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.0086	ND< 0.016	ND< 0.011	ND< 0.0094	ND< 0.014	ND< 0.0089	ND< 0.014	ND< 0.016	ND< 0.0095
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.013	ND< 0.025	ND< 0.017	ND< 0.014	ND< 0.022	ND< 0.014	ND< 0.022	ND< 0.024	ND< 0.015
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.028	ND< 0.054	ND< 0.037	ND< 0.031	ND< 0.046	ND< 0.029	ND< 0.048	ND< 0.051	ND< 0.031
Chloromethane	74-87-3	110	460	--	--	ND< 0.0098	ND< 0.019	ND< 0.013	ND< 0.011	ND< 0.016	ND< 0.01	ND< 0.017	ND< 0.018	ND< 0.011
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.016	ND< 0.03	ND< 0.02	ND< 0.017	ND< 0.026	ND< 0.016	ND< 0.027	ND< 0.029	ND< 0.017
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.0084	ND< 0.016	ND< 0.011	ND< 0.0091	ND< 0.014	ND< 0.0087	ND< 0.014	ND< 0.015	ND< 0.0092
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.0092	ND< 0.018	ND< 0.012	ND< 0.01	ND< 0.015	ND< 0.0095	ND< 0.015	0.07 J	ND< 0.01
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.021**	**ND< 0.04**	**ND< 0.027**	**ND< 0.023**	**ND< 0.034**	**ND< 0.021**	**ND< 0.035**	**ND< 0.037**	**ND< 0.023**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.013	ND< 0.026	ND< 0.017	ND< 0.015	ND< 0.022	ND< 0.014	ND< 0.023	ND< 0.024	ND< 0.015
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.011	ND< 0.02	ND< 0.014	ND< 0.011	ND< 0.017	ND< 0.011	ND< 0.018	ND< 0.019	ND< 0.012
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.011	ND< 0.021	ND< 0.014	ND< 0.012	ND< 0.018	ND< 0.011	ND< 0.019	ND< 0.02	ND< 0.012
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0058	ND< 0.011	ND< 0.0075	ND< 0.0063	ND< 0.0094	ND< 0.006	ND< 0.0097	ND< 0.01	ND< 0.0064
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.0083	ND< 0.016	ND< 0.011	ND< 0.009	ND< 0.013	ND< 0.0086	ND< 0.014	ND< 0.015	ND< 0.0091
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.041 *	ND< 0.079 *	ND< 0.053 *	ND< 0.045 *	ND< 0.067 *	ND< 0.043 *	ND< 0.069 *	ND< 0.075 *	ND< 0.045 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.013	ND< 0.024	ND< 0.016	ND< 0.014	ND< 0.021	ND< 0.013	ND< 0.021	ND< 0.023	ND< 0.014
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.017	ND< 0.032	ND< 0.022	ND< 0.018	ND< 0.028	ND< 0.018	ND< 0.028	ND< 0.031	ND< 0.019
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.014	ND< 0.027	ND< 0.018	ND< 0.016	ND< 0.023	ND< 0.015	ND< 0.024	ND< 0.026	ND< 0.016
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.011	ND< 0.022	ND< 0.015	ND< 0.012	ND< 0.019	ND< 0.012	ND< 0.019	ND< 0.021	ND< 0.013
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.0097	ND< 0.019	ND< 0.013	ND< 0.011	ND< 0.016	ND< 0.01	ND< 0.016	ND< 0.018	ND< 0.011
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0067	ND< 0.013	ND< 0.0086	ND< 0.0073	ND< 0.011	ND< 0.007	ND< 0.011	ND< 0.012	ND< 0.0074
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0075	ND< 0.014	ND< 0.0097	ND< 0.0082	ND< 0.012	ND< 0.0078	ND< 0.013	ND< 0.014	ND< 0.0083
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.0094	ND< 0.018	ND< 0.012	ND< 0.01	ND< 0.015	ND< 0.0097	ND< 0.016	ND< 0.017	ND< 0.01
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.01	ND< 0.02	ND< 0.013	ND< 0.011	ND< 0.017	ND< 0.011	ND< 0.017	ND< 0.019	ND< 0.011
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.0099	ND< 0.019	ND< 0.013	ND< 0.011	ND< 0.016	ND< 0.01	ND< 0.017	ND< 0.018	ND< 0.011
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0041	ND< 0.0078	ND< 0.0052	ND< 0.0044	ND< 0.0066	ND< 0.0042	ND< 0.0068	ND< 0.0074	ND< 0.0045
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.21	ND< 0.4	ND< 0.27	ND< 0.23	ND< 0.34	ND< 0.22	ND< 0.35	ND< 0.38	ND< 0.23
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.012	ND< 0.023	ND< 0.016	ND< 0.013	ND< 0.02	ND< 0.012	ND< 0.02	ND< 0.022	ND< 0.013
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0072	ND< 0.014	ND< 0.0093	ND< 0.0079	ND< 0.012	ND< 0.0075	ND< 0.012	ND< 0.013	ND< 0.008
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.016	ND< 0.031	ND< 0.021	ND< 0.018	ND< 0.027	ND< 0.017	ND< 0.027	ND< 0.03	ND< 0.018
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.085	ND< 0.16	ND< 0.11	ND< 0.092	ND< 0.14	ND< 0.088	ND< 0.14	ND< 0.15	ND< 0.093
Iodomethane	74-88-4	--	--	--	--	ND< 0.013	ND< 0.024	ND< 0.016	ND< 0.014	ND< 0.021	ND< 0.013	ND< 0.021	ND< 0.023	ND< 0.014
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.22	ND< 0.42	ND< 0.28	ND< 0.24	ND< 0.36	ND< 0.23	ND< 0.37	ND< 0.4	ND< 0.24
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0062	ND< 0.012	ND< 0.008	ND< 0.0068	ND< 0.01	ND< 0.0064	ND< 0.01	ND< 0.011	ND< 0.0068
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.014	ND< 0.027	ND< 0.018	ND< 0.015	ND< 0.023	ND< 0.014	ND< 0.023	ND< 0.025	ND< 0.015
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.02	0.088	0.13	0.16	0.1	0.088	0.098	0.14	ND< 0.022
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.013	ND< 0.025	ND< 0.017	ND< 0.014	ND< 0.022	ND< 0.014	ND< 0.022	ND< 0.024	ND< 0.015
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.016	ND< 0.03	ND< 0.02	ND< 0.017	ND< 0.025	ND< 0.016	ND< 0.026	ND< 0.028	ND< 0.017
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.019	ND< 0.037	ND< 0.025	0.063	ND< 0.031	ND< 0.02	ND< 0.032	0.33	ND< 0.021
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.0082	ND< 0.016	ND< 0.011	ND< 0.0089	ND< 0.013	ND< 0.0085	ND< 0.014	ND< 0.015	ND< 0.009
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.022	ND< 0.16	ND< 0.12	ND< 0.24	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	0.53 J
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.011	ND< 0.021	ND< 0.014	ND< 0.012	ND< 0.018	ND< 0.011	ND< 0.018	ND< 0.02	ND< 0.012
Styrene	100-42-5	6000	35000	--	--	ND< 0.0099	ND< 0.019	ND< 0.013	ND< 0.011	ND< 0.016	ND< 0.01	ND< 0.017	ND< 0.018	ND< 0.011
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.012	ND< 0.023	ND< 0.015	ND< 0.013	ND< 0.019	ND< 0.012	ND< 0.02	ND< 0.021	ND< 0.013
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0067	ND< 0.013	ND< 0.0087	ND< 0.0073	ND< 0.011	ND< 0.007	ND< 0.011	ND< 0.012	ND< 0.0074
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0055	ND< 0.011	ND< 0.0072	0.014 J	0.028 J	ND< 0.0058	0.019 J	0.39	ND< 0.0061
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.021	ND< 0.04	ND< 0.027	ND< 0.023	ND< 0.034	ND< 0.021	ND< 0.035	ND< 0.038	ND< 0.023
Toluene	108-88-3	4640	47000	--	--	ND< 0.011	0.026 J	ND< 0.014	0.03 J	ND< 0.018	ND< 0.011	ND< 0.019	ND< 0.02	ND< 0.012
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.021	ND< 0.04	ND< 0.027	ND< 0.023	ND< 0.034	ND< 0.021	ND< 0.035	ND< 0.037	ND< 0.023
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.019	ND< 0.036	ND< 0.025	ND< 0.021	ND< 0.031	ND< 0.02	ND< 0.032	ND< 0.034	ND< 0.021
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.016	ND< 0.03	ND< 0.02	ND< 0.017	ND< 0.026	ND< 0.016	ND< 0.026	ND< 0.028	ND< 0.017
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.011	ND< 0.022	ND< 0.015	ND< 0.012	ND< 0.019	ND< 0.012	ND< 0.019	ND< 0.021	ND< 0.013
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.0087	ND< 0.017	ND< 0.011	ND< 0.0095	ND< 0.014	ND< 0.009	ND< 0.015	ND< 0.016	ND< 0.0096
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.011	ND< 0.022	ND< 0.015	ND< 0.013	0.019 J	ND< 0.012	ND< 0.019	0.037 J	ND< 0.013
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.019	ND< 0.037	ND< 0.025	ND< 0.021	ND< 0.032	ND< 0.02	ND< 0.033	ND< 0.035	ND< 0.021
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.0092**	**ND< 0.018**	**ND< 0.012**	**ND< 0.01**	**ND< 0.015**	**ND< 0.0096**	**ND< 0.015**	**ND< 0.017**	**ND< 0.01**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.012	ND< 0.022	ND< 0.015	0.02 J	ND< 0.019	ND< 0.012	ND< 0.019	0.024 J	ND< 0.013
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.012	ND< 0.024	ND< 0.016	ND< 0.014	ND< 0.02	ND< 0.013	ND< 0.021	ND< 0.023	ND< 0.014
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.073	ND< 0.14	ND< 0.095	ND< 0.08	ND< 0.12	ND< 0.076	ND< 0.12	ND< 0.13	ND< 0.081
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.014	ND< 0.026	ND< 0.018	ND< 0.015	ND< 0.023	ND< 0.014	ND< 0.023	ND< 0.025	ND< 0.015
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.023	ND< 0.044	ND< 0.03	0.036 J	ND< 0.037	ND< 0.024	ND< 0.038	ND< 0.041	ND< 0.025
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0054	ND< 0.01	ND< 0.0069	0.019 J	ND< 0.0087	ND< 0.0056	ND< 0.009	ND< 0.0097	ND< 0.0059
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0284	ND< 0.054	ND< 0.0369	0.055	ND< 0.0457	ND< 0.0296	ND< 0.047	ND< 0.0507	ND< 0.0309

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-24+50-6FT	RR-25+00-2FT	RR-25+50-2FT	RR-26+00-2FT	RR-26+50-2FT	RR-27+00-2FT	RR-28+00-2FT	RR-28+50-2FT	RR-28+50-6FT
Date of Sample						8/10/2016	8/10/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/9/2016	8/10/2016	8/10/2016
Depth of Sample (ft. bgs)						6	2	2	2	2	2	2	2	6
PID Field Measurement (ppm)						0.6	0.3	0.6	1.2	0.5	2	--	0.2	0.4
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	0.03323	**0.35944**	**0.48799**	**2.0133**	**1.2899**	**0.74025**	**2.863**	**1.8643**	**10.2817**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.025	ND< 0.18	ND< 0.14	ND< 0.28	0.18 J	ND< 0.14	0.34 J	ND< 0.3	ND< 0.28
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.022	ND< 0.16	ND< 0.12	0.3 J	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	0.47 J
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.023	ND< 0.17	ND< 0.13	ND< 0.25	ND< 0.15	ND< 0.12	ND< 0.29	ND< 0.27	ND< 0.26
Anthracene	120-12-7	18000	230000	--	--	ND< 0.043	ND< 0.3	ND< 0.23	ND< 0.46	0.29 J	ND< 0.23	1.8 J	ND< 0.5	1.6 J
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.06	ND< 0.43	ND< 0.32	ND< 0.65	ND< 0.38	ND< 0.32	ND< 0.74	ND< 0.7	ND< 0.67
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.14	ND< 0.98	ND< 0.74	ND< 1.5	ND< 0.88	ND< 0.73	ND< 1.7	ND< 1.6	ND< 1.5
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.017	0.15 J	0.22 J	**1.2 J**	0.89 J	0.44 J	**2 J**	0.87 J	**8.2**
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	ND< 0.025	**0.19 J**	**0.32 J**	**1.4 J**	**0.9 J**	**0.5 J**	**2 J**	**1.3 J**	**7**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.032 J	0.36 J	0.42 J	**2.1**	**1.5**	0.81 J	**3.5**	**2.1**	**8.7**
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.018	0.15 J	0.25 J	1.2 J	0.58 J	0.35 J	1.2 J	0.87 J	3.7
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.022	ND< 0.16	ND< 0.12	0.66 J	0.27 J	0.15 J	0.97 J	0.6 J	3.4
Biphenyl	92-52-4	47	200	--	--	ND< 0.025	ND< 0.18	ND< 0.14	ND< 0.28	ND< 0.16	ND< 0.14	ND< 0.32	ND< 0.3	ND< 0.28
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.024	ND< 0.17	ND< 0.13	ND< 0.26	ND< 0.16	ND< 0.13	ND< 0.3	ND< 0.29	ND< 0.27
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.029	ND< 0.2	ND< 0.15	ND< 0.31	ND< 0.18	ND< 0.15	ND< 0.35	ND< 0.33	ND< 0.32
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.052	ND< 0.37	ND< 0.28	ND< 0.56	ND< 0.33	ND< 0.28	ND< 0.64	ND< 0.61	ND< 0.58
Carbazole	86-74-8	--	--	--	--	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	ND< 0.13	ND< 0.11	ND< 0.25	ND< 0.24	1.1 J
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.043	ND< 0.3	ND< 0.23	ND< 0.46	ND< 0.27	ND< 0.23	ND< 0.53	ND< 0.5	ND< 0.47
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.17 *	ND< 1.2 *	ND< 0.93 *	ND< 1.9 *	ND< 1.1 *	ND< 0.92 *	ND< 2.1 *	ND< 2 *	ND< 1.9 *
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.037	ND< 0.26	ND< 0.2	ND< 0.4	ND< 0.23	ND< 0.19	ND< 0.45	ND< 0.43	ND< 0.41
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.022	ND< 0.16	ND< 0.12	**ND< 0.24**	ND< 0.14	ND< 0.12	**ND< 0.28**	**ND< 0.26**	**ND< 0.25**
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.035	ND< 0.25	ND< 0.19	ND< 0.37	ND< 0.22	ND< 0.18	ND< 0.43	ND< 0.4	ND< 0.38
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.029	ND< 0.2	ND< 0.15	ND< 0.31	ND< 0.18	ND< 0.15	ND< 0.35	ND< 0.33	ND< 0.32
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.032	ND< 0.22	ND< 0.17	ND< 0.34	ND< 0.2	ND< 0.17	ND< 0.39	ND< 0.37	ND< 0.35
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.021	ND< 0.15	ND< 0.11	ND< 0.23	ND< 0.14	ND< 0.11	ND< 0.27	ND< 0.25	ND< 0.24
Chrysene	218-01-9	110	2100	--	--	ND< 0.039	ND< 0.28	0.39 J	1.7 J	1.2	0.75 J	3.3	1.3 J	7.7
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.031	**ND< 0.22**	**ND< 0.16**	**ND< 0.33**	**ND< 0.19**	**ND< 0.16**	**ND< 0.38**	**ND< 0.36**	**1.2 J**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	0.18 J	ND< 0.11	0.25 J	ND< 0.24	0.28 J
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.2	**ND< 1.5**	ND< 1.1	**ND< 2.2**	**ND< 1.3**	ND< 1.1	**ND< 2.5**	**ND< 2.4**	**ND< 2.3**
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.018	ND< 0.13	ND< 0.098	ND< 0.2	ND< 0.12	ND< 0.097	ND< 0.23	ND< 0.21	ND< 0.2
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.022	ND< 0.16	ND< 0.12	ND< 0.24	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	ND< 0.25
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	ND< 0.13	ND< 0.11	ND< 0.25	ND< 0.24	ND< 0.23
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.042	ND< 0.3	ND< 0.22	ND< 0.45	ND< 0.27	ND< 0.22	ND< 0.52	ND< 0.49	ND< 0.46
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.03	ND< 0.21	ND< 0.16	ND< 0.32	ND< 0.19	ND< 0.16	ND< 0.37	ND< 0.34	ND< 0.33
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.17	ND< 1.2	ND< 0.93	ND< 1.9	ND< 1.1	ND< 0.92	ND< 2.1	ND< 2	ND< 1.9
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 0.8	ND< 5.7	ND< 4.3	ND< 8.6	ND< 5.1	ND< 4.2	ND< 9.9	ND< 9.3	ND< 8.9
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.036	ND< 0.25	ND< 0.19	ND< 0.39	ND< 0.23	ND< 0.19	ND< 0.44	ND< 0.42	ND< 0.4
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	ND< 0.13	ND< 0.11	ND< 0.25	ND< 0.24	ND< 0.23
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	ND< 0.13	ND< 0.11	ND< 0.25	ND< 0.24	ND< 0.23
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.059	ND< 0.42	ND< 0.32	ND< 0.64	ND< 0.38	ND< 0.31	ND< 0.73	ND< 0.69	ND< 0.66
Fluoranthene	206-44-0	2400	30000	--	--	0.022 J	0.28 J	0.47 J	2.2	2.4	0.88 J	4.2	0.95 J	12
Fluorene	86-73-7	2400	30000	--	--	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	0.19 J	ND< 0.11	0.34 J	ND< 0.24	0.56 J
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.023	**ND< 0.17**	**ND< 0.13**	**ND< 0.25**	**ND< 0.15**	**ND< 0.12**	**ND< 0.29**	**ND< 0.27**	**ND< 0.26**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.016	ND< 0.031	ND< 0.021	ND< 0.018	ND< 0.027	ND< 0.017	ND< 0.027	ND< 0.03	ND< 0.018
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.023	ND< 0.17	ND< 0.13	ND< 0.25	ND< 0.15	ND< 0.12	ND< 0.29	ND< 0.27	ND< 0.26
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.022	ND< 0.16	ND< 0.12	ND< 0.24	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	ND< 0.25
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.021	ND< 0.15	0.23 J	**1.1 J**	0.52 J	0.33 J	**1.1 J**	0.8 J	**3.5**
Isophorone	78-59-1	570	2400	--	--	ND< 0.037	ND< 0.26	ND< 0.2	ND< 0.4	ND< 0.23	ND< 0.19	ND< 0.45	ND< 0.43	ND< 0.41
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.035	ND< 0.25	ND< 0.19	ND< 0.37	ND< 0.22	ND< 0.18	ND< 0.43	ND< 0.4	ND< 0.38
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	ND< 0.13	ND< 0.11	ND< 0.25	ND< 0.24	ND< 0.23
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.02	ND< 0.15	ND< 0.11	ND< 0.22	ND< 0.13	ND< 0.11	ND< 0.25	ND< 0.24	ND< 0.23
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.022	ND< 0.16	ND< 0.12	ND< 0.24	ND< 0.14	ND< 0.12	ND< 0.28	ND< 0.26	0.53 J
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.025	ND< 0.18	ND< 0.14	ND< 0.28	ND< 0.16	ND< 0.14	ND< 0.32	ND< 0.3	ND< 0.28
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.34 *	ND< 2.4 *	ND< 1.8 *	ND< 3.6 *	ND< 2.1 *	ND< 1.8 *	ND< 4.2 *	ND< 3.9 *	ND< 3.7 *
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.34 *	ND< 2.4 *	ND< 1.8 *	ND< 3.6 *	ND< 2.1 *	ND< 1.8 *	ND< 4.2 *	ND< 3.9 *	ND< 3.7 *
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.019	ND< 0.14	ND< 0.1	ND< 0.21	ND< 0.12	ND< 0.1	ND< 0.24	ND< 0.23	ND< 0.21
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.049	ND< 0.35	ND< 0.26	ND< 0.53	ND< 0.31	ND< 0.26	ND< 0.61	ND< 0.57	ND< 0.54
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.12	ND< 0.86	ND< 0.65	ND< 1.3	ND< 0.77	ND< 0.64	ND< 1.5	ND< 1.4	ND< 1.3
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.03	**ND< 0.21**	**ND< 0.16**	**ND< 0.32**	**ND< 0.19**	**ND< 0.16**	**ND< 0.37**	**ND< 0.34**	**ND< 0.33**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.14	ND< 1	ND< 0.75	ND< 1.5	ND< 0.9	ND< 0.75	ND< 1.7	ND< 1.6	ND< 1.6
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.17	**ND< 1.2**	**ND< 0.93**	**ND< 1.9**	**ND< 1.1**	**ND< 0.92**	**ND< 2.1**	**ND< 2**	**ND< 1.9**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.025	ND< 0.18	0.16 J	0.51 J	0.58 J	0.17 J	0.96 J	0.3 J	6.4
Phenol	108-95-2	19000	250000	--	--	ND< 0.026	ND< 0.19	ND< 0.14	ND< 0.29	ND< 0.17	ND< 0.14	ND< 0.33	ND< 0.31	ND< 0.29
Pyrene	129-00-0	1800	23000	--	--	0.026 J	0.3 J	0.35 J	2.5	1.9	0.78 J	3.9	1.1 J	10
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.03	ND< 0.21	ND< 0.16	ND< 0.32	ND< 0.19	ND< 0.16	ND< 0.37	ND< 0.34	ND< 0.33
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.036	ND< 0.25	ND< 0.19	ND< 0.39	ND< 0.23	ND< 0.19	ND< 0.44	ND< 0.42	ND< 0.4
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.047	ND< 0.33	ND< 0.25	ND< 0.51	ND< 0.3	ND< 0.25	ND< 0.58	ND< 0.55	ND< 0.52
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.035	ND< 0.25	ND< 0.19	ND< 0.37	ND< 0.22	ND< 0.18	ND< 0.43	ND< 0.4	ND< 0.38
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00042	ND< 0.0006	ND< 0.00044	ND< 0.0023	ND< 0.00054	ND< 0.00044	ND< 0.001	ND< 0.00096	ND< 0.00046
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.00084	ND< 0.0012	ND< 0.0009	ND< 0.0046	ND< 0.0011	ND< 0.00088	ND< 0.0021	ND< 0.002	ND< 0.00094
alpha-BHC	319-84-6	0.086	0.36	--	--	0.00038 J	0.00055 J	0.00045 J	0.0019 J	ND< 0.00039	ND< 0.00032	0.0011 J	ND< 0.00071	0.00065 J B
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00031	ND< 0.00044	ND< 0.00032	ND< 0.0017	ND< 0.00039	ND< 0.00032	ND< 0.00075	ND< 0.00071	ND< 0.00034
delta-BHC	319-86-8	--	--	--	--	ND< 0.00032	ND< 0.00045	ND< 0.00034	ND< 0.0017	0.0005 J	ND< 0.00033	ND< 0.00078	ND< 0.00073	ND< 0.00035
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00033	ND< 0.00047	0.0015 J	ND< 0.0018	ND< 0.00043	ND< 0.00035	ND< 0.00081	ND< 0.00076	ND< 0.00037
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00036	ND< 0.00051	ND< 0.00038	ND< 0.0019	ND< 0.00046	ND< 0.00037	ND< 0.00088	ND< 0.00082	ND< 0.0004
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.0004	0.0023 J	0.0012 J	0.0038 J	ND< 0.00051	ND< 0.00042	0.0028 J	ND< 0.00092	0.00068 J
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00041	ND< 0.00059	ND< 0.00043	ND< 0.0022	ND< 0.00052	ND< 0.00043	ND< 0.001	ND< 0.00094	ND< 0.00045
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00033	ND< 0.00047	ND< 0.00035	ND< 0.0018	ND< 0.00042	ND< 0.00034	ND< 0.0008	ND< 0.00075	ND< 0.00036
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00031	ND< 0.00044	ND< 0.00032	ND< 0.0017	ND< 0.00039	ND< 0.00032	ND< 0.00075	ND< 0.00071	ND< 0.00034
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00032	ND< 0.00046	ND< 0.00034	ND< 0.0017	ND< 0.00041	ND< 0.00033	ND< 0.00078	ND< 0.00073	ND< 0.00035
Endrin	72-20-8	19	250	--	0.4	ND< 0.00034	ND< 0.00048	ND< 0.00036	0.0026 J	0.00044 J	ND< 0.00035	0.0016 J	ND< 0.00078	ND< 0.00037
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00043	ND< 0.00062	ND< 0.00046	ND< 0.0023	ND< 0.00056	ND< 0.00045	ND< 0.0011	ND< 0.001	ND< 0.00048
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00042	ND< 0.0006	ND< 0.00044	0.0073 J	ND< 0.00054	ND< 0.00044	ND< 0.001	ND< 0.00096	ND< 0.00046
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00031	ND< 0.00045	ND< 0.00033	ND< 0.0017	ND< 0.0004	ND< 0.00033	ND< 0.00077	ND< 0.00072	ND< 0.00035
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.00054	ND< 0.00078	ND< 0.00057	ND< 0.0029	ND< 0.0007	ND< 0.00056	ND< 0.0013	ND< 0.0012	ND< 0.0006
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00037	ND< 0.00053	ND< 0.00039	ND< 0.002	ND< 0.00047	ND< 0.00038	ND< 0.0009	ND< 0.00085	ND< 0.00041
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00044	ND< 0.00063	ND< 0.00047	ND< 0.0024	ND< 0.00056	ND< 0.00046	ND< 0.0011	ND< 0.001	ND< 0.00049
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00035	0.0035	0.0029	0.012	0.0064	0.002	0.0098	ND< 0.0008	ND< 0.00039
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.0099	ND< 0.014	ND< 0.01	ND< 0.053	ND< 0.013	ND< 0.01	ND< 0.024	ND< 0.023	ND< 0.011
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.012	ND< 0.014	ND< 0.011	ND< 0.013	ND< 0.013	ND< 0.012
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0054	ND< 0.0076	ND< 0.0058	ND< 0.0059	ND< 0.0069	ND< 0.0058	ND< 0.0067	ND< 0.0064	ND< 0.0061
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0061	ND< 0.0086	ND< 0.0066	ND< 0.0066	ND< 0.0078	ND< 0.0065	ND< 0.0076	ND< 0.0072	ND< 0.0068

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to approximate leaching of lead in a landfill over 20 years. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-29+00-2FT	RR-29+00-6FT	RR-29+50-2FT	RR-29+50-4FT	RR-30+00-2FT	RR-30+00-6FT	RR-30+50-2FT	RR-30+50-6FT	RR-31+00-2FT
Date of Sample						8/10/2016	8/10/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016
Depth of Sample (ft. bgs)						2	6	2	4	2	6	2	6	2
PID Field Measurement (ppm)						0.2	0.7	0.3	0.5	0.3	0.4	2	0.7	0.5
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	9.5 HF	8 HF	8.5 HF	8.2 HF	8.3 HF	8.5 HF	8.9 HF	8.6 HF	8.5 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>176	>176	>176	>176	>176
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	3.8	6.1	5.4	4	2.6	4.5	3.4	2.5 J	5.9
Barium	7440-39-3	11700	220000	--	2000	27.9	255	51.5 ^	274 ^	41.8 ^	300 ^	31 ^	228 ^	58.1 ^
Cadmium	7440-43-9	7.15	980	--	20	0.083 J	0.14 J	0.13 J	0.17 J	0.068 J	0.14 J	0.11 J	0.25 J	0.1 J
Chromium	7440-47-3	1800000	41900	--	100	5	57.7 B	18.5	56.9 F1	6.6	62.3	8.7	48.4	16.8
Lead	7439-92-1	400	800	111	100	16.3	16.7	83.2	22.8	27	17.7	40.8	13.9	87.4
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.48	1.2 J	ND< 0.5	0.95 J	ND< 0.51	0.76 J	ND< 0.42	ND< 0.6	0.58 J
Silver	7440-22-4	247	5800	--	100	ND< 0.24	ND< 0.31	ND< 0.25	ND< 0.26	ND< 0.26	ND< 0.27	ND< 0.21	ND< 0.3	ND< 0.25
Mercury	7439-97-6	10.9	46	--	4	0.061	0.025 J	0.063	0.017 J	0.019 J	0.012 J	0.012 J	ND< 0.012	0.043
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	13 J	ND< 7	13 J	ND< 7	17 J	ND< 6.7	15 J	ND< 7.4	45
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.36	ND< 0.44	ND< 0.37	ND< 0.44	ND< 0.41	ND< 0.44	0.61 J	ND< 0.5	1.8
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.027	ND< 0.033	ND< 0.027	ND< 0.034	ND< 0.03	ND< 0.032	ND< 0.025	ND< 0.036	ND< 0.027
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.026	ND< 0.032	ND< 0.026	ND< 0.032	ND< 0.029	ND< 0.031	ND< 0.024	ND< 0.034	ND< 0.026
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.018	ND< 0.022	ND< 0.018	ND< 0.022	ND< 0.02	ND< 0.022	ND< 0.017	ND< 0.024	ND< 0.018
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.022	ND< 0.028	ND< 0.023	ND< 0.028	ND< 0.025	ND< 0.027	ND< 0.021	ND< 0.03	ND< 0.023
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.019	ND< 0.024	ND< 0.019	ND< 0.024	ND< 0.021	ND< 0.023	ND< 0.018	ND< 0.025	ND< 0.019
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.016	ND< 0.019	ND< 0.016	ND< 0.02	ND< 0.017	ND< 0.019	ND< 0.015	ND< 0.021	ND< 0.016
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.02	ND< 0.025	ND< 0.02	ND< 0.025	ND< 0.022	ND< 0.024	ND< 0.019	ND< 0.027	ND< 0.02
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.0089	ND< 0.011	ND< 0.0091	ND< 0.011	ND< 0.01	ND< 0.011	ND< 0.0083	ND< 0.012	ND< 0.0091
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.022	ND< 0.028	ND< 0.023	ND< 0.028	ND< 0.025	ND< 0.027	ND< 0.021	ND< 0.03	ND< 0.023
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.21	ND< 0.33	ND< 0.22	ND< 0.32	ND< 0.29	ND< 0.3	ND< 0.19	ND< 0.39	ND< 0.23
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0095	ND< 0.015	ND< 0.01	ND< 0.015	ND< 0.013	ND< 0.014	ND< 0.009	ND< 0.018	ND< 0.011
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.011	ND< 0.018	ND< 0.012	ND< 0.017	ND< 0.07 *	ND< 0.074 *	ND< 0.047 *	ND< 0.094 *	ND< 0.056 *
Bromoform	75-25-2	19	86	--	--	ND< 0.025	ND< 0.041	ND< 0.027	ND< 0.039	ND< 0.035	ND< 0.037	ND< 0.024	ND< 0.047	ND< 0.028
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.011	ND< 0.018	ND< 0.012	ND< 0.017	ND< 0.015	ND< 0.016	ND< 0.01	ND< 0.021	ND< 0.012
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.15	ND< 0.24	ND< 0.16	ND< 0.23	ND< 0.21	ND< 0.22	ND< 0.14	ND< 0.28	ND< 0.17
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.015	ND< 0.024	ND< 0.016	ND< 0.023	ND< 0.021	ND< 0.022	ND< 0.014	ND< 0.027	ND< 0.016
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.018	ND< 0.03	ND< 0.02	ND< 0.029	ND< 0.026	ND< 0.027	ND< 0.017	ND< 0.034	ND< 0.02
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.014	ND< 0.023	ND< 0.015	ND< 0.022	ND< 0.02	ND< 0.02	ND< 0.013	ND< 0.026	ND< 0.015
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.023	ND< 0.037	ND< 0.024	ND< 0.035	ND< 0.032	ND< 0.034	ND< 0.021	ND< 0.043	ND< 0.025
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.013	ND< 0.021	ND< 0.014	ND< 0.02	ND< 0.018	ND< 0.019	ND< 0.012	ND< 0.024	ND< 0.014
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0066	ND< 0.011	ND< 0.007	ND< 0.01	ND< 0.0093	ND< 0.0097	ND< 0.0062	ND< 0.012	ND< 0.0074
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.018	ND< 0.029	ND< 0.019	ND< 0.028	ND< 0.025	ND< 0.027	ND< 0.017	ND< 0.034	ND< 0.02
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.024	ND< 0.039	ND< 0.026	ND< 0.037	ND< 0.034	ND< 0.036	ND< 0.023	ND< 0.045	ND< 0.027
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.01	ND< 0.017	ND< 0.011	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.0098	ND< 0.019	ND< 0.012
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.016	ND< 0.026	ND< 0.017	ND< 0.025	ND< 0.35 *	ND< 0.37 *	ND< 0.24 *	ND< 0.47 *	ND< 0.28 *
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.034	ND< 0.056	ND< 0.037	ND< 0.053	ND< 0.048	ND< 0.051	ND< 0.032	ND< 0.064	ND< 0.038
Chloromethane	74-87-3	110	460	--	--	ND< 0.012	ND< 0.019	ND< 0.013	ND< 0.018	ND< 0.017	ND< 0.018	ND< 0.011	ND< 0.022	ND< 0.013
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.019	ND< 0.031	ND< 0.02	ND< 0.03	ND< 0.027	ND< 0.028	ND< 0.018	ND< 0.036	ND< 0.021
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.01	ND< 0.017	ND< 0.011	ND< 0.016	ND< 0.014	ND< 0.015	ND< 0.0096	ND< 0.019	ND< 0.011
Cyclohexane	110-82-7	6500	27000	--	--	0.011 J	ND< 0.018	0.023 J	ND< 0.017	0.04 J	ND< 0.016	0.042 J	ND< 0.021	0.083
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.025**	**ND< 0.041**	**ND< 0.027**	**ND< 0.039**	**ND< 0.035**	**ND< 0.037**	**ND< 0.024**	**ND< 0.047**	**ND< 0.028**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.016	ND< 0.026	ND< 0.017	ND< 0.025	ND< 0.023	ND< 0.024	ND< 0.015	ND< 0.03	ND< 0.018
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.013	ND< 0.021	ND< 0.014	ND< 0.02	ND< 0.018	ND< 0.019	ND< 0.012	ND< 0.024	ND< 0.014
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.013	ND< 0.022	ND< 0.014	ND< 0.021	ND< 0.019	ND< 0.02	ND< 0.013	ND< 0.025	ND< 0.015
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.007	ND< 0.011	ND< 0.0075	ND< 0.011	ND< 0.0099	ND< 0.01	ND< 0.0066	ND< 0.013	ND< 0.0078
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.01	ND< 0.016	ND< 0.011	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.0094	ND< 0.019	ND< 0.011
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.05 *	ND< 0.081 *	ND< 0.053 *	ND< 0.077 *	ND< 0.07 *	ND< 0.074 *	ND< 0.047 *	ND< 0.094 *	ND< 0.056 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.015	ND< 0.025	ND< 0.017	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.015	ND< 0.029	ND< 0.017
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.02	ND< 0.033	ND< 0.022	ND< 0.032	ND< 0.029	ND< 0.03	ND< 0.019	ND< 0.038	ND< 0.023
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.017	ND< 0.028	ND< 0.018	ND< 0.027	ND< 0.024	ND< 0.025	ND< 0.016	ND< 0.032	ND< 0.019
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.014	ND< 0.022	ND< 0.015	ND< 0.021	ND< 0.019	ND< 0.02	ND< 0.013	ND< 0.026	ND< 0.015
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.012	ND< 0.019	ND< 0.013	ND< 0.018	ND< 0.017	ND< 0.017	ND< 0.011	ND< 0.022	ND< 0.013
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0081	ND< 0.013	ND< 0.0087	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.0076	ND< 0.015	ND< 0.009
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0091	ND< 0.015	ND< 0.0097	ND< 0.014	ND< 0.013	ND< 0.013	ND< 0.0086	ND< 0.017	ND< 0.01
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.011	ND< 0.018	ND< 0.012	ND< 0.018	ND< 0.016	ND< 0.017	ND< 0.011	ND< 0.021	ND< 0.013
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.012	ND< 0.02	ND< 0.013	ND< 0.019	ND< 0.07 *	ND< 0.074 *	ND< 0.047 *	ND< 0.094 *	ND< 0.056 *
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.012	ND< 0.019	ND< 0.013	ND< 0.019	ND< 0.017	ND< 0.018	ND< 0.011	ND< 0.022	ND< 0.013
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0049	ND< 0.008	ND< 0.0052	ND< 0.0076	ND< 0.0069	ND< 0.0072	ND< 0.0046	ND< 0.0092	ND< 0.0055
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.26	ND< 0.42	ND< 0.27	ND< 0.4	ND< 0.36	ND< 0.38	ND< 0.24	ND< 0.48	ND< 0.28
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.015	ND< 0.024	ND< 0.016	ND< 0.023	ND< 0.02	ND< 0.021	ND< 0.014	ND< 0.027	ND< 0.016
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0088	ND< 0.014	ND< 0.0093	ND< 0.014	ND< 0.012	ND< 0.013	ND< 0.0083	ND< 0.016	ND< 0.0097
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.02	ND< 0.032	ND< 0.021	ND< 0.031	ND< 0.028	ND< 0.029	ND< 0.019	ND< 0.037	ND< 0.022
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.1	ND< 0.17	ND< 0.11	ND< 0.16	ND< 0.14	ND< 0.15	ND< 0.097	ND< 0.19	ND< 0.11
Iodomethane	74-88-4	--	--	--	--	ND< 0.015	ND< 0.025	ND< 0.016	ND< 0.024	ND< 0.022	ND< 0.023	ND< 0.014	ND< 0.029	ND< 0.017
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.27	ND< 0.43	ND< 0.28	ND< 0.41	ND< 0.37	ND< 0.39	ND< 0.25	ND< 0.5	ND< 0.3
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0075	ND< 0.012	ND< 0.008	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.0071	ND< 0.014	ND< 0.0084
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.017	ND< 0.027	ND< 0.018	ND< 0.026	ND< 0.024	ND< 0.025	ND< 0.016	ND< 0.032	ND< 0.019
Methyl acetate	79-20-9	78000	1200000	--	--	0.099	0.097	ND< 0.025	0.12	ND< 0.033	ND< 0.035	0.097	ND< 0.045	0.22
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.016	ND< 0.026	ND< 0.017	ND< 0.025	ND< 0.023	ND< 0.024	ND< 0.015	ND< 0.03	ND< 0.018
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.019	ND< 0.031	ND< 0.02	ND< 0.029	ND< 0.027	ND< 0.028	ND< 0.018	ND< 0.035	ND< 0.021
Methylcyclohexane	108-87-2	--	--	--	--	0.039 J	ND< 0.038	0.073	ND< 0.036	0.11	ND< 0.034	0.094	ND< 0.044	0.2
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.0099	ND< 0.016	ND< 0.011	ND< 0.015	ND< 0.014	ND< 0.015	ND< 0.0093	ND< 0.019	ND< 0.011
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	**ND< 1.6**	ND< 0.12
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.013	ND< 0.021	ND< 0.014	ND< 0.02	ND< 0.018	ND< 0.019	ND< 0.012	ND< 0.025	ND< 0.015
Styrene	100-42-5	6000	35000	--	--	ND< 0.012	ND< 0.02	ND< 0.013	ND< 0.019	ND< 0.017	ND< 0.018	ND< 0.011	ND< 0.023	ND< 0.013
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.014	ND< 0.023	ND< 0.015	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.013	ND< 0.027	ND< 0.016
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0081	ND< 0.013	ND< 0.0087	ND< 0.013	ND< 0.011	ND< 0.012	ND< 0.0077	ND< 0.015	ND< 0.009
Tetrachloroethene	127-18-4	1.46	100	--	14	0.2	ND< 0.011	ND< 0.0072	ND< 0.01	ND< 0.0095	ND< 0.0099	ND< 0.0063	ND< 0.013	ND< 0.0075
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.025	ND< 0.041	ND< 0.027	ND< 0.039	ND< 0.035	ND< 0.037	ND< 0.024	ND< 0.047	ND< 0.028
Toluene	108-88-3	4640	47000	--	--	ND< 0.013	ND< 0.022	ND< 0.014	ND< 0.021	ND< 0.019	ND< 0.02	ND< 0.013	ND< 0.025	ND< 0.015
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.025	ND< 0.041	ND< 0.027	ND< 0.039	ND< 0.035	ND< 0.037	ND< 0.024	ND< 0.047	ND< 0.028
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.023	ND< 0.037	ND< 0.025	ND< 0.036	ND< 0.032	ND< 0.034	ND< 0.022	ND< 0.043	ND< 0.026
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.019	ND< 0.031	ND< 0.02	ND< 0.029	ND< 0.027	ND< 0.028	ND< 0.018	ND< 0.036	ND< 0.021
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.014	ND< 0.023	ND< 0.015	ND< 0.021	ND< 0.019	ND< 0.02	ND< 0.013	ND< 0.026	ND< 0.015
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.017	ND< 0.011	ND< 0.016	ND< 0.015	ND< 0.015	ND< 0.0099	ND< 0.02	ND< 0.012
Trichloroethene	79-01-6	0.442	6	--	10	0.017 J	ND< 0.023	ND< 0.015	ND< 0.022	ND< 0.02	ND< 0.02	ND< 0.013	ND< 0.026	ND< 0.015
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.023	ND< 0.038	ND< 0.025	ND< 0.036	ND< 0.033	ND< 0.035	ND< 0.022	ND< 0.044	ND< 0.026
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.011**	**ND< 0.018**	**ND< 0.012**	**ND< 0.017**	**ND< 0.016**	**ND< 0.016**	**ND< 0.011**	**ND< 0.021**	**ND< 0.012**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.014	ND< 0.023	ND< 0.015	ND< 0.022	ND< 0.02	ND< 0.021	ND< 0.013	ND< 0.026	ND< 0.016
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.015	ND< 0.025	ND< 0.016	ND< 0.023	ND< 0.021	ND< 0.022	ND< 0.014	ND< 0.028	ND< 0.017
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.089	ND< 0.15	ND< 0.095	ND< 0.14	ND< 0.13	ND< 0.13	ND< 0.084	ND< 0.17	ND< 0.099
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.017	ND< 0.027	ND< 0.018	ND< 0.026	**ND< 0.07 ***	**ND< 0.074 ***	ND< 0.047 *	**ND< 0.094 ***	ND< 0.056 *
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.028	ND< 0.045	ND< 0.03	ND< 0.043	ND< 0.039	ND< 0.041	ND< 0.026	ND< 0.052	ND< 0.031
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0065	ND< 0.011	ND< 0.0069	ND< 0.01	ND< 0.0091	ND< 0.0096	0.0087 J	ND< 0.012	0.011 J
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0345	ND< 0.056	ND< 0.0369	ND< 0.053	ND< 0.0481	ND< 0.0506	0.0347	ND< 0.064	0.042

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-29+00-2FT	RR-29+00-6FT	RR-29+50-2FT	RR-29+50-4FT	RR-30+00-2FT	RR-30+00-6FT	RR-30+50-2FT	RR-30+50-6FT	RR-31+00-2FT
Date of Sample						8/10/2016	8/10/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016
Depth of Sample (ft. bgs)						2	6	2	4	2	6	2	6	2
PID Field Measurement (ppm)						0.2	0.7	0.3	0.5	0.3	0.4	2	0.7	0.5
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.36597**	**ND< 0.86465**	**0.35846**	ND< 0.04318	**ND< 0.19632**	ND< 0.04213	**0.2793**	**ND< 2.2444**	**0.414**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.28	ND< 0.7	ND< 0.28	ND< 0.035	ND< 0.16	ND< 0.034	ND< 0.13	ND< 1.8	ND< 0.14
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	ND< 1.6	ND< 0.12
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.26	ND< 0.64	ND< 0.26	ND< 0.032	ND< 0.14	ND< 0.031	ND< 0.12	ND< 1.7	ND< 0.13
Anthracene	120-12-7	18000	230000	--	--	ND< 0.47	ND< 1.2	ND< 0.47	ND< 0.058	ND< 0.26	ND< 0.057	ND< 0.22	ND< 3.1	ND< 0.23
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.66	ND< 1.6	ND< 0.66	ND< 0.082	ND< 0.37	ND< 0.08	ND< 0.31	**ND< 4.3**	ND< 0.33
Benzaldehyde	100-52-7	170	820	--	--	ND< 1.5	ND< 3.8	ND< 1.5	ND< 0.19	ND< 0.84	ND< 0.18	ND< 0.7	ND< 9.9	ND< 0.75
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.19	ND< 0.48	ND< 0.19	ND< 0.024	ND< 0.11	ND< 0.023	0.17 J	**ND< 1.2**	0.21 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**ND< 0.28**	**ND< 0.7**	**ND< 0.28**	ND< 0.035	**ND< 0.16**	ND< 0.034	**0.15 J**	**ND< 1.8**	**0.25 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.33 J	ND< 0.75	0.31 J	ND< 0.037	ND< 0.17	ND< 0.037	0.26 J	**ND< 2**	0.44 J
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.2	ND< 0.5	ND< 0.2	ND< 0.025	ND< 0.11	ND< 0.025	0.11 J	ND< 1.3	0.16 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	ND< 1.6	ND< 0.12
Biphenyl	92-52-4	47	200	--	--	ND< 0.28	ND< 0.7	ND< 0.28	ND< 0.035	ND< 0.16	ND< 0.034	ND< 0.13	ND< 1.8	ND< 0.14
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.27	ND< 0.67	ND< 0.27	ND< 0.033	ND< 0.15	ND< 0.033	ND< 0.12	ND< 1.8	ND< 0.13
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.31	ND< 0.78	ND< 0.31	ND< 0.039	ND< 0.17	ND< 0.038	ND< 0.15	ND< 2	ND< 0.16
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.57	ND< 1.4	ND< 0.57	ND< 0.071	ND< 0.32	ND< 0.069	ND< 0.26	ND< 3.7	ND< 0.29
Carbazole	86-74-8	--	--	--	--	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.47	ND< 1.2	ND< 0.47	ND< 0.058	ND< 0.26	ND< 0.057	ND< 0.22	ND< 3.1	ND< 0.23
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 1.9 *	**ND< 4.8 ***	ND< 1.9 *	ND< 0.24 *	ND< 1.1 *	ND< 0.23 *	ND< 0.88 *	**ND< 12 ***	ND< 0.95 *
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.4	ND< 1	ND< 0.4	ND< 0.05	ND< 0.22	ND< 0.049	ND< 0.19	ND< 2.6	ND< 0.2
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	**ND< 0.25**	**ND< 0.62**	**ND< 0.25**	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	**ND< 1.6**	ND< 0.12
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.38	ND< 0.95	ND< 0.38	ND< 0.047	ND< 0.21	ND< 0.046	ND< 0.18	ND< 2.5	ND< 0.19
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.31	ND< 0.78	ND< 0.31	ND< 0.039	ND< 0.17	ND< 0.038	ND< 0.15	ND< 2	ND< 0.16
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.35	ND< 0.87	ND< 0.35	ND< 0.043	ND< 0.19	ND< 0.042	ND< 0.16	ND< 2.3	ND< 0.17
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.24	ND< 0.59	ND< 0.23	ND< 0.029	ND< 0.13	ND< 0.029	ND< 0.11	ND< 1.5	ND< 0.12
Chrysene	218-01-9	110	2100	--	--	ND< 0.43	ND< 1.1	ND< 0.42	ND< 0.053	ND< 0.24	ND< 0.052	0.25 J	ND< 2.8	0.4 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.34**	**ND< 0.84**	**ND< 0.33**	ND< 0.042	**ND< 0.19**	ND< 0.041	**ND< 0.16**	**ND< 2.2**	**ND< 0.17**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	**ND< 2.2**	**ND< 5.6**	**ND< 2.2**	ND< 0.28	**ND< 1.2**	ND< 0.27	ND< 1	**ND< 15**	ND< 1.1
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.2	ND< 0.5	ND< 0.2	ND< 0.025	ND< 0.11	ND< 0.025	ND< 0.093	ND< 1.3	ND< 0.1
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	ND< 1.6	ND< 0.12
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.46	ND< 1.1	ND< 0.46	ND< 0.057	ND< 0.26	ND< 0.056	ND< 0.21	ND< 3	ND< 0.23
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.33	ND< 0.81	ND< 0.32	ND< 0.04	ND< 0.18	ND< 0.039	ND< 0.15	ND< 2.1	ND< 0.16
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 1.9	ND< 4.8	ND< 1.9	ND< 0.24	ND< 1.1	ND< 0.23	ND< 0.88	**ND< 12**	ND< 0.95
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 8.8	ND< 22	ND< 8.8	ND< 1.1	ND< 4.9	ND< 1.1	ND< 4.1	ND< 57	ND< 4.4
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.39	ND< 0.98	ND< 0.39	ND< 0.049	ND< 0.22	ND< 0.048	ND< 0.18	**ND< 2.6**	ND< 0.2
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.22	**ND< 0.56**	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	**ND< 1.5**	ND< 0.11
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.65	ND< 1.6	ND< 0.65	ND< 0.08	ND< 0.36	ND< 0.079	ND< 0.3	ND< 4.2	ND< 0.32
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.2	ND< 0.5	ND< 0.2	ND< 0.025	ND< 0.11	ND< 0.025	0.23 J	ND< 1.3	0.42 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.26**	**ND< 0.64**	**ND< 0.26**	ND< 0.032	**ND< 0.14**	ND< 0.031	**ND< 0.12**	**ND< 1.7**	**ND< 0.13**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.02	ND< 0.032	ND< 0.021	ND< 0.031	ND< 0.028	ND< 0.029	ND< 0.019	ND< 0.037	ND< 0.022
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.26	ND< 0.64	ND< 0.26	ND< 0.032	ND< 0.14	ND< 0.031	ND< 0.12	ND< 1.7	ND< 0.13
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	ND< 1.6	ND< 0.12
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.24	ND< 0.59	ND< 0.23	ND< 0.029	ND< 0.13	ND< 0.029	ND< 0.11	**ND< 1.5**	0.13 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.4	ND< 1	ND< 0.4	ND< 0.05	ND< 0.22	ND< 0.049	ND< 0.19	ND< 2.6	ND< 0.2
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.38	ND< 0.95	ND< 0.38	ND< 0.047	ND< 0.21	ND< 0.046	ND< 0.18	ND< 2.5	ND< 0.19
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	ND< 0.1	ND< 1.5	ND< 0.11
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.25	ND< 0.62	ND< 0.25	ND< 0.031	ND< 0.14	ND< 0.03	ND< 0.11	**ND< 1.6**	ND< 0.12
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.28	ND< 0.7	ND< 0.28	ND< 0.035	ND< 0.16	ND< 0.034	ND< 0.13	ND< 1.8	ND< 0.14
3-Nitroaniline	99-09-2	--	--	--	--	ND< 3.7 *	ND< 9.2 *	ND< 3.7 *	ND< 0.46 *	ND< 2.1 *	ND< 0.45 *	ND< 1.7 *	ND< 24 *	ND< 1.8 *
4-Nitroaniline	100-01-6	27	110	--	--	ND< 3.7 *	ND< 9.2 *	ND< 3.7 *	ND< 0.46 *	ND< 2.1 *	ND< 0.45 *	ND< 1.7 *	ND< 24 *	ND< 1.8 *
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.21	ND< 0.53	ND< 0.21	ND< 0.026	ND< 0.12	ND< 0.026	ND< 0.098	ND< 1.4	ND< 0.11
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.54	ND< 1.3	ND< 0.54	ND< 0.067	ND< 0.3	ND< 0.065	ND< 0.25	ND< 3.5	ND< 0.27
4-Nitrophenol	100-02-7	--	--	--	--	ND< 1.3	ND< 3.3	ND< 1.3	ND< 0.16	ND< 0.74	ND< 0.16	ND< 0.62	ND< 8.7	ND< 0.67
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.33**	**ND< 0.81**	**ND< 0.32**	ND< 0.04	**ND< 0.18**	ND< 0.039	**ND< 0.15**	**ND< 2.1**	**ND< 0.16**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 1.6	ND< 3.9	ND< 1.5	ND< 0.19	ND< 0.86	ND< 0.19	ND< 0.72	ND< 10	ND< 0.77
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 1.9**	**ND< 4.8**	**ND< 1.9**	ND< 0.24	**ND< 1.1**	ND< 0.23	**ND< 0.88**	**ND< 12**	**ND< 0.95**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.28	ND< 0.7	ND< 0.28	ND< 0.035	ND< 0.16	ND< 0.034	ND< 0.13	ND< 1.8	0.26 J
Phenol	108-95-2	19000	250000	--	--	ND< 0.29	ND< 0.73	ND< 0.29	ND< 0.036	ND< 0.16	ND< 0.035	ND< 0.13	ND< 1.9	ND< 0.15
Pyrene	129-00-0	1800	23000	--	--	ND< 0.22	ND< 0.56	ND< 0.22	ND< 0.028	ND< 0.12	ND< 0.027	0.26 J	ND< 1.5	0.46 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.33	ND< 0.81	ND< 0.32	ND< 0.04	ND< 0.18	ND< 0.039	ND< 0.15	ND< 2.1	ND< 0.16
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.39	ND< 0.98	ND< 0.39	ND< 0.049	ND< 0.22	ND< 0.048	ND< 0.18	ND< 2.6	ND< 0.2
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.52	ND< 1.3	ND< 0.51	ND< 0.064	ND< 0.29	ND< 0.063	ND< 0.24	ND< 3.4	ND< 0.26
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.38	ND< 0.95	ND< 0.38	ND< 0.047	ND< 0.21	ND< 0.046	ND< 0.18	ND< 2.5	ND< 0.19
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00046	ND< 0.00057	ND< 0.00046	ND< 0.00057	ND< 0.00051	ND< 0.00056	ND< 0.00043	ND< 0.00061	ND< 0.00046
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.00093	ND< 0.0011	ND< 0.00094	ND< 0.0011	ND< 0.001	ND< 0.0011	ND< 0.00086	ND< 0.0012	ND< 0.00093
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.00034	0.00074 J B	ND< 0.00034	0.00073 J B	0.00066 J B	0.00072 J B	0.00054 J B	0.00078 J B	0.00059 J B
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00034	ND< 0.00041	ND< 0.00034	ND< 0.00041	ND< 0.00037	ND< 0.00041	ND< 0.00031	ND< 0.00044	ND< 0.00034
delta-BHC	319-86-8	--	--	--	--	ND< 0.00035	ND< 0.00043	ND< 0.00035	ND< 0.00043	ND< 0.00038	ND< 0.00042	ND< 0.00032	ND< 0.00046	ND< 0.00035
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00036	ND< 0.00045	ND< 0.00037	ND< 0.00045	ND< 0.0004	ND< 0.00044	ND< 0.00034	ND< 0.00048	ND< 0.00036
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00039	ND< 0.00048	ND< 0.00039	ND< 0.00048	ND< 0.00043	ND< 0.00048	ND< 0.00036	ND< 0.00052	0.00093 J
4,4'-DDT	50-29-3	1.9	8.5	--	--	0.0016 J	ND< 0.00054	0.00071 J	ND< 0.00054	0.00074 J	ND< 0.00053	0.0018	ND< 0.00058	0.0017 J
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00045	ND< 0.00055	ND< 0.00045	ND< 0.00055	ND< 0.00049	ND< 0.00055	ND< 0.00042	ND< 0.00059	ND< 0.00045
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00036	ND< 0.00044	ND< 0.00036	ND< 0.00044	ND< 0.00039	ND< 0.00044	ND< 0.00033	ND< 0.00047	ND< 0.00036
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00034	ND< 0.00041	ND< 0.00034	ND< 0.00041	ND< 0.00037	ND< 0.00041	ND< 0.00031	ND< 0.00044	ND< 0.00034
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00035	ND< 0.00043	ND< 0.00035	ND< 0.00043	ND< 0.00038	ND< 0.00042	ND< 0.00032	ND< 0.00046	ND< 0.00035
Endrin	72-20-8	19	250	--	0.4	ND< 0.00037	ND< 0.00046	ND< 0.00037	ND< 0.00046	ND< 0.00041	ND< 0.00045	0.00067 J	ND< 0.00049	ND< 0.00037
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00048	ND< 0.00059	ND< 0.00048	ND< 0.00059	ND< 0.00053	ND< 0.00058	ND< 0.00044	ND< 0.00063	ND< 0.00048
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00046	ND< 0.00057	ND< 0.00046	ND< 0.00057	ND< 0.00051	ND< 0.00056	ND< 0.00043	ND< 0.00061	0.0047
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00034	ND< 0.00042	ND< 0.00034	ND< 0.00042	ND< 0.00038	ND< 0.00042	ND< 0.00032	0.00074 J	ND< 0.00034
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0006	ND< 0.00073	ND< 0.0006	ND< 0.00073	ND< 0.00065	ND< 0.00072	ND< 0.00055	ND< 0.00078	ND< 0.00059
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00041	ND< 0.0005	ND< 0.00041	ND< 0.0005	ND< 0.00045	ND< 0.00049	ND< 0.00038	ND< 0.00053	ND< 0.0004
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00048	ND< 0.00059	ND< 0.00048	ND< 0.00059	ND< 0.00053	ND< 0.00059	ND< 0.00045	ND< 0.00064	ND< 0.00048
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00038	ND< 0.00047	ND< 0.00038	ND< 0.00047	ND< 0.00042	ND< 0.00046	ND< 0.00035	ND< 0.0005	ND< 0.00038
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.011	ND< 0.013	ND< 0.011	ND< 0.013	ND< 0.012	ND< 0.013	ND< 0.01	ND< 0.014	ND< 0.011
2,4-D	94-75-7	700	9600	--	200	ND< 0.012	ND< 0.015	ND< 0.012	ND< 0.015	ND< 0.013	ND< 0.014	ND< 0.011	ND< 0.015	ND< 0.012
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0059	ND< 0.0074	ND< 0.0061	ND< 0.0075	ND< 0.0067	ND< 0.0073	ND< 0.0056	ND< 0.0078	ND< 0.006
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0066	ND< 0.0084	ND< 0.0068	ND< 0.0085	ND< 0.0075	ND< 0.0082	ND< 0.0063	ND< 0.0088	ND< 0.0068

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via
TCLP to approximate leaching of lead in a landfill over 20 years. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-31+00-6FT	RR-31+50-2FT	RR-31+50-6FT	RR-32+00-2FT	RR-32+00-6FT	RR-32+50-2FT	RR-32+50-6FT	RR-33+00-2FT	RR-33+00-6FT
Date of Sample						8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016
Depth of Sample (ft. bgs)						6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.5	0.3	0	0.3	0	0.2	--	0.2	0.2
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.8 HF	8.3 HF	8.6 HF	8.4 HF	8.6 HF	8.3 HF	8.6 HF	8.1 HF	8.1 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>176	>176	>176	>176	>176
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	4.1	5.9	13.2	10.1	3.1	6.1	2.8 J	6.2	4.5
Barium	7440-39-3	11700	220000	--	2000	256 ^	41.7 ^	258 ^	89.6 ^	233 ^	39.4	254	43.1	103
Cadmium	7440-43-9	7.15	980	--	20	0.18 J	0.1 J	0.16 J	0.17 J	0.13 J	0.12 J	0.14 J	0.13 J	0.083 J
Chromium	7440-47-3	1800000	41900	--	100	55.9	10.8	54.2	26	49.7	11.9	53.7	11	27
Lead	7439-92-1	400	800	111	100	14.9	61.4	18.1	133	15.1	113	15.1	169	11.8
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	0.0049 J	--	0.011 J	--	0.008 J	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.63	0.67 J	ND< 0.62	ND< 1.1	0.56 J	0.51 J	0.69 J	ND< 0.41	ND< 0.53
Silver	7440-22-4	247	5800	--	100	ND< 0.32	ND< 0.25	ND< 0.31	ND< 0.53	ND< 0.27	ND< 0.21	ND< 0.29	ND< 0.21	ND< 0.27
Mercury	7439-97-6	10.9	46	--	4	0.013 J	0.039	0.016 J	0.098	0.015 J	0.076	0.016 J	0.074	ND< 0.011
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	ND< 7.5	66	ND< 7.8	78	ND< 7.4	41	ND< 7.5	20	ND< 6.6
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.48	2.8	ND< 0.51	ND< 0.77	ND< 0.45	1.8	ND< 0.5	1.6	ND< 0.38
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.036	ND< 0.028	ND< 0.038	ND< 0.061	ND< 0.036	ND< 0.027	ND< 0.036	ND< 0.027	ND< 0.032
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.035	ND< 0.027	ND< 0.036	ND< 0.058	ND< 0.034	ND< 0.026	ND< 0.034	ND< 0.026	ND< 0.031
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.024	ND< 0.019	ND< 0.025	ND< 0.041	ND< 0.024	ND< 0.018	ND< 0.024	ND< 0.018	ND< 0.021
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.03	ND< 0.024	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.023	ND< 0.03	ND< 0.022	ND< 0.027
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.026	ND< 0.02	ND< 0.027	ND< 0.043	ND< 0.025	ND< 0.019	ND< 0.025	ND< 0.019	ND< 0.023
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.021	ND< 0.016	ND< 0.022	ND< 0.036	ND< 0.021	ND< 0.016	ND< 0.021	ND< 0.016	ND< 0.019
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.027	ND< 0.021	ND< 0.028	ND< 0.046	ND< 0.027	ND< 0.02	ND< 0.027	ND< 0.02	ND< 0.024
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.012	ND< 0.0094	ND< 0.013	ND< 0.02	ND< 0.012	ND< 0.009	ND< 0.012	ND< 0.0089	ND< 0.011
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.03	ND< 0.024	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.023	ND< 0.03	ND< 0.022	ND< 0.027
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.37	ND< 0.26	ND< 0.41	ND< 0.78	ND< 0.36	ND< 0.28	ND< 0.37	ND< 0.24	ND< 0.28
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.017	0.012 J	ND< 0.019	ND< 0.036	ND< 0.017	ND< 0.013	ND< 0.017	ND< 0.011	ND< 0.013
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.089 *	ND< 0.063 *	ND< 0.099 *	ND< 0.19 *	ND< 0.087 *	ND< 0.069 *	ND< 0.089 *	ND< 0.059 *	ND< 0.067 *
Bromoform	75-25-2	19	86	--	--	ND< 0.045	ND< 0.031	ND< 0.049	ND< 0.095	ND< 0.044	ND< 0.034	ND< 0.045	ND< 0.029	ND< 0.034
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.02	ND< 0.014	ND< 0.022	ND< 0.042	ND< 0.019	ND< 0.015	ND< 0.02	ND< 0.013	ND< 0.015
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.27	ND< 0.19	ND< 0.29	ND< 0.57	ND< 0.26	ND< 0.2	ND< 0.26	ND< 0.17	ND< 0.2
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.026	ND< 0.018	ND< 0.029	ND< 0.056	ND< 0.026	ND< 0.02	ND< 0.026	ND< 0.017	ND< 0.02
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.033	ND< 0.023	ND< 0.036	ND< 0.07	ND< 0.032	ND< 0.025	ND< 0.033	ND< 0.022	ND< 0.025
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.025	ND< 0.017	ND< 0.027	ND< 0.053	ND< 0.024	ND< 0.019	ND< 0.025	ND< 0.016	ND< 0.019
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.041	ND< 0.029	ND< 0.045	ND< 0.087	ND< 0.04	ND< 0.031	ND< 0.041	ND< 0.027	ND< 0.031
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.023	ND< 0.016	ND< 0.025	ND< 0.049	ND< 0.022	ND< 0.018	ND< 0.023	ND< 0.015	ND< 0.017
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.012	ND< 0.0083	ND< 0.013	ND< 0.025	ND< 0.012	ND< 0.0091	ND< 0.012	ND< 0.0078	ND< 0.0089
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.032	ND< 0.023	ND< 0.036	ND< 0.069	ND< 0.032	ND< 0.025	ND< 0.032	ND< 0.021	ND< 0.024
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.043	ND< 0.03	ND< 0.048	ND< 0.092	ND< 0.042	ND< 0.033	ND< 0.043	ND< 0.028	ND< 0.033
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.019	ND< 0.013	ND< 0.021	ND< 0.04	ND< 0.018	ND< 0.014	ND< 0.019	ND< 0.012	ND< 0.014
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.45 *	ND< 0.31 *	ND< 0.49 *	ND< 0.95 *	ND< 0.44 *	ND< 0.34 *	ND< 0.45 *	ND< 0.29 *	ND< 0.34 *
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.061	ND< 0.043	ND< 0.068	ND< 0.13	ND< 0.06	ND< 0.047	ND< 0.061	ND< 0.04	ND< 0.046
Chloromethane	74-87-3	110	460	--	--	ND< 0.021	ND< 0.015	ND< 0.024	ND< 0.045	ND< 0.021	ND< 0.016	ND< 0.021	ND< 0.014	ND< 0.016
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.034	ND< 0.024	ND< 0.038	ND< 0.073	ND< 0.033	ND< 0.026	ND< 0.034	ND< 0.023	ND< 0.026
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.018	ND< 0.013	ND< 0.02	ND< 0.039	ND< 0.018	ND< 0.014	ND< 0.018	ND< 0.012	ND< 0.014
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.02	0.13	ND< 0.022	0.19	ND< 0.019	0.1	ND< 0.02	0.084	ND< 0.015
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.045**	**ND< 0.031**	**ND< 0.049**	**ND< 0.095**	**ND< 0.044**	**ND< 0.034**	**ND< 0.045**	**ND< 0.029**	**ND< 0.034**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.029	ND< 0.02	ND< 0.032	ND< 0.062	ND< 0.028	ND< 0.022	ND< 0.029	ND< 0.019	ND< 0.022
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.023	ND< 0.016	ND< 0.025	ND< 0.049	ND< 0.022	ND< 0.018	ND< 0.023	ND< 0.015	ND< 0.017
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.024	ND< 0.017	ND< 0.026	ND< 0.051	ND< 0.023	ND< 0.018	ND< 0.024	ND< 0.016	ND< 0.018
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.013	ND< 0.0088	ND< 0.014	ND< 0.027	ND< 0.012	ND< 0.0097	ND< 0.012	ND< 0.0082	ND< 0.0094
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.018	ND< 0.013	ND< 0.02	ND< 0.038	ND< 0.017	ND< 0.014	ND< 0.018	ND< 0.012	ND< 0.013
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.089 *	ND< 0.063 *	ND< 0.099 *	ND< 0.19 *	ND< 0.087 *	ND< 0.069 *	ND< 0.089 *	ND< 0.059 *	ND< 0.067 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.028	ND< 0.019	ND< 0.031	ND< 0.059	ND< 0.027	ND< 0.021	ND< 0.028	ND< 0.018	ND< 0.021
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.037	ND< 0.026	ND< 0.04	ND< 0.078	ND< 0.036	ND< 0.028	ND< 0.036	ND< 0.024	ND< 0.028
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.031	ND< 0.022	ND< 0.034	ND< 0.066	ND< 0.03	ND< 0.024	ND< 0.031	ND< 0.02	ND< 0.023
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.025	ND< 0.017	ND< 0.027	ND< 0.053	ND< 0.024	ND< 0.019	ND< 0.025	ND< 0.016	ND< 0.019
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.021	ND< 0.015	ND< 0.023	ND< 0.045	ND< 0.021	ND< 0.016	ND< 0.021	ND< 0.014	ND< 0.016
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.014	ND< 0.01	ND< 0.016	ND< 0.031	ND< 0.014	ND< 0.011	ND< 0.014	ND< 0.0095	ND< 0.011
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.016	ND< 0.011	ND< 0.018	ND< 0.035	ND< 0.016	ND< 0.013	ND< 0.016	ND< 0.011	ND< 0.012
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.02	ND< 0.014	ND< 0.022	ND< 0.043	ND< 0.02	ND< 0.016	ND< 0.02	ND< 0.013	ND< 0.015
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.089 *	ND< 0.063 *	ND< 0.099 *	ND< 0.19 *	ND< 0.087 *	ND< 0.069 *	ND< 0.089 *	ND< 0.059 *	ND< 0.067 *
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.021	ND< 0.015	ND< 0.024	ND< 0.046	ND< 0.021	ND< 0.016	ND< 0.021	ND< 0.014	ND< 0.016
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0088	ND< 0.0062	ND< 0.0097	ND< 0.019	ND< 0.0086	ND< 0.0068	ND< 0.0088	ND< 0.0058	ND< 0.0066
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.46	ND< 0.32	ND< 0.5	ND< 0.97	ND< 0.45	ND< 0.35	ND< 0.46	ND< 0.3	ND< 0.34
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.026	ND< 0.018	ND< 0.029	ND< 0.056	ND< 0.025	ND< 0.02	ND< 0.026	ND< 0.017	ND< 0.02
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.016	ND< 0.011	ND< 0.017	ND< 0.033	ND< 0.015	ND< 0.012	ND< 0.016	ND< 0.01	ND< 0.012
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.035	ND< 0.025	ND< 0.039	ND< 0.076	ND< 0.035	ND< 0.027	ND< 0.035	ND< 0.023	ND< 0.027
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.18	ND< 0.13	ND< 0.2	ND< 0.39	ND< 0.18	ND< 0.14	ND< 0.18	ND< 0.12	ND< 0.14
Iodomethane	74-88-4	--	--	--	--	ND< 0.027	ND< 0.019	ND< 0.03	ND< 0.059	ND< 0.027	ND< 0.021	ND< 0.027	ND< 0.018	ND< 0.021
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.48	ND< 0.33	ND< 0.53	ND< 1	ND< 0.47	ND< 0.37	ND< 0.47	ND< 0.31	ND< 0.36
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.013	ND< 0.0094	ND< 0.015	ND< 0.029	ND< 0.013	ND< 0.01	ND< 0.013	ND< 0.0088	ND< 0.01
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.03	ND< 0.021	ND< 0.033	ND< 0.064	ND< 0.029	ND< 0.023	ND< 0.03	ND< 0.02	ND< 0.023
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.043	0.34	ND< 0.047	0.4	ND< 0.042	ND< 0.033	ND< 0.042	0.17	ND< 0.032
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.029	ND< 0.02	ND< 0.032	ND< 0.061	ND< 0.028	ND< 0.022	ND< 0.029	ND< 0.019	ND< 0.022
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.034	ND< 0.024	ND< 0.037	ND< 0.072	ND< 0.033	ND< 0.026	ND< 0.034	ND< 0.022	ND< 0.025
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.042	0.35	ND< 0.046	0.57	ND< 0.041	0.27	ND< 0.042	0.28	ND< 0.032
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.018	ND< 0.012	ND< 0.02	ND< 0.038	ND< 0.017	ND< 0.014	ND< 0.018	ND< 0.012	ND< 0.013
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.033	ND< 0.26	ND< 0.034	0.08 J	ND< 0.033	0.058 J	ND< 0.033	0.028 J	ND< 0.029
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.023	ND< 0.016	ND< 0.026	ND< 0.05	ND< 0.023	ND< 0.018	ND< 0.023	ND< 0.015	ND< 0.018
Styrene	100-42-5	6000	35000	--	--	ND< 0.022	ND< 0.015	ND< 0.024	ND< 0.046	ND< 0.021	ND< 0.017	ND< 0.022	ND< 0.014	ND< 0.016
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.025	ND< 0.018	ND< 0.028	ND< 0.054	ND< 0.025	ND< 0.02	ND< 0.025	ND< 0.017	ND< 0.019
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.015	ND< 0.01	ND< 0.016	ND< 0.031	ND< 0.014	ND< 0.011	ND< 0.014	ND< 0.0096	ND< 0.011
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.012	ND< 0.0084	ND< 0.013	ND< 0.026	ND< 0.012	ND< 0.0093	ND< 0.012	ND< 0.0079	ND< 0.009
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.045	ND< 0.031	ND< 0.049	ND< 0.096	ND< 0.044	ND< 0.035	ND< 0.045	ND< 0.029	ND< 0.034
Toluene	108-88-3	4640	47000	--	--	ND< 0.024	0.029 J	ND< 0.026	ND< 0.051	ND< 0.023	0.025 J	ND< 0.024	0.016 J	ND< 0.018
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.045	ND< 0.031	ND< 0.049	ND< 0.095	ND< 0.044	ND< 0.034	ND< 0.045	ND< 0.029	ND< 0.034
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.041	ND< 0.029	ND< 0.045	ND< 0.088	ND< 0.04	ND< 0.032	ND< 0.041	ND< 0.027	ND< 0.031
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.034	ND< 0.024	ND< 0.037	ND< 0.072	ND< 0.033	ND< 0.026	ND< 0.034	ND< 0.022	ND< 0.026
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.025	ND< 0.017	ND< 0.027	ND< 0.053	ND< 0.024	ND< 0.019	ND< 0.025	ND< 0.016	ND< 0.019
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.019	ND< 0.013	ND< 0.021	ND< 0.04	ND< 0.018	ND< 0.014	ND< 0.019	ND< 0.012	ND< 0.014
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.025	ND< 0.017	ND< 0.027	ND< 0.053	ND< 0.024	ND< 0.019	ND< 0.025	ND< 0.016	ND< 0.019
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.042	ND< 0.029	ND< 0.046	ND< 0.09	ND< 0.041	ND< 0.032	ND< 0.042	ND< 0.028	ND< 0.032
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.02**	**ND< 0.014**	**ND< 0.022**	**ND< 0.043**	**ND< 0.02**	**ND< 0.015**	**ND< 0.02**	**ND< 0.013**	**ND< 0.015**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.025	0.018 J	ND< 0.028	ND< 0.053	ND< 0.024	ND< 0.019	ND< 0.025	0.016 J	ND< 0.019
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.027	ND< 0.019	ND< 0.03	ND< 0.058	ND< 0.026	ND< 0.021	ND< 0.027	ND< 0.018	ND< 0.02
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.16	ND< 0.11	ND< 0.18	ND< 0.34	ND< 0.16	ND< 0.12	ND< 0.16	ND< 0.1	ND< 0.12
Vinyl chloride	75-01-4	0.059	1.7	--	4	**ND< 0.089 ***	**ND< 0.063 ***	**ND< 0.099 ***	**ND< 0.19 ***	**ND< 0.087 ***	**ND< 0.069 ***	**ND< 0.089 ***	**ND< 0.059 ***	**ND< 0.067 ***
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.05	ND< 0.035	ND< 0.055	ND< 0.11	ND< 0.048	ND< 0.038	ND< 0.049	ND< 0.033	ND< 0.037
o-Xylene	95-47-6	650	2800	--	--	ND< 0.012	0.027	ND< 0.013	ND< 0.025	ND< 0.011	0.017 J	ND< 0.012	0.016 J	ND< 0.0088
Xylenes	1330-20-7	575	2500	--	--	ND< 0.062	0.062	ND< 0.068	ND< 0.135	ND< 0.059	0.055	ND< 0.061	0.049	ND< 0.0458

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-31+00-6FT	RR-31+50-2FT	RR-31+50-6FT	RR-32+00-2FT	RR-32+00-6FT	RR-32+50-2FT	RR-32+50-6FT	RR-33+00-2FT	RR-33+00-6FT
Date of Sample						8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016
Depth of Sample (ft. bgs)						6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.5	0.3	0	0.3	0	0.2	--	0.2	0.2
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	ND< 0.04664	**3.3521**	ND< 0.04825	**0.63741**	ND< 0.04599	**1.32208**	ND< 0.04599	**0.20555**	ND< 0.04097
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.038	ND< 0.3	ND< 0.039	ND< 0.063	ND< 0.037	ND< 0.028	ND< 0.037	ND< 0.027	ND< 0.033
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.033	0.49 J	ND< 0.034	0.081 J	ND< 0.033	0.22	ND< 0.033	ND< 0.024	ND< 0.029
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.035	ND< 0.27	ND< 0.036	ND< 0.058	ND< 0.034	ND< 0.026	ND< 0.034	ND< 0.025	ND< 0.03
Anthracene	120-12-7	18000	230000	--	--	ND< 0.063	ND< 0.5	ND< 0.065	ND< 0.11	ND< 0.063	0.11 J	ND< 0.063	ND< 0.046	ND< 0.055
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.089	ND< 0.7	ND< 0.092	ND< 0.15	ND< 0.088	ND< 0.066	ND< 0.088	ND< 0.064	ND< 0.078
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.2	ND< 1.6	ND< 0.21	ND< 0.34	ND< 0.2	ND< 0.15	ND< 0.2	ND< 0.15	ND< 0.18
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.026	**1.4 J**	ND< 0.026	0.42 J	ND< 0.025	0.69	ND< 0.025	0.14 J	ND< 0.022
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	ND< 0.038	**2.4**	ND< 0.039	**0.45**	ND< 0.037	**0.82**	ND< 0.037	**0.14 J**	ND< 0.033
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.041	**4.4**	ND< 0.042	0.67	ND< 0.04	**1.3**	ND< 0.04	0.22	ND< 0.036
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.027	2	ND< 0.028	0.43	ND< 0.027	0.74	ND< 0.027	0.14 J	ND< 0.024
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.033	0.99 J	ND< 0.034	0.28 J	ND< 0.033	0.62	ND< 0.033	0.085 J	ND< 0.029
Biphenyl	92-52-4	47	200	--	--	ND< 0.038	ND< 0.3	ND< 0.039	ND< 0.063	ND< 0.037	ND< 0.028	ND< 0.037	ND< 0.027	ND< 0.033
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.036	ND< 0.29	ND< 0.037	ND< 0.061	ND< 0.036	ND< 0.027	ND< 0.036	ND< 0.026	ND< 0.032
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.042	ND< 0.33	ND< 0.044	ND< 0.071	ND< 0.042	ND< 0.031	ND< 0.042	ND< 0.031	ND< 0.037
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.077	ND< 0.61	ND< 0.079	ND< 0.13	ND< 0.076	ND< 0.057	ND< 0.076	ND< 0.056	ND< 0.067
Carbazole	86-74-8	--	--	--	--	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	0.051 J	ND< 0.03	ND< 0.022	ND< 0.026
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.063	ND< 0.5	ND< 0.065	ND< 0.11	ND< 0.063	ND< 0.047	ND< 0.063	ND< 0.046	ND< 0.055
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.26 *	ND< 2 *	ND< 0.065	ND< 0.11	ND< 0.063	ND< 0.047	ND< 0.063	ND< 0.046	ND< 0.055
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.054	ND< 0.43	ND< 0.056	ND< 0.091	ND< 0.054	ND< 0.04	ND< 0.054	ND< 0.039	ND< 0.047
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.033	**ND< 0.26**	ND< 0.034	ND< 0.056	ND< 0.033	ND< 0.025	ND< 0.033	ND< 0.024	ND< 0.029
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.051	ND< 0.4	ND< 0.053	ND< 0.086	ND< 0.051	ND< 0.038	ND< 0.051	ND< 0.037	ND< 0.045
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.042	ND< 0.33	ND< 0.044	ND< 0.071	ND< 0.042	ND< 0.031	ND< 0.042	ND< 0.031	ND< 0.037
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.047	ND< 0.37	ND< 0.048	ND< 0.078	ND< 0.046	ND< 0.035	ND< 0.046	ND< 0.034	ND< 0.041
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.032	ND< 0.25	ND< 0.033	ND< 0.053	ND< 0.031	ND< 0.024	ND< 0.031	ND< 0.023	ND< 0.028
Chrysene	218-01-9	110	2100	--	--	ND< 0.057	2.2	ND< 0.059	0.61	ND< 0.057	0.88	ND< 0.057	0.2	ND< 0.05
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.045	**ND< 0.36**	ND< 0.047	ND< 0.076	ND< 0.045	**0.23**	ND< 0.045	ND< 0.033	ND< 0.04
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.03	ND< 0.24	ND< 0.031	0.071 J	ND< 0.03	0.042 J	ND< 0.03	0.022 J	ND< 0.026
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.3	**ND< 2.4**	ND< 0.31	ND< 0.51	ND< 0.3	ND< 0.22	ND< 0.3	ND< 0.22	ND< 0.26
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.027	ND< 0.21	ND< 0.028	ND< 0.045	ND< 0.027	ND< 0.02	ND< 0.027	ND< 0.02	ND< 0.024
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.033	ND< 0.26	ND< 0.034	ND< 0.056	ND< 0.033	ND< 0.025	ND< 0.033	ND< 0.024	ND< 0.029
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.022	ND< 0.03	ND< 0.022	ND< 0.026
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.062	ND< 0.49	ND< 0.064	ND< 0.1	ND< 0.061	ND< 0.046	ND< 0.061	ND< 0.045	ND< 0.054
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.044	ND< 0.35	ND< 0.045	ND< 0.073	ND< 0.043	ND< 0.033	ND< 0.043	ND< 0.032	ND< 0.038
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.26	ND< 2	ND< 0.26	ND< 0.43	ND< 0.25	ND< 0.19	ND< 0.25	ND< 0.19	ND< 0.22
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 1.2	ND< 9.3	ND< 1.2	ND< 2	ND< 1.2	ND< 0.88	ND< 1.2	ND< 0.85	ND< 1
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.053	ND< 0.42	ND< 0.054	ND< 0.088	ND< 0.052	ND< 0.039	ND< 0.052	ND< 0.038	ND< 0.046
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.022	ND< 0.03	ND< 0.022	ND< 0.026
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.022	ND< 0.03	ND< 0.022	ND< 0.026
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.087	ND< 0.69	ND< 0.09	ND< 0.15	ND< 0.086	ND< 0.065	ND< 0.087	ND< 0.063	ND< 0.077
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.027	1.7 J	ND< 0.028	0.74	ND< 0.027	0.89	ND< 0.027	0.2	ND< 0.024
Fluorene	86-73-7	2400	30000	--	--	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.022	ND< 0.03	ND< 0.022	ND< 0.026
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.035	**ND< 0.27**	ND< 0.036	ND< 0.058	ND< 0.034	ND< 0.026	ND< 0.034	ND< 0.025	ND< 0.03
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.035	ND< 0.025	ND< 0.039	ND< 0.076	ND< 0.035	ND< 0.027	ND< 0.035	ND< 0.023	ND< 0.027
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.035	ND< 0.27	ND< 0.036	ND< 0.058	ND< 0.034	ND< 0.026	ND< 0.034	ND< 0.025	ND< 0.03
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.033	ND< 0.26	ND< 0.034	ND< 0.056	ND< 0.033	ND< 0.025	ND< 0.033	ND< 0.024	ND< 0.029
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.032	**1.8 J**	ND< 0.033	0.37 J	ND< 0.031	0.66	ND< 0.031	0.12 J	ND< 0.028
Isophorone	78-59-1	570	2400	--	--	ND< 0.054	ND< 0.43	ND< 0.056	ND< 0.091	ND< 0.054	ND< 0.04	ND< 0.054	ND< 0.039	ND< 0.047
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.051	ND< 0.4	ND< 0.053	0.18 J	ND< 0.051	0.11 J	ND< 0.051	0.058 J	ND< 0.045
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.022	ND< 0.03	ND< 0.022	ND< 0.026
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.03	ND< 0.24	ND< 0.031	ND< 0.051	ND< 0.03	ND< 0.022	ND< 0.03	ND< 0.022	ND< 0.026
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.033	ND< 0.26	ND< 0.034	0.08 J	ND< 0.033	0.058 J	ND< 0.033	0.028 J	ND< 0.029
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.038	ND< 0.3	ND< 0.039	ND< 0.063	ND< 0.037	ND< 0.028	ND< 0.037	ND< 0.027	ND< 0.033
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.5 *	ND< 3.9 *	ND< 0.073	ND< 0.12	ND< 0.07	ND< 0.053	ND< 0.07	ND< 0.051	ND< 0.062
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.5 *	ND< 3.9 *	ND< 0.14	ND< 0.22	ND< 0.13	ND< 0.1	ND< 0.13	ND< 0.097	ND< 0.12
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.029	ND< 0.23	ND< 0.03	ND< 0.048	ND< 0.028	ND< 0.021	ND< 0.028	ND< 0.021	ND< 0.025
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.072	ND< 0.57	ND< 0.075	ND< 0.12	ND< 0.072	ND< 0.054	ND< 0.072	ND< 0.052	ND< 0.063
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.18	ND< 1.4	ND< 0.18	ND< 0.3	ND< 0.18	ND< 0.13	ND< 0.18	ND< 0.13	ND< 0.16
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.044	**ND< 0.35**	ND< 0.045	ND< 0.073	ND< 0.043	ND< 0.033	ND< 0.043	ND< 0.032	ND< 0.038
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.21	ND< 1.6	ND< 0.21	ND< 0.35	ND< 0.21	ND< 0.15	ND< 0.21	ND< 0.15	ND< 0.18
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.26	**ND< 2**	ND< 0.26	ND< 0.43	ND< 0.25	ND< 0.19	ND< 0.25	ND< 0.19	ND< 0.22
Phenanthrene	85-01-8	--	--	--	--	ND< 0.038	0.6 J	ND< 0.039	0.62	ND< 0.037	0.34	ND< 0.037	0.19	ND< 0.033
Phenol	108-95-2	19000	250000	--	--	ND< 0.039	ND< 0.31	ND< 0.04	ND< 0.066	ND< 0.039	ND< 0.029	ND< 0.039	ND< 0.028	ND< 0.034
Pyrene	129-00-0	1800	23000	--	--	ND< 0.03	1.8 J	ND< 0.031	0.71	ND< 0.03	1	ND< 0.03	0.21	ND< 0.026
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.26 F2	ND< 0.35	ND< 0.045	ND< 0.073	ND< 0.043	ND< 0.033	ND< 0.043	ND< 0.032	ND< 0.038
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.053	ND< 0.42	ND< 0.054	ND< 0.088	ND< 0.052	ND< 0.039	ND< 0.052	ND< 0.038	ND< 0.046
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.26 F2	ND< 0.55	ND< 0.071	ND< 0.12	ND< 0.069	ND< 0.052	ND< 0.069	ND< 0.05	ND< 0.061
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.26 F2	ND< 0.4	ND< 0.053	ND< 0.086	ND< 0.051	ND< 0.038	ND< 0.051	ND< 0.037	ND< 0.045
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00061	ND< 0.0024	ND< 0.00064	ND< 0.001	ND< 0.0006	ND< 0.00092	ND< 0.00061	ND< 0.00045	ND< 0.00054
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0012	ND< 0.0049	ND< 0.0013	ND< 0.0021	ND< 0.0012	ND< 0.0019	ND< 0.0012	ND< 0.00091	ND< 0.0011
alpha-BHC	319-84-6	0.086	0.36	--	--	0.0008 J B	ND< 0.0018	ND< 0.00047	ND< 0.00076	0.00079 J B	ND< 0.00068	0.00079 J B	ND< 0.00033	0.0007 J B
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00045	ND< 0.0018	ND< 0.00047	ND< 0.00076	ND< 0.00044	ND< 0.00068	ND< 0.00044	ND< 0.00033	ND< 0.00039
delta-BHC	319-86-8	--	--	--	--	ND< 0.00046	ND< 0.0018	ND< 0.00049	ND< 0.00078	ND< 0.00046	ND< 0.0007	ND< 0.00046	ND< 0.00034	ND< 0.00041
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00048	ND< 0.0019	ND< 0.00051	ND< 0.00082	ND< 0.00048	ND< 0.00073	ND< 0.00048	ND< 0.00035	ND< 0.00042
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00052	0.0041 J	ND< 0.00055	ND< 0.00088	ND< 0.00052	ND< 0.00079	ND< 0.00052	ND< 0.00038	ND< 0.00046
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.00058	0.0095 J	ND< 0.00061	0.0037 J	ND< 0.00057	0.0024 J	ND< 0.00058	0.00085 J	ND< 0.00051
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0006	ND< 0.0023	ND< 0.00063	ND< 0.001	ND< 0.00059	ND< 0.0009	ND< 0.00059	ND< 0.00044	ND< 0.00052
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00048	ND< 0.0019	ND< 0.0005	ND< 0.00081	ND< 0.00047	ND< 0.00072	ND< 0.00047	ND< 0.00035	ND< 0.00042
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00045	ND< 0.0018	ND< 0.00047	ND< 0.00076	ND< 0.00044	ND< 0.00068	ND< 0.00044	ND< 0.00033	ND< 0.00039
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00047	ND< 0.0018	ND< 0.00049	ND< 0.00078	ND< 0.00046	ND< 0.0007	ND< 0.00046	ND< 0.00034	ND< 0.00041
Endrin	72-20-8	19	250	--	0.4	ND< 0.00049	0.0033 J	ND< 0.00052	ND< 0.00083	ND< 0.00049	0.0015 J	ND< 0.00049	ND< 0.00036	ND< 0.00043
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00064	ND< 0.0025	ND< 0.00067	ND< 0.0011	ND< 0.00063	ND< 0.00096	ND< 0.00063	ND< 0.00047	ND< 0.00056
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00061	ND< 0.0024	ND< 0.00064	ND< 0.001	ND< 0.0006	ND< 0.00092	ND< 0.00061	ND< 0.00045	ND< 0.00054
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00046	ND< 0.0018	ND< 0.00048	ND< 0.00077	ND< 0.00045	ND< 0.00069	0.00073 J	ND< 0.00033	ND< 0.0004
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.00079	ND< 0.0031	ND< 0.00083	ND< 0.0013	ND< 0.00078	ND< 0.0012	ND< 0.00079	ND< 0.00058	ND< 0.0007
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00054	ND< 0.0021	ND< 0.00057	ND< 0.00091	ND< 0.00053	ND< 0.00081	ND< 0.00053	ND< 0.00039	ND< 0.00047
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00064	ND< 0.0025	ND< 0.00067	ND< 0.0011	ND< 0.00063	ND< 0.00097	ND< 0.00064	ND< 0.00047	ND< 0.00056
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00051	ND< 0.002	ND< 0.00053	ND< 0.00086	ND< 0.0005	ND< 0.00077	ND< 0.0005	ND< 0.00037	ND< 0.00045
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.015	ND< 0.057	ND< 0.015	ND< 0.024	ND< 0.014	ND< 0.022	ND< 0.014	ND< 0.011	ND< 0.013
2,4-D	94-75-7	700	9600	--	200	ND< 0.016	ND< 0.012	ND< 0.016	ND< 0.026	ND< 0.016	ND< 0.012	ND< 0.015	ND< 0.012	ND< 0.014
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0081	ND< 0.0062	ND< 0.0082	ND< 0.013	ND< 0.0079	ND< 0.006	ND< 0.0078	ND< 0.0059	ND< 0.0071
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0091	ND< 0.007	ND< 0.0092	ND< 0.015	ND< 0.0089	ND< 0.0068	ND< 0.0088	ND< 0.0067	ND< 0.008

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to approximate leaching of lead in a landfill over 20 years. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-33+50-2FT	RR-33+50-6FT	RR-34+00-2FT	RR-34+00-6FT	RR-34+50-2FT	RR-34+50-6FT	RR-35+00-2FT	RR-35+00-6FT	RR-35+50-2FT
Date of Sample						8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/3/2016	8/11/2016	8/3/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6	2
PID Field Measurement (ppm)						0.3	--	0.2	0.1	0.7	0.2	0.3	0.2	0.4
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.3 HF	7.9 HF	8.6 HF	8.6 HF	8.6 HF	8.2 HF	8.41 HF	8.7 HF	8.42 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>176	>176	>176.0	>176	>176.0
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	5.1	7	4.9	7	5.6	3.9	5.7	3.2	4.4
Barium	7440-39-3	11700	220000	--	2000	29.3	68.1	34.5 ^	247 ^ F1	42 ^	124 ^	30.2	88.4 ^	31.7
Cadmium	7440-43-9	7.15	980	--	20	0.099 J	0.084 J	0.077 J	0.27 J F1	0.1 J	0.096 J	0.12 J B	0.056 J	0.099 J B
Chromium	7440-47-3	1800000	41900	--	100	9.1	21.1	15.1	64	15.2	30.3	8.9	25.7	6.9
Lead	7439-92-1	400	800	111	100	68.4	10.5	54.4	18.4	73.4	11	87	6.7	60.4
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	382	5800	--	20	0.62 J	ND< 0.54	0.73 J	0.69 J F1	ND< 0.43	ND< 0.52	0.52 J	0.73 J	ND< 0.42
Silver	7440-22-4	247	5800	--	100	ND< 0.2	ND< 0.27	ND< 0.22	ND< 0.92 F1	ND< 0.21	ND< 0.26	ND< 0.21	ND< 0.3	ND< 0.21
Mercury	7439-97-6	10.9	46	--	4	0.058	ND< 0.0097	0.03	0.016 J	0.038	0.013 J	0.039	ND< 0.012	0.023
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	48	ND< 6.5	62	ND< 7.1	62	ND< 6.8	34	ND< 7.1	13 J
GRO (C6-C10)	8006-61-9	82	420	--	--	1.3	2.6	2.2	ND< 0.47	4.4	ND< 0.45	0.56 J	ND< 0.49	ND< 0.34
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.025	ND< 0.032	ND< 0.025	ND< 0.034	ND< 0.025	ND< 0.032	ND< 0.038	ND< 0.035	ND< 0.038
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.024	ND< 0.03	ND< 0.024	ND< 0.033	ND< 0.024	ND< 0.031	ND< 0.05	ND< 0.034	ND< 0.05
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.017	ND< 0.021	ND< 0.017	ND< 0.023	ND< 0.017	ND< 0.021	ND< 0.063	ND< 0.023	ND< 0.063
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.021	ND< 0.027	ND< 0.021	ND< 0.029	ND< 0.021	ND< 0.027	ND< 0.034	ND< 0.029	ND< 0.035
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.018	ND< 0.023	ND< 0.018	ND< 0.024	ND< 0.018	ND< 0.023	ND< 0.025	ND< 0.025	ND< 0.025
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.015	ND< 0.019	ND< 0.015	ND< 0.02	ND< 0.015	ND< 0.019	ND< 0.044	ND< 0.02	ND< 0.044
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.019	ND< 0.024	ND< 0.019	ND< 0.026	ND< 0.019	ND< 0.024	ND< 0.028	ND< 0.026	ND< 0.028
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.0083	ND< 0.011	ND< 0.0085	ND< 0.011	ND< 0.0085	ND< 0.011	ND< 0.031	ND< 0.012	ND< 0.031
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.021	ND< 0.027	ND< 0.021	ND< 0.029	ND< 0.021	ND< 0.027	ND< 0.041	ND< 0.029	ND< 0.041
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.21	ND< 0.3	ND< 0.22	ND< 0.33	ND< 0.21	ND< 0.29	ND< 0.35 *	ND< 0.34	ND< 0.24 *
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0099	ND< 0.014	0.023 J	ND< 0.015	0.024 J	ND< 0.014	ND< 0.013	ND< 0.016	ND< 0.0092
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.052 *	ND< 0.072 *	ND< 0.054 *	ND< 0.08 *	ND< 0.05 *	ND< 0.072 *	ND< 0.015	ND< 0.018	ND< 0.011
Bromoform	75-25-2	19	86	--	--	ND< 0.026	ND< 0.036	ND< 0.027	ND< 0.04	ND< 0.025	ND< 0.036	ND< 0.035	ND< 0.042	ND< 0.024
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.011	ND< 0.016	ND< 0.012	ND< 0.018	ND< 0.011	ND< 0.016	ND< 0.015	ND< 0.018	ND< 0.011
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.15	ND< 0.21	ND< 0.16	ND< 0.24	ND< 0.15	ND< 0.21	ND< 0.21	ND< 0.25	ND< 0.14
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.015	ND< 0.021	ND< 0.016	ND< 0.023	ND< 0.015	ND< 0.021	ND< 0.02	ND< 0.024	ND< 0.014
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.019	ND< 0.027	ND< 0.02	ND< 0.029	ND< 0.018	ND< 0.026	ND< 0.026	ND< 0.031	ND< 0.018
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.014	ND< 0.02	ND< 0.015	ND< 0.022	ND< 0.014	ND< 0.02	ND< 0.02	ND< 0.023	ND< 0.013
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.024	ND< 0.033	ND< 0.025	ND< 0.036	0.024 J	ND< 0.033	ND< 0.032	ND< 0.038	ND< 0.022
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.013	ND< 0.018	ND< 0.014	ND< 0.02	ND< 0.013	ND< 0.018	ND< 0.018	ND< 0.021	ND< 0.012
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0069	ND< 0.0095	ND< 0.0071	ND< 0.011	ND< 0.0066	ND< 0.0095	ND< 0.0093	ND< 0.011	ND< 0.0064
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.019	ND< 0.026	ND< 0.02	ND< 0.029	ND< 0.018	ND< 0.026	ND< 0.07 *	ND< 0.03	ND< 0.048 *
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.025	ND< 0.035	ND< 0.026	ND< 0.039	ND< 0.024	ND< 0.035	ND< 0.07 *	ND< 0.04	ND< 0.048 *
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.017	ND< 0.01	ND< 0.015	ND< 0.015	ND< 0.017	ND< 0.01
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.26 *	ND< 0.36 *	ND< 0.27 *	ND< 0.4 *	ND< 0.25 *	ND< 0.36 *	ND< 0.022	ND< 0.027	ND< 0.015
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.036	ND< 0.049	ND< 0.037	ND< 0.055	ND< 0.034	ND< 0.049	ND< 0.07 *	ND< 0.057	ND< 0.048 *
Chloromethane	74-87-3	110	460	--	--	ND< 0.012	ND< 0.017	ND< 0.013	ND< 0.019	ND< 0.012	ND< 0.017	ND< 0.017	ND< 0.02	ND< 0.011
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.02	ND< 0.028	ND< 0.021	ND< 0.031	ND< 0.019	ND< 0.027	ND< 0.027	ND< 0.032	ND< 0.018
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.016	ND< 0.01	ND< 0.015	ND< 0.014	ND< 0.017	ND< 0.0098
Cyclohexane	110-82-7	6500	27000	--	--	0.083	ND< 0.016	0.15	ND< 0.018	0.24	ND< 0.016	0.059 J	ND< 0.019	0.019 J
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.026**	**ND< 0.036**	**ND< 0.027**	**ND< 0.04**	**ND< 0.025**	**ND< 0.036**	**ND< 0.035**	**ND< 0.042**	**ND< 0.024**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.017	ND< 0.023	ND< 0.018	ND< 0.026	ND< 0.016	ND< 0.023	ND< 0.023	ND< 0.027	ND< 0.016
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.013	ND< 0.018	ND< 0.014	ND< 0.02	ND< 0.013	ND< 0.018	ND< 0.018	ND< 0.021	ND< 0.012
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.014	ND< 0.019	ND< 0.014	ND< 0.021	ND< 0.013	ND< 0.019	ND< 0.019	ND< 0.022	ND< 0.013
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0073	ND< 0.01	ND< 0.0076	ND< 0.011	ND< 0.007	ND< 0.01	ND< 0.0098	ND< 0.012	ND< 0.0068
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.01	ND< 0.014	ND< 0.011	ND< 0.016	ND< 0.01	ND< 0.014	ND< 0.07 *	ND< 0.017	ND< 0.048 *
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.052 *	ND< 0.072 *	ND< 0.054 *	ND< 0.08 *	ND< 0.05 *	ND< 0.072 *	ND< 0.07 *	ND< 0.036	ND< 0.048 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.016	ND< 0.022	ND< 0.017	ND< 0.025	ND< 0.015	ND< 0.022	ND< 0.022	ND< 0.026	ND< 0.015
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.021	ND< 0.03	ND< 0.022	ND< 0.033	ND< 0.02	ND< 0.029	ND< 0.029	ND< 0.034	ND< 0.02
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.018	ND< 0.025	ND< 0.019	ND< 0.028	ND< 0.017	ND< 0.025	ND< 0.07 *	ND< 0.029	ND< 0.048 *
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.014	ND< 0.02	ND< 0.015	ND< 0.022	ND< 0.014	ND< 0.02	ND< 0.019	ND< 0.023	ND< 0.013
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.012	ND< 0.017	ND< 0.013	ND< 0.019	ND< 0.012	ND< 0.017	ND< 0.017	ND< 0.02	ND< 0.011
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.0084	ND< 0.012	ND< 0.0088	ND< 0.013	ND< 0.0081	ND< 0.012	ND< 0.07 *	ND< 0.014	ND< 0.048 *
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0095	ND< 0.013	ND< 0.0098	ND< 0.015	ND< 0.0091	ND< 0.013	ND< 0.013	ND< 0.015	ND< 0.0088
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.012	ND< 0.016	ND< 0.012	ND< 0.018	ND< 0.011	ND< 0.016	ND< 0.016	ND< 0.019	ND< 0.011
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.052 *	ND< 0.072 *	ND< 0.054 *	ND< 0.08 *	ND< 0.05 *	ND< 0.072 *	ND< 0.017	ND< 0.021	ND< 0.012
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.012	ND< 0.017	ND< 0.013	ND< 0.019	ND< 0.012	ND< 0.017	ND< 0.017	ND< 0.02	ND< 0.012
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0051	ND< 0.0071	ND< 0.0053	ND< 0.0079	ND< 0.0049	ND< 0.0071	ND< 0.0069	ND< 0.0082	ND< 0.0047
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.27	ND< 0.37	ND< 0.28	ND< 0.41	ND< 0.25	ND< 0.37	ND< 0.36	ND< 0.43	ND< 0.25
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.015	ND< 0.021	ND< 0.016	ND< 0.023	0.017 J	ND< 0.021	ND< 0.02	ND< 0.024	ND< 0.014
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0091	ND< 0.013	ND< 0.0095	ND< 0.014	ND< 0.0087	ND< 0.013	ND< 0.012	ND< 0.015	ND< 0.0084
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.021	ND< 0.029	ND< 0.021	ND< 0.032	ND< 0.02	ND< 0.028	ND< 0.028	ND< 0.033	ND< 0.019
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.11	ND< 0.15	ND< 0.11	ND< 0.16	ND< 0.1	ND< 0.15	ND< 0.14	ND< 0.17	ND< 0.099
Iodomethane	74-88-4	--	--	--	--	ND< 0.016	ND< 0.022	ND< 0.017	ND< 0.025	ND< 0.015	ND< 0.022	ND< 0.07 *	ND< 0.026	ND< 0.048 *
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.28	ND< 0.38	ND< 0.29	ND< 0.42	ND< 0.27	ND< 0.38	ND< 0.37	ND< 0.44	ND< 0.26
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0078	ND< 0.011	ND< 0.0081	ND< 0.012	0.017 J	ND< 0.011	ND< 0.011	ND< 0.013	ND< 0.0072
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.018	ND< 0.024	ND< 0.018	ND< 0.027	ND< 0.017	ND< 0.024	ND< 0.024	ND< 0.028	ND< 0.016
Methyl acetate	79-20-9	78000	1200000	--	--	0.18	ND< 0.034	0.39	ND< 0.038	0.26	ND< 0.034	0.15 *	ND< 0.04	ND< 0.048 *
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.017	ND< 0.023	ND< 0.017	ND< 0.026	ND< 0.016	ND< 0.023	ND< 0.35 *	ND< 0.027	ND< 0.24 *
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.02	ND< 0.027	ND< 0.02	ND< 0.03	ND< 0.019	ND< 0.027	ND< 0.027	ND< 0.032	ND< 0.018
Methylcyclohexane	108-87-2	--	--	--	--	0.22	ND< 0.034	0.4	ND< 0.037	0.82	ND< 0.034	0.18	ND< 0.039	0.055
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.01	ND< 0.014	ND< 0.011	ND< 0.016	ND< 0.0099	ND< 0.014	ND< 0.07 *	ND< 0.017	0.01 J *
Naphthalene	91-20-3	1.42	17	--	--	0.07 J	ND< 0.028	ND< 0.12	ND< 0.031	0.13 J	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.014	ND< 0.019	ND< 0.014	ND< 0.021	0.014 J	ND< 0.019	ND< 0.018	ND< 0.022	ND< 0.013
Styrene	100-42-5	6000	35000	--	--	ND< 0.013	ND< 0.017	ND< 0.013	ND< 0.019	ND< 0.012	ND< 0.017	ND< 0.017	ND< 0.02	ND< 0.012
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.015	ND< 0.021	ND< 0.015	ND< 0.023	ND< 0.014	ND< 0.02	ND< 0.02	ND< 0.024	ND< 0.014
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0085	ND< 0.012	ND< 0.0088	ND< 0.013	ND< 0.0081	ND< 0.012	ND< 0.011	ND< 0.014	ND< 0.0078
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.007	ND< 0.0097	ND< 0.0073	ND< 0.011	ND< 0.0067	ND< 0.0096	ND< 0.0094	ND< 0.011	ND< 0.0065
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.026	ND< 0.036	ND< 0.027	ND< 0.04	ND< 0.025	ND< 0.036	ND< 0.035	ND< 0.042	ND< 0.024
Toluene	108-88-3	4640	47000	--	--	0.022 J	ND< 0.019	0.049 J	ND< 0.021	0.082	ND< 0.019	0.022 J	ND< 0.022	ND< 0.013
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.026	ND< 0.036	ND< 0.027	ND< 0.04	ND< 0.025	ND< 0.036	ND< 0.035	ND< 0.042	ND< 0.024
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.024	ND< 0.033	ND< 0.025	ND< 0.037	ND< 0.023	ND< 0.033	ND< 0.032	ND< 0.038	ND< 0.022
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.02	ND< 0.027	ND< 0.02	ND< 0.03	ND< 0.019	ND< 0.027	ND< 0.027	ND< 0.032	ND< 0.018
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.014	ND< 0.02	ND< 0.015	ND< 0.022	ND< 0.014	ND< 0.02	ND< 0.019	ND< 0.023	ND< 0.013
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.017	ND< 0.01	ND< 0.015	ND< 0.015	ND< 0.018	ND< 0.01
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.014	ND< 0.02	ND< 0.015	ND< 0.022	ND< 0.014	ND< 0.02	ND< 0.02	ND< 0.023	ND< 0.013
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.024	ND< 0.034	ND< 0.025	ND< 0.037	ND< 0.023	ND< 0.034	ND< 0.033	ND< 0.039	ND< 0.023
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.012**	**ND< 0.016**	**ND< 0.012**	**ND< 0.018**	**ND< 0.011**	**ND< 0.016**	**ND< 0.016**	**ND< 0.019**	**ND< 0.011**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.015	ND< 0.02	0.024 J	ND< 0.022	0.076	ND< 0.02	ND< 0.02	ND< 0.023	ND< 0.013
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.016	ND< 0.022	0.018 J	ND< 0.024	0.053	ND< 0.022	ND< 0.021	ND< 0.025	ND< 0.015
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	0.029	ND< 0.029	0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.093	ND< 0.13	ND< 0.096	ND< 0.14	ND< 0.089	ND< 0.13	ND< 0.12	ND< 0.15	ND< 0.086
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.052 *	**ND< 0.072 ***	ND< 0.054 *	**ND< 0.08 ***	ND< 0.05 *	**ND< 0.072 ***	ND< 0.024	ND< 0.028	ND< 0.016
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.029	ND< 0.04	0.037 J	ND< 0.044	0.093 J	ND< 0.04	ND< 0.039	ND< 0.046	ND< 0.027
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0068	ND< 0.0094	0.038 J	ND< 0.01	0.07	ND< 0.0093	0.015 J	ND< 0.011	ND< 0.0063
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0358	ND< 0.0494	0.075	ND< 0.054	0.163	ND< 0.0493	0.054	ND< 0.057	ND< 0.0333

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-33+50-2FT	RR-33+50-6FT	RR-34+00-2FT	RR-34+00-6FT	RR-34+50-2FT	RR-34+50-6FT	RR-35+00-2FT	RR-35+00-6FT	RR-35+50-2FT
Date of Sample						8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/11/2016	8/3/2016	8/11/2016	8/3/2016
Depth of Sample (ft. bgs)						2	6	2	6	2	6	2	6	2
PID Field Measurement (ppm)						0.3	--	0.2	0.1	0.7	0.2	0.3	0.2	0.4
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**1.46134**	ND< 0.03986	**1.7177**	ND< 0.04378	**1.9684**	ND< 0.04102	**0.52696**	ND< 0.04544	**0.44986**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.026	ND< 0.032	ND< 0.13	ND< 0.035	ND< 0.13	ND< 0.033	ND< 0.13	ND< 0.037	ND< 0.13
Acenaphthylene	208-96-8	--	--	--	--	0.27	ND< 0.028	0.37 J	ND< 0.031	0.35 J	ND< 0.029	0.11 J	ND< 0.032	ND< 0.11
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.024	ND< 0.03	ND< 0.12	ND< 0.033	ND< 0.12	ND< 0.03	ND< 0.12	ND< 0.034	ND< 0.12
Anthracene	120-12-7	18000	230000	--	--	0.12 J	ND< 0.054	ND< 0.22	ND< 0.06	ND< 0.22	ND< 0.056	ND< 0.22	ND< 0.061	ND< 0.22
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.062	ND< 0.076	ND< 0.31	ND< 0.084	ND< 0.31	ND< 0.078	ND< 0.31	ND< 0.086	ND< 0.31
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.14	ND< 0.17	ND< 0.71	ND< 0.19	ND< 0.71	ND< 0.18	ND< 0.7	ND< 0.2	ND< 0.7
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.8	ND< 0.022	**1.2**	ND< 0.024	0.96	ND< 0.023	0.27 J	ND< 0.025	0.19 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**1.1**	ND< 0.032	**1.2**	ND< 0.035	**1.4**	ND< 0.033	**0.33 J**	ND< 0.037	**0.28 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	**1.7**	ND< 0.035	**2.1**	ND< 0.038	**2.5**	ND< 0.036	0.61 J	ND< 0.039	0.48 J
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	0.95	ND< 0.023	1	ND< 0.026	1.4	ND< 0.024	0.38 J	ND< 0.026	0.26 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.69	ND< 0.028	0.91	ND< 0.031	1.1	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11
Biphenyl	92-52-4	47	200	--	--	ND< 0.026	ND< 0.032	ND< 0.13	ND< 0.035	ND< 0.13	ND< 0.033	ND< 0.13	ND< 0.037	ND< 0.13
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.025	ND< 0.031	ND< 0.13	ND< 0.034	ND< 0.13	ND< 0.032	ND< 0.13	ND< 0.035	ND< 0.13
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.029	ND< 0.036	ND< 0.15	ND< 0.04	ND< 0.15	ND< 0.037	ND< 0.15	ND< 0.041	ND< 0.15
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.053	ND< 0.066	ND< 0.27	ND< 0.072	ND< 0.27	ND< 0.068	ND< 0.27	ND< 0.075	ND< 0.27
Carbazole	86-74-8	--	--	--	--	0.066 J	ND< 0.026	ND< 0.11	ND< 0.028	0.11 J	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.044	ND< 0.054	ND< 0.22	ND< 0.06	ND< 0.22	ND< 0.056	ND< 0.22	ND< 0.061	ND< 0.22
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.044	ND< 0.054	ND< 0.22	ND< 0.06	ND< 0.22	ND< 0.056	ND< 0.22	ND< 0.061	ND< 0.22
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.038	ND< 0.047	ND< 0.19	ND< 0.051	ND< 0.19	ND< 0.048	ND< 0.19	ND< 0.053	ND< 0.19
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.023	ND< 0.028	ND< 0.12	ND< 0.031	ND< 0.12	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.035	ND< 0.044	ND< 0.18	ND< 0.048	ND< 0.18	ND< 0.045	ND< 0.18	ND< 0.05	ND< 0.18
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.029	ND< 0.036	ND< 0.15	ND< 0.04	ND< 0.15	ND< 0.037	ND< 0.15	ND< 0.041	ND< 0.15
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.032	ND< 0.04	ND< 0.16	ND< 0.044	ND< 0.16	ND< 0.041	ND< 0.16	ND< 0.045	ND< 0.16
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.022	ND< 0.027	ND< 0.11	ND< 0.03	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.031	ND< 0.11
Chrysene	218-01-9	110	2100	--	--	0.94	ND< 0.049	1.6	ND< 0.054	1.4	ND< 0.05	0.41 J	ND< 0.056	0.31 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.031	ND< 0.039	**ND< 0.16**	ND< 0.043	**ND< 0.16**	ND< 0.04	**ND< 0.16**	ND< 0.044	**ND< 0.16**
Dibenzofuran	132-64-9	73	1000	--	--	0.047 J	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.21	ND< 0.26	ND< 1.1	ND< 0.28	ND< 1.1	ND< 0.26	ND< 1	ND< 0.29	ND< 1
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.019	ND< 0.023	ND< 0.095	ND< 0.026	ND< 0.095	ND< 0.024	ND< 0.094	ND< 0.026	ND< 0.094
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.023	ND< 0.028	ND< 0.12	ND< 0.031	ND< 0.12	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.021	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.043	ND< 0.053	ND< 0.22	ND< 0.058	ND< 0.22	ND< 0.054	ND< 0.21	ND< 0.06	ND< 0.21
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.03	ND< 0.037	ND< 0.15	ND< 0.041	ND< 0.15	ND< 0.038	ND< 0.15	ND< 0.042	ND< 0.15
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.18	ND< 0.22	ND< 0.9	ND< 0.24	ND< 0.89	ND< 0.23	ND< 0.89	ND< 0.25	ND< 0.89
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 0.82	ND< 1	ND< 4.1	ND< 1.1	ND< 4.1	ND< 1	ND< 4.1	ND< 1.1	ND< 4.1
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.037	ND< 0.045	ND< 0.18	ND< 0.05	ND< 0.18	ND< 0.046	ND< 0.18	ND< 0.051	ND< 0.18
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.021	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.021	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.061	ND< 0.075	ND< 0.31	ND< 0.082	ND< 0.31	ND< 0.077	ND< 0.3	ND< 0.085	ND< 0.3
Fluoranthene	206-44-0	2400	30000	--	--	0.87	ND< 0.023	1.7	ND< 0.026	1.1	ND< 0.024	0.35 J	ND< 0.026	0.25 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.021	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.024	ND< 0.03	**ND< 0.12**	ND< 0.033	**ND< 0.12**	ND< 0.03	**ND< 0.12**	ND< 0.034	**ND< 0.12**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.021	ND< 0.029	ND< 0.021	ND< 0.032	ND< 0.02	ND< 0.028	ND< 0.028	ND< 0.033	ND< 0.019
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.024	ND< 0.03	ND< 0.12	ND< 0.033	ND< 0.12	ND< 0.03	ND< 0.12	ND< 0.034	ND< 0.12
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.023	ND< 0.028	ND< 0.12	ND< 0.031	ND< 0.12	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.88	ND< 0.027	0.97	ND< 0.03	**1.3**	ND< 0.028	0.28 J	ND< 0.031	0.22 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.038	ND< 0.047	ND< 0.19	ND< 0.051	ND< 0.19	ND< 0.048	ND< 0.19	ND< 0.053	ND< 0.19
2-Methylnaphthalene	91-57-6	240	3000	--	--	0.13 J	ND< 0.044	ND< 0.18	ND< 0.048	0.23 J	ND< 0.045	ND< 0.18	ND< 0.05	ND< 0.18
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.021	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.021	ND< 0.026	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.026	ND< 0.1	ND< 0.029	ND< 0.1
Naphthalene	91-20-3	1.42	17	--	--	0.07 J	ND< 0.028	ND< 0.12	ND< 0.031	0.13 J	ND< 0.029	ND< 0.11	ND< 0.032	ND< 0.11
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.026	ND< 0.032	ND< 0.13	ND< 0.035	ND< 0.13	ND< 0.033	ND< 0.13	ND< 0.037	ND< 0.13
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.049	ND< 0.061	ND< 0.25	ND< 0.067	ND< 0.25	ND< 0.062	ND< 0.25	ND< 0.069	ND< 0.25
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.093	ND< 0.11	ND< 0.47	ND< 0.13	ND< 0.47	ND< 0.12	ND< 0.46	ND< 0.13	ND< 0.46
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.02	ND< 0.025	ND< 0.1	ND< 0.027	ND< 0.1	ND< 0.025	ND< 0.099	ND< 0.028	ND< 0.099
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.05	ND< 0.062	ND< 0.25	ND< 0.068	ND< 0.25	ND< 0.064	ND< 0.25	ND< 0.07	ND< 0.25
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.12	ND< 0.15	ND< 0.63	ND< 0.17	ND< 0.63	ND< 0.16	ND< 0.62	ND< 0.17	ND< 0.62
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.03	ND< 0.037	**ND< 0.15**	ND< 0.041	**ND< 0.15**	ND< 0.038	**ND< 0.15**	ND< 0.042	**ND< 0.15**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.14	ND< 0.18	ND< 0.73	ND< 0.2	ND< 0.73	ND< 0.18	ND< 0.72	ND< 0.2	ND< 0.72
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.18	ND< 0.22	**ND< 0.9**	ND< 0.24	**ND< 0.89**	ND< 0.23	**ND< 0.89**	ND< 0.25	**ND< 0.89**
Phenanthrene	85-01-8	--	--	--	--	0.3	ND< 0.032	0.43 J	ND< 0.035	0.38 J	ND< 0.033	0.15 J	ND< 0.037	ND< 0.13
Phenol	108-95-2	19000	250000	--	--	ND< 0.027	ND< 0.034	ND< 0.14	ND< 0.037	ND< 0.14	ND< 0.034	ND< 0.14	ND< 0.038	ND< 0.14
Pyrene	129-00-0	1800	23000	--	--	0.99	ND< 0.026	1.7	ND< 0.028	1.4	ND< 0.026	0.41 J	ND< 0.029	0.3 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.03	ND< 0.037	ND< 0.15	ND< 0.041	ND< 0.15	ND< 0.038	ND< 0.15	ND< 0.042	ND< 0.15
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.037	ND< 0.045	ND< 0.18	ND< 0.05	ND< 0.18	ND< 0.046	ND< 0.18	ND< 0.051	ND< 0.18
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.048	ND< 0.059	ND< 0.24	ND< 0.065	ND< 0.24	ND< 0.061	ND< 0.24	ND< 0.067	ND< 0.24
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.035	ND< 0.044	ND< 0.18	ND< 0.048	ND< 0.18	ND< 0.045	ND< 0.18	ND< 0.05	ND< 0.18
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00085	ND< 0.00054	ND< 0.00044	ND< 0.00058	ND< 0.0022	ND< 0.00055	ND< 0.00084	ND< 0.0006	ND< 0.00086
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0017	ND< 0.0011	ND< 0.00089	ND< 0.0012	ND< 0.0044	ND< 0.0011	ND< 0.0017	ND< 0.0012	ND< 0.0017
alpha-BHC	319-84-6	0.086	0.36	--	--	0.0011 J B	0.00047 J	0.0004 J	0.0005 J	0.0025 J	ND< 0.0004	0.00081 J	ND< 0.00044	0.00078 J
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.00062	ND< 0.00039	ND< 0.00032	ND< 0.00042	ND< 0.0016	ND< 0.0004	ND< 0.00062	ND< 0.00044	ND< 0.00063
delta-BHC	319-86-8	--	--	--	--	ND< 0.00064	ND< 0.00041	ND< 0.00033	ND< 0.00044	ND< 0.0017	ND< 0.00041	ND< 0.00064	ND< 0.00045	ND< 0.00065
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00067	ND< 0.00043	ND< 0.00035	ND< 0.00046	ND< 0.0017	ND< 0.00043	ND< 0.00067	ND< 0.00047	ND< 0.00068
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00073	ND< 0.00046	0.00069 J	ND< 0.00049	0.0028 J	ND< 0.00047	ND< 0.00072	ND< 0.00051	ND< 0.00073
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.00081	ND< 0.00051	0.0032	ND< 0.00055	0.011	ND< 0.00052	0.0056	ND< 0.00057	0.004
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00083	ND< 0.00053	ND< 0.00043	ND< 0.00056	ND< 0.0021	ND< 0.00053	ND< 0.00082	ND< 0.00058	ND< 0.00084
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00066	ND< 0.00042	ND< 0.00034	ND< 0.00045	ND< 0.0017	ND< 0.00043	ND< 0.00066	ND< 0.00046	ND< 0.00067
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.00062	ND< 0.00039	ND< 0.00032	ND< 0.00042	ND< 0.0016	ND< 0.0004	ND< 0.00062	ND< 0.00044	ND< 0.00063
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00064	ND< 0.00041	ND< 0.00033	ND< 0.00044	ND< 0.0017	ND< 0.00041	ND< 0.00064	ND< 0.00045	ND< 0.00065
Endrin	72-20-8	19	250	--	0.4	0.0017 J	ND< 0.00043	ND< 0.00035	ND< 0.00046	0.0037 J	ND< 0.00044	ND< 0.00068	ND< 0.00048	ND< 0.00069
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00088	ND< 0.00056	ND< 0.00045	ND< 0.0006	ND< 0.0023	ND< 0.00057	ND< 0.00088	ND< 0.00062	ND< 0.00089
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00085	ND< 0.00054	ND< 0.00044	ND< 0.00058	ND< 0.0022	ND< 0.00055	ND< 0.00084	ND< 0.0006	ND< 0.00086
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00063	0.00049 J	ND< 0.00033	ND< 0.00043	ND< 0.0016	ND< 0.00041	ND< 0.00063	ND< 0.00044	ND< 0.00064
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0011	ND< 0.0007	ND< 0.00057	ND< 0.00074	ND< 0.0028	ND< 0.00071	ND< 0.0034 F2 F1	ND< 0.00077	ND< 0.0011
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00075	ND< 0.00047	ND< 0.00039	ND< 0.00051	ND< 0.0019	ND< 0.00048	ND< 0.00074	ND< 0.00052	ND< 0.00076
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00089	ND< 0.00057	0.00051 J	ND< 0.0006	ND< 0.0023	ND< 0.00057	ND< 0.00089	ND< 0.00062	ND< 0.0009
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00071	ND< 0.00045	ND< 0.00036	ND< 0.00048	ND< 0.0018	ND< 0.00045	ND< 0.0034 F1	ND< 0.00049	ND< 0.00071
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.02	ND< 0.013	ND< 0.01	ND< 0.014	ND< 0.052	ND< 0.013	ND< 0.02	ND< 0.014	ND< 0.02
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.014	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.014	ND< 0.011	ND< 0.015	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0056	ND< 0.0069	ND< 0.0055	ND< 0.0076	ND< 0.0057	ND< 0.0072	ND< 0.0055	ND< 0.0077	ND< 0.0056
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0063	ND< 0.0078	ND< 0.0062	ND< 0.0085	ND< 0.0064	ND< 0.0081	ND< 0.0062	ND< 0.0087	ND< 0.0063

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead

[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to approximate leaching of lead in a landfill over 20 years. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-35+50-6FT	RR-36+00-2FT	RR-36+00-6FT	RR-36+50-2FT	RR-36+50-6FT	RR-37+00-2FT	RR-37+00-6FT	RR-37+50-2FT	RR-37+50-6FT
Date of Sample						8/3/2016	8/3/2016	8/3/2016	8/2/2016	8/3/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016
Depth of Sample (ft. bgs)						6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.3	0.3	3	0.2	0	0.1	0.2	0.6	0.2
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	7.68 HF	8.52 HF	8.25 HF	8.14 HF	8.1 HF	8.56 HF	8.03 HF	8.44 HF	8.43 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176.0	>176.0	>176.0	>176	>176	>176	>176	>176	>176
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	4.3	6.5	5.5	4.3	5.7	2.5	4.1	5.5	4.3
Barium	7440-39-3	11700	220000	--	2000	89.1	37.7	228	39.4	295	26.2 ^	256 ^	31.1 ^	291 ^
Cadmium	7440-43-9	7.15	980	--	20	0.11 J B	0.16 J B	0.17 J B	0.13 J B	0.21 J B	0.088 J B	0.21 J B	0.14 J B	0.22 J B
Chromium	7440-47-3	1800000	41900	--	100	24.4	10.1	52.5	11.2	64.6	6.1	55.2	8.9	60.6
Lead	7439-92-1	400	800	111	100	8.2	66.7	15.8	57.9	15.8	23.3	13.9	135	15.3
Lead TCLP [4]	7439-92-1	--	--	--	5	--	--	--	--	--	--	--	0.0031 J	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.59	ND< 0.48	ND< 0.65	ND< 0.43	ND< 0.64	ND< 0.44	ND< 0.55	ND< 0.47	ND< 0.6
Silver	7440-22-4	247	5800	--	100	ND< 0.29	ND< 0.24	ND< 0.33	ND< 0.22	ND< 0.32	ND< 0.22	ND< 0.27	ND< 0.24	ND< 0.3
Mercury	7439-97-6	10.9	46	--	4	ND< 0.01	0.11	ND< 0.012	0.071	ND< 0.012	0.047	0.011 J	0.045	ND< 0.012
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	ND< 6.6	27	ND< 7.5	15 J	ND< 7.4	15 J	ND< 7	65	ND< 7.6
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.44	ND< 0.36	ND< 0.49	ND< 0.35	ND< 0.48	ND< 0.35	ND< 0.44	1.1 J	ND< 0.5
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.048	ND< 0.039	ND< 0.054	ND< 0.038	ND< 0.053	ND< 0.039	ND< 0.05	ND< 0.038	ND< 0.054
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.064	ND< 0.053	ND< 0.072	ND< 0.051	ND< 0.071	ND< 0.052	ND< 0.066	ND< 0.051	ND< 0.071
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.08	ND< 0.066	ND< 0.09	ND< 0.063	ND< 0.089	ND< 0.066	ND< 0.083	ND< 0.064	ND< 0.089
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.044	ND< 0.036	ND< 0.05	ND< 0.035	ND< 0.049	ND< 0.036	ND< 0.046	ND< 0.035	ND< 0.049
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.032	ND< 0.026	ND< 0.036	ND< 0.025	ND< 0.035	ND< 0.026	ND< 0.033	ND< 0.026	ND< 0.036
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.056	ND< 0.046	ND< 0.063	ND< 0.044	ND< 0.062	ND< 0.046	ND< 0.058	ND< 0.045	ND< 0.062
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.036	ND< 0.03	ND< 0.041	ND< 0.029	ND< 0.04	ND< 0.03	ND< 0.037	ND< 0.029	ND< 0.04
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.04	ND< 0.033	ND< 0.045	ND< 0.032	ND< 0.044	ND< 0.033	ND< 0.042	ND< 0.032	ND< 0.045
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.052	ND< 0.043	ND< 0.059	ND< 0.041	ND< 0.058	ND< 0.043	ND< 0.054	ND< 0.042	ND< 0.058
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.38 *	ND< 0.32 *	ND< 0.47 *	ND< 0.23 *	ND< 0.44 *	ND< 0.25 *	ND< 0.56 *	ND< 0.26 *	ND< 0.5 *
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.015	ND< 0.012	ND< 0.018	ND< 0.0089	ND< 0.017	ND< 0.0095	ND< 0.021	ND< 0.01	ND< 0.019
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.017	ND< 0.014	ND< 0.021	ND< 0.01	ND< 0.019	ND< 0.011	ND< 0.024	ND< 0.012	ND< 0.022
Bromoform	75-25-2	19	86	--	--	ND< 0.038	ND< 0.032	ND< 0.047	ND< 0.023	ND< 0.044	ND< 0.025	ND< 0.056	ND< 0.026	ND< 0.05
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.017	ND< 0.014	ND< 0.021	ND< 0.01	ND< 0.019	ND< 0.011	ND< 0.024	ND< 0.012	ND< 0.022
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.23	ND< 0.19	ND< 0.28	ND< 0.14	ND< 0.26	ND< 0.15	ND< 0.33	ND< 0.16	ND< 0.3
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.022	ND< 0.019	ND< 0.028	ND< 0.014	ND< 0.026	ND< 0.015	ND< 0.033	ND< 0.015	ND< 0.029
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.028	ND< 0.024	ND< 0.035	ND< 0.017	ND< 0.032	ND< 0.018	ND< 0.041	ND< 0.019	ND< 0.037
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.021	ND< 0.018	ND< 0.026	ND< 0.013	ND< 0.024	ND< 0.014	ND< 0.031	ND< 0.015	ND< 0.028
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.035	ND< 0.029	ND< 0.043	ND< 0.021	ND< 0.04	ND< 0.023	ND< 0.051	ND< 0.024	ND< 0.045
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.019	ND< 0.016	ND< 0.024	ND< 0.012	ND< 0.022	ND< 0.013	ND< 0.028	ND< 0.013	ND< 0.025
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.01	ND< 0.0084	ND< 0.012	ND< 0.0062	ND< 0.012	ND< 0.0066	ND< 0.015	ND< 0.0069	ND< 0.013
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.016	ND< 0.013	ND< 0.02	ND< 0.0097	ND< 0.018	ND< 0.01	ND< 0.023	ND< 0.011	ND< 0.021
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.024	ND< 0.02	ND< 0.03	ND< 0.015	ND< 0.028	ND< 0.016	ND< 0.036	ND< 0.017	ND< 0.032
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
Chloromethane	74-87-3	110	460	--	--	ND< 0.018	ND< 0.015	ND< 0.023	ND< 0.011	ND< 0.021	ND< 0.012	ND< 0.026	ND< 0.013	ND< 0.024
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.029	ND< 0.025	ND< 0.036	ND< 0.018	ND< 0.034	ND< 0.019	ND< 0.043	ND< 0.02	ND< 0.038
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.016	ND< 0.013	ND< 0.019	ND< 0.0095	ND< 0.018	ND< 0.01	ND< 0.023	ND< 0.011	ND< 0.02
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.017	ND< 0.014	ND< 0.021	ND< 0.01	ND< 0.019	ND< 0.011	ND< 0.025	0.042 J	ND< 0.022
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.038**	**ND< 0.032**	**ND< 0.047**	**ND< 0.023**	**ND< 0.044**	**ND< 0.025**	**ND< 0.056**	**ND< 0.026**	**ND< 0.05**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.025	ND< 0.021	ND< 0.031	ND< 0.015	ND< 0.028	ND< 0.016	ND< 0.036	ND< 0.017	ND< 0.032
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.019	ND< 0.016	ND< 0.024	ND< 0.012	ND< 0.022	ND< 0.013	ND< 0.028	ND< 0.013	ND< 0.025
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.02	ND< 0.017	ND< 0.025	ND< 0.012	ND< 0.023	ND< 0.013	ND< 0.03	ND< 0.014	ND< 0.027
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.011	ND< 0.009	ND< 0.013	ND< 0.0065	ND< 0.012	ND< 0.007	ND< 0.016	ND< 0.0074	ND< 0.014
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.024	ND< 0.02	ND< 0.029	ND< 0.014	ND< 0.027	ND< 0.016	ND< 0.034	ND< 0.016	ND< 0.031
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.031	ND< 0.026	ND< 0.039	ND< 0.019	ND< 0.036	ND< 0.021	ND< 0.046	ND< 0.022	ND< 0.041
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.021	ND< 0.018	ND< 0.026	ND< 0.013	ND< 0.024	ND< 0.014	ND< 0.031	ND< 0.015	ND< 0.027
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.018	ND< 0.015	ND< 0.022	ND< 0.011	ND< 0.021	ND< 0.012	ND< 0.026	ND< 0.012	ND< 0.023
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	ND< 0.053 *	ND< 0.099 *
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.014	ND< 0.012	ND< 0.017	ND< 0.0085	ND< 0.016	ND< 0.0091	ND< 0.02	ND< 0.0096	ND< 0.018
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.017	ND< 0.015	ND< 0.021	ND< 0.011	ND< 0.02	ND< 0.011	ND< 0.025	ND< 0.012	ND< 0.023
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.019	ND< 0.016	ND< 0.024	ND< 0.012	ND< 0.022	ND< 0.013	ND< 0.028	ND< 0.013	ND< 0.025
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.018	ND< 0.015	ND< 0.023	ND< 0.011	ND< 0.021	ND< 0.012	ND< 0.027	ND< 0.013	ND< 0.024
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0075	ND< 0.0063	ND< 0.0093	ND< 0.0046	ND< 0.0086	ND< 0.0049	ND< 0.011	ND< 0.0052	ND< 0.0098
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.39	ND< 0.33	ND< 0.48	ND< 0.24	ND< 0.45	ND< 0.26	ND< 0.57	ND< 0.27	ND< 0.51
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.022	ND< 0.019	ND< 0.028	ND< 0.014	ND< 0.025	ND< 0.015	ND< 0.032	ND< 0.015	ND< 0.029
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.013	ND< 0.011	ND< 0.017	ND< 0.0082	ND< 0.015	ND< 0.0088	ND< 0.019	ND< 0.0092	ND< 0.017
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.03	ND< 0.025	ND< 0.037	ND< 0.019	ND< 0.035	ND< 0.02	ND< 0.044	ND< 0.021	ND< 0.039
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.16	ND< 0.13	ND< 0.19	ND< 0.096	ND< 0.18	ND< 0.1	ND< 0.23	ND< 0.11	ND< 0.2
Iodomethane	74-88-4	--	--	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	0.029 J *	ND< 0.099 *
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.41	ND< 0.34	ND< 0.5	ND< 0.25	ND< 0.47	ND< 0.27	ND< 0.59	ND< 0.28	ND< 0.53
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.011	ND< 0.0096	ND< 0.014	ND< 0.007	ND< 0.013	ND< 0.0075	ND< 0.017	ND< 0.0079	ND< 0.015
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.026	0.035 J	ND< 0.032	ND< 0.016	ND< 0.029	ND< 0.017	ND< 0.038	ND< 0.018	ND< 0.034
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	0.046 J *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	0.099 *	ND< 0.099 *
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.38 *	ND< 0.32 *	ND< 0.47 *	ND< 0.23 *	ND< 0.44 *	ND< 0.25 *	ND< 0.56 *	ND< 0.26 *	ND< 0.5 *
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.029	ND< 0.024	ND< 0.036	ND< 0.018	ND< 0.033	ND< 0.019	ND< 0.042	ND< 0.02	ND< 0.038
Methylcyclohexane	108-87-2	--	--	--	--	ND< 0.036	0.059 J	ND< 0.044	0.032 J	ND< 0.041	0.029 J	ND< 0.052	0.15	ND< 0.047
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.076 *	ND< 0.064 *	ND< 0.095 *	ND< 0.047 *	ND< 0.088 *	ND< 0.05 *	ND< 0.11 *	0.025 J *	0.042 J *
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	0.13 J	ND< 0.16
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.02	ND< 0.017	ND< 0.025	ND< 0.012	ND< 0.023	ND< 0.013	ND< 0.029	ND< 0.014	ND< 0.026
Styrene	100-42-5	6000	35000	--	--	ND< 0.018	ND< 0.015	ND< 0.023	ND< 0.011	ND< 0.021	ND< 0.012	ND< 0.027	ND< 0.013	ND< 0.024
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.022	ND< 0.018	ND< 0.027	ND< 0.013	ND< 0.025	ND< 0.014	ND< 0.032	ND< 0.015	ND< 0.028
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.012	ND< 0.01	ND< 0.015	ND< 0.0076	ND< 0.014	ND< 0.0082	ND< 0.018	ND< 0.0085	ND< 0.016
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.01	ND< 0.0086	ND< 0.013	ND< 0.0063	ND< 0.012	ND< 0.0068	ND< 0.015	ND< 0.0071	ND< 0.013
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.038	ND< 0.032	ND< 0.047	ND< 0.023	ND< 0.044	ND< 0.025	ND< 0.056	ND< 0.026	ND< 0.05
Toluene	108-88-3	4640	47000	--	--	ND< 0.02	0.033 J	ND< 0.025	0.014 J	ND< 0.023	ND< 0.013	ND< 0.03	0.035 J	ND< 0.027
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.038	ND< 0.032	ND< 0.047	ND< 0.023	ND< 0.044	ND< 0.025	ND< 0.056	ND< 0.026	ND< 0.05
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.035	ND< 0.029	ND< 0.044	ND< 0.021	ND< 0.04	ND< 0.023	ND< 0.051	ND< 0.024	ND< 0.046
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.029	ND< 0.024	ND< 0.036	ND< 0.018	ND< 0.033	ND< 0.019	ND< 0.042	ND< 0.02	ND< 0.038
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.021	ND< 0.018	ND< 0.026	ND< 0.013	ND< 0.024	ND< 0.014	ND< 0.031	ND< 0.015	ND< 0.028
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.016	ND< 0.013	ND< 0.02	ND< 0.0098	ND< 0.018	ND< 0.011	ND< 0.023	ND< 0.011	ND< 0.021
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.021	ND< 0.018	ND< 0.026	ND< 0.013	ND< 0.024	ND< 0.014	ND< 0.031	ND< 0.015	ND< 0.028
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.036	ND< 0.03	ND< 0.044	ND< 0.022	ND< 0.041	ND< 0.024	ND< 0.052	ND< 0.025	ND< 0.047
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.017**	**ND< 0.014**	**ND< 0.021**	**ND< 0.01**	**ND< 0.02**	**ND< 0.011**	**ND< 0.025**	**ND< 0.012**	**ND< 0.022**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.021	ND< 0.018	ND< 0.026	ND< 0.013	ND< 0.024	ND< 0.014	ND< 0.031	0.036 J	ND< 0.028
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.023	ND< 0.019	ND< 0.029	ND< 0.014	ND< 0.026	ND< 0.015	ND< 0.034	ND< 0.016	ND< 0.03
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.14	ND< 0.11	ND< 0.17	ND< 0.083	ND< 0.16	ND< 0.089	ND< 0.2	ND< 0.094	ND< 0.18
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.026	ND< 0.021	ND< 0.032	ND< 0.016	ND< 0.029	ND< 0.017	ND< 0.037	ND< 0.018	ND< 0.033
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.042	ND< 0.035	ND< 0.052	ND< 0.026	ND< 0.048	ND< 0.028	ND< 0.062	0.044 J	ND< 0.055
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0099	ND< 0.0083	ND< 0.012	ND< 0.0061	ND< 0.011	ND< 0.0065	ND< 0.014	0.045 J	ND< 0.013
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0519	ND< 0.0433	ND< 0.064	ND< 0.0321	ND< 0.059	ND< 0.0345	ND< 0.076	0.089	ND< 0.068

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-35+50-6FT	RR-36+00-2FT	RR-36+00-6FT	RR-36+50-2FT	RR-36+50-6FT	RR-37+00-2FT	RR-37+00-6FT	RR-37+50-2FT	RR-37+50-6FT
Date of Sample						8/3/2016	8/3/2016	8/3/2016	8/2/2016	8/3/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016
Depth of Sample (ft. bgs)						6	2	6	2	6	2	6	2	6
PID Field Measurement (ppm)						0.3	0.3	3	0.2	0	0.1	0.2	0.6	0.2
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	ND< 0.04097	**1.3648**	ND< 0.04599	**0.2568**	ND< 0.04599	**0.26031**	ND< 0.04323	**1.18644**	**1.76408**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.033	ND< 0.13	ND< 0.037	ND< 0.026	ND< 0.037	ND< 0.13	ND< 0.035	0.15 J	ND< 0.19
Acenaphthylene	208-96-8	--	--	--	--	ND< 0.029	0.14 J	ND< 0.033	0.064 J	ND< 0.033	ND< 0.12	ND< 0.031	0.28 J	0.4 J
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.03	ND< 0.12	ND< 0.034	ND< 0.024	ND< 0.034	ND< 0.12	ND< 0.032	ND< 0.12	ND< 0.17
Anthracene	120-12-7	18000	230000	--	--	ND< 0.056	0.26 J	ND< 0.063	0.063 J	ND< 0.063	ND< 0.23	ND< 0.058	0.44 J	ND< 0.31
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.078	ND< 0.32	ND< 0.088	ND< 0.061	ND< 0.088	ND< 0.32	ND< 0.082	ND< 0.32	ND< 0.44
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.18	ND< 0.73	ND< 0.2	ND< 0.14	ND< 0.2	ND< 0.73	ND< 0.19	ND< 0.72	ND< 1
Benzo[a]anthracene	56-55-3	1.1	21	--	--	ND< 0.022	0.9 J	ND< 0.025	0.14 J	ND< 0.025	ND< 0.092	ND< 0.024	0.62 J	0.61 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	ND< 0.033	**1**	ND< 0.037	**0.18**	ND< 0.037	**0.14 J**	ND< 0.035	**0.81 J**	**1.1 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	ND< 0.036	**1.2**	ND< 0.04	0.28	ND< 0.04	0.21 J	ND< 0.038	**1.6 K**	**1.8**
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	ND< 0.024	0.78 J	ND< 0.027	0.25	ND< 0.027	0.18 J	ND< 0.025	0.88 J	1.3
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.029	0.48 J	ND< 0.033	0.11 J	ND< 0.033	ND< 0.12	ND< 0.031	ND< 0.12	0.43 J
Biphenyl	92-52-4	47	200	--	--	ND< 0.033	ND< 0.13	ND< 0.037	ND< 0.026	ND< 0.037	ND< 0.13	ND< 0.035	ND< 0.13	ND< 0.19
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.032	ND< 0.13	ND< 0.036	ND< 0.025	ND< 0.036	ND< 0.13	ND< 0.033	ND< 0.13	ND< 0.18
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.037	ND< 0.15	ND< 0.042	ND< 0.029	ND< 0.042	ND< 0.15	ND< 0.039	ND< 0.15	ND< 0.21
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.067	ND< 0.27	ND< 0.076	ND< 0.053	ND< 0.076	ND< 0.28	ND< 0.071	ND< 0.27	ND< 0.38
Carbazole	86-74-8	--	--	--	--	ND< 0.026	ND< 0.11	ND< 0.03	0.028 J	ND< 0.03	ND< 0.11	ND< 0.028	0.13 J	ND< 0.15
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.056	ND< 0.23	ND< 0.063	ND< 0.043	ND< 0.063	ND< 0.23	ND< 0.058	ND< 0.23	ND< 0.31
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.056	ND< 0.23	ND< 0.063	ND< 0.043	ND< 0.063	ND< 0.23	ND< 0.058	ND< 0.23	ND< 0.31
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.048	ND< 0.19	ND< 0.054	ND< 0.037	ND< 0.054	ND< 0.19	ND< 0.05	ND< 0.19	ND< 0.27
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	ND< 0.12	ND< 0.16
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.045	ND< 0.18	ND< 0.051	ND< 0.035	ND< 0.051	ND< 0.18	ND< 0.047	ND< 0.18	ND< 0.25
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.037	ND< 0.15	ND< 0.042	ND< 0.029	ND< 0.042	ND< 0.15	ND< 0.039	ND< 0.15	ND< 0.21
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.041	ND< 0.17	ND< 0.046	ND< 0.032	ND< 0.046	ND< 0.17	ND< 0.043	ND< 0.17	ND< 0.23
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.028	ND< 0.11	ND< 0.031	ND< 0.022	ND< 0.031	ND< 0.11	ND< 0.029	ND< 0.11	ND< 0.16
Chrysene	218-01-9	110	2100	--	--	ND< 0.05	1	ND< 0.057	0.2	ND< 0.057	ND< 0.21	ND< 0.053	0.84 J	0.78 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	ND< 0.04	**ND< 0.16**	ND< 0.045	ND< 0.031	ND< 0.045	**ND< 0.16**	ND< 0.042	**ND< 0.16**	**0.32 J**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	0.14 J	ND< 0.15
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 0.26	ND< 1.1	ND< 0.3	ND< 0.21	ND< 0.3	ND< 1.1	ND< 0.28	ND< 1.1	**ND< 1.5**
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.024	ND< 0.097	ND< 0.027	ND< 0.019	ND< 0.027	ND< 0.097	ND< 0.025	ND< 0.097	ND< 0.13
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	ND< 0.12	ND< 0.16
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.15
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.054	ND< 0.22	ND< 0.061	ND< 0.042	ND< 0.061	ND< 0.22	ND< 0.057	ND< 0.22	ND< 0.3
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.038	ND< 0.16	ND< 0.043	ND< 0.03	ND< 0.043	ND< 0.16	ND< 0.04	ND< 0.16	ND< 0.22
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.22	ND< 0.91	ND< 0.25	ND< 0.18	ND< 0.25	ND< 0.92	ND< 0.24	ND< 0.91	ND< 1.3
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 1	ND< 4.2	ND< 1.2	ND< 0.81	ND< 1.2	ND< 4.2	ND< 1.1	ND< 4.2	ND< 5.8
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.046	ND< 0.19	ND< 0.052	ND< 0.036	ND< 0.052	ND< 0.19	ND< 0.049	ND< 0.19	ND< 0.26
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.15
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.15
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.077	ND< 0.31	ND< 0.086	ND< 0.06	ND< 0.087	ND< 0.31	ND< 0.081	ND< 0.31	ND< 0.43
Fluoranthene	206-44-0	2400	30000	--	--	ND< 0.024	1.8	ND< 0.027	0.21	ND< 0.027	0.15 J	ND< 0.025	1.2	0.48 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	0.18 J	ND< 0.15
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	ND< 0.03	**ND< 0.12**	ND< 0.034	ND< 0.024	ND< 0.034	**ND< 0.12**	ND< 0.032	**ND< 0.12**	**ND< 0.17**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.03	ND< 0.025	ND< 0.037	ND< 0.019	ND< 0.035	ND< 0.02	ND< 0.044	ND< 0.021	ND< 0.039
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.03	ND< 0.12	ND< 0.034	ND< 0.024	ND< 0.034	ND< 0.12	ND< 0.032	ND< 0.12	ND< 0.17
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	ND< 0.12	ND< 0.16
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	ND< 0.028	0.69 J	ND< 0.031	0.18	ND< 0.031	0.14 J	ND< 0.029	0.73 J	0.98 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.048	ND< 0.19	ND< 0.054	ND< 0.037	ND< 0.054	ND< 0.19	ND< 0.05	ND< 0.19	ND< 0.27
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.045	ND< 0.18	ND< 0.051	ND< 0.035	ND< 0.051	ND< 0.18	ND< 0.047	0.21 J	ND< 0.25
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.15
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.026	ND< 0.11	ND< 0.03	ND< 0.021	ND< 0.03	ND< 0.11	ND< 0.028	ND< 0.11	ND< 0.15
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.029	ND< 0.12	ND< 0.033	ND< 0.023	ND< 0.033	ND< 0.12	ND< 0.031	0.13 J	ND< 0.16
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.033	ND< 0.13	ND< 0.037	ND< 0.026	ND< 0.037	ND< 0.13	ND< 0.035	ND< 0.13	ND< 0.19
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.062	ND< 0.25	ND< 0.07	ND< 0.049	ND< 0.07	ND< 0.25	ND< 0.065	ND< 0.25	ND< 0.35
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.12	ND< 0.48	ND< 0.13	ND< 0.092	ND< 0.13	ND< 0.48	ND< 0.12	ND< 0.48	ND< 0.66
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.025	ND< 0.1	ND< 0.028	ND< 0.02	ND< 0.028	ND< 0.1	ND< 0.026	ND< 0.1	ND< 0.14
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.063	ND< 0.26	ND< 0.072	ND< 0.05	ND< 0.072	ND< 0.26	ND< 0.067	ND< 0.26	ND< 0.36
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.16	ND< 0.64	ND< 0.18	ND< 0.12	ND< 0.18	ND< 0.64	ND< 0.17	ND< 0.64	ND< 0.88
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	ND< 0.038	**ND< 0.16**	ND< 0.043	ND< 0.03	ND< 0.043	**ND< 0.16**	ND< 0.04	**ND< 0.16**	**ND< 0.22**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.18	ND< 0.74	ND< 0.21	ND< 0.14	ND< 0.21	ND< 0.74	ND< 0.19	ND< 0.74	ND< 1
Pentachlorophenol	87-86-5	0.504	4	--	2000	ND< 0.22	**ND< 0.91**	ND< 0.25	ND< 0.18	ND< 0.25	**ND< 0.92**	ND< 0.24	**ND< 0.91**	**ND< 1.3**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.033	1.1	ND< 0.037	0.09 J	ND< 0.037	ND< 0.13	ND< 0.035	0.85 J	0.3 J
Phenol	108-95-2	19000	250000	--	--	ND< 0.034	ND< 0.14	ND< 0.039	ND< 0.027	ND< 0.039	ND< 0.14	ND< 0.036	ND< 0.14	ND< 0.19
Pyrene	129-00-0	1800	23000	--	--	ND< 0.026	1.7	ND< 0.03	0.22	ND< 0.03	0.15 J	ND< 0.028	0.98	0.67 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.038	ND< 0.16	ND< 0.043	ND< 0.03	ND< 0.043	ND< 0.16	ND< 0.04	ND< 0.16	ND< 0.22
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.046	ND< 0.19	ND< 0.052	ND< 0.036	ND< 0.052	ND< 0.19	ND< 0.049	ND< 0.19	ND< 0.26
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.061	ND< 0.25	ND< 0.069	ND< 0.048	ND< 0.069	ND< 0.25	ND< 0.064	ND< 0.25	ND< 0.34
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.045	ND< 0.18	ND< 0.051	ND< 0.035	ND< 0.051	ND< 0.18	ND< 0.047	ND< 0.18	ND< 0.25
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.00055	ND< 0.00045	ND< 0.00061	ND< 0.00085	ND< 0.0006	ND< 0.00044	ND< 0.00057	ND< 0.00086	ND< 0.00061
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0011	ND< 0.00091	ND< 0.0012	ND< 0.0017	ND< 0.0012	ND< 0.00088	ND< 0.0012	ND< 0.0017	ND< 0.0012
alpha-BHC	319-84-6	0.086	0.36	--	--	ND< 0.0004	0.00042 J	ND< 0.00044	0.00077 J	0.00051 J	0.00045 J	ND< 0.00042	ND< 0.00063	0.00052 J
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.0004	ND< 0.00033	ND< 0.00044	ND< 0.00062	ND< 0.00044	ND< 0.00032	ND< 0.00042	ND< 0.00063	ND< 0.00044
delta-BHC	319-86-8	--	--	--	--	ND< 0.00041	ND< 0.00034	ND< 0.00046	ND< 0.00064	ND< 0.00045	ND< 0.00033	ND< 0.00043	ND< 0.00065	ND< 0.00046
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.00043	ND< 0.00036	ND< 0.00048	ND< 0.00067	ND< 0.00047	ND< 0.00034	ND< 0.00045	ND< 0.00068	ND< 0.00048
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.00047	ND< 0.00039	ND< 0.00052	ND< 0.00072	ND< 0.00051	0.00056 J	ND< 0.00049	ND< 0.00074	ND< 0.00052
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.00052	ND< 0.00043	ND< 0.00058	ND< 0.00081	ND< 0.00057	0.0026	ND< 0.00054	ND< 0.00082	ND< 0.00058
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.00053	ND< 0.00044	ND< 0.00059	ND< 0.00083	ND< 0.00058	ND< 0.00043	ND< 0.00056	ND< 0.00084	ND< 0.00059
Endosulfan I	959-98-8	--	--	--	--	ND< 0.00043	ND< 0.00035	ND< 0.00047	ND< 0.00066	ND< 0.00047	ND< 0.00034	ND< 0.00044	ND< 0.00067	ND< 0.00047
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.0004	ND< 0.00033	ND< 0.00044	ND< 0.00062	ND< 0.00044	ND< 0.00032	ND< 0.00042	ND< 0.00063	ND< 0.00044
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.00041	ND< 0.00034	ND< 0.00046	ND< 0.00064	ND< 0.00045	0.00054 J	ND< 0.00043	ND< 0.00066	ND< 0.00046
Endrin	72-20-8	19	250	--	0.4	ND< 0.00044	ND< 0.00036	ND< 0.00049	ND< 0.00068	ND< 0.00048	ND< 0.00035	ND< 0.00046	ND< 0.0007	ND< 0.00049
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.00057	ND< 0.00047	ND< 0.00063	ND< 0.00088	ND< 0.00062	ND< 0.00045	ND< 0.00059	ND< 0.0009	ND< 0.00063
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.00055	ND< 0.00045	ND< 0.00061	ND< 0.00085	ND< 0.0006	ND< 0.00044	ND< 0.00057	ND< 0.00086	ND< 0.00061
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.00041	ND< 0.00034	ND< 0.00045	ND< 0.00063	ND< 0.00045	ND< 0.00033	ND< 0.00043	ND< 0.00064	ND< 0.00045
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0007	ND< 0.00058	ND< 0.00079	ND< 0.0011	ND< 0.00077	ND< 0.00056	ND< 0.00074	ND< 0.0011	ND< 0.00078
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.00048	ND< 0.0004	ND< 0.00054	ND< 0.00075	ND< 0.00053	ND< 0.00038	ND< 0.0005	ND< 0.00076	ND< 0.00053
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.00057	ND< 0.00047	ND< 0.00064	ND< 0.00089	ND< 0.00063	ND< 0.00046	ND< 0.0006	ND< 0.00091	ND< 0.00064
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.00045	ND< 0.00037	ND< 0.0005	ND< 0.0007	ND< 0.0005	ND< 0.00036	ND< 0.00047	ND< 0.00072	ND< 0.0005
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.013	ND< 0.011	ND< 0.014	ND< 0.02	ND< 0.014	ND< 0.01	ND< 0.013	ND< 0.02	ND< 0.014
2,4-D	94-75-7	700	9600	--	200	ND< 0.014	ND< 0.012	ND< 0.016	ND< 0.011	ND< 0.016	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.016
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.007	ND< 0.0059	ND< 0.008	ND< 0.0056	ND< 0.0079	ND< 0.0058	ND< 0.0075	ND< 0.0057	ND< 0.008
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0078	ND< 0.0066	ND< 0.009	ND< 0.0063	ND< 0.0089	ND< 0.0065	ND< 0.0084	ND< 0.0064	ND< 0.009

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead
[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to approximate leaching of lead in a landfill over 20 years. All TCLP standards and results are presented in units of mg/L

Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-38+00-2FT	RR-38+00-6FT	RR-38+50-2FT	RR-39+00-2FT	RR-39+50-2FT	RR-40+00-2FT	RR-40+50-2FT	RR-41+00-2FT	RR-42+50-2FT
Date of Sample						8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	7/27/2016
Depth of Sample (ft. bgs)						2	6	2	2	2	2	2	2	2
PID Field Measurement (ppm)						0.4	0.1	0.4	0.5	0.6	1.5	0.2	0.8	0.3
Waste Characteristics														
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.3 HF	8.06 HF	8.48 HF	8.43 HF	8.59 HF	8.41 HF	8.63 HF	7.95 HF	8.59 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176	>176	>176	>176	>180	>180	>180	>180	>176.0
Metals 6010C														
Arsenic	7440-38-2	--	--	16	100	5.9	5.5	4.1	5.5	6.4	6.6	4.4	7.6	4.7
Barium	7440-39-3	11700	220000	--	2000	30.4 ^	217 ^	23.7 ^	40 ^	259 ^	36.8 ^	20.6 ^	36.4 ^	33.6
Cadmium	7440-43-9	7.15	980	--	20	0.12 J B	0.2 J B	0.15 J B	0.18 J B	0.18 J B	0.18 J B	0.11 J B	0.16 J B	0.17 J
Chromium	7440-47-3	1800000	41900	--	100	10.6	50.6	12.8	11.2	48.3	8.9	8	8	7.7 ^
Lead	7439-92-1	400	800	111	100	116	15	123	268	14.9	282	111	240	162
Lead TCLP [4]	7439-92-1	--	--	--	5	0.006 J	--	0.0091 J B	0.015 J	--	0.018 J	0.011 J	0.011 J	0.027
Selenium	7782-49-2	382	5800	--	20	0.99 J	ND< 0.57	ND< 0.41	0.6 J	0.51 J	ND< 0.43	ND< 0.43	0.71 J	ND< 0.42
Silver	7440-22-4	247	5800	--	100	ND< 0.23	ND< 0.28	ND< 0.2	ND< 0.22	ND< 0.25	ND< 0.21	ND< 0.22	ND< 0.23	ND< 0.21
Mercury	7439-97-6	10.9	46	--	4	0.038	0.017 J	0.038	0.058	0.0089 J	0.045	0.13	0.13	0.059
Total Petroleum Hydrocarbons (TPH) 8015D [3]														
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	51	ND< 7	26	44	65	75	67	37	29
GRO (C6-C10)	8006-61-9	82	420	--	--	1.5	ND< 0.47	1 J	1.5	1.8	1.7	0.39 J	3.5	ND< 0.36
Polchlorinated Biphenols (PCBs)														
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.038	ND< 0.05	ND< 0.039	ND< 0.039	ND< 0.041	ND< 0.039	ND< 0.037	ND< 0.04	ND< 0.039
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.051	ND< 0.067	ND< 0.052	ND< 0.052	ND< 0.054	ND< 0.051	ND< 0.05	ND< 0.054	ND< 0.052
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.063	ND< 0.084	ND< 0.065	ND< 0.065	ND< 0.068	ND< 0.064	ND< 0.062	ND< 0.067	ND< 0.065
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.035	ND< 0.046	ND< 0.036	ND< 0.036	ND< 0.037	ND< 0.035	ND< 0.034	ND< 0.037	ND< 0.036
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.025	ND< 0.034	ND< 0.026	ND< 0.026	ND< 0.027	ND< 0.026	ND< 0.025	ND< 0.027	ND< 0.026
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.044	ND< 0.059	ND< 0.046	ND< 0.045	ND< 0.047	ND< 0.045	ND< 0.044	ND< 0.047	ND< 0.045
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.028	ND< 0.038	ND< 0.029	ND< 0.029	ND< 0.03	ND< 0.029	ND< 0.028	ND< 0.03	ND< 0.029
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.032	ND< 0.042	ND< 0.033	ND< 0.032	ND< 0.034	ND< 0.032	ND< 0.031	ND< 0.034	ND< 0.032
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.041	ND< 0.055	ND< 0.042	ND< 0.042	ND< 0.044	ND< 0.042	ND< 0.041	ND< 0.044	ND< 0.042
Volatile Organic Compounds (VOCs) 8260														
Acetone	67-64-1	39900	670000	--	--	ND< 0.25 *	ND< 0.44 *	ND< 0.26 *	ND< 0.26 *	ND< 0.32 *	ND< 0.21 *	ND< 0.3 *	ND< 0.32 *	ND< 0.35 *
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.0097	ND< 0.017	ND< 0.0097	ND< 0.01	ND< 0.012	ND< 0.0079	ND< 0.011	0.023 J	ND< 0.013
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.011	ND< 0.019	ND< 0.011	ND< 0.012	ND< 0.014	ND< 0.0091	ND< 0.013	ND< 0.014	ND< 0.015
Bromoform	75-25-2	19	86	--	--	ND< 0.025	ND< 0.044	ND< 0.026	ND< 0.026	ND< 0.032	ND< 0.021	ND< 0.03	ND< 0.032	ND< 0.035
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.011	ND< 0.02	ND< 0.011	ND< 0.012	ND< 0.014	ND< 0.0091	ND< 0.013	ND< 0.014	ND< 0.016
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.15	ND< 0.26	ND< 0.15	ND< 0.16	ND< 0.19	ND< 0.12	ND< 0.18	ND< 0.19	ND< 0.35 *
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.015	ND< 0.026	ND< 0.015	ND< 0.015	0.032 J	ND< 0.012	ND< 0.017	ND< 0.019	ND< 0.021
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.019	ND< 0.033	ND< 0.019	ND< 0.019	ND< 0.023	ND< 0.015	ND< 0.022	ND< 0.024	ND< 0.026
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.014	ND< 0.025	ND< 0.014	ND< 0.015	ND< 0.018	ND< 0.012	ND< 0.017	ND< 0.018	ND< 0.02
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.023	ND< 0.04	ND< 0.023	ND< 0.024	ND< 0.029	ND< 0.019	ND< 0.027	0.049 J	ND< 0.032
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.013	ND< 0.023	ND< 0.013	ND< 0.013	ND< 0.016	ND< 0.011	ND< 0.015	ND< 0.016	ND< 0.018
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0067	ND< 0.012	ND< 0.0067	ND< 0.007	ND< 0.0083	ND< 0.0055	ND< 0.0078	ND< 0.0084	ND< 0.0093
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.026
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.034
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.011	ND< 0.018	ND< 0.011	ND< 0.011	ND< 0.013	ND< 0.0086	ND< 0.012	ND< 0.013	ND< 0.015
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.016	ND< 0.028	ND< 0.016	ND< 0.017	ND< 0.02	ND< 0.013	ND< 0.019	ND< 0.02	ND< 0.023
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.049
Chloromethane	74-87-3	110	460	--	--	ND< 0.012	ND< 0.021	ND< 0.012	ND< 0.013	ND< 0.015	ND< 0.0099	ND< 0.014	ND< 0.015	ND< 0.017
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.019	ND< 0.034	ND< 0.02	ND< 0.02	ND< 0.024	ND< 0.016	ND< 0.023	ND< 0.024	ND< 0.027
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.01	ND< 0.018	ND< 0.01	ND< 0.011	ND< 0.013	ND< 0.0084	ND< 0.012	ND< 0.013	ND< 0.014
Cyclohexane	110-82-7	6500	27000	--	--	0.047 J	ND< 0.02	0.052	0.048 J	ND< 0.014	ND< 0.0092	0.055 J	0.25	ND< 0.016
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.025**	**ND< 0.044**	**ND< 0.026**	**ND< 0.026**	**ND< 0.032**	**ND< 0.021**	**ND< 0.03**	**ND< 0.032**	**ND< 0.035**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.017	ND< 0.029	ND< 0.017	ND< 0.017	ND< 0.02	ND< 0.013	ND< 0.019	ND< 0.021	ND< 0.023
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.013	ND< 0.023	ND< 0.013	ND< 0.013	ND< 0.016	ND< 0.011	ND< 0.015	ND< 0.016	ND< 0.018
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.014	ND< 0.024	ND< 0.014	ND< 0.014	ND< 0.017	ND< 0.011	ND< 0.016	ND< 0.017	ND< 0.019
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0071	ND< 0.012	ND< 0.0072	ND< 0.0074	ND< 0.0088	ND< 0.0058	ND< 0.0083	ND< 0.0089	ND< 0.0099
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.014
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.031
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.016	ND< 0.027	ND< 0.016	ND< 0.016	ND< 0.019	ND< 0.013	ND< 0.018	ND< 0.02	ND< 0.022
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.021	ND< 0.036	ND< 0.021	ND< 0.022	ND< 0.026	ND< 0.017	ND< 0.024	ND< 0.026	ND< 0.029
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.024
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.014	ND< 0.025	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.011	ND< 0.016	ND< 0.018	ND< 0.02
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.012	ND< 0.021	ND< 0.012	ND< 0.012	ND< 0.015	ND< 0.0098	ND< 0.014	ND< 0.015	ND< 0.017
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	ND< 0.064 *	ND< 0.011
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.0093	ND< 0.016	ND< 0.0093	ND< 0.0096	ND< 0.011	ND< 0.0075	ND< 0.011	ND< 0.012	ND< 0.013
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.012	ND< 0.02	ND< 0.012	ND< 0.012	ND< 0.014	ND< 0.0094	ND< 0.013	ND< 0.015	ND< 0.016
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.013	ND< 0.022	ND< 0.013	ND< 0.013	ND< 0.016	ND< 0.01	ND< 0.015	ND< 0.016	ND< 0.018
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.012	ND< 0.021	ND< 0.012	ND< 0.013	ND< 0.015	ND< 0.0099	ND< 0.014	ND< 0.015	ND< 0.017
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.005	ND< 0.0087	ND< 0.005	ND< 0.0052	ND< 0.0062	ND< 0.0041	ND< 0.0058	ND< 0.0063	ND< 0.007
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 0.26	ND< 0.45	ND< 0.26	ND< 0.27	ND< 0.32	ND< 0.21	ND< 0.3	ND< 0.33	ND< 1.3 *
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.015	ND< 0.026	ND< 0.015	ND< 0.015	0.021 J	ND< 0.012	ND< 0.017	0.019 J	ND< 0.021
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.0089	ND< 0.016	ND< 0.0089	ND< 0.0092	ND< 0.011	ND< 0.0073	ND< 0.01	ND< 0.011	ND< 0.012
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.02	ND< 0.035	ND< 0.02	ND< 0.021	ND< 0.025	ND< 0.016	ND< 0.024	ND< 0.025	ND< 0.028
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.1	ND< 0.18	ND< 0.1	ND< 0.11	ND< 0.13	ND< 0.085	ND< 0.12	ND< 0.13	ND< 0.15
Iodomethane	74-88-4	--	--	--	--	ND< 0.051 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	ND< 0.059 *	0.022 J *	ND< 0.022
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.27	ND< 0.47	ND< 0.27	ND< 0.28	ND< 0.34	ND< 0.22	ND< 0.32	ND< 0.34	ND< 0.38
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0076	ND< 0.013	ND< 0.0077	ND< 0.0079	ND< 0.0095	ND< 0.0062	ND< 0.0089	0.018 J	ND< 0.011
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.017	ND< 0.03	ND< 0.017	ND< 0.018	ND< 0.021	ND< 0.014	ND< 0.02	ND< 0.022	ND< 0.024
Methyl acetate	79-20-9	78000	1200000	--	--	0.073 *	ND< 0.089 *	ND< 0.051 *	ND< 0.053 *	ND< 0.063 *	ND< 0.041 *	0.14 *	0.36 *	ND< 0.034
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.25 *	ND< 0.44 *	ND< 0.26 *	ND< 0.26 *	ND< 0.32 *	ND< 0.21 *	ND< 0.3 *	ND< 0.32 *	ND< 0.023
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.019	ND< 0.034	ND< 0.019	ND< 0.02	ND< 0.024	ND< 0.016	ND< 0.022	ND< 0.024	ND< 0.027
Methylcyclohexane	108-87-2	--	--	--	--	0.16	ND< 0.042	0.13	0.16	ND< 0.029	ND< 0.019	0.17	0.77	0.14
Methylene Chloride	75-09-2	57	1000	--	--	0.026 J *	ND< 0.089 *	0.015 J *	0.012 J *	0.037 J *	0.034 J *	ND< 0.059 *	ND< 0.064 *	ND< 0.014
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	0.13 J	ND< 0.12
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.013	ND< 0.023	ND< 0.013	ND< 0.014	0.026 J	ND< 0.011	ND< 0.016	ND< 0.017	ND< 0.019
Styrene	100-42-5	6000	35000	--	--	ND< 0.012	ND< 0.021	ND< 0.012	ND< 0.013	ND< 0.015	ND< 0.01	ND< 0.014	ND< 0.015	ND< 0.017
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.014	ND< 0.025	ND< 0.015	ND< 0.015	ND< 0.018	ND< 0.012	ND< 0.017	ND< 0.018	ND< 0.02
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.0083	ND< 0.014	ND< 0.0083	ND< 0.0086	ND< 0.01	ND< 0.0067	ND< 0.0096	ND< 0.01	ND< 0.011
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0068	ND< 0.012	ND< 0.0069	ND< 0.0071	ND< 0.0085	ND< 0.0056	ND< 0.008	**5.9**	ND< 0.0095
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.025	ND< 0.045	ND< 0.026	ND< 0.026	ND< 0.032	ND< 0.021	ND< 0.03	ND< 0.032	ND< 0.035
Toluene	108-88-3	4640	47000	--	--	0.021 J	ND< 0.024	0.019 J	0.016 J	0.02 J	ND< 0.011	0.018 J	0.09	ND< 0.019
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.025	ND< 0.044	ND< 0.026	ND< 0.026	ND< 0.032	ND< 0.021	ND< 0.03	ND< 0.032	ND< 0.035
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.023	ND< 0.041	ND< 0.024	ND< 0.024	ND< 0.029	ND< 0.019	ND< 0.027	ND< 0.029	ND< 0.033
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.019	ND< 0.034	ND< 0.019	ND< 0.02	ND< 0.024	ND< 0.016	ND< 0.023	ND< 0.024	ND< 0.027
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.014	ND< 0.025	ND< 0.014	ND< 0.015	ND< 0.017	ND< 0.011	ND< 0.016	ND< 0.018	ND< 0.02
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.011	ND< 0.019	ND< 0.011	ND< 0.011	ND< 0.013	ND< 0.0087	ND< 0.012	ND< 0.013	ND< 0.015
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.014	ND< 0.025	ND< 0.014	ND< 0.015	ND< 0.018	ND< 0.012	ND< 0.017	ND< 0.018	ND< 0.02
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.024	ND< 0.042	ND< 0.024	ND< 0.025	ND< 0.03	ND< 0.019	ND< 0.028	ND< 0.03	ND< 0.033
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.011**	**ND< 0.02**	**ND< 0.011**	**ND< 0.012**	**ND< 0.014**	**ND< 0.0092**	**ND< 0.013**	**ND< 0.014**	**ND< 0.016**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	0.016 J	ND< 0.025	0.015 J	ND< 0.015	0.27	ND< 0.012	ND< 0.017	0.079	ND< 0.02
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.015	ND< 0.027	ND< 0.015	ND< 0.016	0.076	ND< 0.013	ND< 0.018	0.039 J	ND< 0.021
Trimethylbenzene - Sum of Isomers		--	--	--	--	0.029	ND< 0.029	0.029	ND< 0.029	0.029	ND< 0.029	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.09	ND< 0.16	ND< 0.091	ND< 0.094	ND< 0.11	ND< 0.074	ND< 0.11	ND< 0.11	ND< 0.13
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.017	ND< 0.03	ND< 0.017	ND< 0.018	ND< 0.021	ND< 0.014	ND< 0.02	ND< 0.021	ND< 0.024
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.028	ND< 0.049	ND< 0.028	ND< 0.029	0.1 J	ND< 0.023	ND< 0.033	0.13	ND< 0.039
o-Xylene	95-47-6	650	2800	--	--	0.018 J	ND< 0.012	0.017 J	0.014 J	0.069	ND< 0.0054	0.02 J	0.11	ND< 0.0092
Xylenes	1330-20-7	575	2500	--	--	0.046	ND< 0.061	0.045	0.043	0.169	ND< 0.0284	0.053	0.24	ND< 0.0482

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-38+00-2FT	RR-38+00-6FT	RR-38+50-2FT	RR-39+00-2FT	RR-39+50-2FT	RR-40+00-2FT	RR-40+50-2FT	RR-41+00-2FT	RR-42+50-2FT
Date of Sample						8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	8/2/2016	7/27/2016
Depth of Sample (ft. bgs)						2	6	2	2	2	2	2	2	2
PID Field Measurement (ppm)						0.4	0.1	0.4	0.5	0.6	1.5	0.2	0.8	0.3
Semi- Volatile Organic Compounds (SVOCs) 8270D LL														
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.88624**	ND< 0.04318	**1.5698**	**0.69263**	**0.91242**	**0.2887**	**1.04344**	**0.59122**	**0.72768**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.13	ND< 0.035	ND< 0.14	ND< 0.13	ND< 0.14	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14
Acenaphthylene	208-96-8	--	--	--	--	0.19 J	ND< 0.03	0.31 J	0.16 J	0.24 J	ND< 0.12	0.34 J	0.15 J	0.17 J
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.12	ND< 0.032	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13
Anthracene	120-12-7	18000	230000	--	--	ND< 0.22	ND< 0.058	ND< 0.23	ND< 0.22	ND< 0.23	ND< 0.22	ND< 0.22	ND< 0.24	ND< 0.23
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.31	ND< 0.082	ND< 0.32	ND< 0.31	ND< 0.33	ND< 0.31	ND< 0.31	ND< 0.33	ND< 0.32
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.7	ND< 0.19	ND< 0.74	ND< 0.71	ND< 0.75	ND< 0.71	ND< 0.7	ND< 0.76	ND< 0.74
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.44 J	ND< 0.024	0.9 J	0.38 J	0.36 J	0.11 J	0.47 J	0.32 J	0.29 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.62 J**	ND< 0.035	**1.1**	**0.44 J**	**0.62 J**	**0.14 J**	**0.71 J**	**0.36 J**	**0.47 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	0.88	ND< 0.037	**1.9**	0.77 J	0.96	0.3 J	**1.2**	0.66 J	0.94
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	0.62 J	ND< 0.025	1.1	0.51 J	0.72 J	0.23 J	0.91	0.4 J	0.59 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	0.27 J	ND< 0.03	0.86 J	0.31 J	0.39 J	ND< 0.12	0.48 J	0.27 J	0.42 J
Biphenyl	92-52-4	47	200	--	--	ND< 0.13	ND< 0.035	ND< 0.14	ND< 0.13	ND< 0.14	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.12	ND< 0.033	ND< 0.13	ND< 0.13	ND< 0.13	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.13
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.14	ND< 0.039	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.15
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.26	ND< 0.071	ND< 0.28	ND< 0.27	ND< 0.28	ND< 0.27	ND< 0.27	ND< 0.29	ND< 0.28
Carbazole	86-74-8	--	--	--	--	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.22	ND< 0.058	ND< 0.23	ND< 0.22	ND< 0.23	ND< 0.22	ND< 0.22	ND< 0.24	ND< 0.23
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.22	ND< 0.058	ND< 0.23	ND< 0.22	ND< 0.23	ND< 0.22	ND< 0.22	ND< 0.24	ND< 0.23
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.19	ND< 0.05	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.2
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.12
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.18	ND< 0.047	ND< 0.19	ND< 0.18	ND< 0.19	ND< 0.18	ND< 0.18	ND< 0.19	ND< 0.19
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.14	ND< 0.039	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.15
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.16	ND< 0.043	ND< 0.17	ND< 0.16	ND< 0.17	ND< 0.16	ND< 0.16	ND< 0.17	ND< 0.17
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.11	ND< 0.029	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.11	ND< 0.11	ND< 0.12	ND< 0.11
Chrysene	218-01-9	110	2100	--	--	0.54 J	ND< 0.053	1.2	0.53 J	0.52 J	ND< 0.2	0.64 J	0.52 J	0.48 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.16**	ND< 0.042	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.16**	**ND< 0.16**	**ND< 0.17**	**ND< 0.16**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 1	ND< 0.28	ND< 1.1	ND< 1.1	ND< 1.1	ND< 1.1	ND< 1	ND< 1.1	ND< 1.1
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.093	ND< 0.025	ND< 0.099	ND< 0.095	ND< 0.1	ND< 0.095	ND< 0.094	ND< 0.1	ND< 0.098
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.12
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.21	ND< 0.057	ND< 0.23	ND< 0.22	ND< 0.23	ND< 0.22	ND< 0.21	ND< 0.23	ND< 0.22
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.15	ND< 0.04	ND< 0.16	ND< 0.15	ND< 0.16	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.16
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.88	ND< 0.24	ND< 0.93	ND< 0.9	ND< 0.95	ND< 0.9	ND< 0.88	ND< 0.95	ND< 0.93
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 4.1	ND< 1.1	ND< 4.3	ND< 4.2	ND< 4.4	ND< 4.1	ND< 4.1	ND< 4.4	ND< 4.3
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.18	ND< 0.049	ND< 0.19	ND< 0.19	ND< 0.19	ND< 0.19	ND< 0.18	ND< 0.2	ND< 0.19
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
Di-n-octyl phthalate	117-84-0	630	8200	--	--	0.38 J	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.3	ND< 0.08	ND< 0.32	ND< 0.31	ND< 0.32	ND< 0.31	ND< 0.3	ND< 0.33	ND< 0.32
Fluoranthene	206-44-0	2400	30000	--	--	0.47 J	ND< 0.025	1.1	0.47 J	0.29 J	0.12 J	0.53 J	0.36 J	0.41 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.12**	ND< 0.032	**ND< 0.13**	**ND< 0.12**	**ND< 0.13**	**ND< 0.12**	**ND< 0.12**	**ND< 0.13**	**ND< 0.13**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.02	ND< 0.035	ND< 0.02	ND< 0.021	ND< 0.025	ND< 0.016	ND< 0.024	ND< 0.025	ND< 0.028
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.12	ND< 0.032	ND< 0.13	ND< 0.12	ND< 0.13	ND< 0.12	ND< 0.12	ND< 0.13	ND< 0.13
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	ND< 0.12	ND< 0.12
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.51 J	ND< 0.029	1	0.54 J	0.71 J	0.27 J	0.81 J	0.45 J	0.5 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.19	ND< 0.05	ND< 0.2	ND< 0.19	ND< 0.2	ND< 0.19	ND< 0.19	ND< 0.2	ND< 0.2
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.18	ND< 0.047	ND< 0.19	ND< 0.18	ND< 0.19	ND< 0.18	ND< 0.18	0.25 J	ND< 0.19
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.1	ND< 0.028	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.11	ND< 0.1	ND< 0.11	ND< 0.11
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.11	ND< 0.03	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.12	ND< 0.11	0.13 J	ND< 0.12
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.13	ND< 0.035	ND< 0.14	ND< 0.13	ND< 0.14	ND< 0.13	ND< 0.13	ND< 0.14	ND< 0.14
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.24	ND< 0.065	ND< 0.26	ND< 0.25	ND< 0.26	ND< 0.25	ND< 0.24	ND< 0.26	ND< 0.26
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.46	ND< 0.12	ND< 0.49	ND< 0.47	ND< 0.49	ND< 0.47	ND< 0.46	ND< 0.5	ND< 0.49
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.098	ND< 0.026	ND< 0.1	ND< 0.1	ND< 0.11	ND< 0.1	ND< 0.099	ND< 0.11	ND< 0.1
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.25	ND< 0.067	ND< 0.26	ND< 0.25	ND< 0.27	ND< 0.25	ND< 0.25	ND< 0.27	ND< 0.26
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.62	ND< 0.16	ND< 0.65	ND< 0.63	ND< 0.66	ND< 0.63	ND< 0.62	ND< 0.67	ND< 0.65
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.15**	ND< 0.04	**ND< 0.16**	**ND< 0.15**	**ND< 0.16**	**ND< 0.15**	**ND< 0.15**	**ND< 0.16**	**ND< 0.16**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.71	ND< 0.19	ND< 0.76	ND< 0.73	ND< 0.77	ND< 0.73	ND< 0.72	ND< 0.77	ND< 0.76
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 0.88**	ND< 0.24	**ND< 0.93**	**ND< 0.9**	**ND< 0.95**	**ND< 0.9**	**ND< 0.88**	**ND< 0.95**	**ND< 0.93**
Phenanthrene	85-01-8	--	--	--	--	0.23 J	ND< 0.035	0.37 J	0.2 J	0.21 J	ND< 0.13	0.16 J	0.33 J	0.14 J
Phenol	108-95-2	19000	250000	--	--	ND< 0.13	ND< 0.036	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.14	ND< 0.15	ND< 0.14
Pyrene	129-00-0	1800	23000	--	--	0.52 J	ND< 0.028	1.2	0.51 J	0.37 J	0.15 J	0.68 J	0.46 J	0.43 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.15	ND< 0.04	ND< 0.16	ND< 0.15	ND< 0.16	ND< 0.15	ND< 0.15	ND< 0.16	ND< 0.16
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.18	ND< 0.049	ND< 0.19	ND< 0.19	ND< 0.19	ND< 0.19	ND< 0.18	ND< 0.2	ND< 0.19
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.24	ND< 0.064	ND< 0.25	ND< 0.24	ND< 0.26	ND< 0.24	ND< 0.24	ND< 0.26	ND< 0.25
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.18	ND< 0.047	ND< 0.19	ND< 0.18	ND< 0.19	ND< 0.18	ND< 0.18	ND< 0.19	ND< 0.19
Pesticides and Herbicides 8081B														
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.0021	ND< 0.00058	ND< 0.0022	ND< 0.0022	ND< 0.0023	ND< 0.00087	ND< 0.0022	ND< 0.00045	ND< 0.00087
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.0043	ND< 0.0012	ND< 0.0045	ND< 0.0045	ND< 0.0046	ND< 0.0018	ND< 0.0044	ND< 0.00092	ND< 0.0018
alpha-BHC	319-84-6	0.086	0.36	--	--	0.0018 J	0.00049 J	0.0021 J	ND< 0.0016	ND< 0.0017	ND< 0.00063	ND< 0.0016	0.00041 J	ND< 0.00064
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.0016	ND< 0.00042	ND< 0.0016	ND< 0.0016	ND< 0.0017	ND< 0.00063	ND< 0.0016	ND< 0.00033	ND< 0.00064
delta-BHC	319-86-8	--	--	--	--	ND< 0.0016	ND< 0.00044	ND< 0.0017	ND< 0.0017	ND< 0.0017	ND< 0.00065	ND< 0.0016	ND< 0.00034	ND< 0.00066
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.0017	ND< 0.00046	ND< 0.0018	ND< 0.0017	ND< 0.0018	ND< 0.00068	ND< 0.0017	ND< 0.00036	ND< 0.00069
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.0018	ND< 0.00049	ND< 0.0019	ND< 0.0019	ND< 0.0019	ND< 0.00074	ND< 0.0019	ND< 0.00039	ND< 0.00075
4,4'-DDT	50-29-3	1.9	8.5	--	--	0.0077 J	ND< 0.00055	0.01	ND< 0.0021	ND< 0.0022	ND< 0.00082	ND< 0.0021	ND< 0.00043	ND< 0.00083
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0021	ND< 0.00056	ND< 0.0022	ND< 0.0022	ND< 0.0022	ND< 0.00084	ND< 0.0021	ND< 0.00044	ND< 0.00085
Endosulfan I	959-98-8	--	--	--	--	ND< 0.0017	ND< 0.00045	ND< 0.0017	ND< 0.0017	ND< 0.0018	ND< 0.00068	ND< 0.0017	ND< 0.00035	ND< 0.00068
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.0016	ND< 0.00042	ND< 0.0016	ND< 0.0016	ND< 0.0017	ND< 0.00063	ND< 0.0016	ND< 0.00033	ND< 0.00064
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.0016	ND< 0.00044	ND< 0.0017	ND< 0.0017	ND< 0.0017	ND< 0.00066	ND< 0.0017	ND< 0.00034	ND< 0.00066
Endrin	72-20-8	19	250	--	0.4	ND< 0.0017	ND< 0.00046	ND< 0.0018	ND< 0.0018	ND< 0.0018	ND< 0.0007	ND< 0.0018	ND< 0.00037	ND< 0.0007
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.0022	ND< 0.0006	ND< 0.0023	ND< 0.0023	ND< 0.0024	ND< 0.0009	ND< 0.0023	ND< 0.00047	ND< 0.00091
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.0021	ND< 0.00058	ND< 0.0022	ND< 0.0022	ND< 0.0023	ND< 0.00087	ND< 0.0022	ND< 0.00045	ND< 0.00087
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.0016	ND< 0.00043	ND< 0.0017	ND< 0.0016	ND< 0.0017	ND< 0.00065	ND< 0.0016	ND< 0.00034	ND< 0.00065
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.0028	ND< 0.00075	ND< 0.0029	ND< 0.0029	ND< 0.0029	ND< 0.0011	ND< 0.0028	ND< 0.00059	ND< 0.0011
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.0019	ND< 0.00051	ND< 0.002	ND< 0.0019	ND< 0.002	ND< 0.00076	ND< 0.0019	ND< 0.0004	ND< 0.00077
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.0022	ND< 0.00061	ND< 0.0023	ND< 0.0023	ND< 0.0024	ND< 0.00091	ND< 0.0023	ND< 0.00048	ND< 0.00092
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.0018	ND< 0.00048	ND< 0.0018	ND< 0.0018	ND< 0.0019	ND< 0.00072	ND< 0.0018	ND< 0.00038	ND< 0.00072
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.05	ND< 0.014	ND< 0.053	ND< 0.052	ND< 0.054	ND< 0.02	ND< 0.051	ND< 0.011	ND< 0.021
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.015	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011	ND< 0.011	ND< 0.012	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0056	ND< 0.0074	ND< 0.0058	ND< 0.0058	ND< 0.006	ND< 0.0056	ND< 0.0056	ND< 0.0059	ND< 0.0058
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0063	ND< 0.0083	ND< 0.0065	ND< 0.0065	ND< 0.0067	ND< 0.0063	ND< 0.0063	ND< 0.0067	ND< 0.0065

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead
[3] - Total Petroleum Hydrocarbons compared against Vermont Soil Screening Values as reported in the 2017 VT DEC Memo "Soil Soil Screening Levels for Total Petroleum Hydrocarbons"
[4] Total Lead levels which exceeded the RCRA Rule of 20 regulatory level (100 mg/kg) were analyzed via TCLP to approximate leaching of lead in a landfill over 20 years. All TCLP standards and results are presented in units of mg/L
Lab Qualifiers
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B - Compound was found in the blank and sample.
D - Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
E - Result exceeded calibration range
F1 - MS and/or MSD Recovery is outside acceptance limits.
F2 - MS/MSD RPD exceeds control limits
HF - Field parameter with a holding time of 15 minutes.
K - Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
X - Surrogate is outside control limits
^ Instrument related QC is outside acceptance limits.
* - LCS or LCSD is outside acceptance limits.

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-43+00-2FT	RR-43+50-2FT	RR-44+00-2FT
Date of Sample						7/27/2016	7/27/2016	8/2/2016
Depth of Sample (ft. bgs)						2	2	2
PID Field Measurement (ppm)						0.3	0.2	0.3
Waste Characteristics								
Corrosivity (pH)	--	--	--	--	<=2 or >=12.5	8.5 HF	8.76 HF	8.62 HF
Cyanide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10
Sulfide, Reactive	--	--	--	--		ND< 10	ND< 10	ND< 10
Flashpoint °C	--	--	--	--	<=60	>176.0	>176.0	>180
Metals 6010C								
Arsenic	7440-38-2	--	--	16	100	3.4	4.3	3.6
Barium	7440-39-3	11700	220000	--	2000	16.6	34	30.9 ^
Cadmium	7440-43-9	7.15	980	--	20	0.11 J	0.11 J	0.098 J B
Chromium	7440-47-3	1800000	41900	--	100	3.9	8 ^	5.1
Lead	7439-92-1	400	800	111	100	255	111	49.5
Lead TCLP [4]	7439-92-1	--	--	--	5	0.21	0.017 J	--
Selenium	7782-49-2	382	5800	--	20	ND< 0.42	ND< 0.46	ND< 0.46
Silver	7440-22-4	247	5800	--	100	ND< 0.21	ND< 0.23	ND< 0.23
Mercury	7439-97-6	10.9	46	--	4	0.026	0.038	0.013 J
Total Petroleum Hydrocarbons (TPH) 8015D [3]								
Diesel Range Organics [C10-C28]	DRO	96	440	--	--	80	27	25
GRO (C6-C10)	8006-61-9	82	420	--	--	ND< 0.35	ND< 0.36	ND< 0.32
Polchlorinated Biphenols (PCBs)								
Aroclor-1016	12674-11-2	4.1	27	--	--	ND< 0.038	ND< 0.039	ND< 0.039
Aroclor-1221	11104-28-2	0.2	0.83	--	--	ND< 0.051	ND< 0.052	ND< 0.052
Aroclor-1232	11141-16-5	0.17	0.72	--	--	ND< 0.064	ND< 0.065	ND< 0.065
Aroclor-1242	53469-21-9	0.23	0.95	--	--	ND< 0.035	ND< 0.036	ND< 0.036
Aroclor-1248	12672-29-6	0.23	0.95	--	--	ND< 0.026	ND< 0.026	ND< 0.026
Aroclor-1254	11097-69-1	0.12	0.97	--	--	ND< 0.045	ND< 0.045	ND< 0.045
Aroclor-1260	11096-82-5	0.24	0.99	--	--	ND< 0.029	ND< 0.029	ND< 0.029
Aroclor-1262	37324-23-5	--	--	--	--	ND< 0.032	ND< 0.032	ND< 0.032
Aroclor-1268	11100-14-4	--	--	--	--	ND< 0.042	ND< 0.042	ND< 0.042
Volatile Organic Compounds (VOCs) 8260								
Acetone	67-64-1	39900	670000	--	--	ND< 0.32 *	ND< 0.28	ND< 0.35 *
Benzene	71-43-2	0.442	5.1	--	10	ND< 0.012	ND< 0.013	ND< 0.013
Bromobenzene	108-86-1	290	1800	--	--	ND< 0.014	ND< 0.015	ND< 0.015
Bromoform	75-25-2	19	86	--	--	ND< 0.032	ND< 0.034	ND< 0.035
Bromomethane	74-83-9	6.8	30	--	--	ND< 0.014	ND< 0.015	ND< 0.015
2-Butanone (MEK)	78-93-3	26000	190000	--	4000	ND< 0.32 *	ND< 0.2	ND< 0.21
n-Butylbenzene	104-51-8	3900	58000	--	--	ND< 0.019	ND< 0.02	ND< 0.02
sec-Butylbenzene	135-98-8	7800	120000	--	--	ND< 0.023	ND< 0.025	ND< 0.026
tert-Butylbenzene	98-06-6	7800	120000	--	--	ND< 0.018	ND< 0.019	ND< 0.019
Carbon disulfide	75-15-0	770	3500	--	--	ND< 0.029	ND< 0.031	ND< 0.032
Carbon tetrachloride	56-23-5	0.247	2.9	--	10	ND< 0.016	ND< 0.017	ND< 0.018
Chlorobenzene	108-90-7	273	1300	--	2000	ND< 0.0084	ND< 0.009	ND< 0.0093
Chlorobromomethane	74-97-5	129	630	--	--	ND< 0.023	ND< 0.025	ND< 0.07 *
Chlorodibromomethane	124-48-1	8.3	39	--	--	ND< 0.031	ND< 0.033	ND< 0.07 *
Chloroethane	75-00-3	14000	57000	--	--	ND< 0.013	ND< 0.014	ND< 0.015
2-Chloroethyl vinyl ether	110-75-8	--	--	--	--	ND< 0.02	ND< 0.022	ND< 0.022
Chloroform	67-66-3	0.32	1.4	--	120	ND< 0.044	ND< 0.047	ND< 0.07 *
Chloromethane	74-87-3	110	460	--	--	ND< 0.015	ND< 0.016	ND< 0.017
2-Chlorotoluene	95-49-8	1600	23000	--	--	ND< 0.024	ND< 0.026	ND< 0.027
4-Chlorotoluene	106-43-4	1600	23000	--	--	ND< 0.013	ND< 0.014	ND< 0.014
Cyclohexane	110-82-7	6500	27000	--	--	ND< 0.014	ND< 0.015	0.052 J
1,2-Dibromo-3-Chloropropane	96-12-8	0.00327	0.064	--	--	**ND< 0.032**	**ND< 0.034**	**ND< 0.035**
Dibromomethane	74-95-3	24	99	--	--	ND< 0.021	ND< 0.022	ND< 0.023
1,2-Dichlorobenzene	95-50-1	1800	9300	--	--	ND< 0.016	ND< 0.017	ND< 0.018
1,3-Dichlorobenzene	541-73-1	--	--	--	--	ND< 0.017	ND< 0.018	ND< 0.019
1,4-Dichlorobenzene	106-46-7	2.6	11	--	150	ND< 0.0089	ND< 0.0095	ND< 0.0098
Dichlorobromomethane	75-27-4	0.29	1.3	--	--	ND< 0.013	ND< 0.014	ND< 0.07 *
Dichlorodifluoromethane	75-71-8	87	370	--	--	ND< 0.028	ND< 0.03	ND< 0.07 *
1,1-Dichloroethane	75-34-3	3.6	16	--	--	ND< 0.02	ND< 0.021	ND< 0.022
1,2-Dichloroethane	107-06-2	0.175	2	--	10	ND< 0.026	ND< 0.028	ND< 0.029
1,1-Dichloroethene	75-35-4	230	1000	--	14	ND< 0.022	ND< 0.024	ND< 0.07 *
cis-1,2-Dichloroethene	156-59-2	146	2300	--	--	ND< 0.018	ND< 0.019	ND< 0.019
trans-1,2-Dichloroethene	156-60-5	1460	23000	--	--	ND< 0.015	ND< 0.016	ND< 0.017
1,2-Dichloropropane	78-87-5	2.5	11	--	--	ND< 0.01	ND< 0.011	ND< 0.07 *
1,3-Dichloropropane	142-28-9	1600	23000	--	--	ND< 0.012	ND< 0.012	ND< 0.013
2,2-Dichloropropane	594-20-7	--	--	--	--	ND< 0.014	ND< 0.015	ND< 0.016
1,1-Dichloropropene	563-58-6	--	--	--	--	ND< 0.016	ND< 0.017	ND< 0.017
cis-1,3-Dichloropropene	10061-01-5	--	--	--	--	ND< 0.015	ND< 0.016	ND< 0.017
trans-1,3-Dichloropropene	10061-02-6	--	--	--	--	ND< 0.0062	ND< 0.0067	ND< 0.0069
1,4-Dioxane	123-91-1	2.52	24	--	--	ND< 1.2 *	ND< 0.35	ND< 0.36
Ethylbenzene	100-41-4	2.21	25	--	--	ND< 0.018	ND< 0.02	ND< 0.02
Ethylene Dibromide	106-93-4	0.036	0.16	--	--	ND< 0.011	ND< 0.012	ND< 0.012
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.025	ND< 0.027	ND< 0.028
2-Hexanone	591-78-6	200	1300	--	--	ND< 0.13	ND< 0.14	ND< 0.14
Iodomethane	74-88-4	--	--	--	--	ND< 0.019	ND< 0.021	0.043 J *
Isobutyl alcohol	78-83-1	23000	350000	--	--	ND< 0.34	ND< 0.36	ND< 0.37
Isopropylbenzene	98-82-8	1900	9900	--	--	ND< 0.0095	ND< 0.01	ND< 0.011
4-Isopropyltoluene	99-87-6	--	--	--	--	ND< 0.021	ND< 0.023	ND< 0.024
Methyl acetate	79-20-9	78000	1200000	--	--	ND< 0.03	ND< 0.032	ND< 0.07 *
4-Methyl-2-pentanone (MIBK)	108-10-1	33000	140000	--	--	ND< 0.02	ND< 0.34 *	ND< 0.35 *
Methyl tert-butyl ether	1634-04-4	47	210	--	--	ND< 0.024	ND< 0.026	ND< 0.027
Methylcyclohexane	108-87-2	--	--	--	--	0.2	0.13	0.16
Methylene Chloride	75-09-2	57	1000	--	--	ND< 0.013	0.044 J	ND< 0.07 *
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.12	ND< 0.12
N-Propylbenzene	103-65-1	3800	24000	--	--	ND< 0.017	ND< 0.018	ND< 0.018
Styrene	100-42-5	6000	35000	--	--	ND< 0.015	ND< 0.016	ND< 0.017
1,1,1,2-Tetrachloroethane	630-20-6	2	8.8	--	--	ND< 0.018	ND< 0.019	ND< 0.02
1,1,2,2-Tetrachloroethane	79-34-5	0.6	2.7	--	--	ND< 0.01	ND< 0.011	ND< 0.011
Tetrachloroethene	127-18-4	1.46	100	--	14	ND< 0.0085	ND< 0.0092	ND< 0.0094
Tetrahydrofuran	109-99-9	18000	94000	--	--	ND< 0.032	ND< 0.034	ND< 0.035
Toluene	108-88-3	4640	47000	--	--	ND< 0.017	0.031 J	0.029 J
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	6700	28000	--	--	ND< 0.032	ND< 0.034	ND< 0.035
1,2,3-Trichlorobenzene	87-61-6	63	930	--	--	ND< 0.029	ND< 0.031	ND< 0.032
1,2,4-Trichlorobenzene	120-82-1	24	110	--	--	ND< 0.024	ND< 0.026	ND< 0.027
1,1,1-Trichloroethane	71-55-6	8100	36000	--	--	ND< 0.018	ND< 0.019	ND< 0.019
1,1,2-Trichloroethane	79-00-5	1.1	5	--	--	ND< 0.013	ND< 0.014	ND< 0.015
Trichloroethene	79-01-6	0.442	6	--	10	ND< 0.018	ND< 0.019	ND< 0.019
Trichlorofluoromethane	75-69-4	23000	350000	--	--	ND< 0.03	ND< 0.032	ND< 0.033
1,2,3-Trichloropropane	96-18-4	0.00324	0.11	--	--	**ND< 0.014**	**ND< 0.015**	**ND< 0.016**
1,2,4-Trimethylbenzene	95-63-6	264	1800	--	--	ND< 0.018	0.023 J	ND< 0.02
1,3,5-Trimethylbenzene	108-67-8	264	1500	--	--	ND< 0.019	ND< 0.021	ND< 0.021
Trimethylbenzene - Sum of Isomers		--	--	--	--	ND< 0.029	0.029	ND< 0.029
Vinyl acetate	108-05-4	910	3800	--	--	ND< 0.11	ND< 0.12	ND< 0.12
Vinyl chloride	75-01-4	0.059	1.7	--	4	ND< 0.021	ND< 0.023	ND< 0.023
m-Xylene & p-Xylene	179601-23-1	--	--	--	--	ND< 0.035	ND< 0.038	0.04 J
o-Xylene	95-47-6	650	2800	--	--	ND< 0.0083	0.024 J	0.024 J
Xylenes	1330-20-7	575	2500	--	--	ND< 0.0433	0.062	0.064

Table 4
Soil Analytical Results: All Data
Middlebury Bridge and Rail Project
Last Revised: December 4, 2018

Analyte	CAS Number	Residential Soil	Industrial Soil	VT DEC Background Urban [2]	EPA RCRA 20	RR-43+00-2FT	RR-43+50-2FT	RR-44+00-2FT
Date of Sample						7/27/2016	7/27/2016	8/2/2016
Depth of Sample (ft. bgs)						2	2	2
PID Field Measurement (ppm)						0.3	0.2	0.3
Semi- Volatile Organic Compounds (SVOCs) 8270D LL								
B(a)P TEQ	BAPTEQ	0.076	1.54	0.58	--	**0.66813**	**2.0416**	**0.80491**
Acenaphthene	83-32-9	3600	45000	--	--	ND< 0.13	ND< 0.13	ND< 0.13
Acenaphthylene	208-96-8	--	--	--	--	0.15 J	0.41 J	0.12 J
Acetophenone	98-86-2	7800	120000	--	--	ND< 0.12	ND< 0.12	ND< 0.12
Anthracene	120-12-7	18000	230000	--	--	ND< 0.22	0.22 J	ND< 0.22
Atrazine	1912-24-9	2.4	10	--	--	ND< 0.31	ND< 0.32	ND< 0.31
Benzaldehyde	100-52-7	170	820	--	--	ND< 0.72	ND< 0.72	ND< 0.71
Benzo[a]anthracene	56-55-3	1.1	21	--	--	0.36 J	0.91	0.48 J
Benzo[a]pyrene	50-32-8	0.076	1.54	--	--	**0.41 J**	**1.5**	**0.51 J**
Benzo[b]fluoranthene	205-99-2	1.1	21	--	--	1 K	**2.4**	**1.1**
Benzo[g,h,i]perylene	191-24-2	--	--	--	--	0.5 J	1.2	0.45 J
Benzo[k]fluoranthene	207-08-9	11	210	--	--	ND< 0.12	0.94	0.42 J
Biphenyl	92-52-4	47	200	--	--	ND< 0.13	ND< 0.13	ND< 0.13
4-Bromophenyl phenyl ether	101-55-3	--	--	--	--	ND< 0.13	ND< 0.13	ND< 0.13
Butyl benzyl phthalate	85-68-7	290	1200	--	--	ND< 0.15	ND< 0.15	ND< 0.15
Caprolactam	105-60-2	31000	400000	--	--	ND< 0.27	ND< 0.27	ND< 0.27
Carbazole	86-74-8	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.11
4-Chloro-3-methylphenol	59-50-7	6300	82000	--	--	ND< 0.22	ND< 0.22	ND< 0.22
4-Chloroaniline	106-47-8	2.7	11	--	--	ND< 0.22	ND< 0.22	ND< 0.22
Bis(2-chloroethoxy)methane	111-91-1	190	2500	--	--	ND< 0.19	ND< 0.19	ND< 0.19
Bis(2-chloroethyl)ether	111-44-4	0.23	1	--	--	ND< 0.12	ND< 0.12	ND< 0.12
bis (2-chloroisopropyl) ether	108-60-1	2920	47000	--	--	ND< 0.18	ND< 0.18	ND< 0.18
2-Chloronaphthalene	91-58-7	4800	60000	--	--	ND< 0.15	ND< 0.15	ND< 0.15
2-Chlorophenol	95-57-8	390	5800	--	--	ND< 0.17	ND< 0.17	ND< 0.16
4-Chlorophenyl phenyl ether	7005-72-3	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.11
Chrysene	218-01-9	110	2100	--	--	0.53 J	1.2	0.71 J
Dibenz(a,h)anthracene	53-70-3	0.11	2.1	--	--	**ND< 0.16**	**ND< 0.16**	**ND< 0.16**
Dibenzofuran	132-64-9	73	1000	--	--	ND< 0.11	ND< 0.11	ND< 0.11
3,3'-Dichlorobenzidine	91-94-1	1.2	5.1	--	--	ND< 1.1	ND< 1.1	ND< 1.1
2,4-Dichlorophenol	120-83-2	190	2500	--	--	ND< 0.096	ND< 0.096	ND< 0.095
Diethyl phthalate	84-66-2	51000	660000	--	--	ND< 0.12	ND< 0.12	ND< 0.12
Dimethyl phthalate	131-11-3	--	--	--	--	ND< 0.11	ND< 0.11	ND< 0.11
2,4-Dimethylphenol	105-67-9	1300	16000	--	--	ND< 0.22	ND< 0.22	ND< 0.22
Di-n-butyl phthalate	84-74-2	6300	82000	--	--	ND< 0.15	ND< 0.16	ND< 0.15
4,6-Dinitro-2-methylphenol	534-52-1	5.1	66	--	--	ND< 0.9	ND< 0.91	ND< 0.9
2,4-Dinitrophenol	51-28-5	130	1600	--	--	ND< 4.2	ND< 4.2	ND< 4.1
2,4-Dinitrotoluene	121-14-2	1.7	7.4	--	602.6	ND< 0.19	ND< 0.19	ND< 0.19
2,6-Dinitrotoluene	606-20-2	0.36	1.5	--	--	ND< 0.11	ND< 0.11	ND< 0.11
Di-n-octyl phthalate	117-84-0	630	8200	--	--	ND< 0.11	ND< 0.11	ND< 0.11
Bis(2-ethylhexyl) phthalate	117-81-7	20.7	160	--	--	ND< 0.31	ND< 0.31	ND< 0.31
Fluoranthene	206-44-0	2400	30000	--	--	0.43 J	0.92	0.63 J
Fluorene	86-73-7	2400	30000	--	--	ND< 0.11	ND< 0.11	ND< 0.11
Hexachlorobenzene	118-74-1	0.0918	0.96	--	602.6	**ND< 0.12**	**ND< 0.12**	**ND< 0.12**
Hexachlorobutadiene	87-68-3	1.2	5.3	--	10	ND< 0.025	ND< 0.027	ND< 0.028
Hexachlorocyclopentadiene	77-47-4	1.8	7.5	--	--	ND< 0.12	ND< 0.12	ND< 0.12
Hexachloroethane	67-72-1	1.8	8	--	60	ND< 0.12	ND< 0.12	ND< 0.12
Indeno[1,2,3-cd]pyrene	193-39-5	1.1	21	--	--	0.41 J	**1.2**	0.52 J
Isophorone	78-59-1	570	2400	--	--	ND< 0.19	ND< 0.19	ND< 0.19
2-Methylnaphthalene	91-57-6	240	3000	--	--	ND< 0.18	ND< 0.18	ND< 0.18
2-Methylphenol	95-48-7	3200	41000	--	84000	ND< 0.11	ND< 0.11	ND< 0.11
4-Methylphenol	106-44-5	6300	82000	--	84000	ND< 0.11	ND< 0.11	ND< 0.11
Naphthalene	91-20-3	1.42	17	--	--	ND< 0.12	ND< 0.12	ND< 0.12
2-Nitroaniline	88-74-4	630	8000	--	--	ND< 0.13	ND< 0.13	ND< 0.13
3-Nitroaniline	99-09-2	--	--	--	--	ND< 0.25	ND< 0.25	ND< 0.25
4-Nitroaniline	100-01-6	27	110	--	--	ND< 0.47	ND< 0.48	ND< 0.47
Nitrobenzene	98-95-3	5.1	22	--	40	ND< 0.1	ND< 0.1	ND< 0.1
2-Nitrophenol	88-75-5	--	--	--	--	ND< 0.26	ND< 0.26	ND< 0.25
4-Nitrophenol	100-02-7	--	--	--	--	ND< 0.63	ND< 0.64	ND< 0.63
N-Nitrosodi-n-propylamine	621-64-7	0.078	0.33	--	--	**ND< 0.15**	**ND< 0.16**	**ND< 0.15**
N-Nitrosodiphenylamine	86-30-6	110	470	--	--	ND< 0.73	ND< 0.74	ND< 0.73
Pentachlorophenol	87-86-5	0.504	4	--	2000	**ND< 0.9**	**ND< 0.91**	**ND< 0.9**
Phenanthrene	85-01-8	--	--	--	--	ND< 0.13	0.15 J	0.17 J
Phenol	108-95-2	19000	250000	--	--	ND< 0.14	ND< 0.14	ND< 0.14
Pyrene	129-00-0	1800	23000	--	--	0.4 J	1	0.77 J
1,2,4,5-Tetrachlorobenzene	95-94-3	23	350	--	--	ND< 0.15	ND< 0.16	ND< 0.15
2,3,4,6-Tetrachlorophenol	58-90-2	1900	25000	--	--	ND< 0.19	ND< 0.19	ND< 0.19
2,4,5-Trichlorophenol	95-95-4	6300	82000	--	8000	ND< 0.24	ND< 0.25	ND< 0.24
2,4,6-Trichlorophenol	88-06-2	49	210	--	40	ND< 0.18	ND< 0.18	ND< 0.18
Pesticides and Herbicides 8081B								
Aldrin	309-00-2	0.0202	0.18	--	--	ND< 0.0086	ND< 0.0022	ND< 0.00087
alpha-Chlordane	5103-71-9	--	--	--	--	ND< 0.017	ND< 0.0045	ND< 0.0018
alpha-BHC	319-84-6	0.086	0.36	--	--	0.007 J B	ND< 0.0016	0.00098 J
beta-BHC	319-85-7	0.3	1.3	--	--	ND< 0.0063	ND< 0.0016	ND< 0.00064
delta-BHC	319-86-8	--	--	--	--	ND< 0.0065	ND< 0.0017	ND< 0.00066
4,4'-DDD	72-54-8	1.9	9.6	--	--	ND< 0.0068	ND< 0.0017	ND< 0.00069
4,4'-DDE	72-55-9	2	9.3	--	--	ND< 0.0073	ND< 0.0019	ND< 0.00075
4,4'-DDT	50-29-3	1.9	8.5	--	--	ND< 0.0082	ND< 0.0021	ND< 0.00083
Dieldrin	60-57-1	0.034	0.14	--	--	ND< 0.0084	ND< 0.0022	ND< 0.00085
Endosulfan I	959-98-8	--	--	--	--	ND< 0.0067	ND< 0.0017	ND< 0.00068
Endosulfan II	33213-65-9	--	--	--	--	ND< 0.0063	ND< 0.0016	ND< 0.00064
Endosulfan sulfate	1031-07-8	--	--	--	--	ND< 0.0065	ND< 0.0017	ND< 0.00066
Endrin	72-20-8	19	250	--	0.4	ND< 0.0069	ND< 0.0018	ND< 0.0007
Endrin aldehyde	7421-93-4	--	--	--	--	ND< 0.0089	ND< 0.0023	ND< 0.00091
Endrin ketone	53494-70-5	--	--	--	--	ND< 0.0086	ND< 0.0022	ND< 0.00087
gamma-BHC (Lindane)	58-89-9	0.57	2.5	--	8	ND< 0.0064	ND< 0.0017	ND< 0.00065
gamma-Chlordane	5103-74-2	--	--	--	--	ND< 0.011	ND< 0.0029	ND< 0.0011
Heptachlor	76-44-8	0.13	0.63	--	0.16	ND< 0.0076	ND< 0.0019	ND< 0.00077
Heptachlor epoxide	1024-57-3	0.07	0.33	--	--	ND< 0.009	ND< 0.0023	ND< 0.00092
Methoxychlor	72-43-5	320	4100	--	200	ND< 0.0071	ND< 0.0018	ND< 0.00072
Toxaphene	8001-35-2	0.49	2.1	--	10	ND< 0.2	ND< 0.052	ND< 0.021
2,4-D	94-75-7	700	9600	--	200	ND< 0.011	ND< 0.011	ND< 0.011
2,4,5-T	93-76-5	630	8200	--	--	ND< 0.0056	ND< 0.0057	ND< 0.0056
Silvex (2,4,5-TP)	93-72-1	510	6600	--	20	ND< 0.0063	ND< 0.0064	ND< 0.0064

All values in mg/kg unless otherwise noted
ppm - parts per million
ft. bgs - feet below ground surface
ND - Not detected below the indicated method detection limit
"--" - Not Applicable or Available
"-" - Not Analyzed
Bold - Exceeds the Residential Soil Screening Value (EPA or VSL, whichever is lower)
Shaded - Exceeds the Industrial Soil Screening Value (EPA or VSL, whichever is lower)
Underlined - Exceeds Urban Background Concentrations
EPA Soil Screening Values from Regional Screening Levels Table Updated May 2018

Per the DEC Investigation and Remediation of Contaminated Properties Rule ("IRULE"), results were compared against either the EPA Regional Screening Levels Table, updated May 2018, or the Vermont Screening Values as presented in the IRULE – whichever is lower.
B(a)P TEQ is compared to Benzo(a)pyrene Residential and Industrial Soil Screening Values.
[1] - Arsenic concentrations may be compared to the background value of 16 mg/kg based on the VT DEC's Evaluation of PAHs, Arsenic and Lead Background Soil Concentrations in Vermont Report.
[2] - Background threshold values reported by the VT DEC's Evaluation of PAHs, Arsenic and Lead

Table 5.0
Soil Reuse and Waste Disposal Options
Middlebury Bridge and Rail Project
Revised January 28, 2019

Soil Classification	Definition	Reuse	Waste Disposal
Green Soil	No detected analytes at concentrations above DEC Soil Screening Values[1].	Un-regulated reuse on-site or off-site	--
Blue Soil	PAH's detected at concentrations which exceed DEC Residential Soil Screening Values, but are below the DEC Urban Background Threshold Value.	Un-regulated reuse in a designated Urban Soil Background Area [(2,3)]	Unless reused in an Urban Background area[(2,3)], soil will be managed as contaminated, non-hazardous soil and disposed of at an approved disposal facility in accordance with its waste profile.
Orange Soil	PAH's detected at concentrations which exceed both the DEC Residential Soil Screening Values and the VT DEC Urban Background Value.	Approved for on-site reuse underneath an engineered soil cap which meets the specifications of Section 7.2 of this report. (sumarized below) **Engineerd Soil Cap Types** Type 1: 6-inches (min) of stone over geotextile fabric along railroad tracks and adjacent stormwater swale Type 2: 18-inches (min) of clean fill (subbase) under impervious surface (roadway, sidewalk, etc.) Type 3: 18-inches (min) of clean fill over orange indicator geotextile fabric (US Fabric, US 100NW-HVO or approved equal)	Unless reused on-site, manage as contaminated, non-hazardous soil and dispose of at an approved disposal facility in accordance with its waste profile.
Petroleum-Impacted Soil	Soil impacted by petroleum contamination. TPH-DRO detected at concentrations which exceed DEC Industrial SSVs.	Not approved for reuse	Segregate from other Project soil dispose of at an approved disposal facility in accordance with its waste profile.

Notes:
[1] Soil Screening Values (SSVs) defined in Vermont Department of Environmental Conservation, Waste Management Division, Investigation and Remediation of Contaminated Properties Rule, Appendix A
[2] Blue soil can be reused in any "Urban Background Area", as illustrated on Figure 7 and deliniated on the ANR Atlas>Waste Management>Urban Soil Background Area layer
https://anrmaps.vermont.gov/websites/anra5/
[3] The Project limit of disturbance is entirely within an "Urban Background Area" as deliniated on the ANR Atlas
DEC: Vermont Department of Environmental Conservation
TPH-DRO: Total Petroleum Hydrocarbons - Diesel Range Organics