Contract Number: C03196
Contract Name: BENNINGTON STP 1000(23)

VERMONT

AGENCY OF TRANSPORTATION

PROPOSAL

STANDARD SPECIFICATIONS FOR CONSTRUCTION
DATED 2024 SHALL APPLY TO THIS CONTRACT

SPECIAL PROVISIONS

SCHEDULE OF ITEMS

ELECTRONIC BID BOND to be submitted in the amount of 5% of the Contractor's bid.

BIDDING PROCEDURE

Bid Proposals will not be read unless accompanied by an electronic bid bond, and they may be rejected as irregular if they are not in compliance with Agency specifications.

NOTE: All bid proposals shall be properly filled out and submitted electronically utilizing iCX Web System services.

VTrans Mission and Vision

Through excellent customer service, provide for the safe and efficient movement of people and goods.
A safe, reliable, and multimodal transportation system that grows the economy, is affordable to use and operate, and serves vulnerable populations.

SPECIAL PROVISIONS

1. NOTICE TO BIDDERS – CONTRACT COMPLETION DATE. This Contract shall be completed on or before June 30, 2026.

2. NOTICE TO BIDDERS – PROHIBITION OF RUSSIAN GOODS. The Contractor is hereby notified that, pursuant to Vermont Executive Order No. 02-22, dated March 3rd, 2022, the purchase of Russian-sourced goods and goods produced by Russian entities (defined as institutions or companies that are headquartered in Russia or have their principal place of business in Russia) is prohibited. The awarded Contractor must fill out and sign the Executive Order 02-22 Vendor Certification as part of Contract awarding process.

3. NOTICE TO BIDDERS – NIGHT WORK. The Contractor is hereby notified that night work will not be permitted on this Contract. Night will be as defined in Subsection 101.02.

4. NOTICE TO BIDDERS – ELECTRONIC DOCUMENT MANAGEMENT. The Contractor is hereby notified that the Contractor, their subcontractors, and suppliers shall create a Doc Express account and use the application for collection and management of electronic documents. Doc Express is a web based document management application which accepts electronic documents and provides security as appropriate for each submittal. All Contract required documents, such as Working Drawings as defined in Subsection 105.06 of the 2024 Standard Specifications for Construction, Progress Schedules, Mix Designs, Weld Procedures, Requests for Information and Erosion Control Plans shall be submitted at the following link: https://docexpress.com. The entire submittal and review process shall occur within Doc Express.

   All costs associated with the use of Doc Express will be considered incidental to Item 635.1100, Mobilization/Demobilization. The State will manage the Doc Express application including Contract setup upon Contract execution.

   To create an account and for more information regarding the use of Doc Express see the information at the following link:

   https://outside.vermont.gov/agency/vtrans/external/docs/construction/Contracting/DocExpressOverviewforContractors.docx

5. NOTICE TO BIDDERS – CONTACT WITH THE AGENCY. From the time of advertising until the actual bid opening for this Contract, all prospective Contractors, subcontractors, and suppliers shall direct all inquiries related to this project solely to the Agency's Office of Contract Administration AOT.ConstructionContractingInquiry@vermont.gov.

   The deadline for submitting inquiries related to this Contract is 4:30 p.m. Eastern Time on July 31, 2024. Inquiries received after this time may receive a response at the Agency’s discretion.

6. NOTICE TO BIDDERS – OTHER SPECIFICATIONS AND CONTRACT REQUIREMENTS.
Construction Stormwater Permit
Operational Stormwater Permit
Act 250 Land Use Permit
Soils Management Plan
PIF – Cree Roadway Lighting Products
PIF – Scofield Stamping Styles
FHWA 1273 – Required Contract Provisions for Federal Aid Construction Contracts
USDOL Davis-Bacon Wage Rates by County
Disadvantaged Business Enterprise (DBE) Policy Contract Requirements - CR-110
Attachment C - Standard State Provisions for Contracts and Grants
USDOT Standard Title VI Nondiscrimination Assurances Appendices A, E
Standard Federal Equal Employee Opportunity (EEO) Construction Contract Specifications CA26
Contractor Equal Employment Opportunity (EEO) Certification Form – CA109
Vermont Agency of Transportation Certificate of Compliance – CA271
Vermont Agency of Transportation Minimum Labor and Truck Rates – CA101
Commodity Index Prices – CA170
Schedule of Pay Items

7. NOTICE TO BIDDERS – DAVIS-BACON. U.S. Department of Labor Davis-Bacon wage rates are applicable to this Contract. Copies of the applicable rates are included in this proposal.

In the included wage rates, the requirements of Executive Order 13658 and 14026 do not apply to this Contract.

8. NOTICE TO BIDDERS – STANDARD DRAWINGS. The Vermont Agency of Transportation Standard Drawings listed on the Index of Sheets are not included in the plan set, but may be found at the following address:
https://outside.vermont.gov/agency/vtrans/external/CADD/WebFiles/Downloads/Standards/VAOTconSTD_Owner.xml

9. NOTICE TO BIDDERS – INFORMATIONAL DOCUMENTS. The Contractor is hereby notified that the following informational documents for this Contract are available on iCXWeb and the VTrans Bid Opportunities website. These documents are being provided during the bid solicitation period for informational purposes only.

(a) Traffic Management Plan (TMP) Checklist

(b) Geotechnical Report

10. NOTICE TO BIDDERS – STAGING AND WASTE SITES. The Contractor is hereby notified that the Vermont Natural Resources Board has requested that VTrans contractors planning to use staging and waste sites governed by preexisting Act 250 permits notify District Coordinators prior to using these sites. Complying with preexisting Act 250 permits at these sites is the sole responsibility of the landowner and the Contractor, not the State.

11. NOTICE TO BIDDERS – ACT 250. The Contractor is hereby notified in addition to the Act 250 permit there is a Memorandum of Understanding (MOU) to establish and coordinate procedures for regulating certain transportation-related projects, dated April 7, 2009. As described in the MOU, if the Contractor elects to open any new waste or borrow sites they shall be responsible for coordinating with the DEC District Coordinator prior to the commencement of construction.

12. NOTICE TO BIDDERS – SURFACE WATER WITHDRAWAL. The Contractor is hereby notified that the Vermont state law, Act 135 of 2022, requires any person withdrawing surface water (as defined in 10 V.S.A. § 1002 (20)) to register with and report the water withdrawal and usage to the Vermont Department of Environmental Conservation beginning January 1, 2023. Guidance can be found here: https://dec.vermont.gov/watershed/rivers/streamflow-protection/act-135-surface-water-withdrawal-registration-and-reporting

13. NOTICE TO BIDDERS – ENVIRONMENTAL COMMITMENTS.

(a) Threatened, Endangered, and Rare Species.

(1) The Contractor shall ensure all personnel working on the project site are made aware of the potential presence and protected status of the northern long-eared bat and tricolored bat. The Contractor shall ensure all personnel working on the project site are aware of all environmental commitments related to the northern long eared bat and tricolored bat.

The clearing of trees ≥3 inches in diameter at breast height within the project limits shall be completed between October 1 and April 14, inclusive.

The Contractor is hereby made aware of the potential for Time-of-Year (TOY) restrictions related to proposed Waste, Borrow and Staging areas. Cutting trees ≥3 inches in diameter outside of the contract project limits shall require review under Section 105.25 Opening Off-Site Activity Areas.

(b) Invasive Material.

(1) If invasive species are delineated on the plans or found in the project area and confirmed by the Engineer, the invasive species and any soil excavated from areas that contained the invasive species, will be termed invasive material. The Contractor shall handle the invasive material in accordance with the *VTrans State Highway System Roadside Terrestrial Invasive Plants Best Management Practices (BMPs)*. The Contractor shall stockpile the invasive material separately from other soil stockpile areas. A ground barrier and perimeter containment system shall be in place around the area intended for stockpiling the invasive material. The Contractor shall clean equipment of observable soil or vegetation prior to arriving on site. The equipment used for excavation and transport of invasive material shall be cleaned of all soil and plant matter before arriving on site and before being moved within the project limits, per the BMPs.

To the extent possible, invasive material shall be reused on site. Invasive material shall only be reused on site in areas where the invasive species were clearly evident. If there is an excess of invasive material, it shall be wasted in accordance with the BMPs.

The cost of excavating invasive material will be paid for under the appropriate Contract excavation items. When invasive species are delineated on the Plans, the additional cost for handling invasive material, following the BMPs, cleaning equipment, and wasting excess invasive material will be incidental to all other Contract items, unless noted otherwise. When invasive species are not delineated on the Plans, and compensation is not otherwise provided for in the Contract, the work of handling invasive material, following the BMPs, cleaning equipment, and wasting excess invasive material will be considered extra work in accordance with Subsection 104.03 and will be paid for in accordance with Subsection 109.06.

14. NOTICE TO BIDDERS – UTILITIES. Existing aerial facilities owned by Green Mountain Power, Comcast, FirstLight Fiber, and Consolidated Communications will be adjusted, as necessary, by employees or agents of the above companies in accordance with the "Approximate Aerial Utility Relocation Route" shown in the Contract Plans.

Existing underground facilities owned by Consolidated Communications will be adjusted, as necessary, by employees or agents of the above company in accordance with the "Approximate Underground Utility Relocation Route" shown in the Contract Plans.

Existing water and sewer facilities owned by the Town of Bennington will be adjusted by the Contractor in accordance with the details and pay items included in the project plans, and all pertinent project specifications. The Contractor must coordinate inspection and testing, as needed, with the Town of Bennington.

Contacts for the above listed companies are as follows:

Green Mountain Power	Aaron Dickie	(802) 375-1526
Comcast Communications	John George	(518) 361-7227
Consolidated Communications	Bob Rondeau	(802) 881-4324
FirstLight Fiber	Bill Gray	(802) 911-9506
Town of Bennington	Larry Gates	(802) 442-1037

Employees or agents of the above listed companies are to be allowed free and full access within the project limits with the tools, materials, and equipment necessary to install, operate, maintain, place, replace, relocate, and remove their facilities.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around and with the companies, or their facilities. Should the Contractor desire additional adjustments of the utility facilities for his/her convenience, proper arrangements shall be made in conformance with Subsection 105.09.

There are areas of underground utilities that may require additional locating beyond normal dig safe measures The Contractor is hereby notified that exploratory excavation to locate existing underground facilities may be necessary to protect these facilities from damage. Where approved by the Engineer, these utilities shall be located and/or exposed by methods such as air/vacuum excavation and/or hand digging to determine their exact location. This exploratory work shall be classified as Trench Excavation of Earth, Exploratory and payment shall be through Pay Item "204.2200, Trench Excavation of Earth, Exploratory, (N.A.B.I)."

The Contractor shall notify Green Mountain Power if excavation will be within 10 feet of an existing pole. That pole owner may choose to be onsite for this activity. There will be no excavation allowed within 5 feet of existing poles and anchoring.

Vermont Statutes Annotated, Title 30, Chapter 86 ("Dig Safe") requires notice to Dig Safe before starting excavation activities. The Contractor must telephone Dig Safe at 811 at least 48 hours (excluding Saturdays, Sundays and legal holidays) before, but not more than 30 days before, starting excavation activities at any location. In addition, before excavation and/or pavement grinding in or on the state highway right-of-way, the Contractor must contact the Agency's Traffic Signal Superintendent, Dan Ertel, to obtain/verify the location of Agency's underground utility facilities or to confirm the absence of such facilities. Dan can be reached at (802) 343-2188.

The Contractor is advised that many towns are not members of Dig Safe. It is the Contractor's responsibility to check with towns prior to excavation and shall protect and restore utilities damaged within the project and as set forth in Subsection 107.12.

All Contractors, subcontractors or material suppliers involved in any project-related activity shall comply with all applicable codes and regulations related to working around live electrical lines; including, but not limited to maintaining the required minimum clear distance from an electrical utility facility. The Contractor's Competent Safety Officer shall be well versed in OSHA and VOSHA regulations and shall be capable of implementing a plan to conform to these regulations during prosecution of work.

15. NOTICE TO BIDDERS – CONCURRENT CONSTRUCTION. The Contractor is made aware of the following VTrans construction project(s) which are expected to be in progress within the area of this project during its construction.

TABLE 1 – CONCURRENT CONSTRUCTION PROJECTS

Project	Contractor	Anticipated Contract Completion Date
Bennington STP BP15(2)	TBD	Jun 2024
Pownal-Dorset NHG SIGN(71)	F.R. Lafayette Inc.	Jun 2024
Bennington NH SURF(81)	Peckham Road Corporation	Aug 2024
Bennington NH SURF(82)	Peckham Road Construction	Aug 2024
Bennington TAP TA16(1)	TBD	Sep 2024
Hoosick-Bennington-Rutland VTRY(59)	TBD	Aug 2025
Bennington NHG SGNL(64)	TBD	Nov 2025
Bennington STPG SGNL(63)	TBD	Nov 2025

This list is not all-inclusive and it is possible there may be other VTrans, municipal, or private construction projects within the area of this project during its construction.

The Contractor shall coordinate construction schedules and traffic control with the work required for these projects.

There will be no extra compensation paid to the Contractor for any inconvenience caused by working around these or other projects.

16. NOTICE TO BIDDERS - SALVAGED MATERIALS.

(a) The Contractor is hereby notified that existing crosswalk signage assemblies, including the Rapid Rectangular Flashing Beacons and ancillary equipment, as determined by the Agency, removed and not re-used on the project shall remain the property of the State.

All costs for loading and delivering these salvaged materials will be paid for under Contract item 678.2020005 Remove RRFB System.

The Contractor shall load all of the salvaged materials onto suitable transport and deliver them to the Bennington Town garage at 78 Bowen Road, Bennington, VT.

The Contractor shall contact R.J. Joly, DPW Director [Tel.: (802) 442-1037] a minimum of 2 weeks prior to beginning delivery to the designated location.

(b) The Contractor is hereby notified that the existing Bennington College Sign, including all components such as foundation, electrical connections, etc., as determined by the Agency, shall remain the property of Bennington College.

All costs for removing and delivering these salvaged materials will be paid for under Contract item 681.1020 Remove Landscape Items.

The Contractor shall load all of the salvaged materials onto suitable transport and deliver them to a location determined by the school's facility division at the time of removal.

The Contractor shall contact Angel Kwasniak, Facilities Director [Tel.: (802) 440-4586] a minimum of 2 weeks prior to beginning removal to determine a designated location.

17. NOTICE TO BIDDERS – SPECIAL CONSTRUCTION REQUIREMENTS.

(a) During construction it will be necessary for the Contractor to maintain one-lane traffic for extended periods of time. In no case shall the paved width for this one-lane traffic, including shoulders, be reduced to less than 12 feet. This paved width shall remain free of obstructions and obstacles at all times.

(b) The Contractor shall position Portable Changeable Message Signs at locations determined by the Engineer properly warning motorists of the roadway conditions ahead. As directed by the Engineer, these locations may change during construction as needs arise based on daily work activities. The message to be displayed shall be submitted to the Engineer in advance for approval. The displayed message should accurately reflect what motorists can expect to encounter through the project area. The cost of providing the Portable Changeable Message Signs shall be paid for under Contract item 641.1500. The Contractor shall also install and maintain appropriate construction signing warning the traveling public of the expected roadway surface conditions.

(c) Prior to final acceptance of the project, all drop inlets and bridge joints within the project limits shall be cleaned and all material within the drop inlets and bridge joints shall be removed. All paved areas adjacent to curbs shall be swept and cleaned of all extraneous material. Costs for this work will not be paid for directly, but will be considered incidental to all Contract items.

(d) There are special events throughout the year that may require close communication and coordination between the Contractor and the municipality to reduce conflicts. The municipality will advise the Engineer and Contractor of the specifics of each event and the Engineer will direct the Contractor as to what actions, if any, will be necessary on the Contractor's part to minimize impacts to the event. Special events that may conflict with Contractor operations are not limited to those which may be listed in this Notice to Bidders. There will be no extra compensation paid to the Contractor for any inconvenience caused by working around any listed or unlisted special events.

For more information about area special events, contact the following:

Bennington: Cassandra J. Barbeau
Town Clerk
Town of Bennington
205 South Street Bennington, VT 05201
cbarbeau@benningtonvt.org
802-442-1043

Bennington College: Jeffrey Perkins
Vice President for Communications
Bennington College
One College Drive Bennington, VT 05201
802-442-5401
jeffreyperkins@bennington.edu

TABLE 1 – SCHEDULE OF KNOWN EVENTS

Event	Date
Bennington College Commencement	May 31, 2025

18. NOTICE TO BIDDERS – AFAD. The Contractor is hereby notified that Automated Flagger Assistance Devices (AFADs) are remotely operated devices that enable a certified flagger to be positioned out of the lane of traffic and are used to control motorists through work zones.

AFADs shall only be used in situations where there is no more than one lane of approaching traffic that needs to be controlled. Additionally, since AFADs are not traffic control signals, they shall not be used to replace traffic signals or other continuously operating traffic control devices.

These devices may be used as a safety enhancement to flaggers on an hour-for-hour basis. AFADs shall meet the following requirements:

(a) All AFAD applications shall meet the requirements of the applicable sections of the current edition of the *Manual on Uniform Traffic Control Devices* (*MUTCD*).

(b) All AFAD applications shall be in accordance with *NCHRP Report 350* or the *MASH* for the applicable test level and device weight. Documentation of the crashworthiness of the device shall be submitted to the Engineer for approval prior to use on the project.

(c) AFAD applications shall always be controlled by a flagger who has been trained in the operation of the AFAD and who meets the requirements of Section 630. The flagger shall not flag traffic and operate an AFAD at the same time.

(d) Should an AFAD malfunction or otherwise not function as intended they shall be replaced by another AFAD or flagger(s) or work shall cease and the roadway shall be opened to unrestricted traffic flow immediately.

(e) Each AFAD will be considered equivalent to one flagger and will be measured and paid for on an hourly basis under Item 630.1500 Flaggers. One hour of AFAD use shall be paid for as one hour of flagging.

(f) Flaggers will only be measured for payment when actually performing flagging duties. Flaggers controlling AFADs but not actually flagging will not be measured for payment, but will be considered incidental to the Contract lump sum price for Item 641.1000 Traffic Control, or Item 641.1100 Traffic Control, All-Inclusive, as applicable.

(g) The use of AFADs may be suspended at the discretion of the Engineer.

19. NOTICE TO BIDDERS – POST-CONSTRUCTION SOIL DEPTH AND QUALITY STANDARD. The Operational Stormwater Permit authorization requires areas identified in the plans to meet the Post-Construction Soil Depth and Quality Standard, as defined in the 2017 Vermont Stormwater Management Manual. In accordance with this standard, the Contractor shall follow Section 651 with the following additions and modifications:

(a) Equipment shall be restricted from driving outside of established project demarcation fence or barrier fence.

(b) Native topsoil, if present, shall be stockpiled and then reused within the project limits.

(c) Both native and imported topsoil shall be tested in accordance with Subsection 755.02. If results show that the topsoil has less than 4% organic matter, then the topsoil shall be amended with compost at a rate of 1:3 compost to topsoil. The compost shall be a humus-rich material having 40% to 65% organic matter, a carbon to nitrogen ration below 25:1, and meet the definition of compost in the Vermont DEC Solid Waste Management Rules.

(d) Subsoils shall be scarified or loosened to a depth of 4 inches.

(e) Topsoil shall be placed in accordance with Subsection 651.05(a) with a minimum depth of 4 inches.

Required depth verification testing will be conducted by the Engineer and will include shovel tests to a minimum depth of 8 inches, driven solely by the individual's weight. A total of nine tests per acre of area subject to the Post-Construction Soil Depth and Quality Standard, spaced a minimum of 50 feet apart, shall be performed. Test locations will be as selected by the Engineer.

Costs for complying with the Post-Construction Soil Depth and Quality Standard will be incidental to all other Contract items.

20. NOTICE TO BIDDERS – ELECTRONIC TICKETING VTRANS PORTAL. The Contractor is hereby notified that the Contractor, their subcontractors, and suppliers shall connect to the VTrans Portal and use the application for distribution and management of electronic tickets (e-tickets). VTrans Portal is a state cloud-based e-ticket database, including a web-based user interface and a jobsite mobile e-ticket application. VTrans Portal will interface with the Contractor's supplier existing point of sales or e-ticketing platform and will allow VTrans to manage bituminous material e-tickets.

All costs associated with the use of VTrans Portal will be considered incidental to the appropriate Section 406 and Section 407 pay items. The Agency will manage the VTrans Portal application including Contract setup upon Contract execution.

To create an account, connect to the VTrans Portal, and for more information regarding the use of VTrans Portal see the information at the following link: https://www.haulhub.com/vermont-agency-transport-22/

SECTION 602-0001 – GRANITE FOREBAY PAVERS

602-0001.01 DESCRIPTION. This work shall consist of furnishing and placing granite pavers in sediment control forebays as shown in the Plans and as directed by the Engineer. The purpose of this item is to provide a level protective surface to facilitate the maintenance and cleaning of accumulated sediment in pretreatment forebays.

602-0001.02 MATERIALS. Materials shall meet the requirements of the following subsections:

Geotextile for Underdrain Trench Lining.....720.05

(a) Granite Forebay Pavers. Granite forebay pavers shall conform to the requirements of Subsection 729.01 or Subsection 729.02, except that the pavers shall be a minimum of 18 inches long, 4 inches wide, and 4 inches deep. Pavers may be new or reused.

(b) Granite Forebay Paver Base. Granite forebay paver base shall conform to the requirements of Subsection 704.16, except that it shall meet the gradation requirements of Table 602-001.02A.

TABLE 602-0001.02A – GRADATION OF GRANITE FOREBAY PAVER BASE

Sieve Designation	Percentage by Mass (Weight) Passing Square Mesh Sieves
1 inch (25.0 mm)	100
3/4 inch (19.0 mm)	90 – 100
1/2 inch (12.5 mm)	10 – 50
3/8 inch (9.50 mm)	0 – 20
No. 4 (4.75 mm)	0 – 5

(c) Joint Filler for Granite Forebay Pavers. Joint filler for granite forebay pavers shall conform to the requirements of Subsection 704.06(d), except that it shall meet the gradation requirements of Table 602-001.02B.

TABLE 601-0001.02B – GRADATION OF JOINT FILLER FOR GRANITE FOREBAY PAVERS

Sieve Designation	Percentage by Mass (Weight) Passing Square Mesh Sieves
1/2 inch (12.5 mm)	100
3/8 inch (9.50 mm)	90 – 100
No. 4 (4.75 mm)	20 – 55
No. 8 (2.36 mm)	5 – 30
No. 16 (1.18 mm)	0 – 10
No. 50 (0.300 mm)	0 – 5

602-0001.03 CONSTRUCTION REQUIREMENTS.

(a) Excavation. Excavation shall be made to the required depth and to a width that will permit the base to be placed such that the granite forebay pavers will be at the elevation shown on the Plans. Excavation shall meet the requirements of Section 203 and be paid for under item 203.1500.

(b) Geotextile for Underdrain Trench Lining. Geotextile shall be installed below the granite forebay paver base in accordance with Section 649.

(c) Granite Forebay Paver Base. The base shall be placed and compacted in accordance with the requirements of Section 301 to an elevation which will result in the top surface meeting the grades shown on the Plans.

(d) Paver Installation. Installation shall be performed in accordance with the Plans and the following requirements:

(1) Granite curb or edging shall be placed in an offset tile (running bond) pattern with a minimum of 1 inch and a maximum of 3 inch spacing on all sides.

(2) Cutting of the pavers may be necessary to accommodate field conditions and to achieve an accurate and consistent fit. If pavers need to be cut, the cut shall be made with a masonry saw. Pavers shall be free from stain, dirt, or dust after cutting.

(3) The smoothest face of the paver shall be installed facing up.

(4) Installation shall be performed in one direction by building forward from previously installed pavers.

(5) Joint filler shall be placed into the joints and swept clean. As joint filler settles into joints, additional joint filler shall be added to fill the joints to the surface of the pavers.

(6) Loose or uneven pavers that differ in elevation by more than 1/4 inch from the adjacent pavers shall be tamped or removed and reset as required to attain a level surface.

(e) All exposed paver surfaces shall be cleaned. Exposed surfaces shall be swept with a broom to clean away any excess dirt, dust, stone chips, and other debris.

602-0001.04 METHOD OF MEASUREMENT. The quantity of Granite Forebay Pavers to be measured for payment will be the number of square yards placed in the complete and accepted work.

602-0001.05 BASIS OF PAYMENT. The accepted quantity of Granite Forebay Pavers will be paid for at the Contract unit price per square yard. Payment will be full compensation for transporting, handling, and placing the material specified, including geotextile fabric, base, pavers, and joint filler; cleaning the completed surface as required; removal, temporary storage, protection, cutting, removal and disposal of all foreign matter and installation; and for all labor, materials, tools, equipment, and incidentals necessary to complete the work.

The Contractor shall be responsible for replacing, at no additional cost to the Agency, any pavers that are broken or otherwise damaged by the Contractor's operations.

Payment will be made under:

Pay Item	Pay Unit
602.2500001 Granite Forebay Pavers	Square Yard

SECTION 678-0001 – RECTANGULAR RAPID FLASHING BEACONS

678-0001.01 DESCRIPTION. This work shall consist of furnishing and installing one or more rectangular rapid flashing beacon (RRFB) assemblies at the locations specified on the Plans and as directed by the Engineer.

The work under this section shall be performed in accordance with these provisions, the Plans, Section 675, and Section 678.

678-0001.02 MATERIALS. Materials shall meet the requirements of the following subsections.

Granular Backfill for Structures.....704.08
Mortar, Type IV .....707.01(e)
Aluminum Filled Silicone Sealant.....707.11
Bar Reinforcement.....713.01
Anchor Bolts for Signals, Lighting, and Overhead Signs 714.09
Flat Sheet Aluminum.....750.03
Retroreflective Sheeting.....750.04
Electrical Conduit 752.06
Traffic Signal Conductor Cable 752.07
Grounding Electrodes.....752.11

Concrete shall conform to the requirements of Section 541 for Concrete, Class B.

(a) RRFB Assembly, AC-Powered. AC-powered RRFB assemblies shall consist of bases, poles, traffic signs, RRFBs, pedestrian push buttons, assembly hardware, a control cabinet, and internal wiring. Assemblies shall be single sided or double sided and have the capability to be hardwired or wirelessly interconnected with multiple RRFB assemblies at the same crosswalk. Assemblies shall meet the following requirements and be one of the products listed on the Agency's *Approved Products List*.

(1) Bases. Bases shall be aluminum breakaway features with a hand hole that is a minimum of 8 inches by 8 inches.

(2) Poles. Poles shall be aluminum with an outside diameter of 4-1/2 inches.

(3) Traffic Signs. Signs shall be as specified on the Plans and in accordance with the *MUTCD*, Section 675, and the following requirements:

a. W11-2 pedestrian traffic signs shall have a black legend on a Type VII, Type VIII, or Type IX fluorescent yellow-green background.

b. W16-7pL left diagonal arrow plaques shall have a black legend on a Type VII, Type VIII, or Type IX fluorescent yellow-green background.

c. W16-7pR right diagonal arrow plaques shall have a black legend on a Type VII, Type VIII, or Type IX fluorescent yellow-green background.

d. R10-25 pedestrian push button signs shall have a black legend on a Type IX white background.

(4) RRFB. RRFBs shall be in accordance with the *MUTCD* for rectangular rapid flashing beacons.

(5) Pedestrian Push Buttons. Pedestrian push buttons shall conform to the requirements of the *MUTCD*.

(b) RRFB Assembly, Solar-Powered. Solar-powered RRFB assemblies shall be in accordance with Subsection 678-0001.02(a) and shall include solar charging panels, a control cabinet, and batteries capable of power autonomy for a minimum of 10 days without charging. The batteries used shall be readily available and not proprietary. Assemblies shall be one of the products listed on the Agency's *Approved Products List*.

678-0001.03 SUBMITTALS. The RRFB system manuals shall be submitted to the Engineer a minimum of 10 working days prior to the scheduled start of the first operations stand-alone test.

678-0001.04 CONSTRUCTION REQUIREMENTS.

(a) Installation. Installation of the RRFB foundations, signs, support assembly, power supply, and testing shall be performed in accordance with the Contract, the manufacturer's recommendations, and as directed by the Engineer.

Installation of steel reinforcement shall conform to the requirements of Section 507.

Watertight breakaway electrical fuse holders shall be installed in all line and neutral conductors at the breakaway base. The Contractor shall consult with the applicable utility company prior to beginning such work.

(b) Operations Stand-Alone Test. A 30-day test period is required for all RRFB installations. The completed RRFB installations shall be continuously operated for at least 30 calendar days in a satisfactory manner. If any equipment fails during the 30-day test period, it shall be repaired or replaced at no additional cost to the Agency. Following the repair or replacement of any equipment, a new 30-day test period shall begin.

(c) Removing RRFB Systems. The Contractor shall remove RRFB systems as shown on the Plans. Unless otherwise shown on the Plans, removal shall include foundations to a minimum depth of 12 inches below finished grade, the posts, traffic signs, push buttons, controller cabinet if present, and solar panel if present, all other incidentals, as applicable, and filling holes and returning the area to a condition consistent with the adjacent area.

Foundations shall not be removed when RRFB assemblies are to be set or reset on them. Unless otherwise shown on the Plans, all material removed shall become the property of the Contractor.

RRFB systems shown on the Plans that are to be removed and salvaged, including posts, signs, push buttons, controller cabinet, solar panel, and all other equipment, shall be removed as specified herein and delivered to the locations identified in the Contract. Mounting hardware shall be in a sealed container and clearly marked with its contents. Components damaged during removal or salvaging through the fault of the Contractor, as determined by the Engineer, shall be replaced at no cost to the Agency.

RRFB systems shown on the Plans that are to be removed and reset, including posts, signs, push buttons, controller cabinet, solar panel, and all other equipment, as applicable, shall be removed as specified herein and stored as necessary until they are to be reset. Components damaged during removal or storage through the fault of the Contractor, as determined by the Engineer, shall be replaced at no cost to the Agency.

(d) Resetting RRFB Systems. RRFB systems that are to be reset, including posts, signs, push buttons, controller cabinets, solar panels, and all other equipment, shall be reset at the locations shown on the Plans.

Reset RRFB systems shall be subject to the 30-day operations stand-alone test period specified in Subsection 678-0001.04(b).

The Contractor shall be responsible for transporting all posts, signs, push buttons, controller cabinets, solar panels, and all other equipment to and from the stockpiling location. The Contractor shall supply new mounting hardware and new foundations, as required, to reset RRFB systems.

Posts, signs, push buttons, controller cabinets, solar panels, and all other equipment damaged during resetting through the fault of the Contractor, as determined by the Engineer, shall be replaced at no additional cost to the Agency.

678-0001.05 METHOD OF MEASUREMENT. The quantity of RRFB, AC-Powered, Single Sided; RRFB, AC-Powered, Double Sided; RRFB, Solar-Powered, Single Sided; and RRFB, Solar-Powered, Double Sided to be measured for payment will be the number of each RRFB assembly furnished and installed in the complete and accepted work.

The quantity of Remove RRFB System to be measured for payment will be the number of each RRFB system removed in the complete and accepted work. A system is considered a pair of connected assemblies at a crosswalk.

The quantity of Remove and Reset RRFB System to be measured for payment will be the number of each RRFB system removed and reset to a location identified in the Contract in the complete and accepted work. A system is considered a pair of connected assemblies at a crosswalk.

678-0001.06 BASIS OF PAYMENT. The accepted quantity of RRFB, AC-Powered, Single Sided; RRFB, AC-Powered, Double Sided; RRFB, Solar-Powered, Single Sided; RRFB, Solar-Powered, Double Sided; Remove RRFB System; and Remove and Reset RRFB System will be paid for at the Contract unit price per each at each designated location.

Payment will be full compensation for providing and installing the foundation, grounding electrode with conduit, RRFB, signs, control cabinet, any required attachment hardware, breakaway base, solar panel (if required), batteries (if required), pedestrian-activated push button; testing the RRFB; display of identification and contact information for the municipality (if required); and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Partial payments for RRFB, AC-Powered, Single Sided; RRFB, AC-Powered, Double Sided; RRFB, Solar-Powered, Single Sided; and RRFB, Solar-Powered, Double Sided will be made as follows:

(a) The initial payment of 75% of the Contract unit price will be made upon installation of a functioning system as indicated by a successful continuous 24-hour operation test period.

(b) The final 25% of the Contract unit price will be paid upon acceptance of the project.

The accepted quantity of Remove RRFB System will be paid for at the Contract unit price per each system at each designated location.

Payment will be full compensation for removing all components of the RRFB system, including the foundation if required, transporting the components to a designated location if the system is to be salvaged, and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

The accepted quantity of Remove and Reset RRFB System will be paid for at the Contract unit price per each at each designated location.

Payment will be full compensation for removing all components of the RRFB system, stockpiling, transporting the components to and from the stockpile location, resetting the RRFB system, installing new foundations if specified on the Plans, all testing required, and for furnishing all labor, materials, tools, equipment, and incidentals necessary to complete the work.

Payment will be made under:

Pay Item		Pay Unit
678.2020001	RRFB, AC-Powered, Single Sided	Each
678.2020002	RRFB, AC-Powered, Double Sided	Each
678.2020003	RRFB, Solar-Powered, Single Sided	Each
678.2020004	RRFB, Solar-Powered, Double Sided	Each
678.2020005	Remove RRFB System	Each
678.2020006	Remove and Reset RRFB System	Each

VERMONT

Vermont Department of Environmental Conservation
Watershed Management Division
1 National Life Drive, Davis 3
Montpelier, VT 05620-3522

Agency of Natural Resources
[phone] 802-828-1115

10/21/2021

Dear Permittee(s),

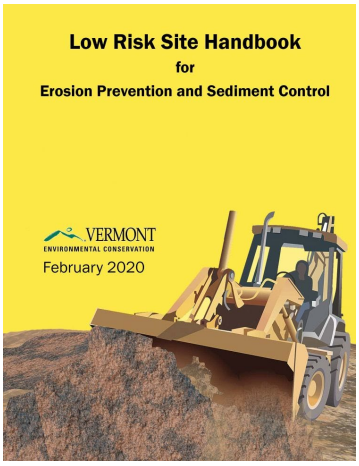
The Notice of Intent for the discharge of stormwater runoff from Low Risk Construction Activity under Construction General Permit (CGP) 3-9020 (March 19, 2020) has been authorized**.** You will need the following documents to maintain compliance with this authorization. Enclosed with this cover letter is your **Authorization to Discharge under General Permit 3-9020** and a copy of the **Notice of Authorization** that you must post at your construction site. In addition, any additional Owners and Operators that were not identified on the Notice of Intent at the time of application must file a **Notice of Addition of Co-Permittee**. See below for more details on these and other permit requirements.

1. **Authorization to Discharge under General Permit 3-9020**
   The authorization for Low Risk Construction Activity is valid for five years from the date of the authorization. If the project will proceed past the expiration date, you must reapply for coverage under this or another construction stormwater permit before that time. If the project is completed or is sold before that time, you may terminate the authorization by submitting a Notice of Termination, subject to Subpart 7.4 of CGP 3-9020. Any proposed project changes must be first evaluated in accordance with the terms, conditions, and eligibility provisions set forth in Part 5 of CGP 3-9020.

2. **Notice of Authorization for Posting**
   The Notice of Authorization, which details the authorization and conditions you selected in completing Appendix A to the CGP, must be posted in a location visible to the public in accordance with Subpart 4.5.C of the CGP.

3. **Notice of Addition of Co-Permittee**
   This form must be submitted for every additional Owner and/or Operator who joins the project, in accordance with Subpart 7.3 of the CGP. Use ANR Online to file all Notice of Additions. ANR Online can be accessed using the following link: https://anronline.vermont.gov. Instructions on creating an account are available on the main page.

Low Risk Site Handbook for Erosion Prevention and Sediment Control



Please provide the Owner(s) and Operator(s) access to the Low Risk Site Handbook for Erosion Prevention and Sediment Control. This handbook details the practices that must be implemented throughout the construction project to prevent erosion and the discharge of sediment from the construction site. Some practices must be in place before construction begins, so please review the entire handbook before starting the project. The handbook can be found at the website below. Please email anr.wsmdstormwatergeneral@vermont.gov to request a printing of the handbook if you are unable to do so.

The CGP, copies of pertinent forms, and an electronic version of the Low Risk Site Handbook for Erosion Prevention and Sediment Control are available on the Stormwater Program website. If you have any questions related to your authorization, please contact the Environmental Analyst in the Stormwater District where your project is located.

Sincerely,
Stormwater Management Program

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Permit Number: 9304-9020

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AUTHORIZATION TO DISCHARGE UNDER
GENERAL PERMIT 3-9020

A determination has been made that the applicant(s) (here in after "permittee"):

Vermont Agency of Transportation
219 North Main Street
Barre City, VT 05641

meets the criteria necessary for inclusion under General Permit 3-9020 for low risk construction activities. Subject to the conditions and eligibility provisions of General Permit 3-9020, the permittee is authorized to discharge stormwater to Walloomsac River from the following construction activities: Intersection and corridor improvements along VT Route 67A, from mile marker 1.006 to mile marker 1.136 (0.13 miles). Improvements include full depth reconstruction, sidewalks, and a new roundabout located at the intersection of Silk Road, College Drive, Matteson Road, and VT Route 67A. The project is located at N Bennington Road (VT Route 67A) in Bennington, Vermont.

1. Effective Date and Expiration Date of this Authorization: This authorization to discharge shall become effective on October 21, 2021 and shall continue until October 20, 2026. The permittee shall reapply for coverage at least 60 days prior to expiration if the project has not achieved final stabilization or if construction activities are expected after the date of expiration.

2. Compliance with General Permit 3-9020 and this Authorization: The permittee shall comply with this authorization and all the terms, conditions, and eligibility provisions of General Permit 3-9020. The completed Notice of Intent (NOI) and Appendix A completed for this project are incorporated by reference into this authorization and are included in the terms of this authorization. These terms include:

   - Implementation and maintenance of erosion prevention and sediment control practices required by the Low Risk Site Handbook for Erosion Prevention and Sediment Control.
   - All areas of disturbance must have temporary or final stabilization within 14 days of the initial disturbance. After this time, disturbed areas must be temporarily or permanently stabilized in advance of any runoff producing event. A runoff producing event is an event that produces runoff from the construction site. The following exception to the above stabilization requirements apply:
     - Temporary stabilization is not required if work is occurring in a self-contained excavation (i.e. no outlet) with a depth of 2 feet or greater (e.g. house foundation excavation, utility trenches). Areas of a construction site that drain to sediment basins are not considered eligible for this exemption and the exemption applies only to the excavated area itself.
   - The total authorized disturbance is 2.37 acre(s).
   - Inspections shall be conducted at least once every (7) calendar days and daily during the winter construction period (October 15 through April 15), for all areas that have been disturbed and are not yet finally stabilized. In addition:
     - If visibly discolored stormwater runs off the construction site or discharges to waters of the State, the permittee shall take immediate corrective action to inspect and maintain existing best management practices (BMPs), and to install supplemental BMPs necessary to minimize and prevent the discharge.
   - If, after completing corrective action, there continues to be a discharge of discolored stormwater from the construction site to waters of the State, the permittee shall notify DEC by submitting a Discharge Report within 24 hours of discovering the discharge.

3. Transferability and Addition of Co-Permittee: This authorization to discharge is not transferable to any person, nor may any person be added as a permittee, except in compliance with General Permit 3-9020 including submission of a complete Notice of Transfer or Notice of Addition of Co-Permittee.

4. Following receipt of authorization under General Permit 3-9020, additional Owner(s) and Operator(s) not identified on the Notice of Intent at the time of application shall be added as a co-permittee by filing a Notice of Addition of Co-Permittee with the Secretary. The co-permittee shall be subject to all terms and conditions of the permittee's authorization and Construction General Permit 3-9020.

5. Right to Appeal:

(A) Pursuant to 10 V.S.A. Chapter 220, any appeal of this permit, except for appeal of a renewable energy plant as described in (B), must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of the decision. The notice of appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Division; and must be signed by the appellant or the appellant's attorney. In addition, the appeal must give the address or location and description of the property, project, or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the notice of appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings.

(B) If this permit relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. § 248, any appeal of this decision must be filed with the Vermont Public Utility Commission pursuant to 10 V.S.A. § 8506. This section does not apply to a facility that is subject to 10 V.S.A. § 1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. § 1006 (certification of hydroelectric projects), or 10 V.S.A. Chapter 43 (dams). Any appeal under this section must be filed with the clerk of the Public Utility Commission within 30 days of the date of this decision; the appellant must file with the clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. § 8504(c)(2) and shall also serve a copy of the notice of appeal on the Vermont Public Service Department. For further information, see the Rules and General Orders of the Public Utility Commission.

Dated October 21, 2021

Peter Walke, Commissioner
Department of Environmental Conservation

By: 

Kevin Burke, Environmental Analyst
Stormwater Management Program

Notice of Authorization
Under Vermont Construction General Permit 3-9020
For Low Risk Construction Activity

VERMONT
ENVIRONMENTAL CONSERVATION

Permittee Directions for Posting:
This notice shall be placed near the construction entrance at a location visible to the public. If displaying near the main entrance is infeasible, the notice shall be posted in a local public building such as the municipal office or public library. For linear projects, the notice shall be posted at a publicly accessible location near the active part of the construction project (e.g., where a pipeline project crosses a public road) or, in the event posting in a publicly accessible location near the active part of the project is infeasible, the permittee shall post in a local public building such as the municipal office or public library.

Project Name:	Bennington STP 1000(23)
Permittee Name(s):	Vermont Agency of Transportation
NOI Number:	9304-9020
Date of Authorization:	October 21, 2021
Date of Expiration:	October 20, 2026

The project listed above has received authorization under General Permit 3-9020 to discharge stormwater from the following construction activities:

Intersection and corridor improvements along VT Route 67A, from mile marker 1.006 to mile marker 1.136 (0.13 miles). Improvements include full depth reconstruction, sidewalks, and a new roundabout located at the intersection of Silk Road, College Drive, Matteson Road, and VT Route 67A.

This authorization includes the following requirements:

- Implementation and maintenance of erosion prevention and sediment control practices required by the Low Risk Site Handbook for Erosion Prevention and Sediment Control.
- All areas of disturbance must have temporary or final stabilization within 14 days of the initial disturbance. After this time, disturbed areas must be temporarily or permanently stabilized in advance of any runoff producing event. A runoff producing event is an event that produces runoff from the construction site. The following exception to the above stabilization requirements apply:
    - Temporary stabilization is not required if the work is occurring in a self-contained excavation (i.e. no outlet) with a depth of two feet or greater (e.g. house foundation excavation, utility trenches). Areas of a construction site that drain to sediment basins are not considered eligible for this exemption and the exemption applies only to the excavated area itself.
- The total authorized disturbance is 2.37 acre(s).
- Inspections shall be conducted at least once every (7) calendar days and daily during the winter construction period (October 15 through April 15), for all areas that have been disturbed and are not yet finally stabilized. In addition:
    - If visibly discolored stormwater runs off the construction site or discharges to waters of the State, the permittee shall take immediate corrective action to inspect and maintain existing best management practices (BMPs), and to install supplemental BMPs necessary to minimize and prevent the discharge.
- If, after completing corrective action, there continues to be a discharge of sediment from the construction site to waters of the State, the permittee shall notify DEC by submitting a Discharge Report within 24 hours of discovering the discharge.
- The permittee shall comply with all inspection, maintenance, corrective action, record keeping, and reporting requirements, and all other terms, conditions, and eligibility provisions, including those conditions related to project changes, as set forth in General Permit 3-9020 and this authorization.
- Following receipt of authorization under General Permit 3-9020, additional Owner(s) and Operator(s) not identified on the Notice of Intent at the time of application shall be added as a co-permittee by filing a Notice of Addition of Co-Permittee with the Secretary. The co-permittee shall be subject to all terms and conditions of the permittee's authorization and General Permit 3-9020.

To request information on this authorization, or to report compliance concerns, please contact:
Vermont Department of Environmental Conservation
Watershed Management Division
1 National Life Drive, Davis 3
Montpelier, VT 05620

Permit Number: 9304-9050

PIN: RU21-0053

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AUTHORIZATION TO DISCHARGE UNDER
GENERAL PERMIT 3-9050

A determination has been made that the applicant(s):

Vermont Agency of Transportation
Dill Building
2178 Airport Road
Barre, VT 05641

Impervious Area: 1.52 acres

meets the criteria necessary for inclusion under General Permit 3-9050. Hereinafter, the named applicant shall be referred to as the permittee. Subject to the conditions of General Permit No. 3-9050, the permittee is authorized to discharge stormwater as described herein:

Project Name: Bennington STP 1000(23)

Project Location: North Bennington Road (US Route 67A) in Bennington, Vermont

Receiving Waters: Walloomsac River

Manner of Discharge: S/N 001: Stormwater flows to a closed drainage system and outfalls upgradient to the Walloomsac River. A portion of the closed drainage system discharges to STP 1 which has a forebay for pretreatment and infiltration basin for treatment. The infiltration basin has an overflow which connects back into the drainage system that outfalls upgradient to the Walloomsac River.

S/N 002: Stormwater sheet flows off of the roadway and travels via overland flow to the Walloomsac River. This area has a net reduction in impervious area therefore no treatment is required.

S/N 003: Stormwater sheet flows off of the roadway and travels via gutter flow to the site limits. Beyond the site limits, stormwater discharges to a culvert that conveys the stormwater across VT Route 67A to the Walloomsac River. This area has a net increase in impervious area and treatment is provided via site balancing at SN 001.

Design: This project shall be constructed and operated in accordance with the site plans and details designed by Green International Affiliates, Inc.; Sheet 1, "Title Sheet", dated 2/2/2022; Sheet 2, "Index of Sheets" dated 2/2/2022; Sheet 3, "Conventional Symbology Legend Sheet", dated 2/2/2022; Sheet 4, "General Notes Sheet", dated 2/2/2022; Sheets 5-7, "Typical Sections Sheets", dated 2/2/2022; Sheets 8-13, "Detail Sheets", dated 2/2/2022; Sheets 14-20, "Profile Plan Sheets" dated 2/2/2022; Sheet 21, "Drainage and Utility Plan Sheet", dated 2/2/2022; Sheet 22, "Landscape Plan" dated 2/2/2022; Sheet 23, "Landscape Plant List Sheet" dated 2/2/2022; Sheet 24, "Partial Grading Plan Sheet", dated 2/2/2022; Sheet 25, "EPSC Existing Conditions Plan Sheet", dated 2/2/2022; Sheet 26, "EPSC Final Conditions Plan Sheet", dated 2/2/2022; Sheet 27-36, "Cross Section Sheets", dated 2/2/2022; Sheet 37, "Shade Plan", dated 2/2/2022; Sheet 38, "Site Maintenance Plan Sheet", dated 2/2/2022; and all supporting information.

By reference, the above noted plans are made part of this authorization.

Compliance with General Permit 3-9050 and this Authorization

The permittee shall comply with this authorization and all the terms and conditions of General Permit 3-9050, including the payment of annual operating fees to the Department. A billing statement for such fees will be sent to the permittee each year. An invoice for the first year's operating fee will be sent separately. Any permit non-compliance, including a failure to pay the annual operating fee, constitutes a violation of 10 V.S.A. Chapter 47 and may be grounds for an enforcement action or revocation of this authorization to discharge.

Construction of the Stormwater Management System:
The stormwater management system as described in the approved Design above shall be installed prior to the discharge of stormwater from any new or redeveloped impervious surface covered by this authorization. Where stormwater from existing impervious surface is being treated pursuant to "Site Balancing", per the Approved Design, the stormwater system treating such areas shall be installed prior to the discharge of stormwater from new or redeveloped impervious surface.

For any existing impervious surface covered by this authorization, except for existing impervious surfaces used for Site Balancing, as noted above, the stormwater management system as described in the approved Design above shall be installed no later than 2/24/2027.

Annual Inspection and Report
The stormwater management system shall be properly operated. The permittee shall submit an annual inspection report on the operation, maintenance and condition of the stormwater management system. The inspection report shall be submitted regardless of whether the project has been constructed. The inspection shall be conducted between the conclusion of spring snow melt and June 15th of each year and the inspection report shall be submitted to the Secretary by July 15th of each year, or by July 30th if performed by a utility or municipality pursuant to a duly adopted stormwater management ordinance. The inspection report shall note all problem areas and all measures taken to correct any problems and to prevent future problems. The online submittal system, ANR Online, can be accessed at https://anronline.vermont.gov.

Initial Statement of Compliance
An initial statement of compliance, signed by a designer, must be submitted to the Stormwater Management Program no later than 30 days following completion of construction of the stormwater management system. Forms for completing this requirement are available on the Stormwater Management Program's website. The online submittal system, ANR Online, can be accessed at https://anronline.vermont.gov.

Transferability
This authorization to discharge is not transferable to any person except in compliance with Part 8.4 of General Permit 3-9050. A copy of General Permit 3-9050 is available from the Department via the internet at https://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/2020_09_01%20Final%20GP%203-9050.pdf

Changes to Permitted Development
In accordance with Part 8.6. of General Permit 3-9050, the permittee shall notify the Department of any planned development or facility expansions or changes that may result in new or increased stormwater discharges. The Department shall determine the appropriateness of continued inclusion under General Permit 3-9050 by the modified development or facility.

Recording in Land Records
The permittee shall record in the local land records, within 30 days of issuance of this authorization, a one-page notice of permit coverage. A one-page notice form may be obtained from the Secretary. A copy of the recording shall be provided to the Secretary within 14 days of the permittee's receipt of a copy of the recording from the local land records. Permits for public linear transportation projects shall be exempt from this requirement provided the permit is retained by the permittee in the official project file.

Right to Appeal
(A) Pursuant to 10 V.S.A. Chapter 220, any appeal of this permit, except for appeal of a renewable energy plant as described in (B), must be filed with the clerk of the Environmental Division of the Superior Court within 30 days of the date of the decision. The notice of appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Division; and must be signed by the appellant or the appellant's attorney. In addition, the appeal must give the address or location and description of the property, project, or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the notice of appeal in accordance with Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings.

(B) If this permit relates to a renewable energy plant for which a certificate of public good is required under 30 V.S.A. § 248, any appeal of this decision must be filed with the Vermont Public Utility Commission pursuant to 10 V.S.A. § 8506. This section does not apply to a facility that is subject to 10 V.S.A. § 1004 (dams before the Federal Energy Regulatory Commission), 10 V.S.A. § 1006 (certification of hydroelectric projects), or 10 V.S.A. Chapter 43 (dams). Any appeal under

this section must be filed with the clerk of the Public Utility Commission within 30 days of the date of this decision; the appellant must file with the clerk an original and six copies of its appeal. The appellant shall provide notice of the filing of an appeal in accordance with 10 V.S.A. § 8504(c)(2) and shall also serve a copy of the notice of appeal on the Vermont Public Service Department. For further information, see the Rules and General Orders of the Public Utility Commission.

Effective Date and Expiration Date of this Authorization

This authorization to discharge shall become effective on February 25, 2022 and shall expire on February 24, 2027. The permittee shall reapply for coverage prior to the expiration of this authorization.

Dated February 25, 2022.

Peter Walke, Commissioner
Department of Environmental Conservation

By: 

Chris Gianfagna, Program Manager
Stormwater Management Program

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION
WATERSHED MANAGEMENT DIVISION
STORMWATER PROGRAM

Town Recording of Permit Issued

FOR STORMWATER DISCHARGE PERMIT BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Notice is hereby given that the Vermont Department of Environmental Conservation gives authorization to discharge pursuant to a general stormwater discharge permit that has been issued to Permittee(s) named herein for the discharge of stormwater runoff for the property identified below from impervious surfaces (e.g. roadways, rooftops, parking lots, walkways) pursuant to 10 V.S.A. 1264. The authorization requires treatment and control of stormwater runoff, long-term maintenance of the treatment and control structures and payment of yearly operational fees.

Permittee(s): **Vermont Agency of Transportation**

Permit/Authorization Number: **9304-9050**

911 Address of Property: **N. Bennington Road (US Route 67A), Bennington**

Name of association (if applicable): _____
(condominium, subdivision or planned community)

Printed Name of Permittee or Authorized Representative: _____

Signature of Permittee or Authorized Representative: _____ Date:_____

FOR TOWN CLERK USE ONLY:

Recorded under Book: _____ Page:_____

Date Recorded with Town: _____ Signature / Stamp:_____

****

Recording information for Municipal Clerks - please index this document listing the State of Vermont, Department of Environmental Conservation as "Grantee," and listing the above-named Permittee(s) as "Grantor(s)." Additionally, if this notice lists the name of a condominium, subdivision or planned community association, please list the named association as an additional "Grantor."

Can be Completed by Clerk or Permittee:
Please upload this completed form to ANR Online by visiting the following link
https://anronline.vermont.gov

January 2019

LAND USE PERMIT
ADMINISTRATIVE AMENDMENT

State of Vermont
Natural Resources Board
District 8 Environmental Commission
440 Asa Bloomer State Office Building
88 Merchants Row, 4th Floor
Rutland, VT 05701-5903
https://nrb.vermont.gov/

Vermont Agency of Transportation
Attn: Julie Ann Held
219 North Main Street
Barre, VT 05641

PERMIT NUMBER:
8B0539-11A

LAW/REGULATIONS INVOLVED:
10 V.S.A. §§ 6001 – 6111 (Act 250)
Act 250 Rule 34(D)

The District 8 Environmental Commission ("Commission") hereby issues Land Use Permit ("LUP") Administrative Amendment 8B0539-11A pursuant to the authority vested in it by 10 V.S.A., §§ 6001-6111. This permit amendment applies to the lands identified in Book 227, Pages 104-110; Book 479, Page 197; Book 420, Pages 16-18; Book 69, Pages 127-128; and Book 66, Pages 146-147, of the land records of the Town of Bennington, Vermont, as the subject of deeds to Bennington College, being a ±1.5-acre portion of land owned by Bennington College and controlled by the State of Vermont (via easement or right-of-way).

LUP 8B0539-11 authorized the construction of improvements on/at the intersection of Vermont Route 67A, Matteson Road, College Drive, and Silk Road (specifically, where located on Bennington College property) in the Town of Bennington, Vermont. The improvements include full depth reconstruction of 690 feet of roadway, a new roundabout configuration, drainage, stormwater treatment, landscaping, signage, and related infrastructure. Condition 15 of LUP 8B0539-11 required, "*All site work and construction shall be completed in accordance with the approved plans by October 30, 2025, unless an extension of this date is approved in writing by the Commission. Such requests to extend must be filed prior to the deadline, and approval may be granted without public hearing*."

This permit specifically authorizes the extension of the construction completion date from October 30, 2025, to October 20, 2026. No changes to the Project are proposed or authorized herein.

Jurisdiction attaches because the Project constitutes a material change to a permitted development or subdivision, and thus requires a permit amendment pursuant to Act 250 Rule 34.

The Permittee and its assigns and successors in interest, are obligated by this permit to complete, operate and maintain the project as approved by the District Commission in accordance with the following conditions.

1. The project shall be completed, operated, and maintained in accordance with the conditions of this permit; the permit application, plans, and exhibits on file with the Commission; and

other material representations. In the event of any conflict, the terms and conditions of this permit shall supersede the approved plans and exhibits.

2. All conditions of Land Use Permit 8B0539 and amendments are in full force and effect except as amended herein.

3. Representatives of the State of Vermont shall have access to the property covered by this permit at reasonable times, for the purpose of ascertaining compliance with Vermont environmental and health statutes and regulations and with this permit.

4. No change shall be made to the design, operation, or use of this project without a permit amendment issued by the District Commission or a jurisdictional opinion from the District Coordinator that a permit is not required.

5. No further subdivision, alteration, and/or development on the tract/tracts of land approved herein shall be permitted without a permit amendment issued by the District Commission or a jurisdictional opinion from the District Coordinator that a permit is not required.

6. Pursuant to 10 V.S.A. § 8005(c), the District Commission or the Natural Resources Board may at any time require that the permit holder file an affidavit certifying that the project is in compliance with the terms of this permit.

7. The conditions of this permit and the land uses permitted herein shall run with the land and are binding upon and enforceable against the Permittees and its successors and assigns.

8. The Permittee shall provide each prospective purchaser of any interest in this Project a copy of the Land Use Permit Amendment before entering into any written contract of sale.

9. Pursuant to 10 V.S.A. § 6090(c), this permit amendment is hereby issued for an indefinite term, as long as there is compliance with the conditions herein. Notwithstanding any other provision herein, this permit shall expire three years from the date of issuance if the Permittee has not commenced construction and made substantial progress toward completion within the three-year period in accordance with 10 V.S.A. § 6091(b).

10. **All site work and construction shall be completed in accordance with the approved plans by October 20, 2026, unless an extension of this date is approved in writing by the Commission**. Such requests to extend must be filed prior to the deadline and approval may be granted without a public hearing.

Failure to comply with all of the above conditions may be grounds for permit revocation pursuant to 10 V.S.A., § 6027(g).

Dated this May 7, 2024.

By: */s/ Kim Lutchko*

Kim Lutchko, District 8 Coordinator
440 Asa Bloomer State Office Building
88 Merchants Row, 4th Floor
Rutland, VT 05701-5903
Kim.Lutchko@vermont.gov

This permit is issued pursuant to Act 250 Rule 34(D), Administrative Amendments, which authorizes a district coordinator, on behalf of the District Commission, to "amend a permit without notice or hearing when an amendment is necessary for record-keeping purposes or to provide authorization for minor revisions to permitted projects raising no likelihood of impacts under the criteria of the Act." The rule also provides that all parties of record and current adjoining landowners shall receive a copy of any administrative amendment.

Prior to any appeal of this Administrative Amendment to the Superior Court, Environmental Division, the applicant, or a party must file a motion to alter with the District Commission within 15 days from the date of this Administrative Amendment, pursuant to Act 250 Rule 34(D)(2).

CERTIFICATE OF SERVICE

I hereby certify that I, Sabrina Urich, Natural Resources Board Technician, District 8 Environmental Commission, sent a copy of the foregoing **ACT 250 LAND USE PERMIT AMENDMENT** 8B0539-11A by U.S. Mail, postage prepaid, on this May 7, 2024, to the following individuals without email addresses and by electronic mail, to the following individuals with email addresses. **Note: Any recipient may change their preferred method of receiving notices and other documents by contacting the District Office staff at the mailing address or email below. If you have elected to receive notices and other documents by email, it is your responsibility to notify our office of any email address changes.**

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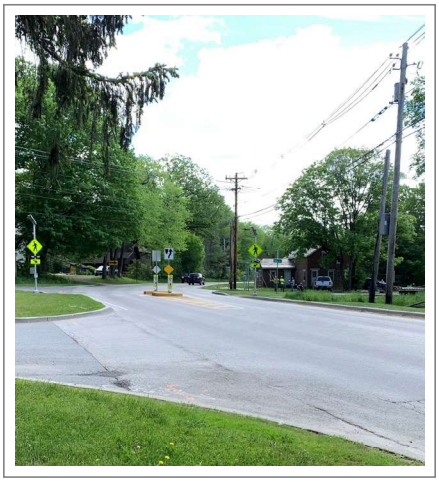
SOIL MANAGEMENT PLAN

New Roundabout at the Intersection of Route 67A with Silk Road, Matteson Road, and College Drive Bennington STP 1000(23) Bennington, Vermont

June 2024
File No. 04.0191133.02



PREPARED FOR:
Green International Affiliates, Inc.
Bennington, Vermont

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Via Email

June 18, 2024
File No. 04.191133.02R3

Mr. Dennis Vertiyev, P.E.
Green International Affiliates, Inc.
100 Ames Pond Drive, Suite 200
Tewksbury, Massachusetts 01876

RE: Soil Management Plan (SMP)
New Roundabout at the Intersection of Route 67A at Silk Road, Matteson Road, and College Drive
Bennington STP 1000(23)
Bennington, Vermont

Dear Mr. Vertiyev:

GZA GeoEnvironmental, Inc. is pleased to provide the attached Soil Management Plan (SMP) for the Bennington Town STP 1000(23) project to construct a new roundabout at the intersection of Route 67A at Silk Road, Matteson Road, and College Drive in Bennington, Vermont.

The SMP addresses procedures to assess, segregate and manage petroleum-contaminated soils encountered during excavation while ensuring site worker safety during construction of the new roundabout.

Thank you very much for your review of the attached. Please contact Andrew Fournier at (603) 316-8711 with any questions you may have regarding the attached.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Andrew D. Fournier
Project Manager

Jay L. Hodkinson, P.E.
Consultant / Reviewer

David G. Lamothe, P.E.
Associate Principal

ADF/DGL/JLH:idim
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Attachments: Figures
Appendices

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APPENDICES

1.0 INTRODUCTION

This Soil Management Plan (SMP) has been prepared for the proposed new roundabout to be constructed at the intersection of Route 67A at Silk Road, Matteson Road, and College Drive in Bennington, Vermont (Site). This SMP describes procedures and requirements for properly assessing, segregating, and managing petroleum-contaminated soils encountered during excavation, and groundwater generated during temporary excavation dewatering. Excavated soils will be managed in a manner that ensures the protection of health, safety, public welfare, and the environment in accordance with Vermont Environmental Protection Rules, Chapter 35, Investigation and Remediation of Contaminated Properties Rule (IRule).

The intent of the SMP is to provide material classification, segregation, stockpiling, and on- or off-site reuse specifications to support contracted construction implementation while ensuring site worker safety, and contingencies are also included. The SMP is intended to be a construction document to inform the Contractor of regulatory requirements and describe handling and management of both unregulated and regulated materials excavated for construction. The SMP is not a remediation document. This plan and GZA's work are subject to the Limitations in **Appendix A.**

GZA GeoEnvironmental, Inc. (GZA) has prepared this plan utilizing information obtained from others from historical and recent investigations performed at the Site and in the Site vicinity. Recent site investigations by KAS, Inc. (KAS) of Williston, Vermont are summarized in a report entitled "Supplemental Site Investigation Report, Former Daniel Fagers Facility, 1092 Bennington Road, Bennington, Vermont 05201" dated November 14, 2022, which is included in **Appendix B.**

1.1 GOALS AND OBJECTIVES

The goals and objectives of this SMP are to properly assess, segregate, and manage petroleum-contaminated soils encountered during excavation activities associated with the new roundabout while ensuring site worker safety. This SMP is intended to provide information for the Project Operations Plan (POP) implemented in accordance with the Vermont Agency of Transportation 2024 Standard Specifications for Construction; Section 230 - Contaminated Materials.

The site Contractor will be responsible for conducting excavation and construction activities in a way to properly manage contaminated soils and reduce potential future exposures to nearby sensitive receptors. If contaminated soil is encountered during excavation, the Contractor will need to assess, segregate, handle, store, transport, treat, recycle, dispose, or discharge in compliance with the provisions of all applicable federal, State, and local laws; regulations; bylaws; and any additional project requirements established by the Environmental Professional (EP) consultant for the project retained by the General Contractor, and as approved by VTrans and VTrans' EP.

1.2 SITE LOCATION AND DESCRIPTION

The proposed new roundabout will be located at the intersection of North Bennington Road (State Route 67A), Silk Road, Matteson Road, and College Drive in Bennington, Vermont. The current conceptual plan for the new roundabout overlaps portions of four parcels owned by Bennington College and identified by the Town of Bennington (Town) as Tax Map 51, Block 15, Lots 65028, 65337, 65115, and 65116. The project area is in an area of mixed use including residential and commercial properties.

A Locus Plan is attached as **Figure 1,** a Site Plan is attached as **Figure 2,** and the Proposed Reconstruction is attached as **Figure 3**.

1.3 AREA USE

The project area covers approximately 1.33 acres based on the current conceptual design provided by GIA and includes paved state and local roadways, as well as forested and cleared undeveloped land. Properties adjoining the project area to the west and northwest contain undeveloped wooded and cleared areas, while properties to the south and east are improved with residential buildings and landscaping.

A more detailed discussion of environmental issues and historical investigations in the vicinity of the project area can be found in **Sections 1.5** and **1.6**, below.

1.4 PROPOSED ROUNDABOUT AND SCHEDULE

The proposed roundabout at the intersection of Route 67A at Silk Road, Matteson Road, and College Drive will consist of full-depth reconstruction of the roadway, construction of a new roundabout and associated drainage, landscaping, and other related improvements. Excavations across the project area will primarily consist of full depth roadway reconstruction to approximately 2 feet below ground surface (bgs), construction of two infiltration basins to depths of up to 8 feet bgs, and for the installation of drainage structures to depths of up to 9 feet bgs. The project is scheduled for construction from September 2024 to March 2026.

1.5 ENVIRONMENTAL BACKGROUND

The following is a brief summary of the environmental issues in the vicinity of the project area.

There are potential soil and groundwater contamination issues associated with a historical petroleum service station. The Vermont Agency of Natural Resources (ANR) Natural Resources Atlas identifies one Hazardous Site in the immediate vicinity of the new roundabout as summarized in the following.

- Former Daniel Fagers Facility (FDFF) property, 1092 North Bennington Road – The FDFF site is located at 1092 North Bennington Road, southwest of the intersection of North Bennington Road (Route 67A) and Matteson Road and south of the intersection of North Bennington Road and College Drive. Two gasoline underground storage tanks (USTs) were removed from the property in 1986 and documentation of the UST removals was submitted to the Vermont Department of Environmental Conservation (VT DEC) in 1990; however, at the time of closure a site assessment was not provided to the VT DEC. KAS conducted a Phase I/II Environmental Site Assessment (ESA) at the property in February 2005 and drilled four test borings in front of the former building and in the vicinity of the former gasoline USTs. Petroleum impacts were detected, and VT DEC assigned Sites Management Section (SMS) Number 2005-3341 to the FDFF site.

  On May 19, 2005, KAS oversaw the closure of one 500-gallon heating fuel UST at the FDFF site. Soil samples collected on May 23, 2005, in the vicinity of the former onsite hydraulic lift had detectable concentrations of ethylbenzene, xylenes, trimethylbenzenes isomers, and total petroleum hydrocarbons (TPH), but all detections were below standards. KAS installed four monitoring wells on August 3, 2005, (designated MW-1 through MW-4). KAS installed additional monitoring wells and soil borings in 2008 (designated SB08-1 through SB08-5) and removed and disposed of approximately 129 tons of petroleum impacted soil from the source area to reduce petroleum impacts to soil and groundwater beneath the FDFF site.

  Groundwater monitoring was conducted on a tri-annual basis from 2005 to 2006. In 2007, the groundwater monitoring frequency was changed from tri-annual to bi-annual basis. Groundwater monitoring has occurred at the Site twice per year since 2008. From 2009 to 2012, the groundwater monitoring frequency changed

from bi-annual to annual. In 2010, the groundwater monitoring frequency changed from annual to biennial, and the Site is currently still being monitored at this frequency.

In May 2021, KAS performed an SSI which included the drilling of seven test borings and monitoring well installation across the Site to further delineate the dissolved phase plume. The highest dissolved VOC concentrations were measured from wells MW-2RW and MW-1R, located within the approximate footprint and 50 feet east of the former gasoline UST, respectively. VTDEC requested another SSI to further define the extent of the plume.

In July 2022, KAS drilled six additional soil borings (designated SB22-01 through SB22-06) and installed six new groundwater monitoring wells. Soil samples were collected from each soil boring at the interval with the highest PID reading (above 1.0 ppmv) measured in that boring. The soil samples from SB22-01, SB22-02, SB22-05, and SB22-06 contained detectable VOC concentrations below Vermont Soil Standards (VSS). No VOCs were reported above laboratory detection limits in the soil sample from SB22-04. Total Petroleum Hydrocarbon (TPH, Gasoline Range Organics) was reported at a level of 190 mg/kg from SB22-01, which is greater than the minimum range for EPA Regional Screening Level (RSL). Refer to KAS' 2022 Supplemental Site Investigation (SSI) report for a detailed discussion of soil and groundwater sampling results, included in **Appendix B**.

On August 4, 2022, the depth to water was measured from fifteen of sixteen Site monitoring wells. Depth to groundwater ranged from 9.82 to 17.82 feet below top of casing, corresponding to Elevation 559.08 to 559.79. Groundwater samples were collected from fifteen groundwater monitoring wells at the FDFF site. The total VOC concentrations ranged from 5.4 to 13,260 micrograms per liter (ug/L). The highest concentrations of dissolved phase VOCs continued to be from MW-2RW and MW-1R, located within the approximate footprint and 50 feet east of the former gasoline UST, respectively. Groundwater data collected during the SSI indicated the plume extends off-site to adjacent parcels to the north and east (Refer to KAS **Figure 3**).

Based on the conceptual design for the project and the 2022 SSI Report prepared by KAS for the FDFF site, the source area and groundwater plume of the FDFF site is located within the footprint of the project.

Residual petroleum-related soil or groundwater contamination from the historical releases and USTs may be encountered in the soils of the project area during construction activities. A detailed discussion for the management of residual petroleum-related soil or groundwater contamination is included in **Section 4.0**.

1.6 UNDERGROUND STORAGE TANKS

Two gasoline USTs were removed from the FDFF site in 1986. On May 19, 2005, KAS oversaw the removal and closure of one 500-gallon heating fuel UST at the FDFF site. The former USTs were located south of Route 67A and west of Silk Road as shown in **Figure 2**.

Based on the data reviewed, GZA does not anticipate encountering historical USTs (either documented or undocumented) within the project area; however, it is possible that there are undocumented USTs in the vicinity of the project area based on the area history. **Section 4.11** addresses contingencies that should be followed if unanticipated potentially hazardous conditions are identified.

2.0 SUBSURFACE EXPLORATIONS

Soils encountered at the Site during the 2022 KAS SSI consisted primarily of loose to medium dense, highly permeable sands with varying amounts of silts and gravels. Depth to groundwater at the Site has been observed to vary slightly ranging from approximately 9 to 17 feet below ground (Elevation 559.08 to 559.79). Groundwater

has been documented to flow towards the southeast and/or southwest. Detailed descriptions of the materials encountered and depth to groundwater at specific locations are provided in **Appendix B**. During the 2022 KAS investigation groundwater was observed to flow northeast, southeast, and south.

According to the USGS 2011 Bedrock Geologic Map of Vermont, bedrock in the northwestern portion of the project area is mapped as interbedded orange, tan, and buff dolostone and blue gray to gray dolomitic limestone of the Bascom Formation. Bedrock in the southeastern portion of the project is mapped as red to brown sandstone, orange to gray and buff well-bedded dolostone, and red to brown weathered dolomitic quartzite of the Monkton Formation. A bedrock fault is mapped through the southeastern portion of the project area. The top of bedrock was not encountered during prior geotechnical or environmental investigations.

3.0 ANALYTICAL RESULTS

Analytical results of chemical analyses of soil and groundwater samples obtained from the investigations at the Site indicate the following:

3.1 SOIL

The analysis of soil quality samples collected from subsurface explorations by KAS during the 2022 SSI (**Appendix B**) contained detectable VOC concentrations below VSS at SB22-01, SB22-02, SB22-05, and SB22-06. No VOCs were reported above laboratory detection limits in the soil sample from SB22-04. However, multiple laboratory detection limits in SB22-01 and SB22-05 were greater than the residential VSS. TPH was reported at a concentration of 190 mg/kg from SB22-01, which was greater than the minimum threshold of 82 mg/kg EPA Regional Screening Level (RSL).

Photoionization detector (PID) measurements of total VOC collected during drilling activities ranged from 0.2 to 1,178 ppmv from the soil borings. Petroleum odors and/or dark staining was observed in all borings except SB22-03. Refer to **Section 4.3** for a description of the different soil management classifications and how the soils encountered during the subsurface explorations are anticipated to be classified based on the conditions encountered in the test borings.

3.2 GROUNDWATER

Groundwater samples were collected from 15 wells at the FDFF site during the 2022 SSI conducted by KAS. Total reported VOC concentrations ranged from 5.4 to 13,260 ug/L. The highest concentrations of VOCs were reported from MW-1R and MW-2RW. MW-2RW is located within the approximate footprint of the former gasoline UST removed in 1986. MW-1R is located approximately 50 feet east of the former gasoline UST location. Dissolved-phase VOC concentrations above VGES were reported in groundwater from eight of the fifteen monitoring wells sampled—MW-1R, MW-2RW, MW-6, MW21-02, MW22-01, MW22-02, MW22-05, and MW22-06. MW22-04 contained detectable VOC concentrations below VGES. Groundwater samples from MW-4, MW-5, MW21-01, MW21-04, MW21-05, and MW22-03 were reported to contain non-detectable (ND) VOC concentrations. Monitoring wells that are within the proposed construction footprint should be abandoned by filling with grout and cut off below grade by the Contractor in accordance with VT DEC monitoring well closure guidance. The Contractor shall coordinate with KAS for the replacement of monitoring wells that are abandoned by the Contractor following construction, as needed to comply with VTDEC requirements for future monitoring of the FDFF site.

According to KAS, groundwater data collected during the 2022 SSI indicates the plume extends beyond the FDFF site to adjacent parcels to the north and east.

4.0 SOIL MANAGEMENT

4.1 EXCAVATION

Materials shall be excavated by methods that will permit observation of exposed subsurface soils to identify, test, and segregate any soils/wastes; will limit the potential for mixing contaminated soils with uncontaminated soils; and will minimize fugitive dust and particulate emissions. If visible particulate emissions are generated during excavation, the General Contractor will utilize various and appropriate methods (e.g., wetting and/or appropriate tarps or covers) to ensure that visible dust and particulate emissions are contained within the excavation.

No excavations shall commence until the POP has been approved by the VTrans Engineer, per Standard Specification 230.03.

4.2 EXCAVATION OVERSIGHT AND INSPECTIONS

All work involving the excavation, staging, and disposal of contaminated soil shall be supervised by the EP selected by the Contractor:

TBD

The EP selected by the Contractor will assist with assessing, segregating, and managing petroleum-contaminated soils encountered during excavation, and groundwater generated during temporary excavation dewatering, while ensuring site worker safety, during the project on behalf of the Contractor pending approval from VTrans, VTrans' EP, and VT DEC.

4.3 CLASSIFICATION OF SOILS

Soil field screening and laboratory analytical data for the Site is limited within the depth of unsaturated soils anticipated to be encountered by the roadway construction project and does not cover the full limits of the roundabout Site. The soil samples submitted for laboratory testing by KAS for their 2022 SSI were from saturated soils below groundwater at depths ranging from 12 to 20 feet below ground surface, well below the depth of soils to be disturbed by the roadway construction project. Field PID screening of samples from 10 feet below ground surface to the groundwater level by KAS in 2022 encountered low levels of total VOCs ranging up to about 2 to 3 ppm. Field PID screening by GZA during geotechnical explorations conducted in 2021 up to 10 feet below ground surface encountered low levels of total VOCs ranging from non-detect to 0.3 ppm. Though the data is limited, the higher concentrations of VOCs in soils appear to correlate with the highest groundwater concentrations. Therefore, in developing this SMP, GZA conservatively utilized the figure depicting the total VOC distribution in groundwater prepared by KAS in their 2022 SSI report as the basis for estimating the volumes of Type A, B, and C soils, described below.

Excavated material will be classified into three main types for purposes of on-site reuse, or off-site disposal or treatment, according to criteria established herein. The General Contractor and the Contractor's EP shall immediately halt soil movement and dewatering activities and will notify VTrans and VTrans' EP if visual, olfactory, or other evidence suggests that soils or groundwater may be contaminated with petroleum or hazardous materials in areas of unanticipated contamination. The General Contractor and the Contractor's EP shall provide reasonable

assistance to VTrans and VTrans' EP for access to potential contamination areas for proper assessment of hazardous conditions. Additional analyses may be required by VT DEC based on conditions encountered during excavation. The Contractor's EP shall use a PID to field screen excavated materials for segregation into appropriate stockpiles based on criteria established below. Soil stockpiles shall meet the requirements of Chapter 35-803 of the IRule.

- **Type A Soils - Potentially Suitable for Reuse**: These soils include naturally deposited soils and uncontaminated, clean fill. Soils that have non-detectable concentrations of VOCs; with PID field screening readings of less than 1.0 ppm and no visual or olfactory evidence of contamination will be considered clean with respect to petroleum contamination. (Chapter 35-803 of the IRule defines non-detectable as less than 1.0 ppm.)

  Naturally deposited soils encountered will generally consist of loose to medium dense, to brown, fine to coarse sand, with varying amounts of silt and gravel. Clean fill encountered will generally consist of loose to very dense, brown, fine to coarse sand, with varying amounts of silt and gravel.

  Type A soils meet the criteria for unrestricted on-site reuse; however, not all material meeting these criteria will be suitable for reuse on site, as the use of these soils must conform to the materials gradation requirements as specified in the Project Specifications. Type A soils will not need to be stockpiled or sampled prior to reuse on-site. If soils cannot be reused on-site, Type A soils will need to be segregated and temporarily stockpiled and sampled prior to reuse off-site. Type A soils should be sampled for VOCs prior to off-site reuse.

  Soils that are "non-detectable" for VOCs will be considered suitable for off-site reuse following these guidelines: Soils must be reused off-site within zones of both ANR Atlas mapped "Urban Soils Background Area" and PFAS "Groundwater Classification - IV Contaminated" within the town of Bennington. Refer to **Figures 4 and 5** for maps depicting "Urban Soils Background Area" and "Groundwater Classification - IV Contaminated" zones, respectively, within the project area and the Town of Bennington.

  If it is not feasible by the Contractor for Type "A" soils to be reused within both the "Urban Soils Background Area" and "Groundwater Classification - IV Contaminated" zones within the town of Bennington, soils will be allowed to be reused solely within the "Groundwater Classification - IV Contaminated" within the Town of Bennington, pending soil analytical results for Development Soils meeting the following standards: 2024 IRULE Vermont Residential Soil Standards (RSS) for Development Soil concentrations that include: arsenic < 16 mg/kg, lead < 41 mg/kg , and PAH (benzo(a)pyrene TEQ) < 0.07 mg/kg. If soil concentrations for arsenic, lead, PAHs are equal to or exceed their respective RSS, these soils will be required to be disposed of at a licensed landfill such as New England Waste Services of Vermont, Inc. (NEWSVT) landfill in Coventry, Vermont.

  Soils encountered in the vicinity of borings MW-4, MW-5, MW21-01, MW21-04, MW21-05, and MW22-03 with PID measurements of non-detect are anticipated to qualify as Type A soils.

- **Type B Soils – Mildly Petroleum Contaminated Soils**: Soils that have detectable concentrations of TPH and VOC's with PID field screening readings not exceeding 10ppm. Mildly Petroleum Contaminated Soils encountered will generally consist of medium dense, brown, fine to coarse sand.

  Type B soils meeting the reuse criteria may be reused as backfill on site at depths greater than 2 feet below final grade. Alternately, Type B soils may be transported off-site for disposal at a licensed facility. As indicated above, the soils will be classified based on field observations and PID screening during excavation. If

unsuitable for on-site reuse, Type B soils will need to be segregated and temporarily stockpiled and sampled pending approval to dispose of the soils as alternative daily cover at a licensed landfill, such as the Casella New England Waste Services of Vermont, Inc. (NEWSVT) landfill in Coventry, Vermont; or sent for recycling to a thermal treatment facility such as Clean Earth in Fort Edward New York; or incorporated into asphalt at a facility licensed to recycle petroleum contaminated soils. Landfill and recycling facilities cannot provide pre-approval for disposal until the stockpiled soils are sampled and analytical results received from the laboratory.

Soils encountered in the vicinity of MW22-02, MW22-04, and MW22-06 are anticipated to qualify as Type B soils.

- **Type C Soils – Soil Exceeding State Petroleum Remediation Standards**: If material is encountered that exceeds 10 ppm on the PID, such material will require removal and disposal at a licensed landfill, such as the Casella New England Waste Services of Vermont, Inc. (NEWSVT) landfill in Coventry, Vermont; or sent for recycling to a thermal treatment facility such as Clean Earth in Fort Edward New York; or incorporated into asphalt at a facility licensed to recycle petroleum contaminated soils. Type C soils will need to be segregated, stockpiled, and sampled prior to off-site disposal. Soils excavated from the vicinity of MW-1R, MW-2R, MW-6, MW-7, MW21-02, MW22-01, and MW22-05 are anticipated to qualify as Type C soils.

At this time, the project is anticipated to generate up to 760 tons of Type B and up to 1200 tons of Type C soils based on the conservative quantity estimates developed by GIA and GZA. If the General Contractor determines that more than the anticipated amount of soils will be generated for disposal, VTrans should be notified immediately.

4.4 SOIL HANDLING AND TRANSPORT ON-SITE

Loading and dumping of soils will be done in a manner to minimize the generation of visible emissions. This will likely require that excavated materials are sufficiently moist such that visible emissions, if any, are present only within the truck body or loader bucket. If visible particulate emissions are generated during the loading, handling, or transportation of soils, the General Contractor will utilize various and appropriate methods (e.g., wetting and/or appropriate tarps or covers) to ensure that visible dust and particulate emissions are contained within the truck body or excavation bucket.

The General Contractor should closely monitor and maintain dust and erosion control measures to ensure that site soils and fill are not tracked off the property and that such materials do not migrate off the property through water or wind erosion.

4.5 SOIL HANDLING AND TRANSPORT OFF-SITE

The General Contractor will coordinate with their EP to ensure soil transporters use best management practices for the transportation of such materials, including proper tarping of truck bodies or recycling/roll-off containers, and transportation documentation (e.g., Bills of Lading or Material Shipping Records). Any entity hauling contaminated soil off the site will be compliant with any applicable local, State, and Federal permits or other regulatory requirements.

All loose materials will be removed from truck bodies, earth moving equipment, and roll-off containers prior to such equipment leaving the Site.

4.6 SOIL MATERIAL STOCKPILING

Excavated material shall be segregated and stockpiled on-Site by Soil Type Classification for on-site reuse, or off-site disposal or treatment. Soil stockpiles shall meet the requirements of Chapter 35-803 of the IRule.

Temporary stockpiles of Type B and Type C soils shall be placed on a minimum of one layer of fiber-reinforced, polyethylene plastic sheeting (minimum 6-mil) and securely covered with polyethylene sheeting (minimum 6-mil). Cover shall be maintained throughout the stockpile period to prevent water from entering the stockpiled materials and to prevent blowing dust and will be secured by use of weights. A berm should be constructed around the temporary stockpile. If the excavated soil is wet, appropriate measures should be taken to prevent seepage from the soil to the ground surface.

The General Contractor will install appropriate anti-tracking measures at the soil stockpile area to ensure that all vehicles and equipment used in the staging area do not track soil onto adjacent public roadways.

The area shall be blocked off to minimize the contact with stockpiled materials and will be visibly marked with appropriate signs warning of potential hazards. The General Contractor is responsible for stockpiling soils; providing polyethylene sheeting, Jersey barriers, and/or roll-off containers as needed; maintaining adequate cover, dust control; limiting access to areas; and all signage. Stockpile size will be limited to 500 tons of material to allow for proper covering and to allow for proper sampling prior to disposal, as needed. Once all of the soil is removed from the staging area, the polyethylene sheeting will be properly disposed of by the General Contractor, the staging area will be cleared of any residual soil or debris, and the area restored to its prior condition.

4.7 OFF-SITE DISPOSAL OF SOILS

Soils destined for off-site disposal shall be sampled and submitted for laboratory analysis prior to off-site disposal. Off-site disposal must be handled in accordance with applicable State requirements. Soil sampling of material for off-site disposal will be based on the disposal facilities' requirements as defined by the facility's waste profile requirements.

The General Contractor and the Contractor's EP are responsible for all sampling and submission of soil samples for laboratory analysis prior to off-site disposal and is responsible for selecting the appropriate laboratory analysis required by the disposal facility. The selected disposal facility should be approved by the VTrans Resident Engineer, VTrans Project Manager, VTrans Hazardous Waste Coordinator, and VTrans' EP.

4.8 DEWATERING

While not anticipated, temporary dewatering may be necessary in excavations to construct the new roundabout, primarily from deeper below-grade utility installations such as water, sewer, or stormwater drainage lines. Groundwater collected during dewatering should be containerized, tested, and then disposed in accordance with local, State, and federal regulations. This may include obtaining approval to discharge under VT DECs General Permit 3-9004, Discharges from Petroleum Related Remediation Activities or to a municipal sewer under VT DEC's General Permit for Discharges from Petroleum Related Remediation Activities into Municipal Wastewater Treatment Facilities (WWTFs) (General Permit No. 3-9016) or an individual permit, as determined by VT DEC. The Contractor's EP can apply for coverage under the General Permit by filing a Notice of Intent (NOI) and administrative fee with VT ANR.

4.9 DECONTAMINATION PROCEDURES

Any equipment that comes into contact with contaminated soil will need to be decontaminated prior to contacting clean soil and at the end of the project. Decontamination should occur proximal to the area of excavation from which the soils originated. Decontamination will consist of pressure washing. The water used for pressure washing can be discharged to the ground surface and allowed to seep back into the ground on-site proximal to the excavation.

4.10 SITE ACCESS AND SECURITY

Site access shall be controlled by the use of temporary construction fencing. Temporary fencing shall be installed around the perimeter of the work area including the temporary stockpiles, as described in the Project Specifications. Access to the work area shall be controlled by the General Contractor. Following completion of daily activities, a fence line walkover shall be conducted by the General Contractor and the Contractor's EP to verify the integrity of the fence. Following departure of site personnel, the area shall be secured with fencing by the General Contractor.

4.11 CONTINGENCIES

If, during the work, the presence of unanticipated potentially hazardous conditions is evident, work in the area shall be terminated and the Contractor shall contact VTrans and VTrans' EP. These conditions include, but are not limited to, encountering buried containers, drums, or tanks. The area shall be secured to prevent the potential for a health risk or release into the environment. VTrans and VTrans' EP will evaluate the sources of the potential hazard. In the event that a release of oil or potentially hazardous materials has occurred, the General Contractor will stop work and notify VTrans and VTrans' EP immediately. If an undocumented UST is encountered, the Contractor's EP will notify the VT DEC, Waste Management and Prevention Division, UST program.

4.12 PROJECT CONTACTS:

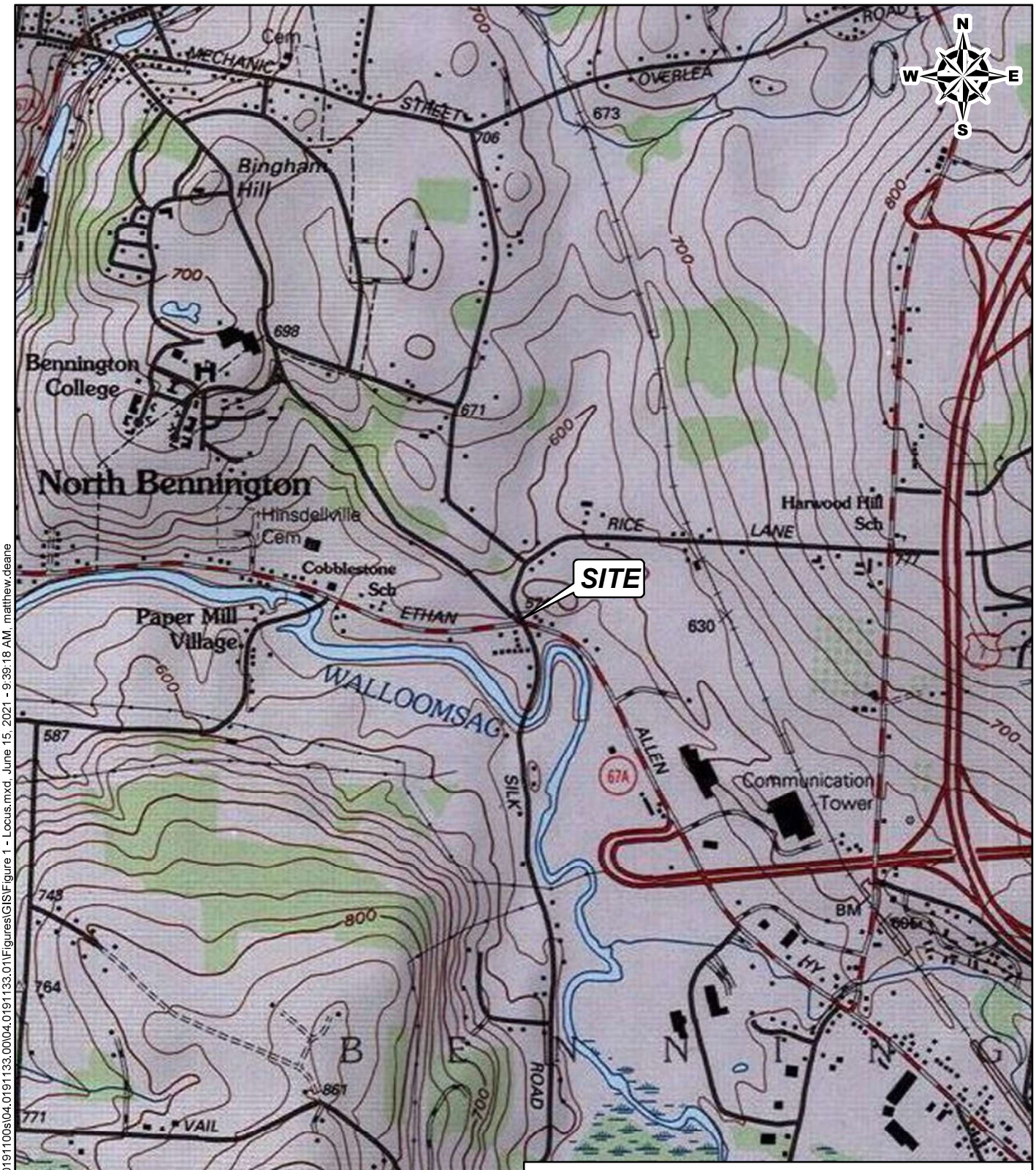
Guidance for SMP Administration:
Mike Keedy; VTrans Project Contamination Engineer
Mike.Keedy@vermont.gov, 802-595-1094

Unknown and New Contamination Discoveries:
Andy Shively; VTrans Hazardous Materials Unit Manager
Andy.Shively@vermont.gov, 802-229-8740

DEC Contact:
Shawn Donovan; DEC Hazardous Site Manager
Shawn.Donovan@vermont.gov, 802-522-5683

VTrans EP Representative:
Andrew Fournier; GZA GeoEnvironmental, Inc.
Andrew.fournier@gza.com; 603-232-8717

Figures



0 1,000 2,000 4,000

SCALE IN FEET

NO.	ISSUE / DESCRIPTION	BY	DATE
XX	XXXX	XX	XXX

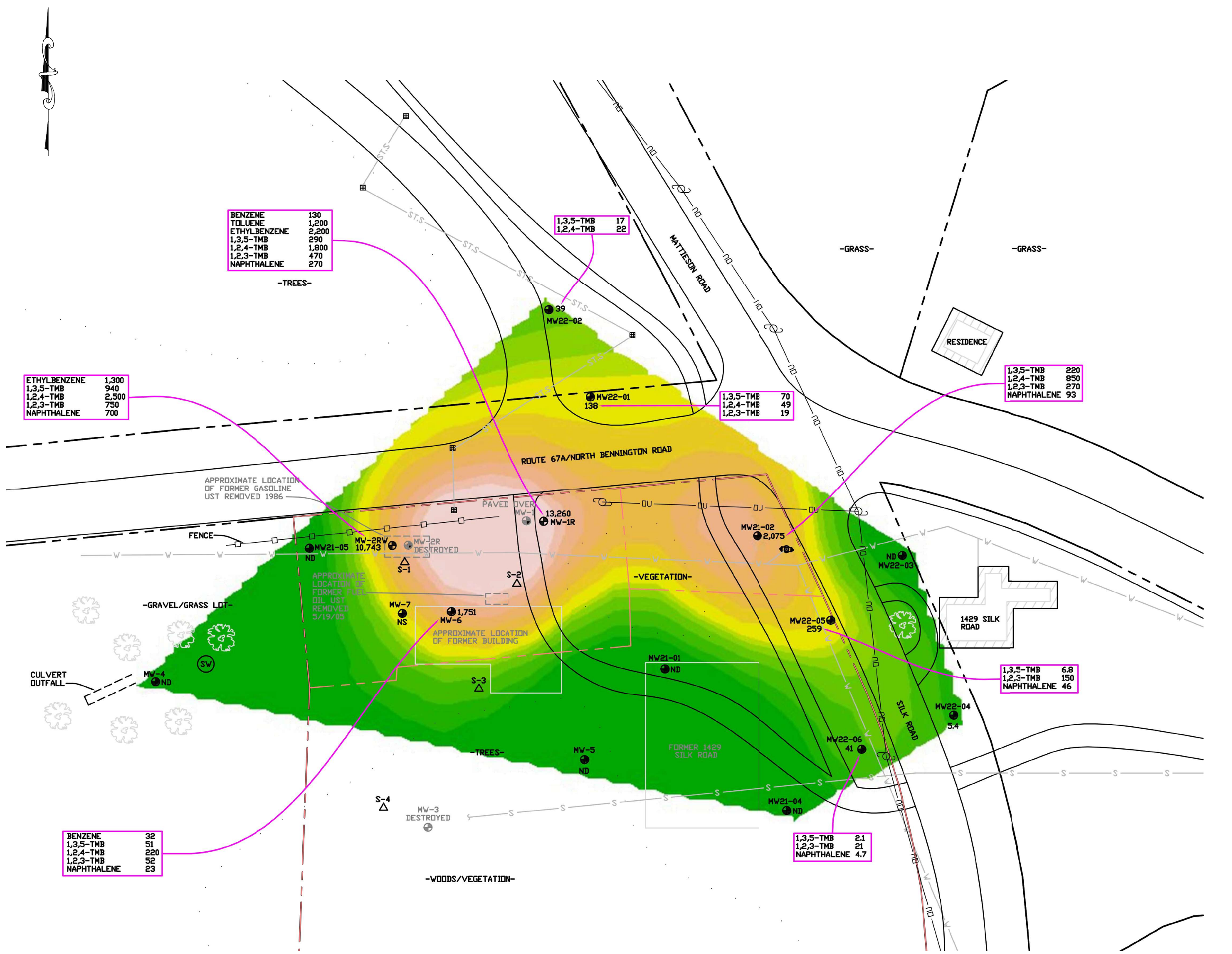
NEW ROUNDABOUT AT INTERSECTION OF ROUTE 67A AND SILK ROAD, RICE LANE, AND COLLEGE DRIVE
BENNINGTON STP 1000(23)
BENNINGTON, VERMONT

LOCUS PLAN

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
GREEN INTERNATIONAL AFFILIATES, INC.

PROJ MGR: ADF	REVIEWED BY: DGL	CHECKED BY: CLS	FIG 1
DESIGNED BY: MJD	DRAWN BY: MJD	SCALE: 1 in = 2,000 ft	
DATE: 07/17/2023	PROJECT NO: 04.0191133.01	REVISION NO:	SHEET NO: 1 OF 2



<u>LEGEND</u>

MW22-03 ND	MONITORING WELL WITH GROUND WATER ELEVATION (FT)
TOTAL TMB	1,2,4-, 1,3,5-, & 1,2,3-TRIMETHYLBENZENE
BENZENE 130	VOC EXCEEDANCE OF VGES
ND	NONE DETECTED
NS	NOT SAMPLED
S-4	APPROXIMATE LOCATION OF SOIL BORING 2/25/05
	UTILITY POLE
	CATCH BASIN
	TREE/BUSH
	PROPERTY LINE
	SUBJECT PROPERTY LINE
—W—	WATER LINE
—OU—	OVERHEAD UTILITY
—ST.S—	STORMWATER LINE
—S—	SANITARY SEWER
	EDGE OF WOODED AREA

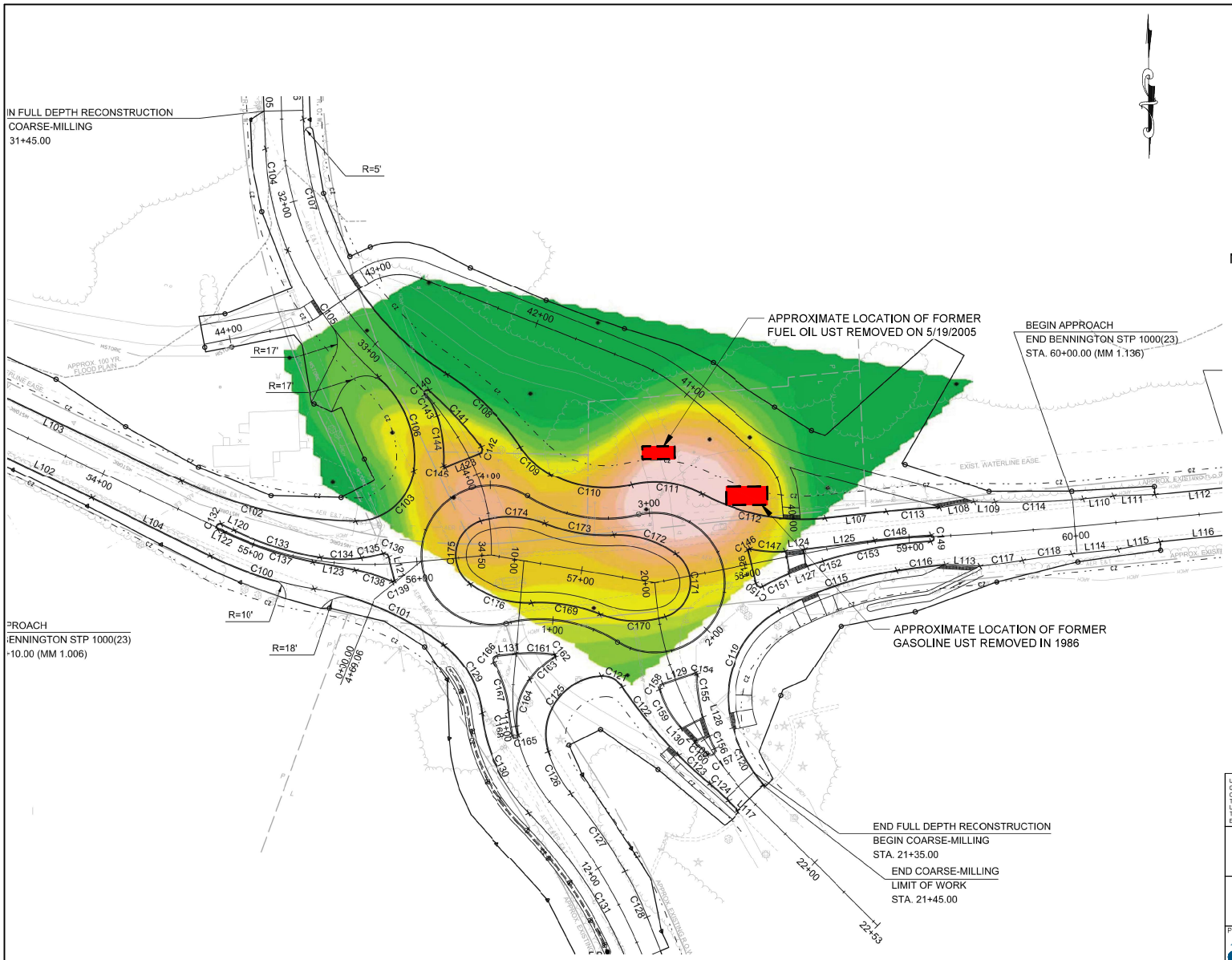
NOTES:
1. BASE PLAN WAS OBTAINED FROM KAS CONSULTING, PLAN SET ENTITLED "FORMER DANIEL FAGER FACILITY-GROUNDWATER: TOTAL DISTRIBUTION MAP", DATED NOVEMBER 8, 2022.

0 25 50 100
SCALE IN FEET

FORMER DANIEL FAGERS FACILITY
1092 NORTH BENNINGTON ROAD
BENNINGTON, VERMONT

KAS EXPLORATION LOCATION AND FORMER UST LOCATION PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: GREEN INTERNATIONAL AFFILIATES, INC.	
PROJ MGR: ADF	REVIEWED BY: ADF	CHECKED BY: DGL	FIGURE
DESIGNED BY: HLP	DRAWN BY: HLP	SCALE: 1" = 50'	2
DATE: JULY 2023	PROJECT NO. 04.0191133.02	REVISION NO.	SHEET NO.



LEGEND

APPROXIMATE LOCATION OF FORMER UST

APPROXIMATE VOC PLUME OF GROUNDWATER

NOTES:

1. BASE MAP DEVELOPED FROM GREEN INTERNATIONAL AFFILIATES, INC. PLAN SET ENTITLED "z18d165 PLANS REV 1," ON SHEET 29 OF 84, DATED MARCH 14, 2022.
2. VOC PLUME OVERLAY OBTAINED FROM KAS CONSULTING, PLAN SET ENTITLED "FORMER DANIEL FAGER FACILITY - GROUNDWATER: TOTAL VOC DISTRIBUTION MAP," DATED NOVEMBER 8, 2022.

0 30 60 120

SCALE IN FEET

FORMER DANIEL FAGERS FACILITY
1092 NORTH BENNINGTON ROAD
BENNINGTON, VERMONT

PROPOSED RECONSTRUCTION PLAN

PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		GREEN INTERNATIONAL AFFILIATES, INC.	
PROJ MGR: ADF	REVIEWED BY: ADF	CHECKED BY: DGL	FIGURE
DESIGNED BY: HLP	DRAWN BY: HLP	SCALE: 1" = 60'	3
DATE: JULY 2023	PROJECT NO. 04.0191133.02	REVISION NO.	SHEET NO.

GZA-P:\04-Data\0191\00\04.0191133.000\04.0191133.02\Figures\DWG\0191133.02_Exploration Plan.dwg [FIGURE 2] July 28, 2023 - 9:20am Hatley, Purtin

Urban Soils Background Area & GW Map

Vermont Agency of Natural Resources

vermont.gov

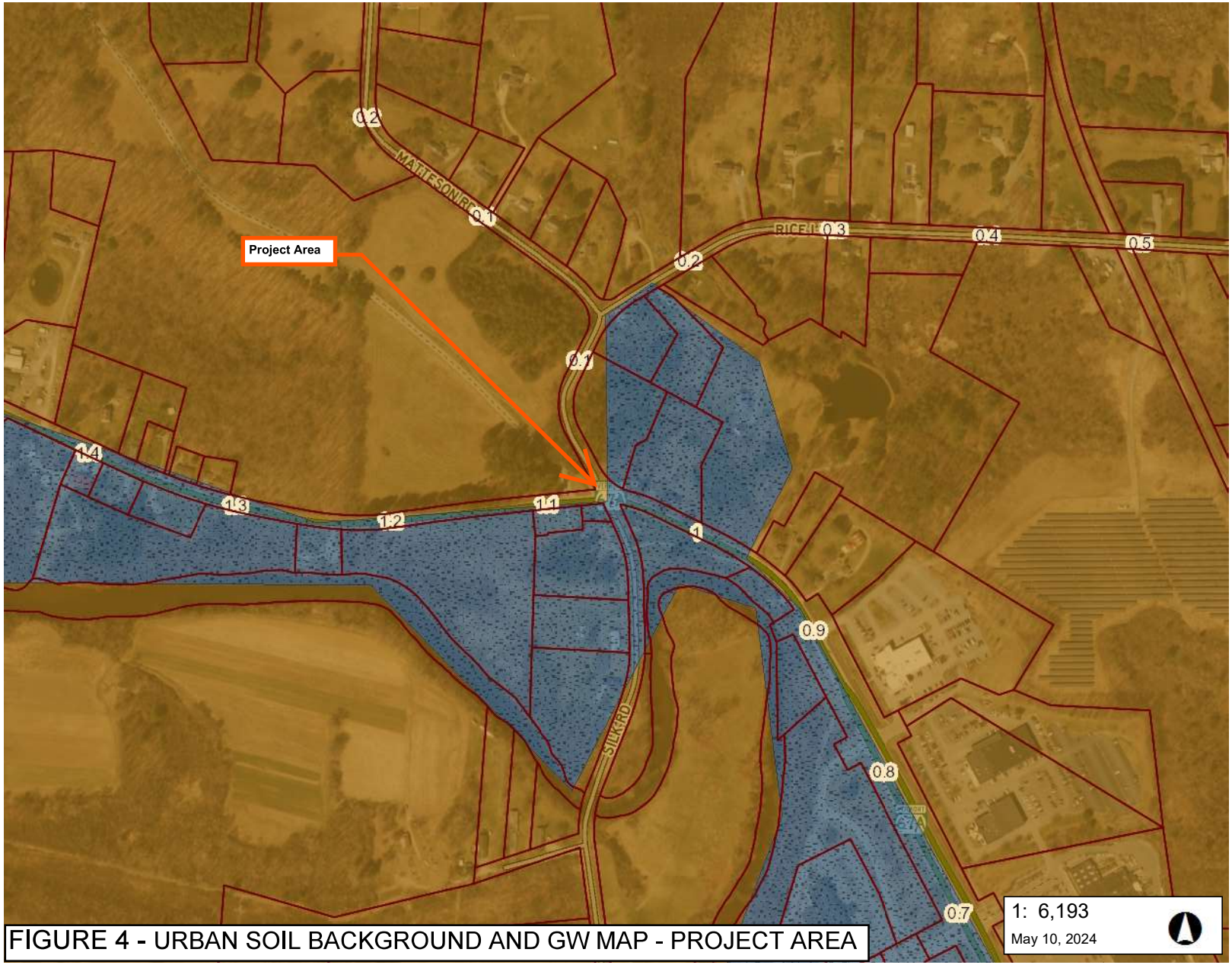


FIGURE 4 - URBAN SOIL BACKGROUND AND GW MAP - PROJECT AREA

LEGEND

- Milepoints - 1 Mile
- Milepoints - Half Mile
- Milepoints - Tenth Mile
- Urban Soil Background Areas
- Groundwater Classification
  - II - Designated Drinking Water
  - IV - Contaminated
- Parcels (standardized)
- Roads
  - Interstate
  - US Highway; 1
  - State Highway
  - Town Highway (Class 1)
  - Town Highway (Class 2,3)
  - Town Highway (Class 4)
  - State Forest Trail
  - National Forest Trail
  - Legal Trail
  - Private Road/Driveway
  - Proposed Roads
- Town Boundary

1: 6,193

May 10, 2024

NOTES

Map created using ANR's Natural Resources Atlas

315.0 0 158.00 315.0 Meters

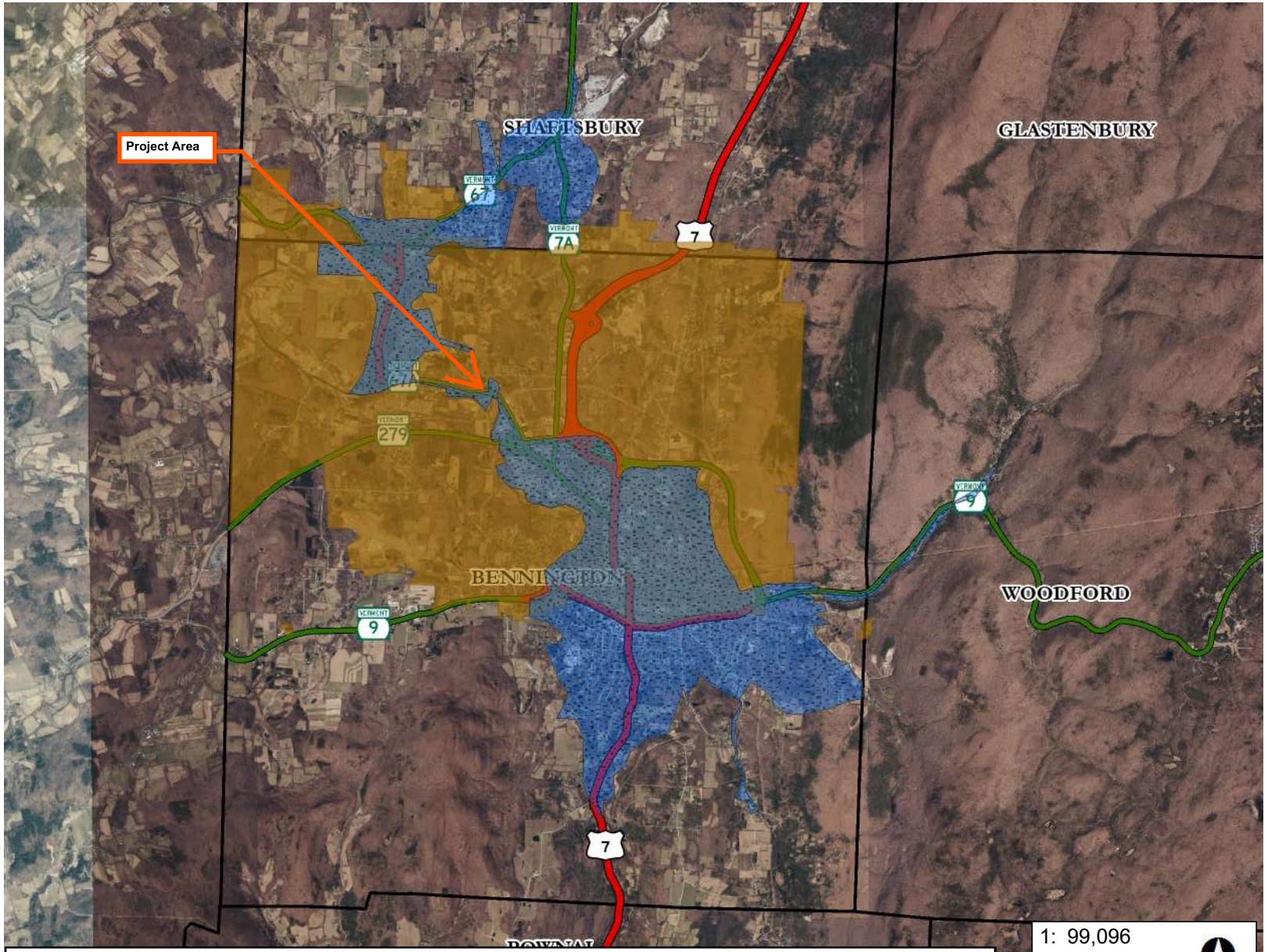
WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 516 Ft. 1cm = 62 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Urban Soils Background Area & GW Map

Vermont Agency of Natural Resources

vermont.gov



LEGEND

- Urban Soil Background Areas

Groundwater Classification

- II - Designated Drinking Water
- IV - Contaminated

Roads

- Interstate
- US Highway; 1
- State Highway
- Town Highway (Class 1)
- Town Highway (Class 2,3)
- Town Highway (Class 4)
- State Forest Trail
- National Forest Trail
- Legal Trail
- Private Road/Driveway
- Proposed Roads

- Town Boundary

FIGURE 5 - URBAN SOIL BACKGROUND AND GW MAP - TOWN OF BENNINGTON

1: 99,096

May 10, 2024

NOTES

Map created using ANR's Natural Resources Atlas

5,034.0 0 2,517.00 5,034.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 8258 Ft. 1cm = 991 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Appendix A – Limitations

USE OF REPORT

1. GZA GeoEnvironmental, Inc. (GZA) prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

STANDARD OF CARE

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in the Proposal for Services and/or Report and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. Conditions other than described in this report may be found at the subject location(s).

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made. Specifically, GZA does not and cannot represent that the Site contains no hazardous material, oil, or other latent condition beyond that observed by GZA during its study. Additionally, GZA makes no warranty that any response action or recommended action will achieve all of its objectives or that the findings of this study will be upheld by a local, state or federal agency.

4. In conducting our work, GZA relied upon certain information made available by public agencies, Client and/or others. GZA did not attempt to independently verify the accuracy or completeness of that information. Inconsistencies in this information which we have noted, if any, are discussed in the Report.

SUBSURFACE CONDITIONS

5. The generalized soil profile(s) provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs. The nature and extent of variations between these explorations may not become evident until further exploration or construction. If variations or other latent conditions then become evident, it will be necessary to reevaluate the conclusions and recommendations of this report.

6. Water level readings have been made, as described in this Report, in and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The observed water table may be other than indicated in the Report.

COMPLIANCE WITH CODES AND REGULATIONS

7. We used reasonable care in identifying and interpreting applicable codes and regulations necessary to execute our scope of work. These codes and regulations are subject to various, and possibly contradictory, interpretations. Interpretations and compliance with codes and regulations by other parties is beyond our control.

SCREENING AND ANALYTICAL TESTING

8. GZA collected environmental samples at the locations identified in the Report. These samples were analyzed for the specific parameters identified in the report. Additional constituents, for which analyses were not conducted, may be present in soil, groundwater, surface water, sediment and/or air. Future Site activities and uses may result in a requirement for additional testing.

9. Our interpretation of field screening and laboratory data is presented in the Report. Unless otherwise noted, we relied upon the laboratory's QA/QC program to validate these data.

10. Variations in the types and concentrations of contaminants observed at a given location or time may occur due to release mechanisms, disposal practices, changes in flow paths, and/or the influence of various physical, chemical, biological or radiological processes. Subsequently observed concentrations may be other than indicated in the Report.

INTERPRETATION OF DATA

11. Our opinions are based on available information as described in the Report, and on our professional judgment. Additional observations made over time, and/or space, may not support the opinions provided in the Report.

ADDITIONAL INFORMATION

12. In the event that the Client or others authorized to use this report obtain additional information on environmental or hazardous waste issues at the Site not contained in this report, such information shall be brought to GZA's attention forthwith. GZA will evaluate such information and, on the basis of this evaluation, may modify the conclusions stated in this report.

ADDITIONAL SERVICES

13. GZA recommends that we be retained to provide services during any future investigations, design, implementation activities, construction, and/or property development/ redevelopment at the Site. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

Appendix B – KAS, Inc.'s "Supplemental Site Investigation Report, Former Daniel Fagers Facility, 1092 Bennington Road, Bennington, Vermont, 05201" dated November 14, 2022

Former Daniel Fagers Facility
1092 North Bennington Road
Bennington, Vermont 05201

VT DEC #2005-3341
KAS #405050204

SUPPLEMENTAL SITE INVESTIGATION REPORT

November 14, 2022

Prepared for:

Bennington College
One College Drive
Bennington, VT 05201

kas
environmental science & engineering

589 Avenue D, Suite 10
PO Box 787
Williston, VT 05495

www.kas-consulting.com

802 383.0486 p
802 383.0490 f

Table of Contents

Appendices

Certification

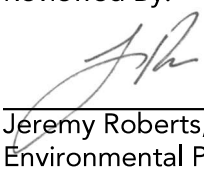
This report, which summarizes the Supplemental Site Investigation conducted at the former Daniel Fagers Facility property located at 1092 North Bennington Road in Bennington, Vermont, State of Vermont Department of Environmental Conservation Site #2005-3341, has been prepared and reviewed by the following personnel.

Prepared By:

Haley Grigel
Staff Scientist

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 accurate.

Reviewed By:



Jeremy Roberts, PG
Environmental Program Manager

Executive Summary

A supplemental site investigation (SSI) has been completed by KAS, Inc. (KAS) at and in the vicinity of the former Daniel Fagers facility property located at 1092 North Bennington Road, Bennington, Vermont (Site). The SSI included the advancement of soil borings, collection of soil samples, installation of groundwater monitoring wells, and the collection of groundwater samples.

On July 12 and 13, 2022, KAS oversaw boring advancement with a hollow stem auger (HSA) drill rig by T&K Drilling, Inc. (T&K). Six soil borings were advanced: SB22-01 through SB22-06. Soils were classified largely as sands with varying amounts of silts and gravels. Volatile organic compounds (VOCs) screened from soils with a photoionization detector (PID) ranged from 0.2 to 1,178 parts per million by volume (ppmv). Petroleum odors or dark staining was observed in all borings except SB22-03. All borings were finished as 2" diameter monitoring wells.

Soil samples were collected from each soil boring at the interval with the highest PID reading (above 1.0 ppmv) measured in that boring. No sample was taken from SB22-03 as a PID reading greater than 1.0 ppmv was not encountered. The sample from SB22-01 was submitted for EPA Method 8260C and EPA Method 8015 for waste characterization purposes, while all other samples were submitted for EPA Method 8021B. The soil samples from SB22-01, SB22-02, SB22-05, and SB22-06 contained detectable VOC concentrations below Vermont Soil Standards (VSS). No VOCs were reported above laboratory detection limits in the soil sample from SB22-04. Total Petroleum Hydrocarbon (TPH, Gasoline Range Organics) was reported at a level of 190 mg/kg from SB22-01, which is greater than the minimum range for EPA Regional Screening Level (RSL).

On August 4, 2022, the depth to water was measured from fifteen of sixteen Site monitoring wells (MW-1R, MW-2RW, MW-4, MW-5, MW-6, MW21-01, MW21-02, MW21-04, MW21-05, MW22-01, MW22-02, MW22-03, MW22-04, MW22-05, and MW22-06), relative to the top of casing. MW-7 was dry. Depth to groundwater ranged from 9.82 to 17.82 feet below top of casing (btoc). Groundwater was measured to flow towards the northeast, southeast, and south at shallow hydraulic gradients of 0.3% to 0.5%.

Groundwater samples were collected from fifteen Site wells. Total reported VOC concentrations ranged from 5.4 to 13,260 micrograms per liter (ug/L). The highest concentrations of dissolved phase VOCs continue to be reported from MW-1R and MW-2RW. Groundwater data collected during the SSI has provided a more complete picture of the dissolved phase plume's shape and reach, indicating that it extends off-Site to adjacent parcels to the north and east.

Current and historical VOC data were evaluated using the Groundwater Spatio-Temporal Data Analysis Tool (GWSDAT Version 3.1). GWSDAT analysis indicated that the location of MW-2/-2R/-2RW and monitoring well MW-7 have exhibited an overall decreasing total VOC concentration trend. Significant trends in total VOC levels have not been identified at any other well locations.

As the dissolved phase plume is not likely to recede within Site property boundaries within 10 years based on current data, KAS recommends that an Evaluation of Corrective Action Alternatives (ECAA) be prepared. Additionally, a Soil and Groundwater Management plan in accordance with the Vermont Department of Environmental Conservation (VT DEC) Investigation and Remediation of Contaminated Properties Rule (I-Rule) should be developed in partnership with Vermont Agency of Transportation (VTrans) in anticipation of the North Bennington Road roundabout project if excavation is anticipated in the area of petroleum impacts.

1.0 Introduction and Background

This report provides a summary of the methodology, results, conclusions, and recommendations completed as part of the Supplemental Site Investigation (SSI) at the former Daniel Fagers property located at 1092 North Bennington Road, Bennington, Vermont (Site Vicinity Map, Appendix A). The SSI work was performed in accordance with the Work Plan and Cost Estimate – Supplemental Site Investigation, dated March 6, 2022, updated August 23, 2022, and prepared by KAS, Inc. (KAS). The SSI work plan was approved by Mr. Shawn Donovan of the Vermont Department of Environmental Conservation (VT DEC) on May 24, 2022. This report was prepared in accordance with the I-Rule, effective date July 6, 2019. The site investigation checklist is included in Appendix I. The owner and responsible party contact information is outlined below.

Owner/ Responsible Party	Mailing Address	Contact Name	Phone	Email Address
Bennington College	One College Drive Bennington, VT 05201	Angel Kwasniak & Andrew Schlatter	802-379-0291	akwasniak@bennington.edu aschlatter@bennington.edu

Two gasoline underground storage tanks (USTs) were removed from the property in 1986 when the property transferred from Daniel Fager to Clark and Hazel Harwood. At the time of their removal, one UST was 30 years old, and the other was 40 years old, according to the VT DEC UST database. Documentation of the UST removals was submitted to the VT DEC in 1990 and was recorded in the Town of Bennington deed records; however, at the time of closure a site assessment was not provided to the VT DEC. The Site is identified on the Vermont Department of Environmental Conservation Underground Storage Tank Listing as UST Facility #672.

KAS conducted a Phase I/II Environmental Site Assessment (ESA) at the property in February 2005. As part of the ESA, four soil borings (S-1 through S-4) were advanced at the property; petroleum impacts were detected in front of the former building, likely near the location of the former gasoline USTs. The ESA also identified the presence of a fuel oil UST, a hydraulic lift, and some abandoned drums.

Based on the findings from the ESA, the VT DEC assigned Sites Management Section (SMS) number 2005-3341 to the Site and, in a letter to Mr. Ron Loomis dated April 12, 2005, requested that a site investigation be conducted to determine the degree and extent of contamination. Site remediation activities were carried out as follows:

- May 19, 2005: KAS oversaw the closure of one 500-gallon heating fuel UST at the Former Daniel Fagers property, no additional site investigation was recommended. Also, during the closure assessment, five unmarked drums were opened and identified as waste oil and grease. The waste oil and grease were consolidated with the waste from the UST tank bottom and were properly disposed of;

- May 23, 2005: The on-site building was demolished. Prior to demolition, 40 gallons of waste oil were drained and drummed for disposal by Daly Environmental Contracting, LLC. Two soil samples were collected from beneath where the hydraulic lift was formerly located. Analytical results from the soil samples reported detections of ethylbenzene, xylenes, trimethylbenzene isomers, and total petroleum hydrocarbons (TPH), but all detections were below standards. It was determined that there was no former release from the hydraulic lift, and that the volatile organic compounds (VOCs) detected were due to historical use of petroleum products at the Site; and,

- August 3, 2005: KAS oversaw the installation of four monitoring wells (MW-1 through MW-4). Soils were screened during soil boring advancement and petroleum odors were noted at MW-1 and MW-2. Photoionization detector (PID) readings from these two borings ranged from 10.1 to 689 parts per million by volume (ppmv). No odors were detected during the installation of monitoring wells MW-3 and MW-4 (downgradient). Based on the results of the site investigation, KAS recommended that groundwater monitoring be conducted at the Site on a tri-annual basis.

Groundwater monitoring was conducted on a tri-annual basis from 2005 to 2006. In 2007, the groundwater monitoring frequency changed from a tri-annual basis to a bi-annual basis. Monitoring results indicated the presence of a dissolved phase VOC plume beneath the Site in the vicinity of MW-1 and MW-2 (source area). Further site investigation was recommended to fully delineate the dissolved phase plume beneath the Site. Remediation activities were conducted as follows:

- January 15, 2008: KAS oversaw the installation of five soil borings at the Site. Three of the soil borings were advanced in the source area (SB08-1, SB08-2, and SB08-3) and were not completed as monitoring wells. Soil borings SB08-4 and SB08-5 were advanced downgradient of the source area and were completed as monitoring wells MW-5 and MW-6. Based on the results of the supplemental site investigation, KAS recommended source area soil excavation to reduce overall petroleum impacts to soil and groundwater beneath the Site;

- August 21, 2008: Approximately 129 tons of petroleum impacted soils were excavated and stockpiled. The soil was later loaded onto dump trailer and transported by Casella Waste Management to the New England Waste Services of Vermont landfill located in Coventry, Vermont. Monitoring well MW-2 was destroyed during the soil excavation activities; and,

- August 29, 2008: KAS oversaw the installation of two monitoring wells (MW-2R and MW-7). Monitoring well MW-2R was a replacement well for MW-2. Groundwater analytical results indicated VOC concentrations above Vermont Groundwater Enforcement Standards (VGES) in monitoring wells MW-1, MW-2R, MW-6 and MW-7.

Groundwater monitoring occurred at the Site twice per year in 2008. From 2009 to 2012, the groundwater monitoring frequency changed from bi-annual to annual. In 2010, the groundwater monitoring frequency changed from annual to biennial (every two years), and the Site is currently still being monitored at this frequency.

In May 2021, KAS performed an SSI which included soil boring advancement and well installation over a large portion of the Site in an effort to delineate the dissolved phase plume. Soils screened with a PID ranged from 0.2 to 1,178 ppmv. Strong petroleum odors and dark staining were observed in soils from multiple borings. Groundwater sampled from the new and existing Site wells exhibited total VOC concentrations of 1,459 to 9,285 micrograms per liter (ug/L). The highest dissolved VOC concentrations were measured from wells MW-2RW and MW-1R, located within the approximate footprint and 50 feet east of the former gasoline UST, respectively. The northern and eastern extents of the plume are not considered defined, and it is not known if the plume exists off-Site. Based on the data collected to date, the VT DEC requested another SSI to further define the extent of the plume.

Additionally, the Vermont Agency of Transportation (VTrans) is planning roadway work on North Bennington Road in 2023 where petroleum impacted soils may be encountered. VTrans will

prepare a Soil and Groundwater Management Plan in accordance with the I-Rule to manage contaminated Site soils during the excavation.

Previous reports documenting the Site history and previous investigative/monitoring work conducted at the Site are on file at the VT DEC in Montpelier, Vermont.

2.0 Scope of Work

2.1 Scope of Work

The scope of work for the SSI included soil boring advancement, soil screening, soil sampling and analysis, monitoring well installation, surveying, groundwater sampling and analysis, an evaluation of sensitive receptors in the vicinity of the Site, and an update of the conceptual Site model presented in the work plan.

2.2 Standard Operating Procedures

The following KAS standard operating procedures (SOPs) were used during the SSI. Copies of the SOPs are available upon request.

KAS Protocol	Title
001	Soil Screening Headspace Measurement
002	Monitoring Well Installation, Development and Maintenance
003	Use and Maintenance of Interface Probes and Water Level Indicators
004	Soil Boring Advancement
006	Sample Containerization, Preservation, Handling and Packaging
007	Surveying
011	Monitoring Well Sampling with Bailers
034	Use and Maintenance of MiniRae Photoionization Detector

3.0 Objectives

The primary goal of this SSI was to further define the dissolved phase plume and determine its extent to the north (across North Bennington Road) and east (across Silk Road) of the current well network. A secondary goal was to determine if the water line on the eastern edge of the Site acts as a corridor for dissolved phase impacts.

4.0 Subsurface Exploration

4.1 Pre-Drilling Activities

Prior to initiation of the subsurface drilling activities at the Site, the site-specific Health and Safety Plan (HASP) was updated in accordance with Vermont Occupational Safety and Health Administration (VOSHA) requirements. Three separate parcels were pre-marked as required by Vermont Dig Safe. Dig Safe Numbers 20222709310, 20222709320, and 20222709352 were assigned to the Site on July 7, 2022. The Town of Bennington Department of Public Works also visited the Site and vicinity to mark known town utilities. All known utilities are shown on the Site Map in Appendix A.

4.2 Soil Boring Advancement, Field Screening, and Monitoring Well Installation

On July 12 and 13, 2022, KAS oversaw boring advancement with a hollow stem auger (HSA) drill rig by T&K Drilling, Inc. (T&K). Six soil borings were advanced: SB22-01 through SB22-06. Soil borings were advanced using an HSA rig, equipped with a split spoon sampler (nominal 2-inch diameter) under the supervision of a KAS scientist. SB22-01 and -02 were advanced on the parcel across North Bennington Road from the Site to determine the northern extent of the dissolved phase plume. SB22-03 and SB22-04 were advanced on the parcel across Silk Road from the Site to determine the eastern extent of the plume. Initial groundwater was encountered during drilling at depths ranging from approximately 11.0 to 15.5 feet below grade (fbg). Refusal was not encountered in any borings. Petroleum odors or dark staining was observed in all borings except SB22-03. T&K augered to a depth of 10.0 to 11.0 fbg at which point undisturbed soil cores were collected continuously.

The soil cores were logged by a KAS scientist and screened for the presence of VOCs using a Mini Rae PID. Prior to screening, the PID was calibrated with isobutylene referenced to benzene (KAS Protocol #034[1]). Soils were screened using KAS' Soil Screening Protocol #001.[2] VOCs as measured with a PID ranged from 0.3 to 1,399 ppmv from the soil borings. Soils were classified as silt, sand, and gravel mixtures with some layers of pure river gravel. Soil characteristics and contaminant concentrations were recorded by the KAS scientist in detailed soil boring logs presented in Appendix B. Exploration ended between 19.0 to 24.0 fbg. In SB22-01, the vertical extent of contamination could not be delineated, as a PID reading of 378 ppmv was recorded from soils off the auger at 20.0 fbg, the base of the boring.

All six borings were completed as monitoring wells of the same naming convention. The new monitoring wells were constructed of 2" PVC plastic with a 0.010" factory slotted screen placed to span the water table, set to varying depths. The wells were flush-finished with a compression fitting and a traffic rated steel road box. The wells were developed using a bailer and were surveyed by KAS. Soil boring and monitoring well locations are presented on the Site Map in Appendix A. Photographic documentation is presented in Appendix G.

4.3 Investigation-Derived Waste

Excess petroleum-impacted soils that could not be re-used in the boreholes were containerized in a 55-gallon steel drum and placed on Site to await pickup. The drum was picked up by US Ecology on August 25, 2022. The waste disposal documentation can be found in Appendix H.

4.4 Soil Sample Collection and Analysis

During soil boring advancement on July 12 and 13, 2022, soil samples were collected from each soil boring at the interval with the highest PID reading (above 1.0 ppmv) measured in that boring. No sample was taken from SB22-03 as a PID reading greater than 1.0 ppmv was not encountered. Soil samples were collected in accordance with KAS' Protocol #006.[3] The samples were immediately transferred to methanol vials, stored on ice in the field, and submitted under proper chain of custody procedures to Eastern Analytical, Inc. of Concord, New Hampshire for VOC analysis. SB22-01 was submitted for EPA Method 8260C and TPH Gasoline Range (C6-C10) by EPA

[1] KAS Protocol #034: Use and Maintenance of MiniRAE Lite Photoionization Detector, December 2010
[2] KAS Protocol #001: Soil Screening Headspace Measurement, revised December 2010
[3] KAS Protocol #006: Sample Containerization, Preservation, Handling and Packaging, revised December 2010

Method 8015 for waste characterization purposes, while all other samples were submitted for EPA Method 8021B. These results are tabulated in Appendix D and compared with applicable VSS.

4.4.1 Analytical Results

The soil samples from SB22-01, SB22-02, SB22-05, and SB22-06 contained detectable VOC concentrations below VSS. No VOCs were reported above laboratory detection limits in the soil sample from SB22-04. However, multiple laboratory detection limits in SB22-01 and SB22-05 are greater than the residential VSS. TPH was reported at a level of 190 mg/kg from SB22-01, which is greater than the minimum threshold of 82 mg/kg EPA Regional Screening Level (RSL). The laboratory analytical report is presented in Appendix E.

5.0 Groundwater Monitoring and Laboratory Analysis

5.1 Determination of Groundwater Flow Direction and Gradient

On August 4, 2022, the depth to groundwater was measured from fifteen of sixteen Site monitoring wells (MW-1R, MW-2RW, MW-4, MW-5, MW-6, MW21-01, MW21-02, MW21-04, MW21-05, MW22-01, MW22-02, MW22-03, MW22-04, MW22-05, and MW22-06), relative to the top of casing, using a Geotech interface probe in accordance with KAS Protocol #003.[4] The depth to water in each well was subtracted from the top of casing elevation to obtain the relative water table elevation. The casing elevations were determined relative to a stormwater grate on the south side of North Bennington Road which was arbitrarily set at 574 feet. Liquid level monitoring data, both current and historic, is recorded in Appendix C. Depth to groundwater below top of casing (btoc) ranged from 9.82 to 17.82 feet. MW-7 was found to be dry at a depth of 8.10 feet btoc for the third sampling event in a row. Non-Aqueous Phase Liquid (NAPL) was not observed or measured during the sampling event.

Water table elevations were plotted to create the Groundwater Contour Map in Appendix A. The water table was almost completely flat, with only a 0.73 foot difference between the highest and lowest elevations measured. The groundwater was observed to flow towards the northeast, southeast, and south at approximate hydraulic gradients of 0.3% to 0.5%. In 2021, groundwater was observed to flow towards the west and southwest at approximate hydraulic gradients of 3% and 1.7-3.9%, respectively. Historical groundwater measurements indicated groundwater flow to be directed in a southeasterly and/or southwesterly direction at an approximate hydraulic gradient of 0.4%.

5.2 Groundwater Sample Collection and Analysis

On August 4, 2022, groundwater samples were collected from fifteen Site monitoring wells. Monitoring well samples were collected using disposable bailers following bailing approximately three well volumes from the well. The groundwater samples were collected according to KAS Protocol #006[5] and #011[6], stored on ice in the field, and submitted to Eastern Analytical Laboratory of Concord, NH under proper chain of custody procedures. The groundwater samples were analyzed for VOCs per EPA Method 8021B. These results along with the historical groundwater quality data are tabulated and graphed in Appendix D and compared with the

[4] KAS Protocol #003: Use and Maintenance of Electronic Interface Probes and Water Level Indicators.
[5] KAS Protocol #006: Sample Containerization, Preservation, and Handling.
[6] KAS Protocol #012: Monitoring Well Sampling with Bailers.

applicable VGES. The results were also compared to the residential Vapor Intrusion Standard (VIS) for groundwater. Groundwater in excess of VIS is considered to be a potential source of vapor contaminants to indoor air. The VIS is intended to be used as criteria to evaluate vapor intrusion risk where petroleum VOCs are detected in groundwater within the lateral inclusion zone of 30.0 feet from an occupied building[7].

5.2.1 Analytical Results

Total reported VOC concentrations ranged from 5.4 to 13,260 ug/L. The highest concentrations of VOCs were reported from MW-1R and MW-2RW. MW-2RW is located within the approximate footprint of the former gasoline UST removed in 1986. MW-1R is located approximately 50 feet east of the former gasoline UST location.

Dissolved-phase VOC concentrations above VGES were reported in groundwater from eight of the fifteen monitoring wells sampled—MW-1R, MW-2RW, MW-6, MW21-02, MW22-01, MW22-02, MW22-05, and MW22-06. MW22-04 contained detectable VOC concentrations below VGES. Groundwater samples from MW-4, MW-5, MW21-01, MW21-04, MW21-05, and MW22-03 were reported to contain non-detectable (ND) VOC concentrations. The laboratory report is presented in Appendix E.

5.2.2 Trend Analysis

Current and historical VOC data was evaluated using a concentration linear trend generated by Groundwater Spatio-Temporal Data Analysis Tool (GWSDAT Version 3.1). GWSDAT analysis indicates dissolved-phase concentrations continue to fluctuate over time. It should be noted that the same VOC analysis has not been used consistently for groundwater sampling at this Site: EPA Method 8021B and EPA Method 8260C have both been used for analysis since monitoring began.

Historical data indicates that the location of MW-2/-2R/-2RW and monitoring well MW-7 have exhibited an overall decreasing total VOC concentration trend. The figure below (figure 1) is the concentration of total VOCs in MW-2/-2R/-2RW and MW-7 over time using a concentration linear trend generated by GWSDAT. The solid green line shows the trend estimate and the dashed green lines are the 95% confidence intervals. The statistical significance of this trend is assessed using the Mann-Kendall trend test. If the Mann-Kendall p-value is below 0.05, then the estimated trend is statistically significantly different from 0, meaning that there is a trend within the data (GWSDAT User Manual v3.0). The Mann-Kendall p-value for monitoring well MW-2R is less than 0.01 and the p-value for MW-7 is 0.0242, indicating clear downward trends.

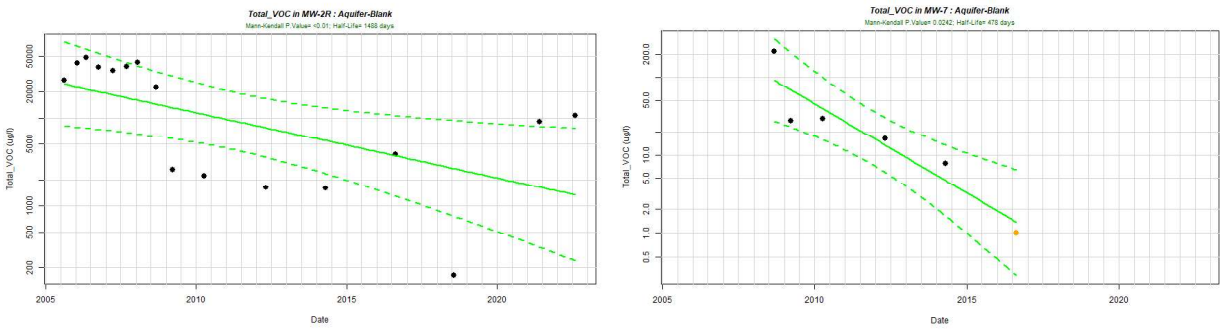


Figure 1. Total VOC concentration trends for monitoring wells MW-2/-2R/-2RW and MW-7.

[7] Interstate Technology Regulatory Council (ITRC), Petroleum Vapor Intrusion Guidance.

No clear overall trends could be established for monitoring wells MW-4 and MW-5 due to these wells being reported to contain ND VOCs. Additional data is needed to establish a trend analysis for the monitoring well series installed in 2021 and 2022.

At MW-6, a direct relationship between groundwater elevation and total VOC concentration was observed from 2005 until 2016. During the 2020, 2021, and 2022 sampling events, the relationship appears to have switched to indirect.

5.2.3 Dissolved-Phase Plume Distribution

Results from the August 2022 sampling event were plotted to create the Groundwater: Total VOC Distribution Map (Appendix A). The dissolved phase plume distribution beneath the Site has historically been centered on MW-2R and MW-1. The plume continues to be centered in the vicinity of new wells MW-2RW and MW-1R. Groundwater data collected during the SSI has provided a more complete picture of the plume's shape and reach, indicating that it extends off-Site to adjacent parcels to the north and east.

The dissolved phase plume is currently defined to the south by ND results in MW-4, MW-5, and new well MW21-04. The western edge of the plume on Site has been defined by ND results in MW21-05. The northern and eastern extents of the dissolved phase plume are not defined beyond off-Site wells MW22-02 and MW22-04, respectively; however, based on the low total VOC concentrations in these wells, it is not likely that the plume spreads far beyond these locations. It is not known if dissolved phase impacts have traveled onto the off-Site parcel to the northeast at the corner of Matteson Road and North Bennington Road.

5.2.4 Quality Assurance/Quality Control (QAQC)

VOCs were not detected in the trip blank sample prepared by the laboratory. A duplicate sample was obtained at monitoring well MW-1R. The relative percent difference (RPD) value for total targeted VOCs is low and indicates that adequate quality assurance and control were maintained during sampling, transporting, and analysis. The RPD is defined as 100 times the difference between the actual and duplicate sample, divided by the mean of the two samples. A low RPD indicates a good correlation between the two samples, while a high RPD indicates a poor correlation. The overall RPD value was 7.84% indicating adequate precision. This data is presented in Appendix D.

6.0 Updated Conceptual Site Model

6.1 Site Conditions and Property History

The Site is located at the corner of North Bennington Road and Silk Road in Bennington, Vermont (Site Vicinity Map, Appendix A). The Site is currently owned by Bennington College. A paved bike path and walking path inhabit the Site with the remainder area a field/forested. Permitted uses within this district include residential and commercial uses.

According to available documentation, The Site previously operated as a retail gas station from at least 1955 (maybe earlier) until 1986 when the property changed ownership from Daniel Fager to Clark and Hazel Harwood. In 2005, the property was purchased by Bennington College and the on-site building was demolished. The 2021 SSI included the advancement of borings on an adjacent property to the south, also owned by Bennington College. A residential home was present on this parcel as recently as 2012 (according to Google Street view) but has since been demolished. No

buildings are currently present at the Site. A Site Map which shows relevant features is included in Appendix A.

Based on a review of topographic maps, the Site lies at an approximate elevation of 575 feet above mean sea level (AMSL). The coordinates of the property at the source area are approximately 42°54'43.71" North Latitude and 73°13'32.32" West Longitude. Topography of the Site is generally flat throughout with gradual slopes toward the south. Based on Site topography, the surface drainage from the Site is anticipated to flow to the south towards the Walloomsac River.

Adjacent nearby properties during KAS' most recent Site visit consisted of the following:

North: North Bennington Road followed by the public entrance to Bennington College campus
South: Residential properties
East: Silk Road followed by a residential property (vacant)
West: Open fields followed by a residential property

6.2 Geology

Surficial deposits in the vicinity of the Site are indicated to be glaciofluvial deposits on the northern portion of the property and postglacial fluvial deposits on the southern portion of the property according to the Surficial Geological Map of the State of Vermont[8]. Bedrock is indicated as being Bascom Formation (middle and lower Ordovician) on the northwestern portion of the property and Monkton Quartzite (middle Cambrian) on the southeastern portion of the Site according to the Centennial Geological Map of the State of Vermont[9]. Bedrock has not been definitively encountered in Site investigations.

Soils encountered beneath the Site during the 2022 SSI consisted primarily of sands with varying amounts of silts and gravels. Native soils have been observed to be generally loose in nature. A layer of pure, river gravel was documented in some borings beginning at depths ranging from 13.0 to 20.0 fbg. Based on a review of field screening data collected at the Site, saturated soils beneath the Site have moderate to high permeability.

6.3 Hydrogeology

Depth to groundwater beneath the Site has been observed to vary slightly ranging from approximately 9 feet to 17 fbg. Based on historical data, groundwater has been documented to flow towards the southeast and/or southwest at an approximate hydraulic gradient of 0.4%. During the 2022 SSI, the water table was almost completely flat with only a 0.73 foot difference between the highest and lowest elevations measured. Groundwater was observed to flow towards the northeast, southeast, and south at approximate hydraulic gradients of 0.3 to 0.5%.

6.4 Apparent Source of Release

Petroleum impacts were first detected at the Site in February 2005 when impacted soils were discovered during a Phase I/II ESA. The amount and duration of the release is unknown, but the impacts were attributed to two gasoline USTs which were removed from the Site in 1986. The 500-

[8] Surficial Geologic Map of Vermont
[9] Centennial Geologic Map of Vermont

gallon heating oil UST removed in May 2005 may be considered another potential source of release; however, no additional site investigation was recommended following its removal.

During a file review, one potential off-site source was identified, the Vermont Tissue Facility (SMS#77-0032) but was ruled out due to how far away the facility was located to the Site and the type of contaminants found at the facility (diesel, dioxin, heating oil, non-petroleum, and poly-chlorinated biphenyls (PCBs)).

No other potential sources on or off site are known to exist or have been identified at this time.

6.5 Contaminant Fate and Transport

Based on the groundwater analytical data collected from the monitoring well network over time, it appears the core of the petroleum impacts beneath the Site is predominantly located between MW-1R and MW-2RW. From the former gasoline UST source area, dissolved phase impacts appear to have traveled approximately 125 feet northeast to off-Site well MW22-02 and approximately 270 feet southeast to off-Site well MW22-04. The highly permeable layers of pure gravel and gravelly sands across the Site have likely served as a conduit for dissolved phase impacts to easily migrate from the source area.

High PID readings, dark staining, sheens, and strong petroleum odors were indicative of adsorbed contamination in some borings advance during the SSI. However, laboratory analysis of VOCs indicated no concentrations were detected above VSS. The data suggest that adsorbed contamination is weathered.

7.0 Updated Sensitive Receptor Assessment

The current sensitive receptor risk assessment of the area surrounding the Site is provided below, and a determination of the potential risk to identified receptors has been made based on proximity to the dissolved-phase plumes, groundwater flow direction, petroleum constituent mobility and volatility, and petroleum constituent concentration levels in subsurface soils and groundwater. To date only two sensitive receptors (soil and groundwater) have been identified as being definitively impacted from the subsurface petroleum impacts originating from the Site.

7.1 Buildings in the Vicinity

No buildings currently exist on Site. The nearest off-Site buildings are located to the south and to the east across Silk Road. The residence to the south is not considered to be at risk of vapor intrusion as VOCs were not detected in groundwater samples from MW21-04 or MW-5 collected in August 2022. The residence directly across Silk Road is not considered to be at risk of impacts since VOCs above VIS have not been detected within 30 feet of the building.

7.2 Water Supplies

According to the VT ANR Natural Resources Atlas, 26 private supply wells exist within a half mile of the Site source area. The nearest private supply well is located on Site, approximately 660 feet southwest of the former gasoline UST source area. Well MW-4 is located about 20 feet from the Site supply well and has been reported ND for VOCs since it was first sampled in 2005.

As the other properties in the area are serviced by on-site groundwater sources there is a potential risk to human health with respect to the groundwater exposure pathway. However, drinking water samples collected from the two nearby private supply wells (1429 Silk Road and 1246 N. Bennington Road), on March 29, 2007 indicated no VOCs above detection limits. The 1429 Silk Road property is now believed to be serviced by the town water supply line. Monitoring well MW22-03 is located between the plume and the water service connection to the building and contained ND levels of VOCs when sampled during the SSI.

7.3 Utility Corridors

Buried stormwater lines are located on the western and northern portion of the Site across North Bennington Road. Historically, MW-4, the closest monitoring well to the culvert outfall, has contained ND VOC concentrations. A stormwater line crosses under North Bennington Road; however, the depth of a typical stormwater line is shallower than the depth to water in these areas (13-18 fbg). Based on this data, the stormwater lines do not appear to be at risk at this time.

A buried sewer line extends onto the southern portion of the Site from a manhole located in Silk Road. As wells MW-5 and MW21-04 have exhibited ND VOC concentrations, the sewer line is not thought to be at risk of acting as a corridor for impacts at this time.

In July/August 2018 new water lines were installed across the northern portion of the Site, parallel with North Bennington Road. The trench for the waterline was dug approximately 4 to 5 fbg, which is well above the saturated zone and groundwater table. During excavation, no odors, staining, or other signs of petroleum impacts were observed. Monitoring wells MW22-05 and MW22-06 were installed during this SSI to determine if the water line on the eastern portion of the Site, parallel to Silk Road, is likely acting as a preferential pathway. The depth of this water line is not known but is assumed to be comparable to the northern water line (4 to 5 fbg). MW22-05 and MW22-06 were installed on opposite sides (eastern and western) of the water line. The depth to water in MW22-05 and MW22-06 was 12.75 and 10.75 fbg, respectively, which is far below the depth of most buried utilities. Therefore, the water line is not thought to be acting as a preferential pathway for impacts.

7.4 Surface Water

The nearest surface water to the Site is the Walloomsac River, which is located approximately 150 feet southeast of the Site at its closest point. Given the low to ND VOC levels in groundwater from southeastern wells, the Walloomsac River is considered to be at minimal risk of petroleum impact.

Ten Vermont Significant Wetland Inventory Class 2 wetlands exist within a half mile of the Site. The closest downgradient wetland area on the same side of the Walloomsac River lies approximately 480 feet to the south. Due to the distance to the Site and ND VOC values in groundwater sampled from southern wells, wetlands are not likely at risk of Site petroleum impacts at this time.

7.5 Potential Exposure Pathways

Potential exposure pathways to the subsurface petroleum impacts identified beneath the Site have been evaluated. Routes of potential exposure to current and future Site users include inhalation of vapors or petroleum impacted dust; ingestion of soil; absorption via dermal contact; and/or ingestion of soil or groundwater. Exposure to soil and groundwater is currently minimized by the Site use and property development. Impacted soils beneath the Site have been identified to be present several feet below grade and are currently capped by several feet of non-impacted soil and vegetation or pavement. Current and historical data does not support the existence of a

complete vapor intrusion pathway beneath the Site. Should the property use change in the future, the identified potential exposure pathways will need to be reevaluated to confirm adequate protection to human health is being accomplished.

7.6 Data Gap Analysis

Taking into consideration the conceptual site model presented above, the table below provides a summary and evaluation of potential data gaps.

Potential Data Gap	Data Gap Identified (Yes / No)	Supporting Documentation	Potential Remedy
Site History	No	A complete picture of the property history and use has been established.	N/A
Clear established groundwater flow and gradient	Yes	Groundwater during the 2022 SSI was measured to flow towards the northeast, southeast, and south. However, flow during the 2021 SSI was measured towards the west and southwest. Historical flow has been measured to the southeast and/or southwest. Hydraulic gradient appears to vary.	Continued seasonal monitoring.
Seasonal fluctuations and correlation with groundwater elevations	Yes	Groundwater flow direction and gradient is known to fluctuate at this Site and no consistent pattern has been established. This fluctuation may be due to proximity to and influences from the Walloomsac River.	Continued seasonal monitoring.
Dissolved phase plume delineation	Yes	The northern and eastern extents of the dissolved phase plume are not defined beyond off-Site wells MW22-02 and MW22-04, respectively; however, based on the low total VOC concentrations in these wells, it is not likely that the plume spreads far beyond these locations. It is not known if the dissolved phase impacts have migrated to the off-Site parcel to the northeast at the corner of Mattieson Road and North Bennington Road.	One well could be installed off-Site to the northeast. However, installation with an HSA does not appear feasible based on overhead utilities and trees.
Soil delineation and lithology	Yes	Soil lithology has largely been characterized. The total depth of adsorbed impacts has not been characterized in multiple borings during both the 2021 and 2022 SSIs as the vertical extent of contamination could not be delineated.	PID readings consistently decreased with depth and based on current data, impacts are not likely to extend beyond a depth of 25 fbg.
Unidentified hazardous material phases	No	The four potential hazardous material phases (dissolved, adsorbed, free-phase and vapor) have been evaluated.	N/A
Depth to bedrock	No	Bedrock has not been definitively encountered at the Site; however, the depth to bedrock is not believed to affect recommendations for next steps.	N/A

Potential Data Gap	Data Gap Identified (Yes / No)	Supporting Documentation	Potential Remedy
Presence of unknown utility corridors / preferential pathways	No	The water, sewer, and stormwater utilities have been evaluated.	N/A
Presence of exposure pathway / sensitive receptors	No	Site soil and groundwater are the only sensitive receptors known to be impacted.	N/A
Presence of other unidentified impacted media	No	Impacted media includes soil and groundwater. Surface water and building materials are not deemed to be at risk at this time.	N/A
Potential additional onsite sources	No	The data collected to date does not support the presence of additional onsite sources.	N/A
Potential presence of contributing sources	No	The data collected to date does not support the presence of a contributing source.	N/A

8.0 Conclusions

Based on the results of the SSI performed at the Site, the following conclusions are offered:

1. On July 12 and 13, 2022, KAS oversaw boring advancement with a HSA drill rig by T&K. Six soil borings were advanced: SB22-01 through SB22-06. Soils were classified largely as sands with varying amounts of silts and gravels. VOCs as measured with a PID ranged from 0.3 to 1,399 ppmv from the soil borings. Petroleum odors or dark staining was observed in all borings except SB22-03;

2. Soil samples were collected from each soil boring at the interval with the highest PID reading (above 1.0 ppmv) measured in that boring. No sample was taken from SB22-03 as a PID reading greater than 1.0 ppmv was not encountered. The sample from SB22-01 was submitted for EPA Method 8260C and EPA Method 8015 for waste characterization purposes, while all other samples were submitted for EPA Method 8021B. The soil samples from SB22-01, SB22-02, SB22-05, and SB22-06 contained detectable VOC concentrations below VSS. No VOCs were reported above laboratory detection limits in the soil sample from SB22-04. TPH was reported at a level of 190 mg/kg from SB22-01, which is greater than the minimum EPA RSL;

3. All borings were finished as 2" monitoring wells of the same naming convention;

4. On August 4, 2022, the depth to water was measured from fifteen of sixteen Site monitoring wells (MW-1R, MW-2RW, MW-4, MW-5, MW-6, MW21-01, MW21-02, MW21-04, MW21-05, MW22-01, MW22-02, MW22-03, MW22-04, MW22-05, and MW22-06), relative to the top of casing. MW-7 was dry. Depth to groundwater ranged from 9.82 to 17.82 feet btoc. Groundwater was measured to flow towards the northeast, southeast, and south at shallow hydraulic gradients of 0.3% to 0.5%. Groundwater direction and gradient is known to fluctuate beneath the Site;

5. Dissolved-phase VOC concentrations above VGES were reported in groundwater from eight of the fifteen monitoring wells sampled—MW-1R, MW-2RW, MW-6, MW21-02, MW22-01, MW22-

02, MW22-05, and MW22-06. MW22-04 contained detectable VOC concentrations below VGES. Groundwater samples from MW-4, MW-5, MW21-01, MW21-04, MW21-05, and MW22-03 were reported ND for all tested compounds. Total reported VOC concentrations ranged from 5.4 to 13,260 ug/L;

6. The highest concentrations of VOCs were reported from MW-1R and MW-2RW. MW-2RW is located within the approximate footprint of the former gasoline UST removed in 1986, which is considered the source area. MW-1R is located approximately 50 feet east of the former gasoline UST;

7. GWSDAT analysis of historical data indicated that the location of MW-2/-2R/-2RW and monitoring well MW-7 continue to exhibit an overall decreasing total VOC concentration trend. Significant trends in total VOC levels have not been identified at any other well locations;

8. The dissolved phase plume is currently defined to the south by ND results in MW-4, MW-5, and new well MW21-04. The western edge of the plume on Site has been defined by ND results in MW21-05. The northern and eastern extents of the dissolved phase plume are not defined beyond off-Site wells MW22-02 and MW22-04, respectively; however, based on the low total VOC concentrations in these wells, it is not likely that the plume spreads far beyond these locations. It is not known if dissolved phase impacts have traveled onto the off-Site parcel to the northeast at the corner of Matteson Road and North Bennington Road; and,

9. Site soils and groundwater are the only sensitive receptors that have been determined to be impacted from the Site release.

9.0 Recommendations

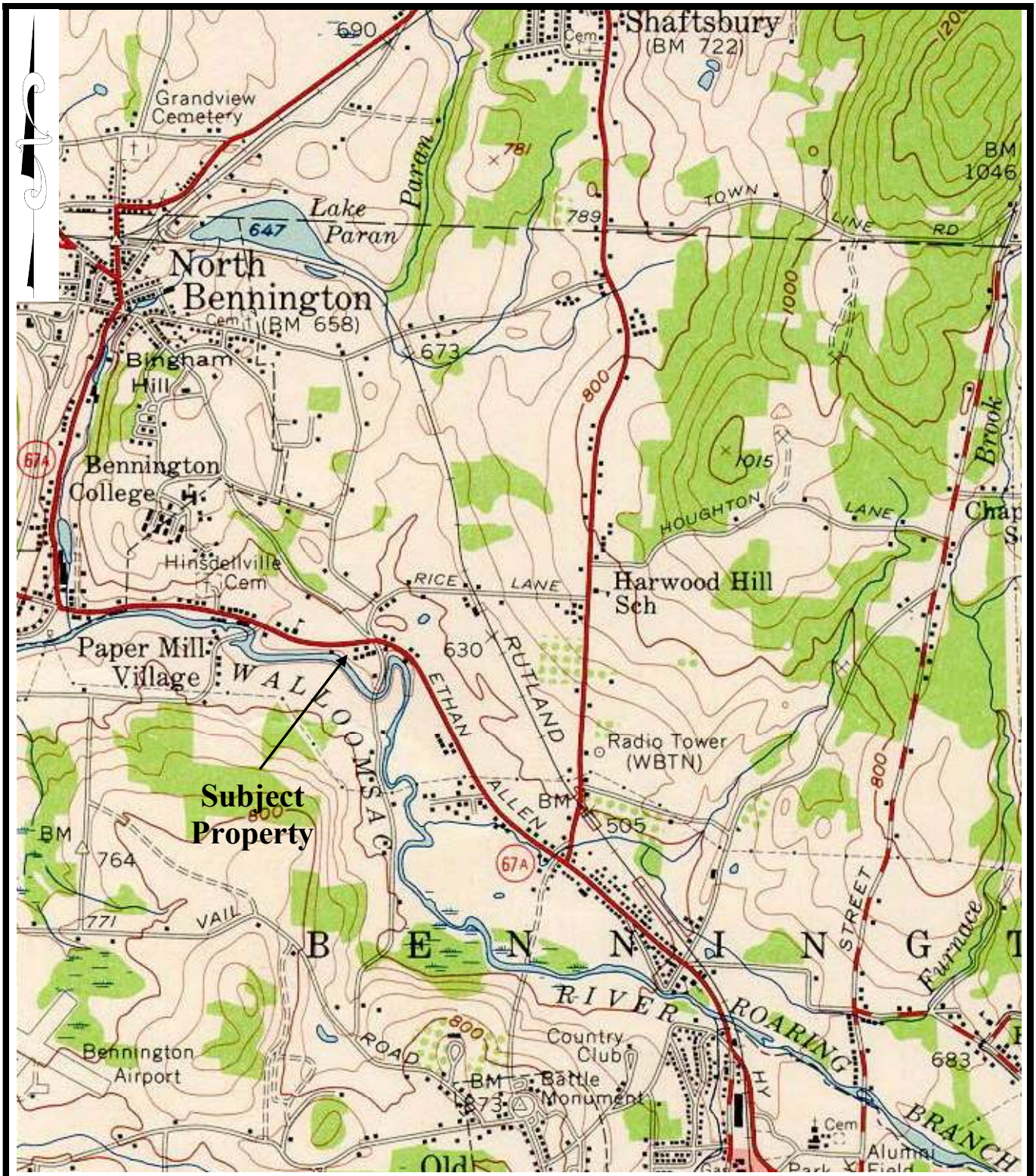
Based on the results of the 2022 SSI, KAS recommends the following:

- A Soil and Groundwater Management plan in accordance with the I-Rule should be developed in partnership with VTrans in anticipation of their upcoming North Bennington Road roundabout project, if excavation is planned in the area and depth of petroleum impacts; and,

- As the dissolved phase plume is not likely to recede within Site property boundaries within 10 years based on current data, an Evaluation of Corrective Action Alternatives (ECAA) should be conducted.

Appendix A

1) Site Location Map
2) Site Vicinity Map
3) Site Map
4) Groundwater Contour Map
5) Groundwater: Total VOC Distribution Map



KAS Job Number: 405050204
Source: USGS 15 minute quadrangle, Bennington, VT, dated 1954

Site Location Map

1092 North Bennington Road
Bennington, Vermont

Date: 7/29/05	Drawing: 1/1	1 : 62,500	By: CW

VERMONT

Site Vicinity Map

Vermont Agency of Natural Resources

vermont.gov

LEGEND

Wetland - VSWI

- Class 1 Wetland
- Class 2 Wetland
- Buffer

Existing stormwater point

- Pipe Cross (not connected)
- Catchbasin
- Dry Well
- Drop Inlet
- Grate/Curb Inlet
- Yard drain
- Junction Box
- Stormwater Manhole
- Outfall
- Culvert inlet
- Culvert outlet
- Pond outlet structure
- Treatment feature (see notes)
- Retrofit
- Unknown Point
- Information Point
- <all other values>

Existing stormwater line

- Storm line
- Storm line (old Sanitary line)
- Tunnel (storm)
- Swale
- Footing drain

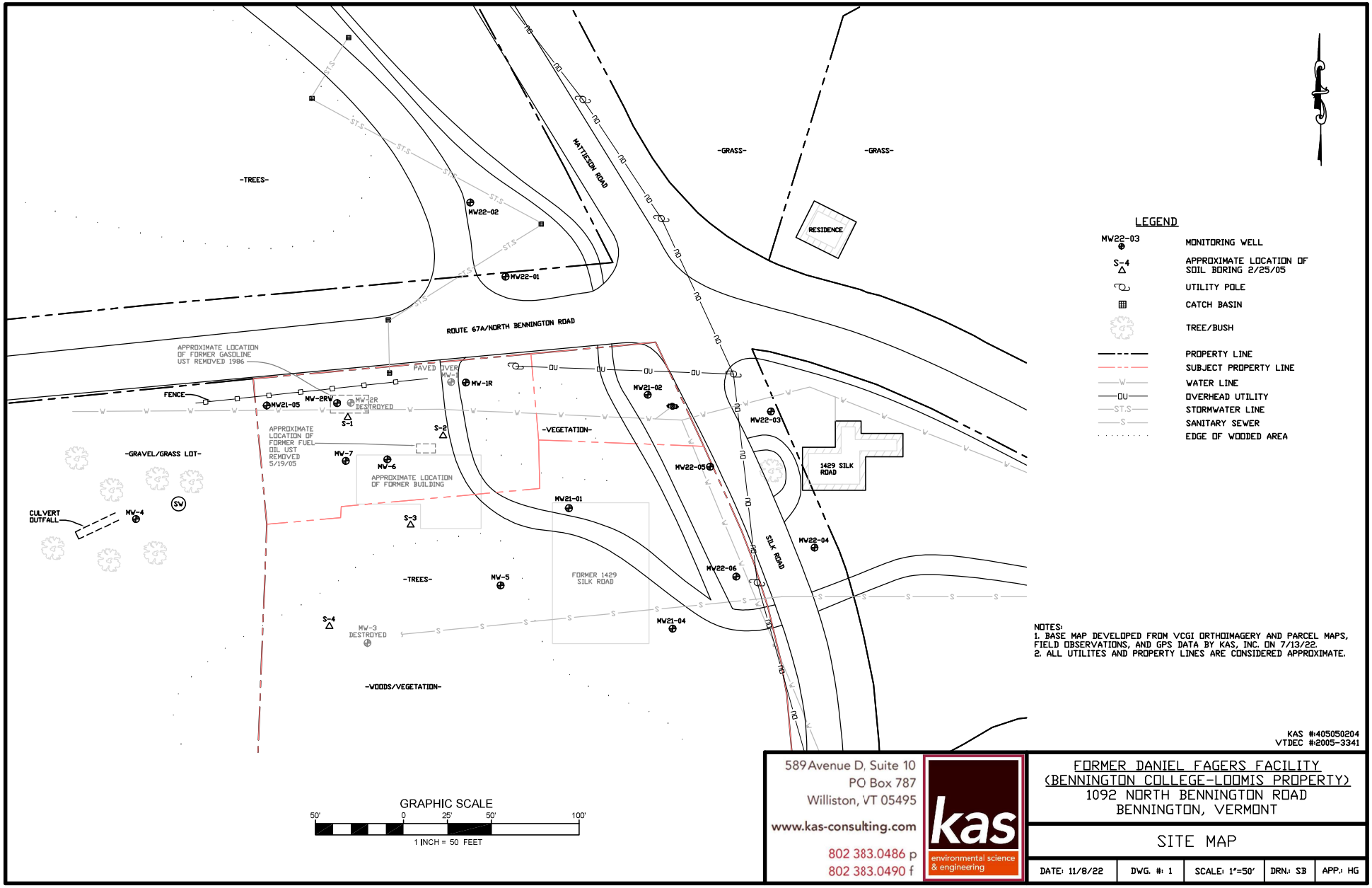
NOTES

1092 N Bennington Rd, Bennington, VT
Map created using ANR's Natural Resources Atlas

258.0 0 129.00 258.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 423 Ft. 1cm = 51 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION



KAS #:405050204
VTDEC #:2005-3341

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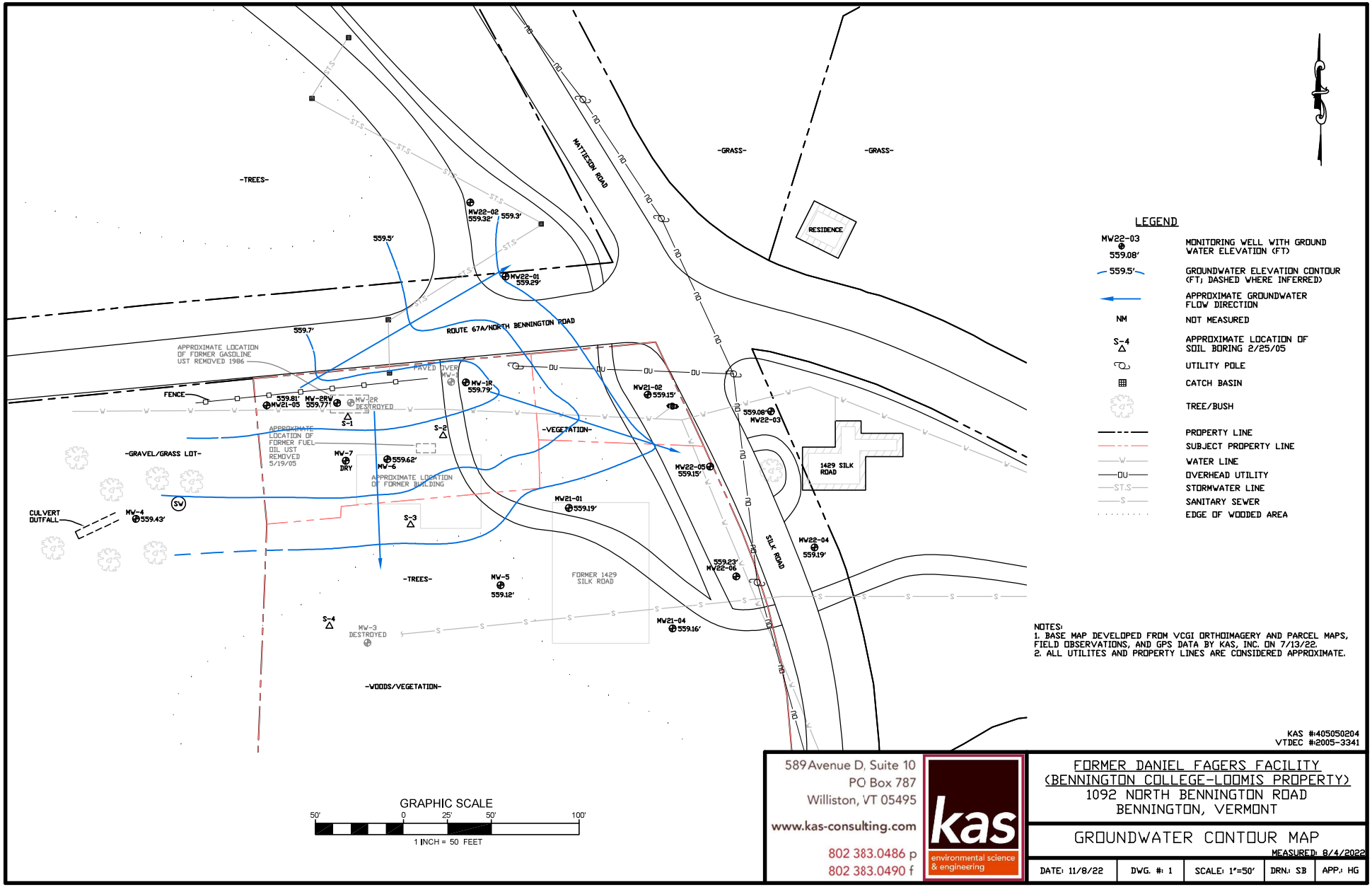
FORMER DANIEL FAGERS FACILITY (BENNINGTON COLLEGE-LOOMIS PROPERTY)
1092 NORTH BENNINGTON ROAD
BENNINGTON, VERMONT

SITE MAP

DATE: 11/8/22	DWG. #: 1	SCALE: 1"=50'	DRN.: SB	APP.: HG



LEGEND

- MW22-03 559.08' — MONITORING WELL WITH GROUND WATER ELEVATION (FT)
- 559.5' — GROUNDWATER ELEVATION CONTOUR (FT) DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- NM — NOT MEASURED
- S-4 — APPROXIMATE LOCATION OF SOIL BORING 2/25/05
- UTILITY POLE
- CATCH BASIN
- TREE/BUSH
- PROPERTY LINE
- SUBJECT PROPERTY LINE
- W — WATER LINE
- OU — OVERHEAD UTILITY
- ST.S — STORMWATER LINE
- S — SANITARY SEWER
- EDGE OF WOODED AREA

NOTES:
1. BASE MAP DEVELOPED FROM VCGI ORTHOIMAGERY AND PARCEL MAPS, FIELD OBSERVATIONS, AND GPS DATA BY KAS, INC. ON 7/13/22.
2. ALL UTILITES AND PROPERTY LINES ARE CONSIDERED APPROXIMATE.

KAS #:405050204
VTDEC #:2005-3341

589 Avenue D, Suite 10
PO Box 787
Williston, VT 05495
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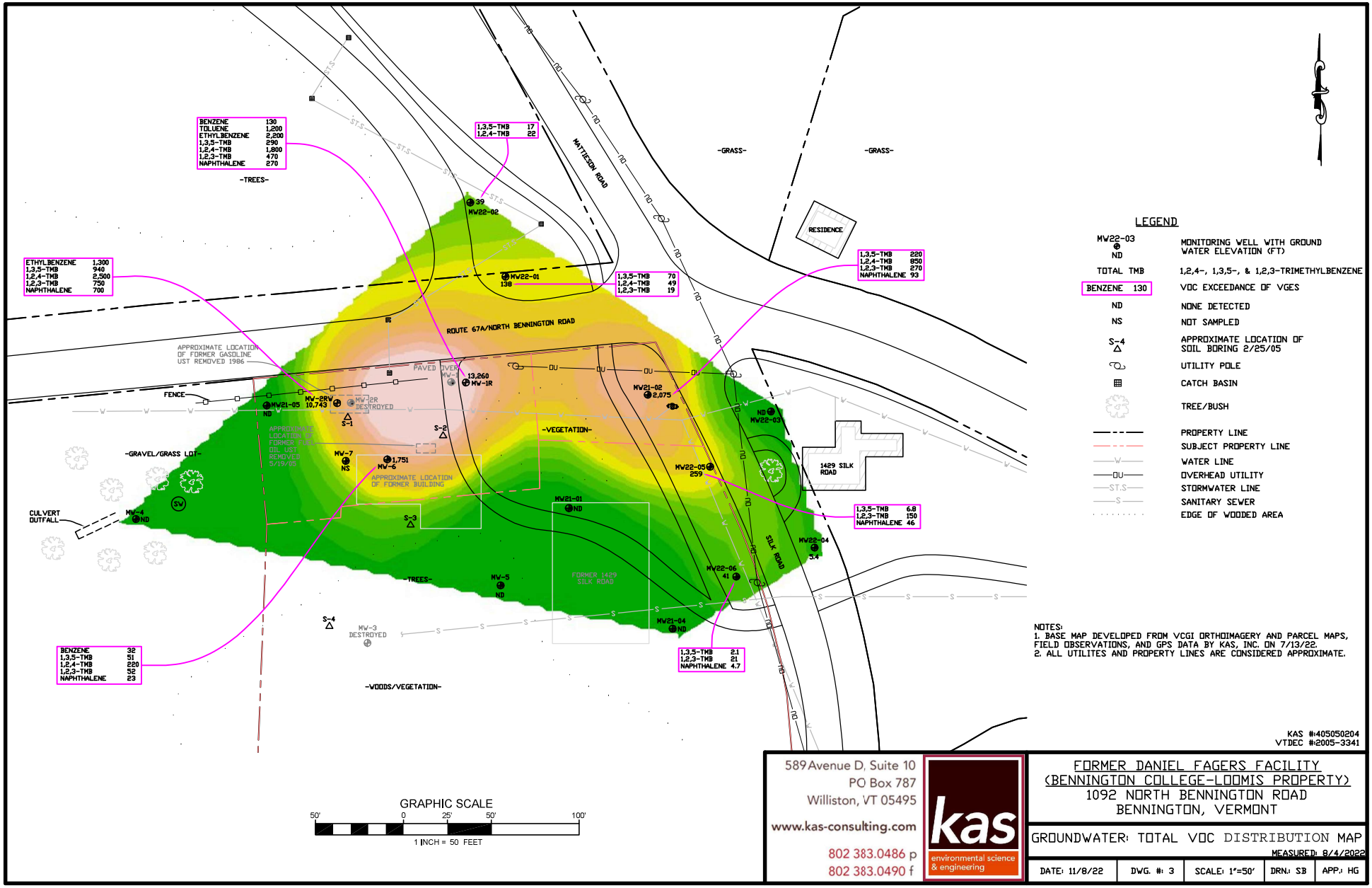
kas environmental science & engineering

FORMER DANIEL FAGERS FACILITY (BENNINGTON COLLEGE-LOOMIS PROPERTY)
1092 NORTH BENNINGTON ROAD
BENNINGTON, VERMONT

GROUNDWATER CONTOUR MAP

MEASURED: 8/4/2022

DATE: 11/8/22	DWG. #: 1	SCALE: 1"=50'	DRN.: SB	APP.: HG



LEGEND

MW22-03 ⊕ ND	MONITORING WELL WITH GROUND WATER ELEVATION (FT)
TOTAL TMB	1,2,4-, 1,3,5-, & 1,2,3-TRIMETHYLBENZENE
BENZENE 130	VOC EXCEEDANCE OF VGES
ND	NONE DETECTED
NS	NOT SAMPLED
S-4 △	APPROXIMATE LOCATION OF SOIL BORING 2/25/05
	UTILITY POLE
	CATCH BASIN
	TREE/BUSH
	PROPERTY LINE
	SUBJECT PROPERTY LINE
W	WATER LINE
OU	OVERHEAD UTILITY
ST.S	STORMWATER LINE
S	SANITARY SEWER
	EDGE OF WOODED AREA

NOTES:
1. BASE MAP DEVELOPED FROM VCGI ORTHOIMAGERY AND PARCEL MAPS, FIELD OBSERVATIONS, AND GPS DATA BY KAS, INC. ON 7/13/22.
2. ALL UTILITES AND PROPERTY LINES ARE CONSIDERED APPROXIMATE.

KAS #:405050204
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FORMER DANIEL FAGERS FACILITY (BENNINGTON COLLEGE-LOOMIS PROPERTY)
1092 NORTH BENNINGTON ROAD
BENNINGTON, VERMONT

GROUNDWATER: TOTAL VOC DISTRIBUTION MAP
MEASURED: 8/4/2022

DATE: 11/8/22	DWG. #: 3	SCALE: 1"=50'	DRN.: SB	APP.: HG

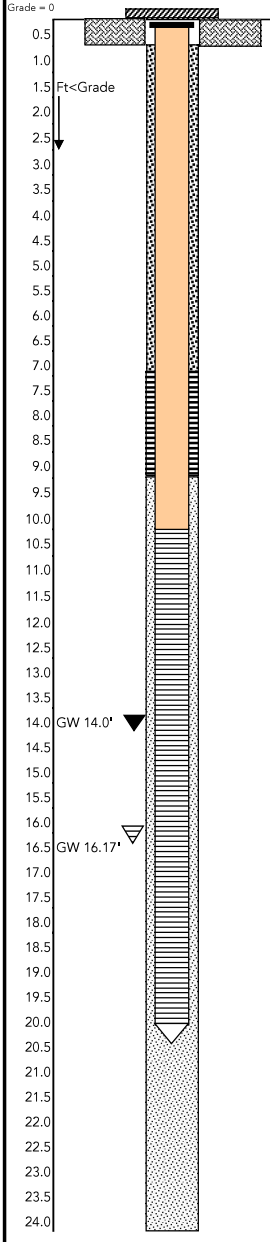
Appendix B

Boring Logs and Well Construction Diagrams

SOIL BORING LOG
Soil Boring No: SB22-01, converted to MW22-01

Former Danel Fagers Facility SSI
Bennington, VT

KAS Project #:	405050204	Date Advanced:	7/12/2022
Drilled by :	KAS, Inc.	Drilling Method:	Hollow Stem Auger
Driller:	T&K, Inc.	Boring Diameter.:	2"
Supervised by:	Haley Grigel	Development Method:	Bailer
Logged by:	Haley Grigel	Screened Length:	20.0 to 10.0 fbg
TOC Elevation:	575.46		



Well Construction	Pen/Rec (") / Blow Counts	Interval (') / PID (ppmv)*	Soil Characteristics	Letter Symbol	Graphic Symbol
	Augered				
	24/15 24,19,16,17	10-12 0.3	Dry sand-silt-gravel mixture 40% gravel, 30% fine sand, 30% fines	GM	
	24/16 26,27,20,50	12-13.5 1.7	Moist silt-gravel-sand mixture 40% gravel, 20% fine sand, 40% fines		
	24/3 40,31,31,15	15-17 1,037	Saturated sand with gravel 50% gravel, 50% coarse sand, 0% fines Strong petroleum odor, dark staining	SW	
	24/18 6,6,8,8	17-19 326.3 1,399	Saturated river gravel 100% gravel Sheen on soil and water Strong petroleum odor, dark staining	GP	
	24/16 6,6,8,9	20-22 37.2 3.0	Saturated river gravel 100% gravel Strong petroleum odor Saturated silt; 100% silt, weak petroleum odor	GP ML	
	24/9 10,20,17,13	22-24 3.4	Saturated clay with gravel 30% gravel, 0% sand, 70% fines	CL	

Sampled 17.5-19.0 fbg for VOC analysis via EPA Method 8021B
Exploration ended at 24.0 fbg
Converted to monitoring well MW22-01

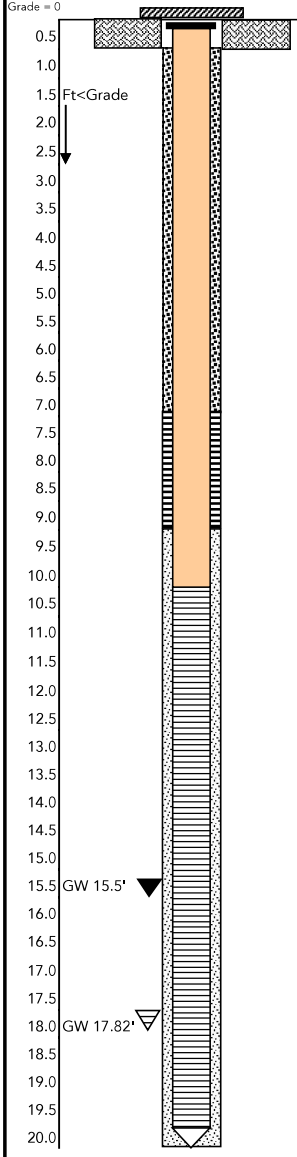
Legend

- Road Box with Bolt Down Cover, Set in Cement.
- Existing Surface.
- Bentonite Seal Placed in Annulus.
- Grade #1 Silica Sand Pack Placed in Annulus.
- Drill Cuttings Placed in Annulus.
- NA Not Applicable
- Locking Plug.
- 1" ID, Schedule 40 PVC Riser.
- 1" ID, Schedule 40 PVC, 0.010"-Slotted Well Screen
- Plug Point
- Approximate Water Level During Drilling
- Water Level During Groundwater Sampling

SOIL BORING LOG
Soil Boring No: SB22-02, converted to MW22-02

Former Danel Fagers Facility SSI
Bennington, VT

KAS Project #:	405050204	Date Advanced:	7/12/2022
Drilled by :	KAS, Inc.	Drilling Method:	Hollow Stem Auger
Driller:	T&K, Inc.	Boring Diameter.:	2"
Supervised by:	Haley Grigel	Development Method:	Bailer
Logged by:	Haley Grigel	Screened Length:	20.0 to 10.0 fbg
TOC Elevation:	577.14		



Well Construction	Pen/Rec (") / Blow Counts	Interval (') / PID (ppmv)*	Soil Characteristics	Letter Symbol	Graphic Symbol
	Augered				
	24/17 20,12,11,12	10-12 0.7	Dry to moist sand-gravel-silt mixture 40% gravel, 40% medium sand, 20% fines	SW	
	24/17 11,10,10,11	12-14 0.9 1.2	Dry to moist sand 100% fine to medium sand	SP	
	24/16 4,4,15,16	15-17 1.8	Saturated sand 100% fine sand	SP	
		2.2	Saturated sand-gravel-silt mixture; 20% gravel, 60% fine sand, 20% fines	SM	
	24/19 13,13,12,12	17-19 1.0	Saturated gravel-sand-silt mixture 50% gravel, 25% fine sand, 25% fines	GM	
	Off Auger	19-20 378	Saturated silt-gravel-sand mixture Strong petroleum odor	CL	

Sampled 20.0 fbg for VOC analysis via EPA Method 8021B
Exploration ended at 20.0 fbg
Converted to monitoring well MW22-02

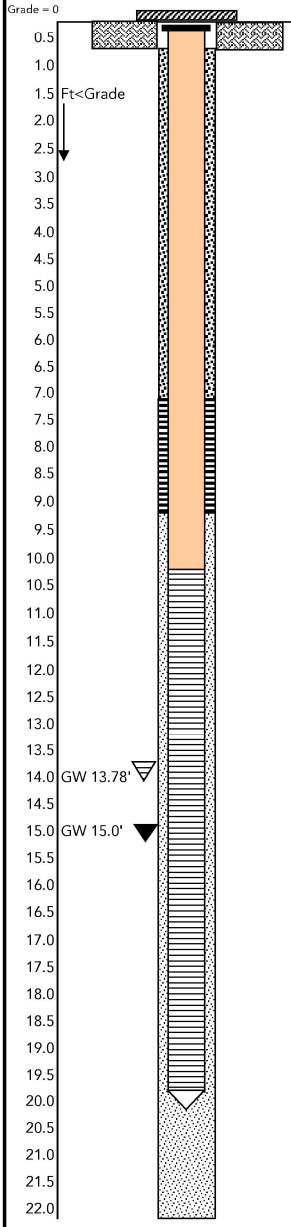
Legend

- Road Box with Bolt Down Cover, Set in Cement.
- Existing Surface.
- Bentonite Seal Placed in Annulus.
- Grade #1 Silica Sand Pack Placed in Annulus.
- Drill Cuttings Placed in Annulus.
- NA Not Applicable
- Locking Plug.
- 1" ID, Schedule 40 PVC Riser.
- 1" ID, Schedule 40 PVC, 0.010"-Slotted Well Screen
- Plug Point
- Approximate Water Level During Drilling
- Water Level During Groundwater Sampling

SOIL BORING LOG
Soil Boring No: SB22-03, converted to MW22-03

Former Danel Fagers Facility SSI
Bennington, VT

KAS Project #:	405050204	Date Advanced:	7/12/2022
Drilled by :	KAS, Inc.	Drilling Method:	Hollow Stem Auger
Driller:	T&K, Inc.	Boring Diameter.:	2"
Supervised by:	Haley Grigel	Development Method:	Bailer
Logged by:	Haley Grigel	Screened Length:	20.0 to 10.0 fbg
TOC Elevation:	572.86		



Pen/Rec (") / Blow Counts	Interval (') / PID (ppmv)*	Soil Characteristics	Letter Symbol	Graphic Symbol
Augered				
48/13	10-12	Dry sand with gravel	SW	
9,24,16,13	0.3	40% gravel, 60% coarse sand, 0% fines		
	1.0	Wet sand; 100% fine sand	SP	
48/9	12-14			
9,6,17,16	1.7			
	1.1	Moist sand; 100% coarse sand		
48/16	15-17	Saturated sand	SP	
9,11,13,9	1.7	10% gravel, 90% coarse sand		
48/24	17-19			
6,6,13,21	3.5			
	2.5	Saturated sand 100% fine sand		
48/	20-22	Saturated river gravel	GP	
5,2,7,11	1.8	100% gravel		

Exploration ended at 22.0 fbg
Converted to monitoring well MW22-03

Legend

- Road Box with Bolt Down Cover, Set in Cement.
- Existing Surface.
- Bentonite Seal Placed in Annulus.
- Grade #1 Silica Sand Pack Placed in Annulus.
- Drill Cuttings Placed in Annulus.
- NA Not Applicable
- Locking Plug.
- 1" ID, Schedule 40 PVC Riser.
- 1" ID, Schedule 40 PVC, 0.010"-Slotted Well Screen
- Plug Point
- Approximate Water Level During Drilling
- Water Level During Groundwater Sampling

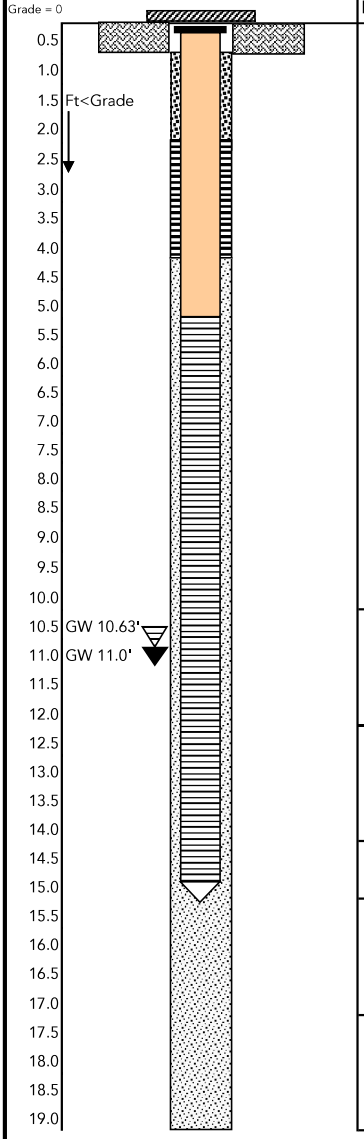
SOIL BORING LOG

Soil Boring No: SB22-04, converted to MW22-04

Former Danel Fagers Facility SSI

Bennington, VT

KAS Project #:	405050204	Date Advanced:	7/12/2022
Drilled by :	KAS, Inc.	Drilling Method:	Hollow Stem Auger
Driller:	T&K, Inc.	Boring Diameter.:	2"
Supervised by:	Haley Grigel	Development Method:	Bailer
Logged by:	Haley Grigel	Screened Length:	15.0 to 5.0 fbg
TOC Elevation:	569.82		



Pen/Rec (") / Blow Counts	Interval (') / PID (ppmv)*	Soil Characteristics	Letter Symbol	Graphic Symbol
Augered				
48/19	10-12	Dry sand with gravel	SW	
13,12,8,8	0.3	30% gravel, 70% coarse sand, 0% fines		
	0.5	Saturated sand	SP	
		100% fine sand		
48/21	12-14	Dark staining, strong petroleum odor		
7,7,7,22	10.4			
	4.4	Saturated sand-silt mixture	SM	
		50% fine sand, 50% fines; moderate petroleum odor		
48/9	15-17	Saturated river gravel	GP	
8,9,16,22	1.4	100% gravel		
		Weak petroleum odor		
48/12	17-19	Saturated sand with silt	SM	
19,11,14,15		0% gravel, 80% coarse sand, 20% fines		

Sampled 12.0-13.0 fbg for VOC analysis via EPA Method 8021B

Exploration ended at 19.0 fbg

Converted to monitoring well MW22-04

Legend

- Road Box with Bolt Down Cover, Set in Cement.
- Existing Surface.
- Bentonite Seal Placed in Annulus.
- Grade #1 Silica Sand Pack Placed in Annulus.
- Drill Cuttings Placed in Annulus.
- NA Not Applicable
- Locking Plug.
- 1" ID, Schedule 40 PVC Riser.
- 1" ID, Schedule 40 PVC, 0.010"-Slotted Well Screen
- Plug Point
- Approximate Water Level During Drilling
- Water Level During Groundwater Sampling

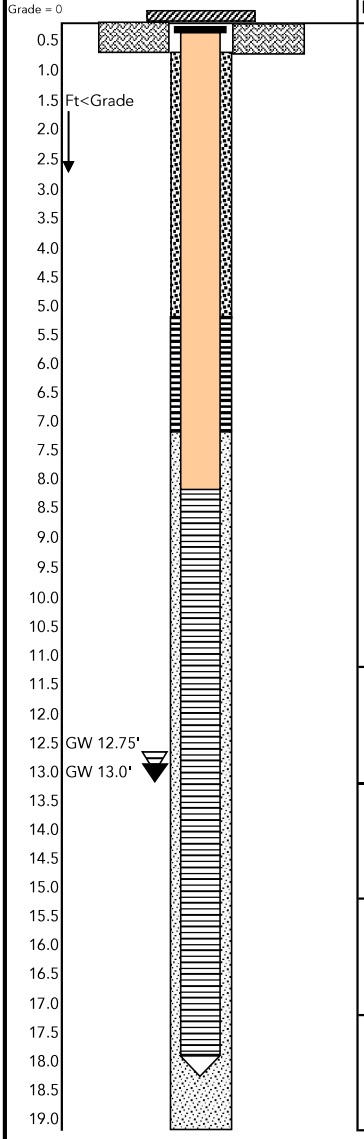
SOIL BORING LOG

Soil Boring No: SB22-05, converted to MW22-05

Former Danel Fagers Facility SSI

Bennington, VT

KAS Project #:	405050204	Date Advanced:	7/12/2022
Drilled by :	KAS, Inc.	Drilling Method:	Hollow Stem Auger
Driller:	T&K, Inc.	Boring Diameter.:	2"
Supervised by:	Haley Grigel	Development Method:	Bailer
Logged by:	Haley Grigel	Screened Length:	18.0 to 8.0 fbg
TOC Elevation:	571.90		



Pen/Rec (") / Blow Counts	Interval (') / PID (ppmv)*	Soil Characteristics	Letter Symbol	Graphic Symbol
Augered				
48/17	11-13	Dry to moist sand-silt-gravel mixture	GM	
15,17,14,16	2.7	40% gravel, 30% medium sand, 30% fines		
	55.7	Weak petroleum odor		
48/16	13-15	Saturated gravel	GP	
11,10,10,10	1,228	100% gravel; strong petroleum odor		
	54.4	Saturated sand	SP	
		100% coarse sand; moderate petroleum odor		
48/16	15-17	Weak petroleum odor		
5,5,6,6	57.7			
	5.1			
48/13	17-19	Saturated sand		
7,8,11,15		100% fine sand		
	5.5			

Sampled 13.0-14.0 fbg for VOC analysis via EPA Method 8021B

Exploration ended at 19.0 fbg

Converted to monitoring well MW22-05

Legend

- Road Box with Bolt Down Cover, Set in Cement.
- Existing Surface.
- Bentonite Seal Placed in Annulus.
- Grade #1 Silica Sand Pack Placed in Annulus.
- Drill Cuttings Placed in Annulus.
- NA Not Applicable
- Locking Plug.
- 1" ID, Schedule 40 PVC Riser.
- 1" ID, Schedule 40 PVC, 0.010"-Slotted Well Screen
- Plug Point
- Approximate Water Level During Drilling
- Water Level During Groundwater Sampling

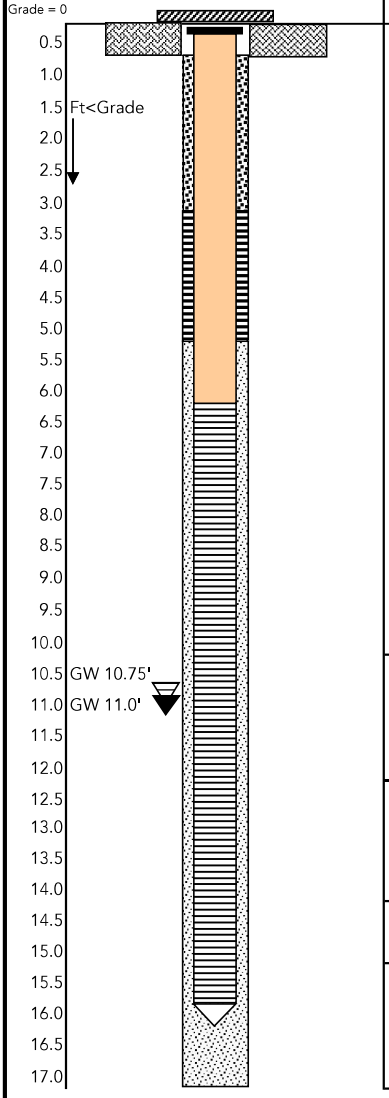
SOIL BORING LOG

Soil Boring No: SB22-06, converted to MW22-06

Former Danel Fagers Facility SSI

Bennington, VT

KAS Project #:	405050204	Date Advanced:	7/12/2022
Drilled by :	KAS, Inc.	Drilling Method:	Hollow Stem Auger
Driller:	T&K, Inc.	Boring Diameter.:	2"
Supervised by:	Haley Grigel	Development Method:	Bailer
Logged by:	Haley Grigel	Screened Length:	16.0 to 6.0 fbg
TOC Elevation:	571.90		



Pen/Rec (") / Blow Counts	Interval (') / PID (ppmv)*	Soil Characteristics	Letter Symbol	Graphic Symbol
Augered				
48/12	10-12	Dry sand with gravel	SW	
15,14,10,9	1.8	30% gravel, 70% coarse sand, 0% fines		
	2.0	Saturated sand 100% fine sand	SP	
48/13	12-14	Saturated sand-silt mixture		
10,9,15,16	2.1	stain		
	7.6	Saturated river gravel 100% gravel; moderate petroleum odor	GP	
48/17	15-17	Saturated river gravel	GP	
	1.3	100% gravel		
	0.8	Saturated sand; 100% medium sand	SP	

Sampled 13.0-14.0 fbg for VOC analysis via EPA Method 8021B

Exploration ended at 17.0 fbg

Converted to monitoring well MW22-06

Legend

- Road Box with Bolt Down Cover, Set in Cement.
- Existing Surface.
- Bentonite Seal Placed in Annulus.
- Grade #1 Silica Sand Pack Placed in Annulus.
- Drill Cuttings Placed in Annulus.
- NA Not Applicable
- Locking Plug.
- 1" ID, Schedule 40 PVC Riser.
- 1" ID, Schedule 40 PVC, 0.010"-Slotted Well Screen
- Plug Point
- Approximate Water Level During Drilling
- Water Level During Groundwater Sampling

Appendix C

Liquid Level Monitoring Data

LIQUID LEVEL MONITORING DATA

8/4/2022

Well I.D.	Well Depth bgs	Screened Interval bgs	Top of Casing Elevation	Depth To Product btoc	Depth To Water btoc	Product Thickness	Specific Gravity Of Product	Water Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW-1	DESTROYED									
MW-1R	18.0	18-8	574.26	-	14.20				14.47	559.79
MW-2R	DESTROYED									
MW-2RW	22.0	20-10	573.21	-	12.71				13.44	559.77
MW-3	DESTROYED									
MW-4	14.5	15-5	569.25	-	9.82	-	-	-	9.82	559.43
MW-5	17.0	17-7	570.03	-	10.91	-	-	-	10.91	559.12
MW-6	19.0	19-9	572.17	-	12.55	-	-	-	12.55	559.62
MW-7	20.0	20-10	571.98	-	DRY at 8.10					
MW21-01	16.0	15-5	570.63	-	11.44				11.44	559.19
MW21-02	20.0	20-10	572.74	-	13.59				13.59	559.15
MW21-04	15.0	15-5	569.13	-	9.97				9.97	559.16
MW21-05	18.0	18-8	573.44	-	13.63				13.63	559.81
MW22-01	20.0	20-10	575.46	-	16.17				16.17	559.29
MW22-02	20.0	20-10	577.14	-	17.82				17.82	559.32
MW22-03	20.0	20-10	572.86	-	13.78				13.78	559.08
MW22-04	15.0	15-5	569.82	-	10.63				10.63	559.19
MW22-05	18.0	18-8	571.90	-	12.75				12.75	559.15
MW22-06	16.0	16-6	569.98	-	10.75				10.75	559.23

HISTORICAL GROUNDWATER ELEVATION

Well I.D.	8/17/2005	1/18/2006	5/9/2006	10/5/2006	3/29/2007	9/13/2007	1/22/2008	9/3/2008	3/25/2009
MW-1	559.19	561.38	560.02	559.72	562.38	559.13	560.26	559.35	561.03
MW-2/2R	559.57	561.69	560.39	560.29	562.53	559.58	560.75	559.90	561.31
MW-3	559.07	561.18	559.78	559.81	562.03	559.17	560.20	559.37	560.61
MW-4	559.28	561.66	560.06	560.07	562.29	559.35	560.45	NM	560.87
MW-5							560.12	559.27	560.68
MW-6							560.45	559.73	560.97
MW-7								559.82	561.09

Well I.D.	4/5/2010	4/24/2012	4/23/2014	8/15/2016	7/23/2018	8/18/2020	5/27/2021	8/4/2022	
MW-1/1R	563.12	559.92	561.54	NM	NM	NM	560.06	559.79	
MW-2/2R/2RW	562.88	560.53	561.63	559.96	563.58	NM	560.50	559.77	
MW-3	562.09	559.87	NM	NM	DESTROYED				
MW-4	562.34	560.21	561.23	NM	559.92	559.23	560.17	559.43	
MW-5	562.40	559.87	NM	NM	NM	558.95	559.82	559.12	
MW-6	562.67	560.30	561.35	559.87	558.85	559.44	560.27	559.62	
MW-7	562.74	560.40	561.53	559.88	NM	DRY	DRY	DRY	
MW21-01							559.94	559.19	
MW21-02							564.64	559.15	
MW21-04							559.88	559.16	
MW21-05							560.59	559.81	
MW22-01								559.29	
MW22-02								559.32	
MW22-03								559.08	
MW22-04								559.19	
MW22-05								559.15	
MW22-06								559.23	

Notes:
All Values Reported in Feet except specific gravity
btoc - Below Top of Casing
bgs - Below Ground Surface
Top of casing elevations for MW-1 - MW-4 surveyed by KAS on August 4, 2005.
Top of casing elevations for MW-5 and MW-6 surveyed by KAS on January 15, 2008.
Top of casing elevations for MW-2R and MW-7 surveyed by KAS on August 29, 2008.
Top of casing elevations for MW-1R, MW-2RW, and MW21-01 through MW21-05 surveyed by KAS on May 14, 2021.
Top of casing elevations for MW22-01 through MW22-06 surveyed by KAS on July 13, 2022.
Elevations determined relative to the stormwater grate on the south side of North Bennington Road which was arbitarily set at 574'.

Appendix D

Soil Quality Summary

Groundwater Quality Summary

Sample ID (depth in feet):	SB22-01 (17.5-19')	SB22-02 (20')	SB22-04 (12-13')	SB22-05 (13-14')	SB22-06 (13-14')	VSS - Resident Soil	VSS - Non-Resident Soil
Field PID Reading (ppmv)	1,399	378	10.4	1,228	7.6		
Sample Date:	7/12/22	7/12/22	7/12/22	7/12/22	7/12/22		
VOCs (mg/kg)							
Dichlorodifluoromethane	ND<0.7	-	-	-	-	-	-
Chloromethane	ND<0.7	-	-	-	-	-	-
Vinyl chloride	ND<0.1	-	-	-	-	0.10	0.59
Bromomethane	ND<0.7	-	-	-	-	-	-
Chloroethane	ND<0.7	-	-	-	-	-	-
Trichlorofluoromethane	ND<0.7	-	-	-	-	-	-
Diethyl Ether	ND<0.4	-	-	-	-	-	-
Acetone	ND<10	-	-	-	-	40,609	100,028
1,1-Dichloroethene	ND<0.4	-	-	-	-	-	-
Methylene chloride	ND<0.7	-	-	-	-	-	-
Carbon disulfide	ND<0.7	-	-	-	-	608	662
Methyl-t-butyl ether(MTBE)	ND<0.7	ND<0.1	ND<0.1	ND<0.8	ND<0.1	649	4,464
trans-1,2-Dichloroethene	ND<0.4	-	-	-	-	1,402	18,137
1,1-Dichloroethane	ND<0.4	-	-	-	-	2.1	13
2,2-Dichloropropane	ND<0.4	-	-	-	-	-	-
cis-1,2-Dichloroethene	ND<0.4	-	-	-	-	140	18,137
2-Butanone(MEK)	ND<4	-	-	-	-	16,952	26,991
Bromochloromethane	ND<0.4	-	-	-	-	193	597
Tetrahydrofuran(THF)	ND<4	-	-	-	-	-	-
Chloroform	ND<0.4	-	-	-	-	-	-
1,1,1-Trichloroethane	ND<0.4	-	-	-	-	-	-
Carbon tetrachloride	ND<0.4	-	-	-	-	0.37	2.2
1,1-Dichloropropene	ND<0.4	-	-	-	-	-	-
Benzene	ND<0.4	ND<0.05	ND<0.05	ND<0.4	ND<0.05	0.70	4.20
1,2-Dichloroethane	ND<0.4	ND<0.05	ND<0.05	ND<0.4	ND<0.05	0.29	1.7
Trichloroethene	ND<0.4	-	-	-	-	0.68	6.5
1,2-Dichloropropane	ND<0.4	-	-	-	-	1.5	9.1
Dibromomethane	ND<0.4	-	-	-	-	-	-
Bromodichloromethane	ND<0.4	-	-	-	-	-	-
4-Methyl-2-pentanone(MIBK)	ND<4	-	-	-	-	-	-
cis-1,3-Dichloropropene	ND<0.4	-	-	-	-	-	-
Toluene	ND<0.4	ND<0.05	ND<0.05	ND<0.4	ND<0.05	706	798
trans-1,3-Dichloropropene	ND<0.4	-	-	-	-	-	-
1,1,2-Trichloroethane	ND<0.4	-	-	-	-	-	-
2-Hexanone	ND<0.7	-	-	-	-	-	-
Tetrachloroethene	ND<0.4	-	-	-	-	2.4	14
1,3-Dichloropropane	ND<0.4	-	-	-	-	-	-
Dibromochloromethane	ND<0.4	-	-	-	-	-	-
1,2-Dibromoethane(EDB)	ND<0.1	ND<0.02	ND<0.02	ND<0.2	ND<0.02	0.02	0.14
Chlorobenzene	ND<0.4	-	-	-	-	414	726
1,1,1,2-Tetrachloroethane	ND<0.4	-	-	-	-	1.3	8.0
Ethylbenzene	ND<0.4	ND<0.05	ND<0.05	ND<0.4	ND<0.05	3.7	22
Xylenes, total	ND<0.4	ND<0.05	ND<0.05	ND<0.4	ND<0.05	252	257
Styrene	ND<0.4	-	-	-	-	-	-
Bromoform	ND<0.4	-	-	-	-	-	-
IsoPropylbenzene	ND<0.4	-	-	-	-	256	264
Bromobenzene	ND<0.4	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane	ND<0.4	-	-	-	-	-	-
1,2,3-Trichloropropane	ND<0.4	-	-	-	-	0.00311	0.07
n-Propylbenzene	**2.8**	-	-	-	-	253	261
2-Chlorotoluene	ND<0.4	-	-	-	-	-	-
4-Chlorotoluene	ND<0.4	-	-	-	-	-	-
tert-Butylbenzene	ND<0.4	-	-	-	-	7,009	102,200
1,3,5-Trimethylbenzene	**2.0**	**0.25**	ND<0.05	ND<0.4	ND<0.05		
1,2,3-Trimethylbenzene	ND<0.4	ND<0.05	ND<0.05	**4.0**	**0.11**	144	177
1,2,4-Trimethylbenzene	**1.4**	**0.31**	ND<0.05	ND<0.4	ND<0.05		
sec-Butylbenzene	**1.1**	-	-	-	-	7,009	102,200
1,3-Dichlorobenzene	ND<0.4	-	-	-	-	-	-
p-Isopropyltoluene	**0.74**	-	-	-	-	-	-
1,4-Dichlorobenzene	ND<0.4	-	-	-	-	-	-
1,2-Dichlorobenzene	ND<0.4	-	-	-	-	-	-
n-Butylbenzene	ND<0.4	-	-	-	-	3,504	51,100
1,2-Dibromo-3-chloropropane	ND<0.4	-	-	-	-	0.01	0.06
1,2,4-Trichlorobenzene	ND<0.4	-	-	-	-	-	-
Hexachlorobutadiene	ND<0.4	-	-	-	-	-	-
Naphthalene	ND<0.7	ND<0.1	ND<0.1	**1.3**	ND<0.1	2.7	16
1,2,3-Trichlorobenzene	ND<0.4	-	-	-	-	-	-

NOTES:

All values reported in mg/kg, dry, unless otherwise indicated.

VSS = Vermont Soil Standards from Investigation and Remediation of Contaminated Properties Rule (I-Rule, July 6, 2019)

< xx = Compound not detected above detection limit (xx)

Results reported above detection limits are indicated in **bold**

Detection limits and reported concentrations at or above the the applicable screening level are shaded.

"-" indicates that a screening level is not provided in the I-Rule

Sample ID (depth):	**SB22-01 (17.5-19')**	EPA RSL - Resident Soil
Sample Date:	07/12/22	
TPH by EPA M8015GRO (mg/kg)		
GRO (Gasoline Range C6-C10)	**190**	**82 - 230,000**

NOTES:

All values reported in mg/kg, dry, unless otherwise indicated.

EPA RSL = Environmental Protection Agency; Screening Levels from April 2019 EPA Regional Screening Level Summary Table

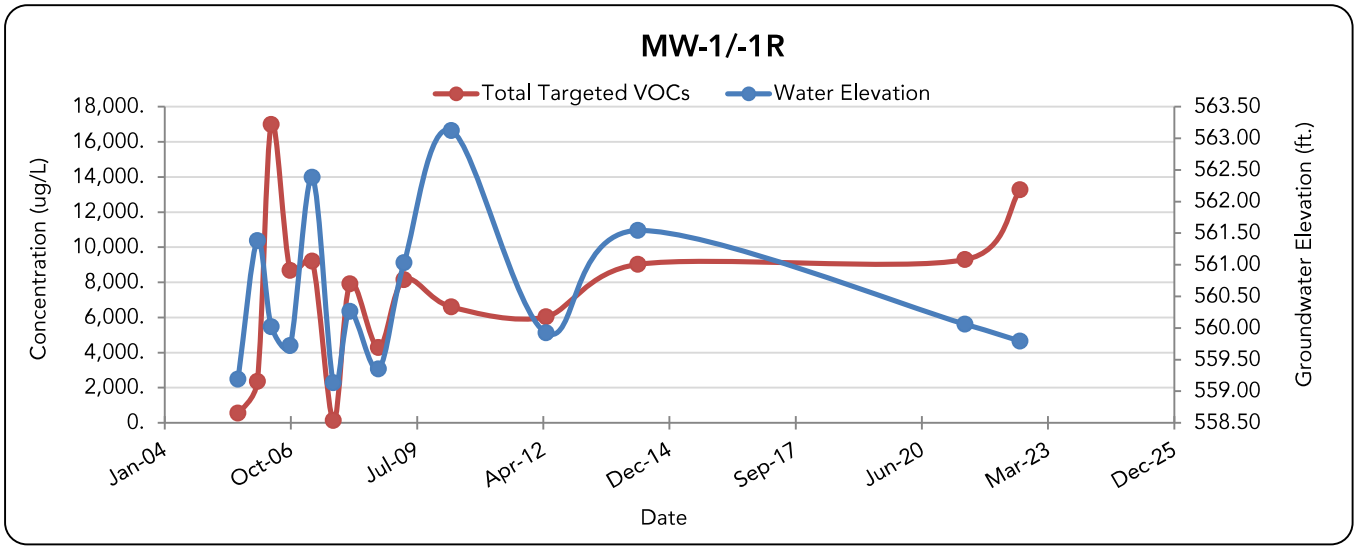
< xx = Compound not detected above detection limit (xx)

Results reported above detection limits are indicated in **bold**

Detection limits and reported concentrations at or above the applicable screening level are shaded.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-1 (DESTROYED)

Sample Date: / *Analytical Method:* / **VOCs**	8/17/2005 8260B	1/18/2006 8021B	5/9/2006 8021B	10/5/2006 8021B	3/29/2007 8021B	9/13/2007 8260B	1/22/2008 8021B	**VGES** ug/L
Benzene	**1.6**	ND(50.0)	**110.**	**131.**	ND(50.0)	**1.8**	**78.9**	5.
Toluene	**33.5**	ND(50.0)	**960.**	**420.**	**643.**	**1.9**	**485.**	1,000.
Ethylbenzene	**5.4**	**225.**	**1,810.**	**1,000.**	**1,160.**	**20.5**	**940.**	700.
Xylenes (total)	**142.**	**1,080.**	**8,610.**	**4,470.**	**5,240.**	**47.7**	**3,880.**	10,000.
TOTAL BTEX	**183.**	**1,305.**	**11,490.**	**6,021.**	**7,043.**	**71.9**	**5,384.**	-
MtBE	ND(2.0)	ND(100)	ND(200)	ND(100)	ND(100.)	ND(2.0)	ND(40.0)	40.
1,3,5 & 1,2,4-TMB	**262.4**	**940.**	**4,980.**	**2,382.**	**1,927.**	**44.2**	**2,154.**	350.
Naphthalene	**14.7**	**106.**	**514.**	**264.**	**233.**	**13.7**	**359.**	20.
n-Butylbenzene	**25.5**	-	-	-	-	-	-	-
sec-Butylbenzene	**7.5**	-	-	-	-	-	-	-
Isopropylbenzene	**9.1**	-	-	-	-	-	-	-
p-Isopropyltoluene	**4.8**	-	-	-	-	-	-	-
n-Propylbenzene	**34.5**	-	-	-	-	-	-	-
TOTAL TARGETED VOCs	**541.**	**2,351.**	**16,984.**	**8,667.**	**9,203.**	**129.8**	**7,897.**	-

Sample Date: / *Analytical Method:* / **VOCs**	9/3/2008 8021B	3/25/2009 8021B	4/5/2010 8260B	4/24/2012 8260B	4/23/2014 8021B	8/15/2016 8021B	7/23/2018	**VGES** ug/L
Benzene	ND(100)	ND(100)	ND(50.0)	ND(50.0)	ND(50.0)			5.
Toluene	**117.**	**143.**	**251.**	**74.2**	**59.2**	No	No	1,000.
Ethylbenzene	**532.**	**1,040.**	**774.**	**601.**	**1,390**	Sample	Sample	700.
Xylenes (total)	**2,190.**	**4,290.**	**3,230.**	**2,970.**	**4,820**	Collected	Collected	10,000.
TOTAL BTEX	**2,839.**	**5,473.**	**4,255.**	**3,645.**	**6,269.**			-
MtBE	ND(200)	ND(200)	ND(100)	ND(100)	ND(100)	Well	Well	40.
1,3,5 & 1,2,4-TMB	**1,206.**	**2,396.**	**2,154.**	**2,063.**	**2,523.**	Not	Destroyed	350.
Naphthalene	**241.**	**264.**	**185.**	**325.**	**225.**	Found		20.
TOTAL TARGETED VOCs	**4,286.**	**8,133.**	**6,594.**	**6,033.**	**9,017.**			-

Only Method 8021B compounds and reported compounds are included in the table
Blank cells have not been analyzed for that specific compound
All Values Reported in ug/L
VGES - Vermont Groundwater Enforcement Standard (VGPRS 12/16/16; VGES Interim Standards 3/18/15)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Shaded values meet or exceed VGES

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

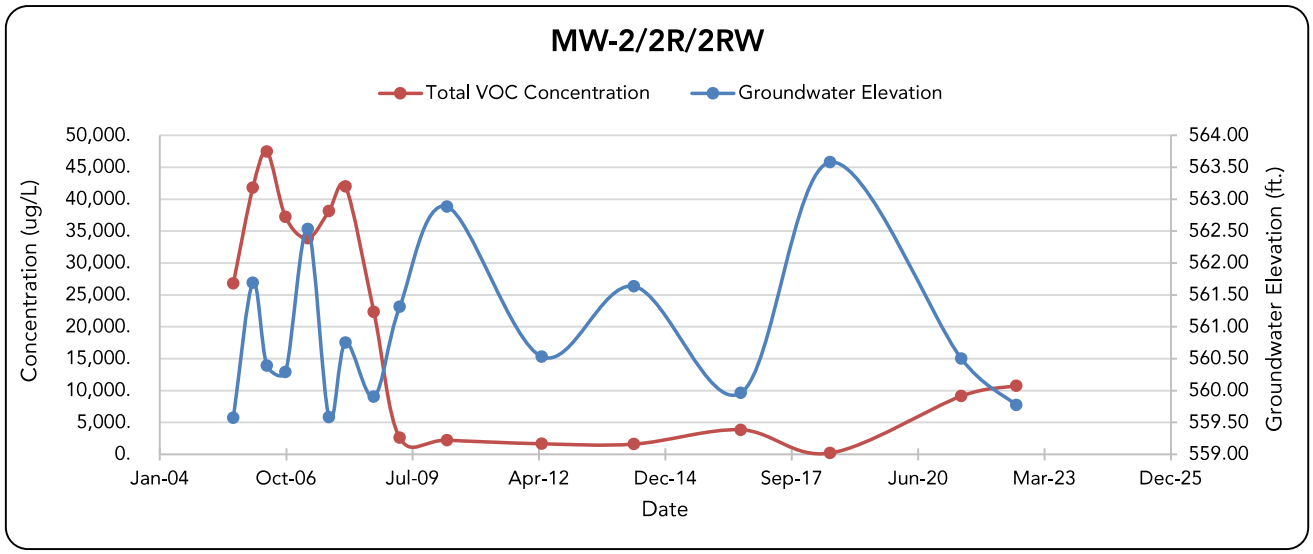
MW-1R

Sample Date: / *Analytical Method:* / **VOCs**	5/27/2021 8260C	8/4/2022 8021B					**VGES**	**VIS-Residential**
Benzene	**120**	**130**					5	0.92
Toluene	**690**	**1,200**					1,000	-
Ethylbenzene	**1,200**	**2,200**					700	2.2
Xylenes (total)	**4,900**	**6,900**					10,000	-
TOTAL BTEX	**6,910**	**10,430**					-	-
MtBE	ND<5	ND<10					11	-
1,3,5-Trimethylbenzene	**320**	**290**						330
1,2,4-Trimethylbenzene	**1,200**	**1,800**					23	470
1,2,3-Trimethyl benzene	**300**	**470**						790
Naphthalene	**250**	**270**					0.5	4
IsoPropylbenzene	**74**	-					-	-
n-Propylbenzene	**200**	-					-	-
sec-Butylbenzene	**20**	-					-	-
p-Isopropyltoluene	**11**	-					-	-
TOTAL TARGETED VOCs	**9,285**	**13,260**					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-2/2R -DESTROYED

Sample Date: / Analytical Method: / VOCs	8/17/2005 8260B	1/18/2006 8260B	5/9/2006 8260B	10/5/2006 8021B	3/29/2007 8260B	9/13/2007 8260B/8011	1/22/2008 8021B	VGES ug/L
Benzene	**457.**	**407.**	**368.**	**446.**	**308.**	**284.**	**304.**	5.
Toluene	**2,360.**	**7,700.**	**7,110.**	**4,220.**	**1,860.**	**3,220.**	**9,550.**	1,000.
Ethylbenzene	**3,740.**	**4,620.**	**5,190.**	**4,760.**	**4,580.**	**4,430.**	**4,620.**	700.
Xylenes (total)	**18,500.**	**23,900.**	**28,600.**	**23,000.**	**22,000.**	**25,300.**	**22,700.**	10,000.
TOTAL BTEX	**25,057.**	**36,627.**	**41,268.**	**32,426.**	**28,748.**	**33,234.**	**37,174.**	-
MtBE	ND<40.0	ND<200	ND<200	ND<200	ND<100	ND<400	ND<400	40.
1,3,5 & 1,2,4-TMB	**1,297.**	**4,113.**	**4,840.**	**4,090.**	**3,884.**	**4,132.**	**3,857.**	350.
Naphthalene	**57.**	**371.**	**635.**	**674.**	**640.**	**750.**	**947.**	20.
1,2-Dichloroethane	**42.**	ND<100	ND<100		ND<50.0	ND<200		5.
Isopropylbenzene	**150.**	**189.**	**207.**		**163.**			-
n-Propylbenzene	**157.**	**456.**	**500.**		**396.**			-
Ethylene Dibromide (EDB)	ND<200	ND<200	ND<200		ND<200	**3.42**		0.05
TOTAL TARGETED VOCs	**26,759.**	**41,756.**	**47,450.**	**37,190.**	**33,831.**	**38,119.**	**41,978.**	-

Sample Date: / Analytical Method: / VOCs	9/3/2008 8021B/8011	3/25/2009 8021B	4/5/2010 8260B	4/24/2012 8260B	4/23/2014 8021B	8/15/2016 8021B	7/23/2018 8021B	VGES ug/L
Benzene	ND<1,000	ND<20.0	ND<10.0	ND<10.0	ND(5.0)	ND<10.0	ND<1.0	5.
Toluene	**2,720.**	ND<20.0	ND<10.0	ND<10.0	ND(5.0)	ND<10.0	ND<1.0	1,000.
Ethylbenzene	**2,480.**	**192.**	**166.**	**132.**	**173.**	**519.**	**18.3**	700.
Xylenes (total)	**14,900.**	**744.**	**690.**	**540.**	**518.**	**1,430.**	**62.4**	10,000.
TOTAL BTEX	**20,100.**	**936.**	**856.**	**672.**	**691.**	**1,949.**	**80.7**	-
MtBE	ND<2,000	ND<40.0	ND<20.0	ND<20.0	ND<10.0	ND<20.0	ND<2.0	40.
1,3,5 & 1,2,4-TMB	**2,190.**	**1,486.**	**1,187.**	**820.**	**792.**	**1,632.**	**71.7**	350.
Naphthalene	ND<2,000	**179.**	**150.**	**151.**	**110.**	**238.**	**11.7**	20.
1,2-Dichloroethane	-	-	-	-	-	-	-	5.
Ethylene Dibromide (EDB)	**1.05**	-	-	-	-	-	-	0.05
TOTAL TARGETED VOCs	**22,291.**	**2,601.**	**2,193.**	**1,643.**	**1,593.**	**3,819.**	**164.1**	-

MW-2 replaced with MW-2R on 8/29/2008.
Only Method 8021B compounds and reported compounds are included in the table
Blank cells have not been analyzed for that specific compound
All Values Reported in ug/L
VGES - Vermont Groundwater Enforcement Standard (VGPRS 12/16/16; VGES Interim Standards 3/18/15)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Shaded values meet or exceed VGES

VTDEC Site #2005-3341
KAS #405050204

Water Quality Summary

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Bennington, VT

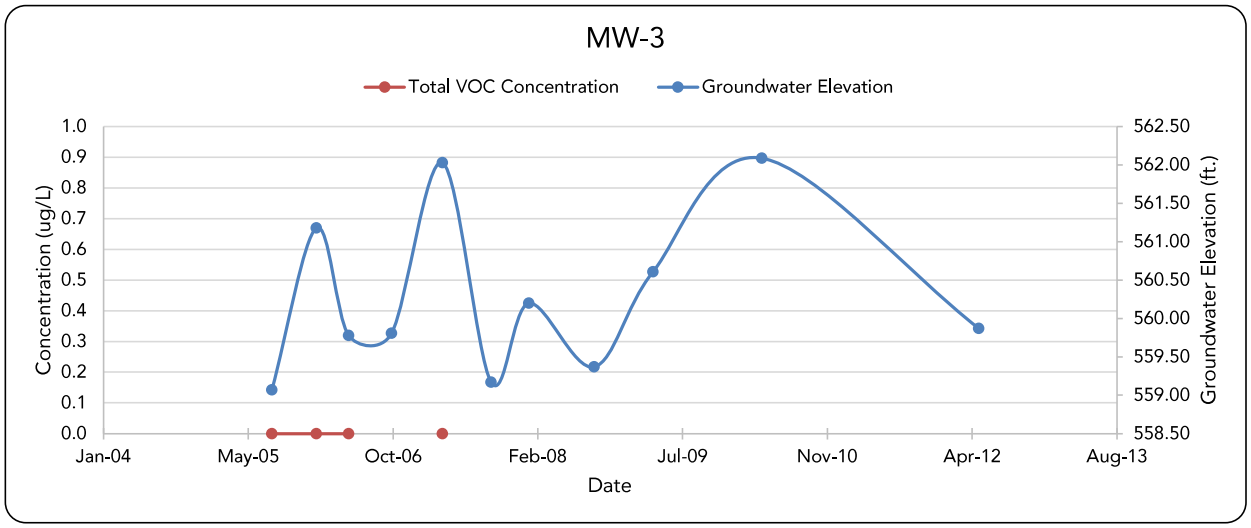
MW-2RW

Sample Date: / *Analytical Method:* / VOCs	5/27/2021 8260C	8/4/2022 8021B					VGES	VIS-Residential
Benzene	**4.2**	ND<10					5	0.92
Toluene	**10**	**12**					1,000	-
Ethylbenzene	**970**	**1,300**					700	2.2
Xylenes (total)	**4,140**	**4,541**					10,000	-
TOTAL BTEX	**5,124**	**5,853**					-	-
MtBE	ND<1	ND<10					11	-
1,3,5-Trimethylbenzene	**690**	**940**						330
1,2,4-Trimethylbenzene	**2,100**	**2,500**					23	470
1,2,3-Trimethyl benzene	**560**	**750**						790
Naphthalene	**410**	**700**					0.5	4
IsoPropylbenzene	**73**	-					-	-
n-Propylbenzene	**150**	-					-	-
sec-Butylbenzene	**10**	-					-	-
p-Isopropyltoluene	**11**	-					-	-
1,2,3-Trichloropropane	**0.79**	-					0.02	-
TOTAL TARGETED VOCs	**9,129**	**10,743**					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-3 - WELL DESTROYED

Sample Date: / *Analytical Method:* / **VOCs**	8/17/2005 8260B	1/18/2006 8021B	5/9/2006 8021B	10/5/2006 no sample	3/29/2007 8021B	9/13/2007	1/22/2008	**VGES** ug/L
Benzene	ND<1.0	ND<1.0	ND<1.0		ND<1.0	Removed	Removed	5.
Toluene	ND<1.0	ND<1.0	ND<1.0		ND<1.0	From	From	1,000.
Ethylbenzene	ND<1.0	ND<1.0	ND<1.0		ND<1.0	Sampling	Sampling	700.
Xylenes (total)	ND<2.0	ND<2.0	ND<2.0		ND<2.0	Schedule	Schedule	10,000.
TOTAL BTEX	ND	ND	ND		ND			-
MtBE	ND<2.0	ND<2.0	ND<2.0		ND<2.0			40.
1,3,5 & 1,2,4-TMB	ND<1.0	ND<1.0	ND<1.0		ND<1.0			350.
Naphthalene	ND<2.0	ND<2.0	ND<2.0		ND<2.0			20.
n-Butylbenzene	ND<1.0							-
sec-Butylbenzene	ND<1.0							-
1,2-Dichloroethane	ND<1.0							5.
Isopropylbenzene	ND<1.0							-
p-Isopropyltoluene	ND<1.0							-
n-Propylbenzene	ND<1.0							-
TOTAL TARGETED VOCs	ND	ND	ND		ND			-

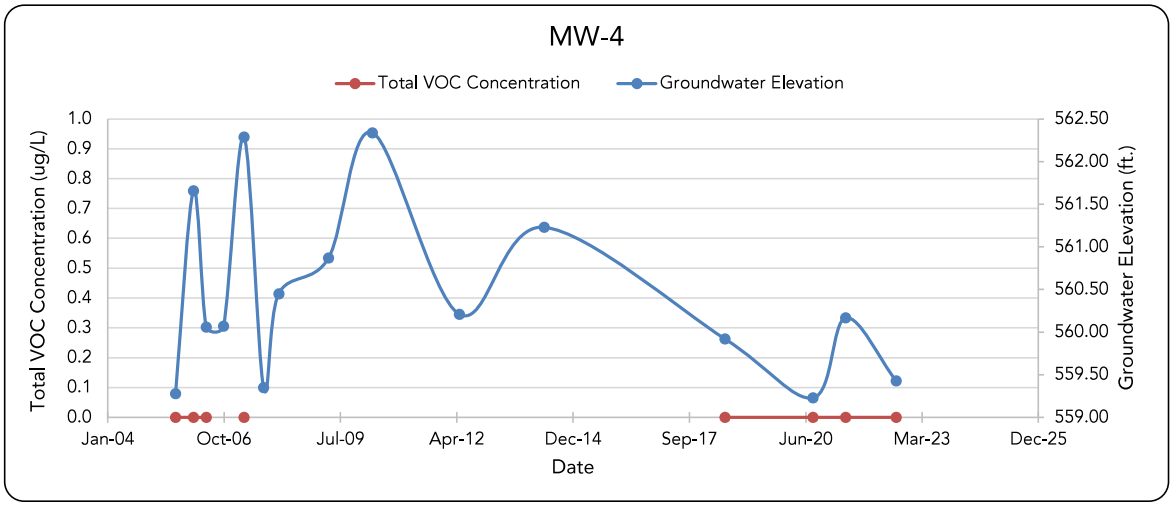
Analytical Method: / **TPH** *Units:*	8015-GRO ppm							
Total Petroleum Hydrocarbon	ND(0.20)							No VGES

Sample Date: / *Analytical Method:* / **VOCs**	7/23/2018 8021B							**VGES** ug/L
Benzene	No							5.
Toluene	Sample							1,000.
Ethylbenzene								700.
Xylenes (total)	Well							10,000.
TOTAL BTEX	Destroyed							-
MtBE								40.
1,3,5 & 1,2,4-TMB								350.
Naphthalene								20.
TOTAL TARGETED VOCs								-

Only Method 8021B compounds and reported compounds are included in the table
Blank cells have not been analyzed for that specific compound
All Values Reported in ug/L
VGES - Vermont Groundwater Enforcement Standard (VGPRS 12/16/16; VGES Interim Standards 3/18/15)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Shaded values meet or exceed VGES

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-4

Sample Date: / *Analytical Method:* / **VOCs**	8/17/2005 8260B	1/18/2006 8021B	5/9/2006 8021B	10/5/2006	3/29/2007 8021B	9/13/2007 8260B	1/22/2008	**VGES** ug/L
Benzene	ND<1.0	ND<1.0	ND<1.0	No	ND<1.0	Removed	Removed	5.
Toluene	ND<1.0	ND<1.0	ND<1.0	Sample	ND<1.0	From	From	1,000.
Ethylbenzene	ND<1.0	ND<1.0	ND<1.0		ND<1.0	Sampling	Sampling	700.
Xylenes (total)	ND<2.0	ND<2.0	ND<2.0		ND<2.0	Schedule	Schedule	10,000.
TOTAL BTEX	ND	ND	ND		ND			-
MtBE	ND<2.0	ND<2.0	ND<2.0		ND<2.0			40.
1,3,5 & 1,2,4-TMB	ND<1.0	ND<1.0	ND<1.0		ND<1.0			350.
Naphthalene	ND<2.0	ND<2.0	ND<2.0		ND<2.0			20.
n-Butylbenzene	ND<1.0							-
sec-Butylbenzene	ND<1.0							-
1,2-Dichloroethane	ND<1.0							5.
Isopropylbenzene	ND<1.0							-
p-Isopropyltoluene	ND<1.0							-
n-Propylbenzene	ND<1.0							-
TOTAL TARGETED VOCs	ND	ND	ND		ND			-

Analytical Method: / **TPH** *Units:*	8015-GRO ppm
Total Petroleum Hydrocarbor	ND(0.20)

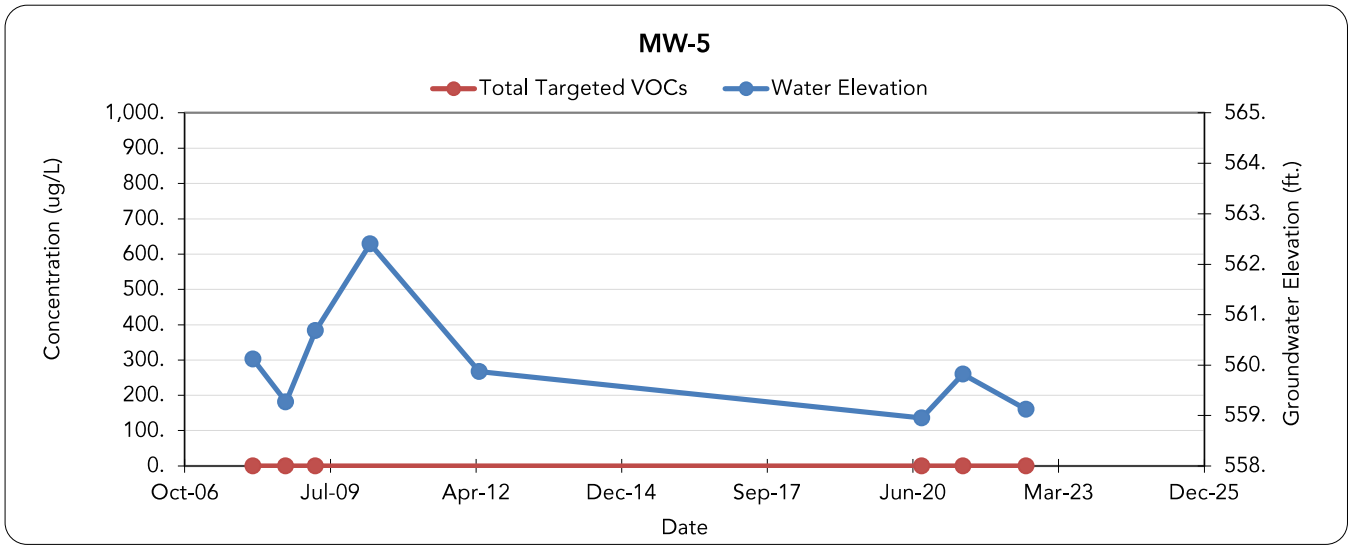
Sample Date: / *Analytical Method:* / **VOCs**	7/23/2018 8021B	8/18/2020 8260C	5/27/2021 8260C	8/4/2022 8021B			**VGES**	**VIS-Residential**
Benzene	ND<1.0	ND<0.5	ND<1	ND<1			5	0.92
Toluene	ND<1.0	ND<1.0	ND<1	ND<1			1,000	-
Ethylbenzene	ND<1.0	ND<1.0	ND<1	ND<1			700	2.2
Xylenes (total)	ND<2.0	ND<2.0	ND<1	ND<1			10,000	-
TOTAL BTEX	ND	ND	ND	ND			-	-
MtBE	ND<2.0	ND<2.0	ND<1	ND<1			11	-
1,3,5-Trimethylbenzene	ND<1.0	ND<1.0	ND<1	ND<1				330
1,2,4-Trimethylbenzene	ND<1.0	ND<1.0	ND<1	ND<1			23	470
1,2,3-Trimethyl benzene	NA	ND<1.0	ND<1	ND<1				790
Naphthalene	ND<2.0	ND<0.5	ND<0.5	ND<0.5			0.5	4
TOTAL TARGETED VOCs	ND	ND	ND	ND			-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

VTDEC Site #2005-3341
KAS #405050204

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-5

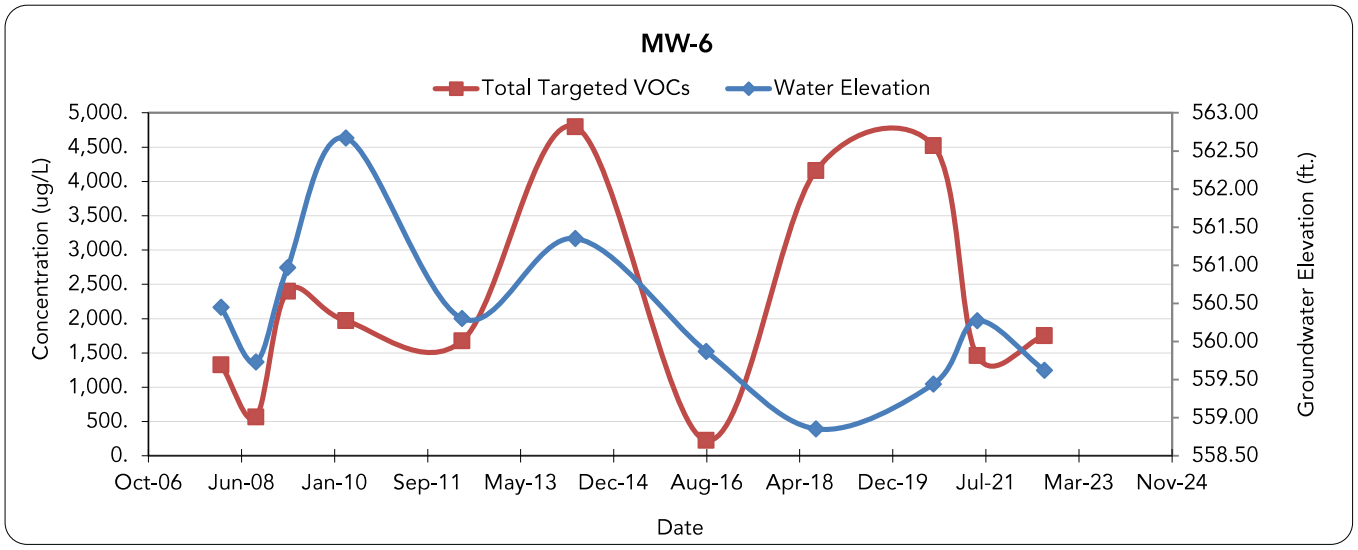
Sample Date: / *Analytical Method:* / **VOCs**	1/22/2008 8260B	9/3/2008 8021B	3/25/2009 8021B	4/5/2010 8260B	7/23/2018 8021B	8/18/2020 8260C	VGES	VIS-Residential
Benzene	ND<1.0	ND<1.0	ND<1.0	Removed	No	ND<0.5	5	0.92
Toluene	ND<1.0	ND<1.0	ND<1.0	From	Sample	ND<1.0	1,000	-
Ethylbenzene	ND<1.0	ND<1.0	ND<1.0	Sampling		ND<1.0	700	2.2
Xylenes (total)	ND<2.0	ND<2.0	ND<2.0	Schedule	Unable	ND<2.0	10,000	-
TOTAL BTEX	ND	ND	ND		to	ND	-	-
MtBE	ND<2.0	ND<2.0	ND<2.0		Locate	ND<2.0	11	-
1,3,5-Trimethylbenzene	ND<2.0	ND<2.0	ND<2.0			ND<1.0		330
1,2,4-Trimethylbenzene	ND<2.0	ND<2.0	ND<2.0			ND<1.0	23	470
1,2,3-Trimethylbenzene	NA	NA	NA			ND<1.0		790
Naphthalene	ND<2.0	ND<2.0	ND<2.0			ND<0.5	0.5	4
TOTAL TARGETED VOCs	ND	ND	ND			ND	-	-

Sample Date: / *Analytical Method:* / **VOCs**	5/27/2021 8260C	8/4/2022 8021B					**VGES**	**VIS-Residential**
Benzene	ND<1	ND<1					5	0.92
Toluene	ND<1	ND<1					1,000	-
Ethylbenzene	ND<1	ND<1					700	2.2
Xylenes (total)	ND<1	ND<1					10,000	-
TOTAL BTEX	ND	ND					-	-
MtBE	ND<1	ND<1					11	-
1,3,5-Trimethylbenzene	ND<1	ND<1						330
1,2,4-Trimethylbenzene	ND<1	ND<1					23	470
1,2,3-Trimethyl benzene	ND<1	ND<1						790
Naphthalene	ND<0.5	ND<0.5					0.5	4
TOTAL TARGETED VOCs	ND	ND					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-6

Sample Date: / *Analytical Method:* / **VOCs**	1/22/2008 8260B	9/3/2008 8021B	3/25/2009 8021B	4/5/2010 8260B	4/24/2012 8260B	4/23/2014 8021B	8/15/2016 8021B	**VGES** ug/L
Benzene	**83.8**	**65.1**	**61.1**	**14.5**	**28.1**	**31.8**	**25.2**	5.
Toluene	**19.4**	**4.6**	**10.0**	**7.4**	ND<10.0	**25.0**	**12.0**	1,000.
Ethylbenzene	**466.**	**220.**	**740.**	**534.**	**404.**	**1,420.**	**146.**	700.
Xylenes (total)	**583.**	**211.**	**1,050.**	**871.**	**779.**	**2,130.**	**22.7**	10,000.
TOTAL BTEX	**1,152.**	**501.**	**1,861.**	**1,427.**	**1,211.**	**3,607.**	**206.**	-
MtBE	ND<10.0	ND<4.0	ND<10.0	ND<10.0	ND<20.0	ND<40.0	**3.6**	40.
1,3,5 & 1,2,4-TMB	**161.**	**53.6**	**464.**	**480.**	**405.**	**1,065.**	**12.3**	350.
Naphthalene	**11.6**	**8.4**	**74.2**	**61.2**	**60.2**	**125.**	**2.1**	20.
TOTAL TARGETED VOCs	**1,324.**	**563.**	**2,399.**	**1,968.**	**1,676.**	**4,797.**	**224.**	-

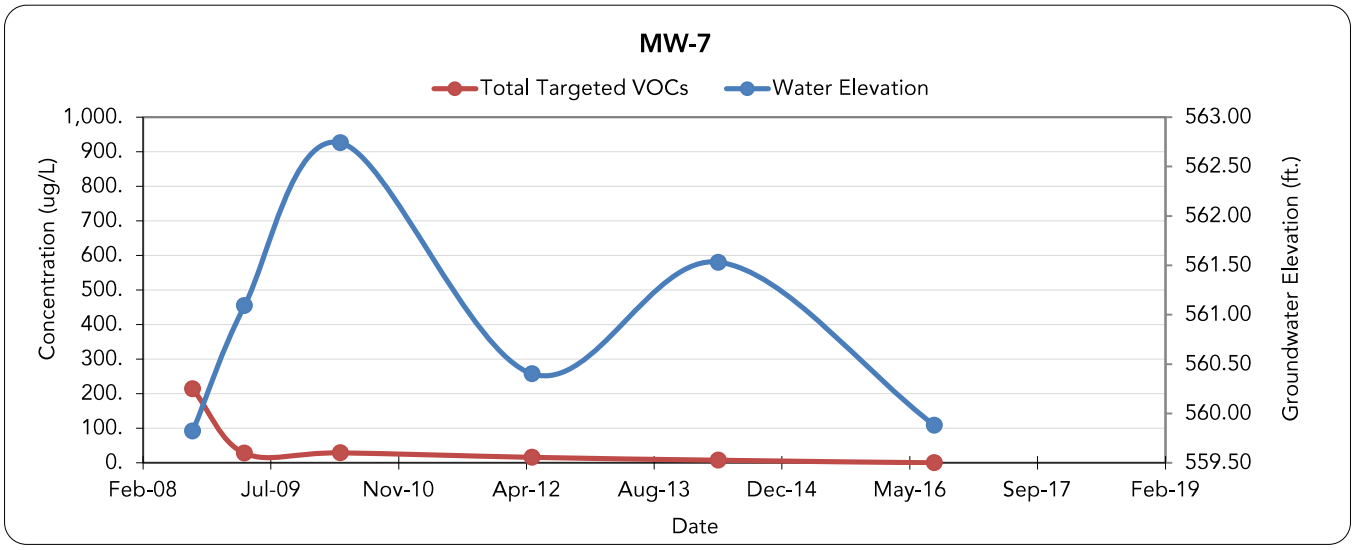
Sample Date: / *Analytical Method:* / **VOCs**	7/23/2018 8021B	8/18/2020 8260C	5/27/2021 8260C	8/4/2022 8021B			**VGES**	**VIS-Residential**
Benzene	**20.4**	**33.6**	**28**	**32**			5	0.92
Toluene	**23.1**	**23.4**	**18**	**13**			1,000	-
Ethylbenzene	**1,040.**	**716**	**170**	**150**			700	2.2
Xylenes (total)	**1,850.**	**2,620**	**735.9**	**1,209.6**			10,000	-
TOTAL BTEX	**2,934.**	**3,393**	**952**	**1,405**			-	-
MtBE	ND<20.0	ND<20.0	ND<5	ND<5			11	-
1,3,5-Trimethlybenzene	**221**	**142**	**55**	**51**				330
1,2,4-Trimethylbenzene	**877**	**615**	**230**	**220**			23	470
1,2,3-Trimethylbenzene	**NA**	**150**	**57**	**52**				790
Naphthalene	**124**	**63.9**	**45**	**23**			0.5	4
1,2-Dichloroethane	NA	**6.6**	ND<5	-			-	-
n-Propylbenzene	NA	**82.4**	**30**	-			-	-
Isopropylbenzene	NA	**68.1**	**33**	-			-	-
p-Isopropyltoluene	NA	-	**57**	-				
TOTAL TARGETED VOCs	**4,156**	**4,521**	**1,459**	**1,751**			-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

VTDEC Site #2005-3341
KAS #405050204

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT



MW-7

Sample Date: / *Analytical Method:* / **VOCs**	9/3/2008 8021B	3/25/2009 8021B	4/5/2010 8260B	4/24/2012 8260B	4/23/2014 8021B	8/15/2016 8021B	7/23/2018 8021B	**VGES** ug/L
Benzene	**5.2**	ND<1.0	**1.2**	ND<1.0	ND<1.0	ND<1.0	No	5.
Toluene	**7.1**	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Sample	1,000.
Ethylbenzene	**26.6**	**3.3**	**4.9**	**2.2**	**1.2**	ND<1.0		700.
Xylenes (total)	**51.1**	**3.0**	ND<2.0	ND<2.0	ND<2.0	ND<1.0	Could	10,000.
TOTAL BTEX	**90.0**	**6.3**	**6.1**	**2.2**	**1.2**	ND	Not	-
MtBE	ND<4.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	Locate	40.
1,3,5 & 1,2,4-TMB	**123.7**	**21.5**	**23.1**	**13.9**	**6.5**	ND<2.0	Well	350.
Naphthalene	ND<4.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0	ND<2.0		20.
TOTAL TARGETED VOCs	**213.7**	**27.8**	**29.2**	**16.1**	**7.7**	ND		-

Sample Date: / *Analytical Method:* / **VOCs**	8/18/2020	5/27/2021	8/4/2022				**VGES**	**VIS-Residential**
Benzene							5	0.92
Toluene	Well	Well	Well				1,000	-
Ethylbenzene	Dry	Dry	Dry				700	2.2
Xylenes (total)							10,000	-
TOTAL BTEX							-	-
MtBE							11	-
1,3,5-Trimethylbenzene	No	No	No					330
1,2,4-Trimethylbenzene	Sample	Sample	Sample				23	470
1,2,3-Trimethylbenzene								790
Naphthalene							0.5	4
TOTAL TARGETED VOCs							-	-

All Values Reported in ug/L
ND<X - None Detected above Detection Limit
Detections are bolded.
VGES - Vermont Groundwater Enforcement Standard; VTDEC Groundwater Protection Rule and Strategy July 6, 2019
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
> VGES at time of sampling

VTDEC #2005-3341
KAS #405050204

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW21-01

Sample Date: *Analytical Method:* **VOCs**	5/27/2021 8260C	8/4/2022 8021B					**VGES**	**VIS-Residential**
Benzene	ND<1	ND<1					5	0.92
Toluene	ND<1	ND<1					1,000	-
Ethylbenzene	ND<1	ND<1					700	2.2
Xylenes (total)	ND<1	ND<1					10,000	-
TOTAL BTEX	ND	ND					-	-
MtBE	ND<1	ND<1					11	-
1,3,5-Trimethylbenzene	ND<1	ND<1						330
1,2,4-Trimethylbenzene	ND<1	ND<1					23	470
1,2,3-Trimethyl benzene	ND<1	ND<1						790
Naphthalene	ND<0.5	ND<0.5					0.5	4
TOTAL TARGETED VOCs	ND	ND					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW21-02

Sample Date: *Analytical Method:* **VOCs**	5/27/2021 8260C	8/4/2022 8021B					**VGES**	**VIS-Residential**
Benzene	ND<5	ND<5					5	0.92
Toluene	**10**	ND<5					1,000	-
Ethylbenzene	**460**	**190**					700	2.2
Xylenes (total)	**1,140**	**452**					10,000	-
TOTAL BTEX	**1,610**	**642**					-	-
MtBE	ND<5	ND<5					11	-
1,3,5-Trimethylbenzene	**290**	**220**					23	330
1,2,4-Trimethylbenzene	**1,200**	**850**						470
1,2,3-Trimethyl benzene	**340**	**270**						790
Naphthalene	**210**	**93**					0.5	4
IsoPropylbenzene	**96**	-					-	-
n-Propylbenzene	**350**	-					-	-
sec-Butylbenzene	**43**	-					-	-
p-Isopropyltoluene	**26**	-					-	-
TOTAL TARGETED VOCs	**4,165**	**2,075**					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW21-04

Sample Date: / *Analytical Method:* **VOCs**	5/27/2021 8260C	8/4/2022 8021B					**VGES**	**VIS-Residential**
Benzene	ND<1	ND<1					5	0.92
Toluene	ND<1	ND<1					1,000	-
Ethylbenzene	ND<1	ND<1					700	2.2
Xylenes (total)	ND<1	ND<1					10,000	-
TOTAL BTEX	ND	ND					-	-
MtBE	ND<1	ND<1					11	-
1,3,5-Trimethylbenzene	ND<1	ND<1						330
1,2,4-Trimethylbenzene	ND<1	ND<1					23	470
1,2,3-Trimethyl benzene	ND<1	ND<1						790
Naphthalene	ND<0.5	ND<0.5					0.5	4
TOTAL TARGETED VOCs	ND	ND					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW21-05

Sample Date: / *Analytical Method:* / **VOCs**	5/27/2021 8260C	8/4/2022 8021B					**VGES**	**VIS-Residential**
Benzene	ND<1	ND<1					5	0.92
Toluene	ND<1	ND<1					1,000	-
Ethylbenzene	ND<1	ND<1					700	2.2
Xylenes (total)	ND<1	ND<1					10,000	-
TOTAL BTEX	ND	ND					-	-
MtBE	ND<1	ND<1					11	-
1,3,5-Trimethylbenzene	ND<1	ND<1					23	330
1,2,4-Trimethylbenzene	ND<1	ND<1						470
1,2,3-Trimethyl benzene	ND<1	ND<1						790
Naphthalene	ND<0.5	ND<0.5					0.5	4
TOTAL TARGETED VOCs	ND	ND					-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW22-01

Sample Date: *Analytical Method:* **VOCs**	8/4/2022 8021B						**VGES**	**VIS-Residential**
Benzene	ND<5						5	0.92
Toluene	ND<5						1,000	-
Ethylbenzene	ND<5						700	2.2
Xylenes (total)	ND<5						10,000	-
TOTAL BTEX	ND						-	-
MtBE	ND<5						11	-
1,3,5-Trimethylbenzene	**70**							330
1,2,4-Trimethylbenzene	**49**						23	470
1,2,3-Trimethyl benzene	**19**							790
Naphthalene	ND<3						0.5	4
TOTAL TARGETED VOCs	**138**						-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW22-02

Sample Date: *Analytical Method:* **VOCs**	8/4/2022 8021B						**VGES**	**VIS-Residential**
Benzene	ND<5						5	0.92
Toluene	ND<5						1,000	-
Ethylbenzene	ND<5						700	2.2
Xylenes (total)	ND<5						10,000	-
TOTAL BTEX	ND						-	-
MtBE	ND<5						11	-
1,3,5-Trimethylbenzene	**17**							330
1,2,4-Trimethylbenzene	**22**						23	470
1,2,3-Trimethyl benzene	ND<5							790
Naphthalene	ND<3						0.5	4
TOTAL TARGETED VOCs	**39**						-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW22-03

Sample Date: / *Analytical Method:* / **VOCs**	8/4/2022 8021B						**VGES**	**VIS-Residential**
Benzene	ND<1						5	0.92
Toluene	ND<1						1,000	-
Ethylbenzene	ND<1						700	2.2
Xylenes (total)	ND<1						10,000	-
TOTAL BTEX	ND						-	-
MtBE	ND<1						11	-
1,3,5-Trimethylbenzene	ND<1							330
1,2,4-Trimethylbenzene	ND<1						23	470
1,2,3-Trimethyl benzene	ND<1							790
Naphthalene	ND<0.5						0.5	4
TOTAL TARGETED VOCs	ND						-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW22-04

Sample Date: *Analytical Method:* **VOCs**	8/4/2022 8021B						**VGES**	**VIS-Residential**
Benzene	ND<1						5	0.92
Toluene	ND<1						1,000	-
Ethylbenzene	ND<1						700	2.2
Xylenes (total)	**2.2**						10,000	-
TOTAL BTEX	**2.2**						-	-
MtBE	ND<1						11	-
1,3,5-Trimethylbenzene	**1.1**							330
1,2,4-Trimethylbenzene	ND<1						23	470
1,2,3-Trimethyl benzene	**2.1**							790
Naphthalene	ND<0.5						0.5	4
TOTAL TARGETED VOCs	**5.4**						-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW22-05

Sample Date: / *Analytical Method:* / **VOCs**	8/4/2022 8021B						**VGES**	**VIS-Residential**
Benzene	ND<5						5	0.92
Toluene	ND<5						1,000	-
Ethylbenzene	**24**						700	2.2
Xylenes (total)	**32**						10,000	-
TOTAL BTEX	**56**						-	-
MtBE	ND<5						11	-
1,3,5-Trimethylbenzene	**6.8**							330
1,2,4-Trimethylbenzene	ND<5						23	470
1,2,3-Trimethyl benzene	**150**							790
Naphthalene	**46**						0.5	4
TOTAL TARGETED VOCs	**259**						-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

Water Quality Summary

Former Daniel Fagers Facility
Bennington, VT

MW22-06

Sample Date: *Analytical Method:* **VOCs**	8/4/2022 8021B						**VGES**	**VIS-Residential**
Benzene	ND<1						5	0.92
Toluene	ND<1						1,000	-
Ethylbenzene	**6.5**						700	2.2
Xylenes (total)	**6.7**						10,000	-
TOTAL BTEX	**13.2**						-	-
MtBE	ND<1						11	-
1,3,5-Trimethylbenzene	**2.1**							330
1,2,4-Trimethylbenzene	ND<1						23	470
1,2,3-Trimethyl benzene	**21**							790
Naphthalene	**4.7**						0.5	4
TOTAL TARGETED VOCs	**41**						-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
Shaded values meet or exceed VGES.

QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) SAMPLES

Sample Date *Method* PARAMETER	**Trip Blank** 8/4/22 8021B	**MW-1R** 8/4/22 8021B	**Duplicate** 8/4/22 8021B	**RPD *** % 	**VGES** 	**VIS - Residential**
Benzene	ND<1	**130**	**120**	**8.0**	5	0.92
Toluene	ND<1	**1,200**	**1,100**	**8.7**	1,000	-
Ethylbenzene	ND<1	**2,200**	**2,000**	**9.5**	700	2.2
Xylenes, total	ND<1	**6,900**	**6,500**	**6.0**	10,000	-
TOTAL BTEX	ND	**10,430**	**9,720**	**7.0**	-	-
MtBE	ND<1	ND<10	ND<10	**-**	11	-
1,3,5-Trimethylbenzene	ND<1	**290**	**250**	**14.8**		330
1,2,3-Trimethylbenzene	ND<1	**1,800**	**1,600**	**11.8**	23	790
1,2,4-Trimethylbenzene	ND<1	**470**	**430**	**8.9**		470
Naphthalene	ND<0.5	**270**	**260**	**3.8**	0.5	4
TOTAL TARGETED VOCs	ND	**13,260**	**12,260**	**7.84**	-	-

NOTES:
All values reported in ug/L
Only Method 8021B compounds and reported compounds are included in the table
VGES = Vermont Groundwater Enforcement Standard (GWPRS 07/06/2019)
VIS = Vapor Intrusion Standard (I-Rule 07/06/2019)
ND - None detected above sample-specific compound detection limit
Bold font indicates a detected concentration.
Bold (italic) indicate values exceed VIS and the well is located within (or near) the inclusion zone specified in the Vapor Intrusion Guidance (3/04/2020).
*** RPD** = The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates good correlation between sample and duplicate.

Appendix E

Analytical Laboratory Report

Eastern Analytical, Inc.
professional laboratory and drilling services

Haley Grigel
KAS, Inc.
PO Box 787
Williston , VT 05495

Laboratory Report for:

Eastern Analytical, Inc. ID: 246164
Client Identification: Former Daniel Fagers Facility / 405050204
Date Received: 7/15/2022

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — 7.28.22 Date

SAMPLE CONDITIONS PAGE

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Temperature upon receipt (°C): 2.5 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
246164.01	SB22-01 (17.5-19')	7/15/22	7/12/22 09:58	soil	87.2	Adheres to Sample Acceptance Policy
246164.02	SB22-02 (20')	7/15/22	7/12/22 13:28	soil	87.9	Adheres to Sample Acceptance Policy
246164.03	SB22-04 (12-13')	7/15/22	7/13/22 08:31	soil	78.4	Adheres to Sample Acceptance Policy
246164.04	SB22-05 (13-14')	7/15/22	7/13/22 10:36	soil	85.8	Adheres to Sample Acceptance Policy
246164.05	SB22-06 (13-14')	7/15/22	7/13/22 12:08	soil	85.1	Adheres to Sample Acceptance Policy
246164.06	Waste	7/15/22	7/13/22 12:40	soil	86.5	Adheres to Sample Acceptance Policy
246164.07	Trip Blank	7/15/22	7/13/22 00:00	soil	100.0	Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	SB22-01 (17.5-19')	Trip Blank
Lab Sample ID:	246164.01	246164.07
Matrix:	soil	soil
Date Sampled:	7/12/22	7/13/22
Date Received:	7/15/22	7/15/22
Units:	mg/kg	mg/kg
Date of Analysis:	7/21/22	7/21/22
Analyst:	DGM	DGM
Method:	8260C	8260C
Dilution Factor:	7	1
Dichlorodifluoromethane	< 0.7	< 0.1
Chloromethane	< 0.7	< 0.1
Vinyl chloride	< 0.1	< 0.02
Bromomethane	< 0.7	< 0.1
Chloroethane	< 0.7	< 0.1
Trichlorofluoromethane	< 0.7	< 0.1
Diethyl Ether	< 0.4	< 0.05
Acetone	< 10	< 2
1,1-Dichloroethene	< 0.4	< 0.05
Methylene chloride	< 0.7	< 0.1
Carbon disulfide	< 0.7	< 0.1
Methyl-t-butyl ether(MTBE)	< 0.7	< 0.1
trans-1,2-Dichloroethene	< 0.4	< 0.05
1,1-Dichloroethane	< 0.4	< 0.05
2,2-Dichloropropane	< 0.4	< 0.05
cis-1,2-Dichloroethene	< 0.4	< 0.05
2-Butanone(MEK)	< 4	< 0.5
Bromochloromethane	< 0.4	< 0.05
Tetrahydrofuran(THF)	< 4	< 0.5
Chloroform	< 0.4	< 0.05
1,1,1-Trichloroethane	< 0.4	< 0.05
Carbon tetrachloride	< 0.4	< 0.05
1,1-Dichloropropene	< 0.4	< 0.05
Benzene	< 0.4	< 0.05
1,2-Dichloroethane	< 0.4	< 0.05
Trichloroethene	< 0.4	< 0.05
1,2-Dichloropropane	< 0.4	< 0.05
Dibromomethane	< 0.4	< 0.05
Bromodichloromethane	< 0.4	< 0.05
4-Methyl-2-pentanone(MIBK)	< 4	< 0.5
cis-1,3-Dichloropropene	< 0.4	< 0.05
Toluene	< 0.4	< 0.05
trans-1,3-Dichloropropene	< 0.4	< 0.05
1,1,2-Trichloroethane	< 0.4	< 0.05
2-Hexanone	< 0.7	< 0.1
Tetrachloroethene	< 0.4	< 0.05
1,3-Dichloropropane	< 0.4	< 0.05
Dibromochloromethane	< 0.4	< 0.05
1,2-Dibromoethane(EDB)	< 0.1	< 0.02
Chlorobenzene	< 0.4	< 0.05
1,1,1,2-Tetrachloroethane	< 0.4	< 0.05
Ethylbenzene	< 0.4	< 0.05
mp-Xylene	< 0.4	< 0.05
o-Xylene	< 0.4	< 0.05
Styrene	< 0.4	< 0.05
Bromoform	< 0.4	< 0.05

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	SB22-01 (17.5-19')	Trip Blank
Lab Sample ID:	246164.01	246164.07
Matrix:	soil	soil
Date Sampled:	7/12/22	7/13/22
Date Received:	7/15/22	7/15/22
Units:	mg/kg	mg/kg
Date of Analysis:	7/21/22	7/21/22
Analyst:	DGM	DGM
Method:	8260C	8260C
Dilution Factor:	7	1
IsoPropylbenzene	< 0.4	< 0.05
Bromobenzene	< 0.4	< 0.05
1,1,2,2-Tetrachloroethane	< 0.4	< 0.05
1,2,3-Trichloropropane	< 0.4	< 0.05
n-Propylbenzene	**2.8**	< 0.05
2-Chlorotoluene	< 0.4	< 0.05
4-Chlorotoluene	< 0.4	< 0.05
1,3,5-Trimethylbenzene	**2.0**	< 0.05
tert-Butylbenzene	< 0.4	< 0.05
1,2,4-Trimethylbenzene	**1.4**	< 0.05
sec-Butylbenzene	**1.1**	< 0.05
1,3-Dichlorobenzene	< 0.4	< 0.05
1,2,3-Trimethylbenzene	< 0.4	< 0.05
p-Isopropyltoluene	**0.74**	< 0.05
1,4-Dichlorobenzene	< 0.4	< 0.05
1,2-Dichlorobenzene	< 0.4	< 0.05
n-Butylbenzene	< 0.4	< 0.05
1,2-Dibromo-3-chloropropane	< 0.4	< 0.05
1,2,4-Trichlorobenzene	< 0.4	< 0.05
Hexachlorobutadiene	< 0.4	< 0.05
Naphthalene	< 0.7	< 0.1
1,2,3-Trichlorobenzene	< 0.4	< 0.05
4-Bromofluorobenzene (surr)	**101 %R**	**100 %R**
1,2-Dichlorobenzene-d4 (surr)	**98 %R**	**96 %R**
Toluene-d8 (surr)	**101 %R**	**98 %R**
1,2-Dichloroethane-d4 (surr)	**105 %R**	**104 %R**

SB22-01 (17.5-19'): Sample was not screened for low-level targets due to sample matrix.

Trip Blank: The following analytes were assessed down to the listed concentrations, 1,2-Dibromo-3-Chloropropane (0.0053mg/kg), 1,2,3-Trichloropropane (0.00311mg/kg). Detectable analytes are reported as J flags and should be considered estimated values.

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	SB22-02 (20')	SB22-04 (12-13')	SB22-05 (13-14')	SB22-06 (13-14')
Lab Sample ID:	246164.02	246164.03	246164.04	246164.05
Matrix:	soil	soil	soil	soil
Date Sampled:	7/12/22	7/13/22	7/13/22	7/13/22
Date Received:	7/15/22	7/15/22	7/15/22	7/15/22
Units:	mg/kg	mg/kg	mg/kg	mg/kg
Date of Analysis:	7/21/22	7/21/22	7/21/22	7/21/22
Analyst:	DGM	DGM	DGM	DGM
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	8	1
Methyl-t-butyl ether(MTBE)	< 0.1	< 0.1	< 0.8	< 0.1
Benzene	< 0.05	< 0.05	< 0.4	< 0.05
1,2-Dichloroethane	< 0.05	< 0.05	< 0.4	< 0.05
Toluene	< 0.05	< 0.05	< 0.4	< 0.05
1,2-Dibromoethane(EDB)	< 0.02	< 0.02	< 0.2	< 0.02
Ethylbenzene	< 0.05	< 0.05	< 0.4	< 0.05
mp-Xylene	< 0.05	< 0.05	< 0.4	< 0.05
o-Xylene	< 0.05	< 0.05	< 0.4	< 0.05
1,3,5-Trimethylbenzene	**0.25**	< 0.05	< 0.4	< 0.05
1,2,4-Trimethylbenzene	**0.31**	< 0.05	< 0.4	< 0.05
1,2,3-Trimethylbenzene	< 0.05	< 0.05	**4.0**	**0.11**
Naphthalene	< 0.1	< 0.1	**1.3**	< 0.1
4-Bromofluorobenzene (surr)	**105 %R**	**101 %R**	**102 %R**	**101 %R**
1,2-Dichlorobenzene-d4 (surr)	**98 %R**	**95 %R**	**98 %R**	**96 %R**
Toluene-d8 (surr)	**146 %R**	**98 %R**	**110 %R**	**99 %R**

GC/MS analysis was employed for the determination of the 8021 compound list.

SB22-02 (20'): Non target interference in the sample resulted in recovery outside of the acceptance control limits of 70-130%R for the surrogate Toluene-d8 (surr).

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Batch ID: 63793753270

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Dichlorodifluoromethane	< 0.1	0.76 (76 %R)	0.79 (79 %R) (4 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
Chloromethane	< 0.1	1.3 (126 %R)	1.3 (133 %R) (5 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
Vinyl chloride	< 0.02	0.99 (99 %R)	1.0 (103 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Bromomethane	< 0.1	0.95 (95 %R)	1.0 (103 %R) (8 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
Chloroethane	< 0.1	0.98 (98 %R)	1.0 (104 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Trichlorofluoromethane	< 0.1	1.2 (122 %R)	1.3 (129 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Diethyl Ether	< 0.05	0.93 (93 %R)	0.96 (96 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Acetone	< 2	< 2 (79 %R)	< 2 (82 %R) (3 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
1,1-Dichloroethene	< 0.05	1.1 (111 %R)	1.2 (117 %R) (6 RPD)	7/22/2022	mg/kg	59 - 172	20	8260C
Methylene chloride	< 0.1	1.1 (110 %R)	1.2 (116 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Carbon disulfide	< 0.1	0.90 (90 %R)	0.97 (97 %R) (7 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Methyl-t-butyl ether(MTBE)	< 0.1	0.98 (98 %R)	1.0 (104 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
trans-1,2-Dichloroethene	< 0.05	1.1 (111 %R)	1.2 (117 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,1-Dichloroethane	< 0.05	1.0 (104 %R)	1.1 (110 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
2,2-Dichloropropane	< 0.05	1.0 (103 %R)	1.1 (108 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
cis-1,2-Dichloroethene	< 0.05	1.0 (105 %R)	1.1 (111 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
2-Butanone(MEK)	< 0.5	0.74 (74 %R)	0.77 (77 %R) (4 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
Bromochloromethane	< 0.05	1.0 (100 %R)	1.1 (105 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Tetrahydrofuran(THF)	< 0.5	0.80 (80 %R)	0.83 (83 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Chloroform	< 0.05	1.1 (108 %R)	1.1 (113 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,1,1-Trichloroethane	< 0.05	1.1 (107 %R)	1.1 (113 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Carbon tetrachloride	< 0.05	1.1 (106 %R)	1.1 (112 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,1-Dichloropropene	< 0.05	1.0 (101 %R)	1.1 (106 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Benzene	< 0.05	1.1 (107 %R)	1.1 (112 %R) (5 RPD)	7/22/2022	mg/kg	66 - 142	20	8260C
1,2-Dichloroethane	< 0.05	1.0 (105 %R)	1.1 (110 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Trichloroethene	< 0.05	1.1 (108 %R)	1.1 (112 %R) (4 RPD)	7/22/2022	mg/kg	62 - 137	20	8260C
1,2-Dichloropropane	< 0.05	1.0 (100 %R)	1.1 (105 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Dibromomethane	< 0.05	1.1 (105 %R)	1.1 (111 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Bromodichloromethane	< 0.05	1.0 (103 %R)	1.1 (108 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
4-Methyl-2-pentanone(MIBK)	< 0.5	0.75 (75 %R)	0.78 (78 %R) (4 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
cis-1,3-Dichloropropene	< 0.05	0.96 (96 %R)	1.0 (101 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Toluene	< 0.05	1.1 (108 %R)	1.1 (113 %R) (4 RPD)	7/22/2022	mg/kg	59 - 139	20	8260C
trans-1,3-Dichloropropene	< 0.05	0.97 (97 %R)	1.0 (102 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,1,2-Trichloroethane	< 0.05	1.0 (104 %R)	1.1 (108 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
2-Hexanone	< 0.1	0.73 (73 %R)	0.76 (76 %R) (4 RPD)	7/22/2022	mg/kg	40 - 160	20	8260C
Tetrachloroethene	< 0.05	1.1 (111 %R)	1.2 (115 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,3-Dichloropropane	< 0.05	0.99 (99 %R)	1.0 (103 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Dibromochloromethane	< 0.05	0.96 (96 %R)	1.0 (100 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 0.02	0.99 (99 %R)	1.0 (104 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Chlorobenzene	< 0.05	1.1 (108 %R)	1.1 (113 %R) (4 RPD)	7/22/2022	mg/kg	60 - 133	20	8260C
1,1,1,2-Tetrachloroethane	< 0.05	1.0 (102 %R)	1.1 (106 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Ethylbenzene	< 0.05	1.1 (110 %R)	1.1 (115 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
mp-Xylene	< 0.05	2.2 (108 %R)	2.3 (113 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
o-Xylene	< 0.05	1.1 (110 %R)	1.1 (115 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Styrene	< 0.05	1.1 (110 %R)	1.2 (116 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Bromoform	< 0.05	0.95 (95 %R)	0.99 (99 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Batch ID: 63793753270

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
IsoPropylbenzene	< 0.05	1.1 (111 %R)	1.2 (116 %R) (4 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Bromobenzene	< 0.05	0.96 (96 %R)	1.0 (102 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,1,2,2-Tetrachloroethane	< 0.05	0.87 (87 %R)	0.93 (93 %R) (7 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2,3-Trichloropropane	< 0.05	0.87 (87 %R)	0.92 (92 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
n-Propylbenzene	< 0.05	1.0 (103 %R)	1.1 (108 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
2-Chlorotoluene	< 0.05	1.0 (101 %R)	1.1 (106 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
4-Chlorotoluene	< 0.05	1.0 (102 %R)	1.1 (108 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 0.05	1.0 (100 %R)	1.1 (106 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
tert-Butylbenzene	< 0.05	1.0 (101 %R)	1.1 (106 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 0.05	1.0 (104 %R)	1.1 (109 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
sec-Butylbenzene	< 0.05	1.1 (106 %R)	1.1 (112 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,3-Dichlorobenzene	< 0.05	1.0 (104 %R)	1.1 (110 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2,3-Trimethylbenzene	< 0.05	1.0 (100 %R)	1.1 (105 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
p-Isopropyltoluene	< 0.05	1.1 (111 %R)	1.2 (117 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,4-Dichlorobenzene	< 0.05	1.0 (104 %R)	1.1 (110 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2-Dichlorobenzene	< 0.05	1.0 (104 %R)	1.1 (110 %R) (5 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
n-Butylbenzene	< 0.05	1.1 (110 %R)	1.2 (117 %R) (6 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2-Dibromo-3-chloropropane	< 0.05	0.92 (92 %R)	0.84 (84 %R) (9 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2,4-Trichlorobenzene	< 0.05	1.1 (112 %R)	1.2 (120 %R) (7 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Hexachlorobutadiene	< 0.05	1.1 (109 %R)	1.2 (117 %R) (7 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
Naphthalene	< 0.1	0.93 (93 %R)	1.0 (100 %R) (7 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
1,2,3-Trichlorobenzene	< 0.05	1.1 (107 %R)	1.2 (116 %R) (8 RPD)	7/22/2022	mg/kg	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	99 %R	103 %R	103 %R	7/22/2022	% Rec	70 - 130	20	8260C
1,2-Dichlorobenzene-d4 (surr)	99 %R	98 %R	97 %R	7/22/2022	% Rec	70 - 130	20	8260C
Toluene-d8 (surr)	98 %R	99 %R	99 %R	7/22/2022	% Rec	70 - 130	20	8260C
1,2-Dichloroethane-d4 (surr)	107 %R	103 %R	103 %R	7/22/2022	% Rec	70 - 130	20	8260C

*/! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	SB22-01 (17.5-19')	Waste	Trip Blank
Lab Sample ID:	246164.01	246164.06	246164.07
Matrix:	soil	soil	soil
Date Sampled:	7/12/22	7/13/22	7/13/22
Date Received:	7/15/22	7/15/22	7/15/22
Units:	mg/kg	mg/kg	mg/kg
Date of Analysis:	7/25/22	7/25/22	7/25/22
Analyst:	JAK	JAK	JAK
Method:	8015Cmod	8015Cmod	8015Cmod
Dilution Factor:	7	8	1
TPH (Gasoline Range C6-C10)	**190**	**270**	< 2
FID 2,5-Dibromotoluene (surr)	**MI**	**96 %R**	**98 %R**

MI: Matrix interference.

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Batch ID: 637937-53014/S071822GRO1

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
TPH (Gasoline Range C6-C10)	< 2	23 (97 %R)	26 (107 %R) (10 RPD)	7/22/2022	mg/kg	70 - 130	30	8015Cmo
FID 2,5-Dibromotoluene (surr)	111 %R	114 %R	122 %R	7/22/2022	% Rec	70 - 130	30	8015Cmo

*/! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	Waste
Lab Sample ID:	246164.06
Matrix:	soil
Date Sampled:	7/13/22
Date Received:	7/15/22
Date Extracted:	7/25/22

	Result	Dilution Factor	Analytical Matrix	Units	Date Analyzed	Method	Analyst	TCLP Reg Limits (Leachate Conc.)	
2,4,5-Trichlorophenol	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	400000	ug/l
2,4,6-Trichlorophenol	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	2000	ug/l
Pentachlorophenol	< 100	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	100000	ug/l
2-Methylphenol	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	200000	ug/l
3/4-Methylphenol	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	200000	ug/l
1,4-Dichlorobenzene	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	7500	ug/l
Hexachloroethane	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	3000	ug/l
Hexachlorobutadiene	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	500	ug/l
Hexachlorobenzene	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	130	ug/l
Nitrobenzene	< 20	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	2000	ug/l
2,4-Dinitrotoluene	< 40	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	130	ug/l
Pyridine	< 100	20	TCLPsolid	ug/L	7/25/22	8270D	JMR	5000	ug/l
2-Fluorophenol (surr)	**39 %R**		TCLPsolid	%	7/25/22	8270D	JMR		
Phenol-d6 (surr)	**27 %R**		TCLPsolid	%	7/25/22	8270D	JMR		
2,4,6-Tribromophenol (surr)	**78 %R**		TCLPsolid	%	7/25/22	8270D	JMR		
Nitrobenzene-D5 (surr)	**70 %R**		TCLPsolid	%	7/25/22	8270D	JMR		
2-Fluorobiphenyl (surr)	**75 %R**		TCLPsolid	%	7/25/22	8270D	JMR		
p-Terphenyl-D14 (surr)	**75 %R**		TCLPsolid	%	7/25/22	8270D	JMR		

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Batch ID: 637943-31028/T072522TCLPA1

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
2,4,5-Trichlorophenol	< 1	39 (78 %R)	37 (74 %R) (6 RPD)	7/25/2022	ug/L	30 - 130	20	8270D
2,4,6-Trichlorophenol	< 1	39 (78 %R)	36 (73 %R) (6 RPD)	7/25/2022	ug/L	30 - 130	20	8270D
Pentachlorophenol	< 5	31 (62 %R)	32 (63 %R) (2 RPD)	7/25/2022	ug/L	30 - 130	20	8270D
2-Methylphenol	< 1	31 (62 %R)	29 (58 %R) (6 RPD)	7/25/2022	ug/L	30 - 130	20	8270D
3/4-Methylphenol	< 1	30 (60 %R)	28 (57 %R) (6 RPD)	7/25/2022	ug/L	30 - 130	20	8270D
1,4-Dichlorobenzene	< 1	15 (60 %R)	15 (60 %R) (0 RPD)	7/25/2022	ug/L	40 - 140	20	8270D
Hexachloroethane	< 1	14 (57 %R)	15 (60 %R) (5 RPD)	7/25/2022	ug/L	40 - 140	20	8270D
Hexachlorobutadiene	< 1	16 (65 %R)	17 (68 %R) (4 RPD)	7/25/2022	ug/L	40 - 140	20	8270D
Hexachlorobenzene	< 1	21 (83 %R)	20 (80 %R) (4 RPD)	7/25/2022	ug/L	40 - 140	20	8270D
Nitrobenzene	< 1	18 (72 %R)	17 (67 %R) (8 RPD)	7/25/2022	ug/L	40 - 140	20	8270D
2,4-Dinitrotoluene	< 2	20 (80 %R)	20 (78 %R) (2 RPD)	7/25/2022	ug/L	40 - 140	20	8270D
Pyridine	< 5	10 (42 %R)	10 (40 %R) (5 RPD)	7/25/2022	ug/L	15 - 140	20	8270D
2-Fluorophenol (surr)	42 %R	38 %R	36 %R	7/25/2022	% Rec	15 - 110	20	8270D
Phenol-d6 (surr)	29 %R	27 %R	25 %R	7/25/2022	% Rec	15 - 110	20	8270D
2,4,6-Tribromophenol (surr)	83 %R	81 %R	79 %R	7/25/2022	% Rec	15 - 110	20	8270D
Nitrobenzene-D5 (surr)	77 %R	73 %R	68 %R	7/25/2022	% Rec	30 - 130	20	8270D
2-Fluorobiphenyl (surr)	81 %R	75 %R	71 %R	7/25/2022	% Rec	30 - 130	20	8270D
p-Terphenyl-D14 (surr)	81 %R	77 %R	75 %R	7/25/2022	% Rec	30 - 130	20	8270D

*/! Flagged analyte recoveries devlated from the QA/QC llmits. Data that impacts sample results are noted on the sample report.

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	Waste
Lab Sample ID:	246164.06
Matrix:	soil
Date Sampled:	7/13/22
Date Received:	7/15/22
Units:	mg/kg
Date of Extraction/Prep:	7/20/22
Date of Analysis:	7/20/22
Analyst:	JMR
Method:	8015CDRO
Dilution Factor:	5
DRO (Diesel Range C10-C28)	< 200
p-Terphenyl-D14 (surr)	**81 %R**

Detection limits elevated due to sample matrix.

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Batch ID: 637938-99228/S072022DRO1

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
DRO (Diesel Range C10-C28)	< 30	51 (69 %R)	44 (60 %R) (14 RPD)	7/20/2022	mg/kg	30 - 160	30	8015CDR
p-Terphenyl-D14 (surr)	65 %R	77 %R	64 %R	7/20/2022	% Rec	30 - 130		8015CDR

*/! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	Waste
Lab Sample ID:	246164.06
Matrix:	soil
Date Sampled:	7/13/22
Date Received:	7/15/22
% Solid:	86.5
Units:	mg/kg
Date of Extraction/Prep:	7/20/22
Date of Analysis:	7/21/22
Analyst:	MB
Extraction Method:	3540C
Analysis Method:	8082A
Dilution Factor:	1

PCB-1016	< 0.02
PCB-1221	< 0.02
PCB-1232	< 0.02
PCB-1242	< 0.02
PCB-1248	< 0.02
PCB-1254	< 0.02
PCB-1260	< 0.02
PCB-1262	< 0.02
PCB-1268	< 0.02
TMX (surr)	**94 %R**
DCB (surr)	**76 %R**

Acid clean-up was performed on the samples and associated batch QC.

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Batch ID: 637939-09659/S072022PCB1

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
PCB-1016	< 0.02	0.13 (94 %R)	0.12 (93 %R) (1 RPD)	7/21/2022	mg/kg	40 - 140	30	8082A
PCB-1221	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
PCB-1232	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
PCB-1242	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
PCB-1248	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
PCB-1254	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
PCB-1260	< 0.02	0.12 (92 %R)	0.12 (89 %R) (4 RPD)	7/21/2022	mg/kg	40 - 140	30	8082A
PCB-1262	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
PCB-1268	< 0.02	< 0.02 (%R N/A)	< 0.02 (%R N/A) (RPD N/A)	7/21/2022	mg/kg			8082A
TMX (surr)	93 %R	96 %R	91 %R	7/21/2022	% Rec	30 - 150	30	8082A
DCB (surr)	89 %R	93 %R	87 %R	7/21/2022	% Rec	30 - 150	30	8082A

*/! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.

LABORATORY REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID: Waste

Lab Sample ID: 246164.06
Matrix: soil
Date Sampled: 7/13/22
Date Received: 7/15/22

		Analytical Matrix	Units	Date of Analysis	Method	Analyst
Arsenic	< 0.5	TCLPsolid	mg/L	7/20/22	6020A	DS
Barium	< 0.5	TCLPsolid	mg/L	7/20/22	6020A	DS
Cadmium	< 0.1	TCLPsolid	mg/L	7/20/22	6020A	DS
Chromium	< 0.1	TCLPsolid	mg/L	7/20/22	6020A	DS
Lead	< 0.5	TCLPsolid	mg/L	7/20/22	6020A	DS
Mercury	< 0.01	TCLPsolid	mg/L	7/20/22	6020A	DS
Selenium	< 0.1	TCLPsolid	mg/L	7/20/22	6020A	DS
Silver	< 0.1	TCLPsolid	mg/L	7/20/22	6020A	DS

QC REPORT

EAI ID#: **246164**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD		Units	Date of Analysis	Limits	RPD	Method
Arsenic	< 0.5	1.1 (107 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Barium	< 0.5	1.0 (104 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Cadmium	< 0.1	1.1 (106 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Chromium	< 0.1	1.0 (103 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Lead	< 0.5	1.0 (104 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Mercury	< 0.01	0.11 (108 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Selenium	< 0.1	1.1 (107 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A
Silver	< 0.1	1.1 (106 %R)		NA	mg/L	7/20/22	80 - 120	20	6020A

*/! Flagged analyte recoveries deviated from the QA/QC limits. Unless noted, flagged data does not impact the sample data.

CHAIN-OF-CUSTODY RECORD

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

246164

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 / 524.2 MTBE ONLY	VOC: 624 / 8260	VOC: VTICs	VOC: 1,4 DIOXANE	VOC: 8021	VOC: MAVPH	VOC: 8015 GRO	SVOC: 625 / 8270 PAH / ABN	SVOC: EDB	SVOC: DBCP	SVOC: TPH 8100	SVOC: LI	SVOC: L2	SVOC: MAEPH	SVOC: 8015 DRO	SVOC: PEST 608 / PEST 8081	SVOC: PCB 608 / PCB 8082	SVOC: OIL & GREASE 1664	SVOC: TPH 1664	TCLP: TCLP 1311 / TCLP VOC	TCLP: ABN / PEST	TCLP: METALS / HERB	INORGANICS: BOD / CBOD	INORGANICS: TS / TSS	INORGANICS: TDS	INORGANICS: BR / CL / F	INORGANICS: SO4 / NO2 / NO2NO3	INORGANICS: TKN / NO3 / NH3	INORGANICS: T. PHOS. / O. PHOS.	INORGANICS: pH / SPEC. CON.	INORGANICS: T. RES. CHLORINE / T. ALK.	INORGANICS: COD	INORGANICS: PHENOLS	INORGANICS: TOC	INORGANICS: DOC	INORGANICS: TOTAL CYANIDE	INORGANICS: TOTAL SULFIDE	INORGANICS: REACTIVE CYANIDE / FLASHPOINT	INORGANICS: REACTIVE SULFIDE / IGNITABILITY	MICRO: TOTAL COLIFORM / E. COLI	MICRO: FECAL COLIFORM	MICRO: ENTEROCOCCI	MICRO: HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW)	METALS: TOTAL METALS (LIST BELOW)	OTHER	OTHER	OTHER	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
SB22-01 (17.5-19')	7/12/22 958	S	G			X			X																																							1	56958
SB22-02 (20')	7/12/22 1328	↓	↓					X																																									1	56962
SB22-04 (12-13')	7/13/22 831							X																																									1	56961
SB22-05 (13-14')	7/13/22 1036							X																																									1	56959
SB22-06 (13-14')	7/13/22 1208							X																																									1	56963
Waste	7/13/22 1240	↓	↓						X	X							X		X	X																													4/5	

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Haley Grigel

COMPANY: KAS, Inc

ADDRESS: PO Box 787

CITY: Williston STATE: VT ZIP: 05495

PHONE: 802-383-0486 EXT.:

E-MAIL: HaleyG@kas-consulting.com

SITE NAME: Former Daniel Fagers Facility

PROJECT #: 405050204

STATE: NH MA ME (VT) OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 2.5 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS (YES) OR NO

ELECTRONIC OPTIONS

(PDF) (EXCEL) EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

5 Day (7 Day)

10 Day

*Pre-approval Required

SAMPLER(S): Haley Grigel

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
Haley Grigel	7/15/22	905	Mark Hells
Mark Hells	7/15/22	1:44	

METALS: (8 RCRA) 13 PP FE, MN PB, CU

OTHER METALS: TCLP

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

*SB22-01, SB22-05, Waste had PID readings >1,000 ppm and strong odors.

SITE HISTORY:

SUSPECTED CONTAMINATION: petroleum

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

(WHITE: Lab Copy GREEN: Customer Copy)

Eastern Analytical, Inc.
professional laboratory and drilling services

Haley Grigel
KAS, Inc.
PO Box 787
Williston , VT 05495

Laboratory Report for:

Eastern Analytical, Inc. ID: 247237
Client Identification: Former Daniel Fagers Facility / 405050204
Date Received: 8/5/2022

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072), West Virginia (9910C) and Alabama (41620). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — Date: 8.18.22

SAMPLE CONDITIONS PAGE

EAI ID#: **247237**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Temperature upon receipt (°C): 0.1 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled		Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
247237.01	MW-4	8/5/22	8/4/22	13:05	aqueous		Adheres to Sample Acceptance Policy
247237.02	MW-5	8/5/22	8/4/22	12:30	aqueous		Adheres to Sample Acceptance Policy
247237.03	MW-6	8/5/22	8/4/22	13:20	aqueous		Adheres to Sample Acceptance Policy
247237.04	MW-1R	8/5/22	8/4/22	11:30	aqueous		Adheres to Sample Acceptance Policy
247237.05	Duplicate	8/5/22	8/4/22	11:30	aqueous		Adheres to Sample Acceptance Policy
247237.06	MW-2RW	8/5/22	8/4/22	13:27	aqueous		Adheres to Sample Acceptance Policy
247237.07	MW21-01	8/5/22	8/4/22	11:52	aqueous		Adheres to Sample Acceptance Policy
247237.08	MW21-02	8/5/22	8/4/22	11:10	aqueous		Adheres to Sample Acceptance Policy
247237.09	MW21-04	8/5/22	8/4/22	12:10	aqueous		Adheres to Sample Acceptance Policy
247237.1	MW21-05	8/5/22	8/4/22	12:45	aqueous		Adheres to Sample Acceptance Policy
247237.11	MW22-01	8/5/22	8/4/22	09:45	aqueous		Adheres to Sample Acceptance Policy
247237.12	MW22-02	8/5/22	8/4/22	09:45	aqueous		Adheres to Sample Acceptance Policy
247237.13	MW22-03	8/5/22	8/4/22	10:16	aqueous		Adheres to Sample Acceptance Policy
247237.14	MW22-04	8/5/22	8/4/22	10:13	aqueous		Adheres to Sample Acceptance Policy
247237.15	MW22-05	8/5/22	8/4/22	10:36	aqueous		Adheres to Sample Acceptance Policy
247237.16	MW22-06	8/5/22	8/4/22	10:40	aqueous		Adheres to Sample Acceptance Policy
247237.17	Trip Blank	8/5/22	8/4/22	00:00	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	MW-4	MW-5	MW-6	MW-1R
Lab Sample ID:	247237.01	247237.02	247237.03	247237.04
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/4/22	8/4/22	8/4/22	8/4/22
Date Received:	8/5/22	8/5/22	8/5/22	8/5/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	8/8/22	8/8/22	8/8/22	8/8/22
Analyst:	SG	SG	SG	SG
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	5	10
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 5	< 10
Benzene	< 1	< 1	**32**	**130**
1,2-Dichloroethane	< 1	< 1	< 5	< 10
Toluene	< 1	< 1	**13**	**1200**
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 3	< 5
Ethylbenzene	< 1	< 1	**150**	**2200**
mp-Xylene	< 1	< 1	**1200**	**4700**
o-Xylene	< 1	< 1	**9.6**	**2200**
1,3,5-Trimethylbenzene	< 1	< 1	**51**	**290**
1,2,4-Trimethylbenzene	< 1	< 1	**220**	**1800**
1,2,3-Trimethylbenzene	< 1	< 1	**52**	**470**
Naphthalene	< 0.5	< 0.5	**23**	**270**
4-Bromofluorobenzene (surr)	**98 %R**	**110 %R**	**99 %R**	**104 %R**
1,2-Dichlorobenzene-d4 (surr)	**100 %R**	**102 %R**	**99 %R**	**100 %R**
Toluene-d8 (surr)	**93 %R**	**96 %R**	**95 %R**	**96 %R**

GC/MS analysis was employed for the determination of the 8021 compound list.

Naphthalene exhibited recovery below acceptance limits in the Quality Control sample(s).

LABORATORY REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	Duplicate	MW-2RW	MW21-01	MW21-02
Lab Sample ID:	247237.05	247237.06	247237.07	247237.08
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/4/22	8/4/22	8/4/22	8/4/22
Date Received:	8/5/22	8/5/22	8/5/22	8/5/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	8/8/22	8/8/22	8/8/22	8/8/22
Analyst:	SG	SG	SG	SG
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	10	10	1	5
Methyl-t-butyl ether(MTBE)	< 10	< 10	< 1	< 5
Benzene	**120**	< 10	< 1	< 5
1,2-Dichloroethane	< 10	< 10	< 1	< 5
Toluene	**1100**	**12**	< 1	< 5
1,2-Dibromoethane(EDB)	< 5	< 5	< 0.5	< 3
Ethylbenzene	**2000**	**1300**	< 1	**190**
mp-Xylene	**4400**	**4500**	< 1	**410**
o-Xylene	**2100**	**41**	< 1	**42**
1,3,5-Trimethylbenzene	**250**	**940**	< 1	**220**
1,2,4-Trimethylbenzene	**1600**	**2500**	< 1	**850**
1,2,3-Trimethylbenzene	**430**	**750**	< 1	**270**
Naphthalene	**260**	**700**	**2.0**	**93**
4-Bromofluorobenzene (surr)	**103 %R**	**102 %R**	**100 %R**	**103 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**101 %R**	**100 %R**	**101 %R**
Toluene-d8 (surr)	**95 %R**	**93 %R**	**95 %R**	**98 %R**

GC/MS analysis was employed for the determination of the 8021 compound list.

Naphthalene exhibited recovery below acceptance limits in the Quality Control sample(s).

LABORATORY REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	MW21-04	MW21-05	MW22-01	MW22-02
Lab Sample ID:	247237.09	247237.1	247237.11	247237.12
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/4/22	8/4/22	8/4/22	8/4/22
Date Received:	8/5/22	8/5/22	8/5/22	8/5/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	8/8/22	8/8/22	8/9/22	8/9/22
Analyst:	SG	SG	SG	SG
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	5	5
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 5	< 5
Benzene	< 1	< 1	< 5	< 5
1,2-Dichloroethane	< 1	< 1	< 5	< 5
Toluene	< 1	< 1	< 5	< 5
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 3	< 3
Ethylbenzene	< 1	< 1	< 5	< 5
mp-Xylene	< 1	< 1	< 5	< 5
o-Xylene	< 1	< 1	< 5	< 5
1,3,5-Trimethylbenzene	< 1	< 1	**70**	**17**
1,2,4-Trimethylbenzene	< 1	< 1	**49**	**22**
1,2,3-Trimethylbenzene	< 1	< 1	**19**	< 5
Naphthalene	**0.60**	< 0.5	< 3	< 3
4-Bromofluorobenzene (surr)	**104 %R**	**98 %R**	**120 %R**	**139 %R**
1,2-Dichlorobenzene-d4 (surr)	**101 %R**	**100 %R**	**99 %R**	**100 %R**
Toluene-d8 (surr)	**95 %R**	**96 %R**	**99 %R**	**103 %R**

GC/MS analysis was employed for the determination of the 8021 compound list.

Naphthalene exhibited recovery below acceptance limits in the Quality Control sample(s).

MW22-02: The surrogate 4-Bromofluorobenzene (surr) in the sample(s) demonstrated recovery outside of the acceptance control limits of 70-130%.

LABORATORY REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	MW22-03	MW22-04	MW22-05	MW22-06
Lab Sample ID:	247237.13	247237.14	247237.15	247237.16
Matrix:	aqueous	aqueous	aqueous	aqueous
Date Sampled:	8/4/22	8/4/22	8/4/22	8/4/22
Date Received:	8/5/22	8/5/22	8/5/22	8/5/22
Units:	ug/L	ug/L	ug/L	ug/L
Date of Analysis:	8/8/22	8/8/22	8/9/22	8/8/22
Analyst:	SG	SG	SG	SG
Method:	8260C	8260C	8260C	8260C
Dilution Factor:	1	1	5	1
Methyl-t-butyl ether(MTBE)	< 1	< 1	< 5	< 1
Benzene	< 1	< 1	< 5	< 1
1,2-Dichloroethane	< 1	< 1	< 5	< 1
Toluene	< 1	< 1	< 5	< 1
1,2-Dibromoethane(EDB)	< 0.5	< 0.5	< 3	< 0.5
Ethylbenzene	< 1	< 1	**24**	**6.5**
mp-Xylene	< 1	**2.2**	**32**	**6.7**
o-Xylene	< 1	< 1	< 5	< 1
1,3,5-Trimethylbenzene	< 1	**1.1**	**6.8**	**2.1**
1,2,4-Trimethylbenzene	< 1	< 1	< 5	< 1
1,2,3-Trimethylbenzene	< 1	**2.1**	**150**	**21**
Naphthalene	< 0.5	< 0.5	**46**	**4.7**
4-Bromofluorobenzene (surr)	**103 %R**	**107 %R**	**126 %R**	**105 %R**
1,2-Dichlorobenzene-d4 (surr)	**99 %R**	**100 %R**	**100 %R**	**99 %R**
Toluene-d8 (surr)	**94 %R**	**98 %R**	**98 %R**	**97 %R**

GC/MS analysis was employed for the determination of the 8021 compound list.

Naphthalene exhibited recovery below acceptance limits in the Quality Control sample(s).

LABORATORY REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Client Designation: **Former Daniel Fagers Facility / 405050204**

Sample ID:	Trip Blank
Lab Sample ID:	247237.17
Matrix:	aqueous
Date Sampled:	8/4/22
Date Received:	8/5/22
Units:	ug/L
Date of Analysis:	8/8/22
Analyst:	SG
Method:	8260C
Dilution Factor:	1
Methyl-t-butyl ether(MTBE)	< 1
Benzene	< 1
1,2-Dichloroethane	< 1
Toluene	< 1
1,2-Dibromoethane(EDB)	< 0.5
Ethylbenzene	< 1
mp-Xylene	< 1
o-Xylene	< 1
1,3,5-Trimethylbenzene	< 1
1,2,4-Trimethylbenzene	< 1
1,2,3-Trimethylbenzene	< 1
Naphthalene	< 0.5
4-Bromofluorobenzene (surr)	**110 %R**
1,2-Dichlorobenzene-d4 (surr)	**102 %R**
Toluene-d8 (surr)	**92 %R**

GC/MS analysis was employed for the determination of the 8021 compound list.

QC REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Batch ID: 637955-65518/A080822vVT801

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Methyl-t-butyl ether(MTBE)	< 1	20 (102 %R)	21 (104 %R) (1 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
Benzene	< 1	20 (102 %R)	21 (106 %R) (4 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	20 (100 %R)	20 (101 %R) (2 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
Toluene	< 1	18 (92 %R)	19 (97 %R) (5 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 0.5	19 (97 %R)	20 (100 %R) (3 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
Ethylbenzene	< 1	19 (95 %R)	20 (100 %R) (5 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	38 (94 %R)	40 (100 %R) (6 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
o-Xylene	< 1	19 (94 %R)	20 (101 %R) (8 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	18 (91 %R)	19 (97 %R) (7 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	19 (94 %R)	20 (100 %R) (6 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
1,2,3-Trimethylbenzene	< 1	18 (90 %R)	19 (95 %R) (6 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
Naphthalene	< 0.5	14 (71 %R)	15 (74 %R) (4 RPD)	8/8/2022	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	98 %R	98 %R	102 %R	8/8/2022	% Rec	70 - 130	50	8260C
1,2-Dichlorobenzene-d4 (surr)	99 %R	98 %R	99 %R	8/8/2022	% Rec	70 - 130	50	8260C
Toluene-d8 (surr)	101 %R	94 %R	95 %R	8/8/2022	% Rec	70 - 130	50	8260C

*/! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.

QC REPORT

EAI ID#: **247237**

Client: **KAS, Inc.**

Batch ID: 637956-58601/A080922vVT801

Client Designation: **Former Daniel Fagers Facility / 405050204**

Parameter Name	Blank	LCS	LCSD	Analysis Date	Units	Limits	RPD	Method
Methyl-t-butyl ether(MTBE)	< 1	21 (103 %R)	21 (105 %R) (2 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
Benzene	< 1	21 (103 %R)	21 (106 %R) (3 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
1,2-Dichloroethane	< 1	19 (97 %R)	20 (100 %R) (2 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
Toluene	< 1	18 (92 %R)	19 (96 %R) (4 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
1,2-Dibromoethane(EDB)	< 0.5	19 (94 %R)	20 (98 %R) (4 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
Ethylbenzene	< 1	19 (95 %R)	20 (99 %R) (4 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
mp-Xylene	< 1	38 (95 %R)	40 (99 %R) (4 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
o-Xylene	< 1	20 (98 %R)	20 (102 %R) (4 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
1,3,5-Trimethylbenzene	< 1	18 (92 %R)	20 (99 %R) (7 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
1,2,4-Trimethylbenzene	< 1	19 (94 %R)	20 (101 %R) (7 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
1,2,3-Trimethylbenzene	< 1	18 (90 %R)	19 (96 %R) (6 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
Naphthalene	< 0.5	15 (75 %R)	17 (84 %R) (11 RPD)	8/9/2022	ug/L	70 - 130	20	8260C
4-Bromofluorobenzene (surr)	101 %R	104 %R	104 %R	8/9/2022	% Rec	70 - 130	50	8260C
1,2-Dichlorobenzene-d4 (surr)	99 %R	101 %R	100 %R	8/9/2022	% Rec	70 - 130	50	8260C
Toluene-d8 (surr)	94 %R	93 %R	94 %R	8/9/2022	% Rec	70 - 130	50	8260C

*/! Flagged analyte recoveries deviated from the QA/QC limits. Data that impacts sample results are noted on the sample report.

CHAIN-OF-CUSTODY RECORD

247237

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2; 8260; 624; VTICs; 1, 4 DIOXANE; (8021); MAVPH; 8015 GRO	SVOC: 8270; 625; ABN; PAH; EDB; DBCP; TPH8100; LI; L2; 8015 DRO; MAEPH; PEST 608; PEST 8081; PCB 608; PCB 8082; OIL & GREASE; 1664; TPH 1664	TCLP: TCLP 1311; VOC; ABN; PEST; METALS; HERB	INORGANICS: CBOD; BOD; TS; TSS; TDS; BR; CL; F; SO4; NO2; NO3; NH3; TKN; TN; T. PHOS.; O. PHOS.; PH; SPEC. CON.; T. RES.; CHLORINE; T. ALK.; COD; PHENOLS; TOC; DOC; TOTAL CYANIDE; TOTAL SULFIDE; REACTIVE CYANIDE; REACTIVE SULFIDE; FLASHPOINT; IGNITABILITY	MICRO: TOTAL COLIFORM; E. COLI; FECAL COLIFORM; ENTEROCOCCI; HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
MW-4	5/4/22 13:05	GW	G			X						3	
MW-5	12:30												
MW-6	13:20												
MW-1R	11:30												
Duplicate	11:30												
MW-2RW	13:27												
MW21-01	11:52												
MW21-02	11:10												
MW21-04	12:10												
MW21-05	12:45												

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Haley Grigel

COMPANY: Kas inc

ADDRESS: 589 Avenue D, Ste 10

CITY: Williston STATE: VT ZIP: 05495

PHONE: 802-383-0486 EXT.: 111

E-MAIL: HaleyG@kas-consulting.com

SITE NAME: Former Daniel Fagert Facility

PROJECT #: 405050204

STATE: NH MA ME (VT) OTHER:

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER:

QUOTE #: PO #:

QA/QC REPORTING

A B C

MA MCP

TEMP. 0.1 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: (YES) OR NO

ELECTRONIC OPTIONS

(PDF) (EXCEL)

EQUIS

OTHER

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

5 Day 7 Day

(10 Day)

*Pre-approval Required

SAMPLER(S): Alec Molornik, Kristen Gill

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	5/5/22	8:35	Mark Hollis
Mark Hollis	5/5/22	12:35	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS:

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY:

SUSPECTED CONTAMINATION:

FIELD READINGS:

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

(WHITE: Lab Copy GREEN: Customer Copy)

CHAIN-OF-CUSTODY RECORD

247237

BOLD FIELDS REQUIRED. PLEASE CIRCLE REQUESTED ANALYSIS.

SAMPLE I.D.	SAMPLING DATE/TIME *IF COMPOSITE, INDICATE BOTH START & FINISH DATE/TIME	MATRIX (SEE BELOW)	GRAB/*COMPOSITE	VOC: 524.2 MTBE ONLY; 524.2 VTICs; 8260 624; 1,4 DIOXANE; (8021); 8015 GRO MAVPH	SVOC: 8270 625 ABN PAH EDB DBCP; TPH8100 LI L2; 8015 DRO MAEPH; PEST 608 PEST 8081 PCB 608 PCB 8082; OIL & GREASE 1664 TPH 1664	TCLP: TCLP 1311 ABN METALS VOC PEST HERB	INORGANICS: BOD CBOD TS TSS TDS; BR CL F SO4 NO2 NO3 NO3NO2; TKN NH3 TN T. PHOS. O. PHOS.; PH T. RES. CHLORINE SPEC. CON. T. ALK.; COD PHENOLS TOC DOC; TOTAL CYANIDE TOTAL SULFIDE; REACTIVE CYANIDE REACTIVE SULFIDE FLASHPOINT IGNITABILITY	MICRO: TOTAL COLIFORM E. COLI FECAL COLIFORM; ENTEROCOCCI HETEROTROPHIC PLATE COUNT	METALS: DISSOLVED METALS (LIST BELOW); TOTAL METALS (LIST BELOW)	OTHER	# OF CONTAINERS	NOTES MEOH VIAL #
MW22-01	8/4/22 9:45	GW	G	X								3
MW22-02	9:45											
MW22-03	10:16											
MW22-04	10:13											
MW22-05	10:36											
MW22-06	10:40											
Trip blank	Lab prepared											2

MATRIX: A-AIR; S-SOIL; GW-GROUND WATER; SW-SURFACE WATER; DW-DRINKING WATER; WW-WASTE WATER

PRESERVATIVE: H-HCL; N-HNO_3; S-H_2SO_4; Na-NaOH; M-MEOH

PROJECT MANAGER: Haley Grigel

COMPANY: Kas inc

ADDRESS: 589 Avenue D, Ste 10

CITY: Williston STATE: VT ZIP: 05495

PHONE: 802-383-0486 EXT.: 111

E-MAIL: HaleyG@kas-consulting.com

SITE NAME: Former Daniel Fuggers Facility

PROJECT #: 405050204

STATE: NH MA ME (VT) OTHER: _____

REGULATORY PROGRAM: NPDES: RGP POTW STORMWATER OR GWP, OIL FUND, BROWNFIELD OR OTHER: _____

QUOTE #: _____ PO #: _____

QA/QC REPORTING

A B C

MA MCP

TEMP. 0.1 °C

ICE? (YES) NO

REPORTING OPTIONS

PRELIMS: (YES) OR NO

ELECTRONIC OPTIONS

(PDF) (EXCEL)

EQUIS

OTHER _____

TURN AROUND TIME

24hr* 48hr*

3-4 Days*

5 Day 7 Day

(10 Day)

*Pre-approval Required

SAMPLER(S): Alec Moloznik, Kristen Gill

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	8/5/22	8:35	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:
	8/5/22	12:45	
RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:

METALS: 8 RCRA 13 PP FE, MN PB, CU

OTHER METALS: _____

SAMPLES FIELD FILTERED? ☐ YES ☐ NO

NOTES: (IE: SPECIAL DETECTION LIMITS, BILLING INFO, IF DIFFERENT)

SITE HISTORY: _____

SUSPECTED CONTAMINATION: _____

FIELD READINGS: _____

Eastern Analytical, Inc.
professional laboratory and drilling services
51 Antrim Avenue | CONCORD, NH 03301 | TEL: 603.228.0525 | 1.800.287.0525 | E-MAIL: CUSTOMERSERVICE@EASTERNANALYTICAL.COM | WWW.EASTERNANALYTICAL.COM

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Appendix F

Field Notes

PROJECT: Fmr Daniel Rogers Facility 551
Project No.: 405050204

PAGE 1 OF 2

Log of Soil Boring SB22-01

Site location: 1092 N Bennington Rd
Logged by: HG
Date: 7/12/22 Time: 840
Checked by:
Drilling Co.: T+K Method: HSA
Hammer weight/drop: Hammer type:
Sampler type: Split spoon Total depth: 24' Boring diameter: 2"

Site sketch (required):

SAMPLES OVM (ppm)	Blow Count	Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
		AUGERED			1	Ground Surface Elevation: feet Depth 10-12 ID sand-silt-gravel GW GP GM SW SP SM SC ML CL OL CH OH 40 % G (gravel) 30 % S (sand) (fine,med,coarse) 30 % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: broken rock
					2	
					3	
					4	
					5	Depth 12-13.5 ID silt-gravel-sand GW GP GM SW SP SM SC ML CL OL CH OH 40 % G (gravel) 20 % S (sand) (fine,med,coarse) 40 % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: moist 13' could be water table
					6	
					7	
					8	Depth 15-17 ID sand w/ gravel GW GP GM SW SP SM SC ML CL OL CH OH 50 % G (gravel) 50 % S (sand) (fine,med,coarse) % F (fines) Color: brown-black Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: dark staining
	24				9	
	19				10	
0.3	16	15			11	
	17				12	
	26				13	Depth 17-19 ID river gravel GW GP GM SW SP SM SC ML CL OL CH OH 100 % G (gravel) % S (sand) (fine,med,coarse) % F (fines) Color: black Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: sheen on soil + water dark staining
1.7	27	16			14	
	20				15	
	50				16	
	40				17	Depth ID GW GP GM SW SP SM SC ML CL OL CH OH % G (gravel) % S (sand) (fine,med,coarse) % F (fines) Color: Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
1037	31	3				
	31					
	15					
3263	6					
	6	18			18	
1399	8					
	8				19	

GW likely 14' or 15'

All sections must be completed in the field.

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter:
Screen Length: 20-10
Screen Type/Size:
Casing Diameter:
Casing Length: 10-0
Casing Type:
Sand Size:
Sand Interval: 20-9
Bentonite Interval: 9-7
Grout Interval:
Road Box ☒
Monument Box ☐

GROUNDWATER INFORMATION

Water Level (Initial): 14'
Water Level (static):
Sheen/Product: yes
Odor: N W M (S)
Color: rainbow
Other:

Other notes:
- 1st attempt - auger refused on rock 5' bg
- moved 2' south for 2nd attempt
- converted to MW22-02
- sampled 17.5-19' for VOCs ~~8021B~~ 8260C (HG)

PROJECT:
Project No.:

Log of Soil Boring SB22-01

Site location:
Logged by:
Date: Time:
Checked by:
Drilling Co.: Method:
Hammer weight/drop: Hammer type:
Sampler type: Total depth: Boring diameter:

Site sketch *(required)*:

SAMPLES OVM (ppm)	SAMPLES Blow Count	SAMPLES Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
					20	Ground Surface Elevation: feet
37.2	6 6 10	16			21	**Depth** 20-21.5 **ID** SAA GW GP GM SW SP SM SC ML CL OL CH OH 10% G (gravel) 10% S (sand) (fine,med,coarse) ____ % F (fines) **Color:**
3.0	9	—	—	—	22	**Density:** *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H **Moisture:** D M W S; **Angularity:** R SR SA A **Plastic:** NP SP P VP EH; **Grading:** W M P
3.4	10 20 17 13	9			23	**Odor:** N W M S **Other:**
End of exploration					24	**Depth** 21.5-22 **ID** silt GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) 100% F (fines) **Color:** brown-gray **Density:** *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H **Moisture:** D M W (S) **Angularity:** R SR SA A **Plastic:** NP SP P VP EH; **Grading:** W M P **Odor:** N (W) M S **Other:**
						Depth 22-24 **ID** clay with gravel GW GP GM SW SP SM SC ML CL OL CH OH 30% G (gravel) ____ % S (sand) (fine,med,coarse) 70% F (fines) **Color:** gray **Density:** *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H **Moisture:** D M W (S) **Angularity:** R SR SA A **Plastic:** NP SP P VP EH; **Grading:** W M P **Odor:** (N) W M S **Other:**
						Depth ____ **ID** ____ GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) **Color:** **Density:** *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H **Moisture:** D M W S; **Angularity:** R SR SA A **Plastic:** NP SP P VP EH; **Grading:** W M P **Odor:** N W M S **Other:**
						Depth ____ **ID** ____ GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) **Color:** **Density:** *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H **Moisture:** D M W S; **Angularity:** R SR SA A **Plastic:** NP SP P VP EH; **Grading:** W M P **Odor:** N W M S **Other:**

WELL COMPLETION INFORMATION

Top of Casing: ____
Screen Diameter: ____
Screen Length: ____
Screen Type/Size: ____
Casing Diameter: ____
Casing Length: ____
Casing Type: ____
Sand Size: ____
Sand Interval: ____
Bentonite Interval: ____
Grout Interval: ____
Road Box ☐
Monument Box ☐

GROUNDWATER INFORMATION

Water Level *(Initial)*: ____
Water Level *(static)*: ____
Sheen/Product: ____
Odor: N W M S
Color: ____
Other: ____

Other notes:
- 3x2' boulder in boring
- Sheen + odor in development water

All sections must be completed in the field.

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PROJECT: Former Daniel Fagers Facility

Project No.: 405050204

Log of Soil Boring SB22-02

Site location: 1029 N Bennington Rd		Logged by: HG	
Date: 7/12/22	Time: 11:00	Checked by:	
Drilling Co.: T+K	Method: HSA		
Hammer weight/drop:	Hammer type:		
Sampler type: Split spoon	Total depth: 20'	Boring diameter: 2"	

Site sketch (required):

SAMPLES / MATERIAL DESCRIPTION

Ground Surface Elevation: feet

OVM (ppm)	Blow Count	Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)
		AUGERED ↓			1–10
0.7	20, 12, 11, 12	17		SW	10–12
0.9 / 1.2	11, 10, 10, 11	17		SP	12–14
7.8	4, 4, 15	16	(HG) ~~16~~	SP	15–16
2.2	16				17
1.0	13, 13, 12, 12, 12	19			17–19
378		Auger	e	GW	20

Margin notes: 1143 augered 5'; 1200 augered 10'; GW 15.5; End of exploration

Depth 10-12 **ID** sand-gravel w/ silt
GW GP GM SW SP SM SC ML CL OL CH OH
40 % G (gravel) 40 % S (sand) (fine, **med**, coarse) 20 % F (fines)
Color: brown
Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H
Moisture: **D** **M** W S; Angularity: R SR SA A
Plastic: NP SP P VP EH; Grading: W M P
Odor: N W M S
Other: moist 12'

Depth 12-14 **ID** sand
GW GP GM SW SP SM SC ML CL OL CH OH
___ % G (gravel) ___ % S (sand) (**fine**, **med**, **coarse**) ___ % F (fines)
Color: brown
Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H
Moisture: **D** **M** W S; Angularity: R SR SA A
Plastic: NP SP P VP EH; Grading: W M **P**
Odor: **N** W M S
Other: fine 12-12.5 / med. 12.5-14 moist 14

Depth 15-16.5 **ID** sand
GW GP GM SW SP SM SC ML CL OL CH OH
___ % G (gravel) 100 % S (sand) (**fine**, med, coarse) ___ % F (fines)
Color: tan
Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H
Moisture: D M W **S**; Angularity: R SR SA A
Plastic: NP SP P VP EH; Grading: W M P
Odor: **N** W M S
Other:

Depth 16.5-17 **ID** sand w/ gravel + silt
GW GP GM SW SP SM SC ML CL OL CH OH
20 % G (gravel) 60 % S (sand) (**fine**, med, coarse) 20 % F (fines)
Color: tan
Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H
Moisture: D M W S; Angularity: R SR SA A
Plastic: NP SP P VP EH; Grading: W M P
Odor: N W M S
Other:

Depth 17-19 **ID** silt + gravel + sand
GW GP GM SW SP SM SC ML CL OL CH OH
50 % G (gravel) 25 % S (sand) (fine, med, coarse) 25 % F (fines)
Color: brown
Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H
Moisture: D M W **S**; Angularity: R SR SA A
Plastic: NP SP P VP EH; Grading: W M P
Odor: **N** W M S
Other:

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter:
Screen Length: 20-10
Screen Type/Size:
Casing Diameter:
Casing Length:
Casing Type:
Sand Size: 20-9
Sand Interval:
Bentonite Interval: 9-7
Grout Interval:
Road Box ☒
Monument Box ☐

GROUNDWATER INFORMATION

Water Level (Initial): 15.5
Water Level (static):
Sheen/Product: No
Odor: **N** W M S
Color:
Other:

Other notes:
- 1st attempt - auger refused 4' - moved 2' north for 2nd
- converted to MW22-02 (HG)
- sampled ~~15-16.5 and~~ 20' for VOCs 8021B

All sections must be completed in the field.

19-20 off auger
silt 40% gravel 20% sand 20%
strong odor
gray

- soils coming up on augers during well installation had slight odor PID = 378ppm at 20' bg
- sheen + odor in development water

PROJECT: Former Daniel Fagers Facility
Project No.: 405050204

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Log of Soil Boring SB22-03

Site location: 1092 N Bennington Rd
Date: 7/12/22 Time: 1345
Drilling Co.: T+K Method: HSA
Logged by: HG
Checked by:

Hammer weight/drop: Hammer type:
Sampler type: Split spoon Total depth: 22' Boring diameter: 2"

Site sketch (required):

SAMPLES OVM (ppm)	Blow Count	Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
						Ground Surface Elevation: feet
		A U G E R E D			1	Depth 10-11.5 ID coarse sand + gravel GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) 60 % S (sand) (fine,med,coarse) ___ % F (fines) Color: brown
					2	Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A
					3	Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S
					4	Other:
					5	Depth 11.5-12 ID sand GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) 100 % S (sand) (fine,med,coarse) ___ % F (fines) Color: brown
					6	Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A
					7	Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S
						Other: almost silt
			1'		8	
					9	Depth 12-13.5 ID SAA GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) ___ % S (sand) (fine,med,coarse) ___ % F (fines) Color:
					10	Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A
0.3	9 24 16	13			11	Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S
1.0	13				12	Other: perched GW
1.7	9 6 17	9			13	Depth 13.5-14 ID sand GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) 100 % S (sand) (fine,med,coarse) ___ % F (fines) Color: brown
1.1	16				14	Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A
GW?					15	Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S
						Other: almost gravel
1.7	9 11 13	11			16	
	9				17	Depth 15-17 ID SAA GW GP GM SW SP SM SC ML CL OL CH OH 10 % G (gravel) 90 % S (sand) (fine,med,coarse) ___ % F (fines) Color: brown
3.5	6 6	24			18	Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A
2.5	13 21				19	Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:

All sections must be completed in the field.

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter:
Screen Length: 20-10
Screen Type/Size:
Casing Diameter:
Casing Length:
Casing Type:
Sand Size: 20-9
Sand Interval:
Bentonite Interval: 9-7
Grout Interval:
Road Box ☑
Monument Box ☐

GROUNDWATER INFORMATION

Water Level (Initial):
Water Level (static):
Sheen/Product:
Odor: N W M S
Color:
Other:

Other notes:
- converted to MW22-03
- Did not take soil sample

Log of Soil Boring SB22-03

PROJECT:	
Project No.:	
Site location:	Logged by:
Date:	Time:
Checked by:	
Drilling Co.:	Method:
Hammer weight/drop:	Hammer type:
Sampler type:	Total depth:
Boring diameter:	

Site sketch *(required)*:

SAMPLES: OVM (ppm)	SAMPLES: Blow Count	SAMPLES: Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
1.8	5 2 7 11			GP	20 21 22	Depth 17-19 ID Sand GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) 100 % S (sand) (fine, med, coarse) ___ % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W (S) Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: (N) W M S Other: fine 18-19 almost silt coarse ~~18-19~~ 17-18
						Depth 20-22 ID river gravel GW GP GM SW SP SM SC ML CL OL CH OH 100 % G (gravel) ___ % S (sand) (fine, med, coarse) ___ % F (fines) Color: gray/multicolored Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W (S) Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: (N) W M S Other:
						Depth ___ ID ___ GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) ___ % S (sand) (fine, med, coarse) ___ % F (fines) Color: Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
						Depth ___ ID ___ GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) ___ % S (sand) (fine, med, coarse) ___ % F (fines) Color: Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
						Depth ___ ID ___ GW GP GM SW SP SM SC ML CL OL CH OH ___ % G (gravel) ___ % S (sand) (fine, med, coarse) ___ % F (fines) Color: Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:

Ground Surface Elevation: feet

End of exploration

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter:
Screen Length:
Screen Type/Size:
Casing Diameter:
Casing Length:
Casing Type:
Sand Size:
Sand Interval:
Bentonite Interval:
Grout Interval:
Road Box ☐
Monument Box ☐

GROUNDWATER INFORMATION

Water Level *(Initial)*:
Water Level *(static)*:
Sheen/Product:
Odor: N W M S
Color:
Other:

Other notes:

All sections must be completed in the field.

PROJECT: Former Daniel Fagers Facility
Project No.: 405050204

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Log of Soil Boring SB220Y

Site location: 1092 N Bennington Rd
Logged by: HG
Date: 7/13/22 Time: 750
Checked by:
Drilling Co.: TrK Method: HSA
Hammer weight/drop: Hammer type:
Sampler type: Split spoon Total depth: 19 Boring diameter: 2"

Site sketch (required):

SAMPLES OVM (ppm)	Blow Count	Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
		AUGERED			1	Ground Surface Elevation: feet Depth 0-1 ID sand + gravel GW GP GM SW SP SM SC ML CL OL CH OH 20 % G (gravel) 70 % S (sand) (fine,med,coarse) ____ % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
					2	
					3	
					4	Depth 4-5 ID sand GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) 100 % S (sand) (fine,med,coarse) ____ % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: saturated ~~11.5-12~~ 11.0
					5	
					6	
					7	
			1		8	Depth 12-13 ID SAA GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) Color: Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: very fine dark staining
					9	
	13				10	
0.3	12			SW	11	
0.5	8	19		SP	12	
	8					
	7					Depth 13-14 ID sand + silt GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) 50 % S (sand) (fine,med,coarse) 50 % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
10.4	7		2	SP	13	
	9	21				
4.4	22				14	
					15	
	8					
1.4	9	9		GP	16	Depth 15-17 ID river gravel GW GP GM SW SP SM SC ML CL OL CH OH 100 % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) Color: black brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
	16					
	22				17	
	19					
	11	12			18	
	14					
	15				19	

GW 11.0'

End of exploration

All sections must be completed in the field.

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter: 1"
Screen Length: 15-5
Screen Type/Size:
Casing Diameter: 2"
Casing Length:
Casing Type:
Sand Size: #
Sand Interval: 15-4
Bentonite Interval: 4-2
Grout Interval:
Road Box ☑
Monument Box ☐

GROUNDWATER INFORMATION

Water Level (Initial): 11.0
Water Level (static):
Sheen/Product: No
Odor: N W M S
Color:
Other:

Other notes:
- converted to MW22-04
- sampled 12-13' for 8021B

Log of Soil Boring SB22-04

PROJECT:

Project No.:

Site location:

Date: | Time:

Drilling Co.: | Method:

Logged by:

Checked by:

Hammer weight/drop: | Hammer type:

Sampler type: | Total depth: | Boring diameter:

Site sketch *(required)*:

SAMPLES						MATERIAL DESCRIPTION
OVM (ppm)	Blow Count	Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	Ground Surface Elevation: feet
						Depth 17-19 ID sand w/ silt GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) 80 % S (sand) (fine,med,coarse) 20 % F (fines) Color: brown Density: *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
						Depth ____ ID ____ GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) Color: Density: *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
						Depth ____ ID ____ GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) Color: Density: *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
						Depth ____ ID ____ GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarse) ____ % F (fines) Color: Density: *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
						Depth ____ ID ____ GW GP GM SW SP SM SC ML CL OL CH OH ____ % G (gravel) ____ % S (sand) (fine,med,coarsa) ____ % F (fines) Color: Density: *(sand/gravel)* VL L MD D VD *(silt/clay)* VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:

WELL COMPLETION INFORMATION

Top of Casing:

Screen Diameter:

Screen Length:

Screen Type/Size:

Casing Diameter:

Casing Length:

Casing Type:

Sand Size:

Sand Interval:

Bentonite Interval:

Grout Interval:

Road Box ☐

Monument Box ☐

GROUNDWATER INFORMATION

Water Level *(Initial)*:

Water Level *(static)*:

Sheen/Product:

Odor: N W M S

Color:

Other:

Other notes:

All sections must be completed in the field.

PROJECT: Former Daniel Fagers Facility
Project No.: 40505020.4

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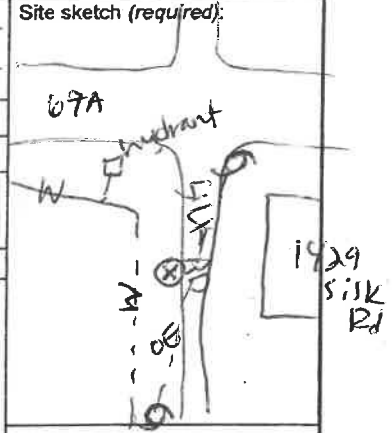
Log of Soil Boring SB22-05

Site location: 1092 N Bennington Rd
Logged by: HG
Date: 7/13/22 Time: 903
Checked by:
Drilling Co.: T+K Method: HSA
Hammer weight/drop: Hammer type:
Sampler type: Split spoon Total depth: 19' Boring diameter: 2"

Site sketch (required):



SAMPLES OVM (ppm)	Blow Count	Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
						Ground Surface Elevation: feet
		A			1	Depth 11-13 ID sand-silt-gravel GW GP GM SW SP SM SC ML CL OL CH OH 40 % G (gravel) 30 % S (sand) (fine,med,coarse) 30 % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
		V			2	
		G			3	
		E			4	
		R			5	Depth 13-14 ID gravel GW GP GM SW SP SM SC ML CL OL CH OH 100 % G (gravel) % S (sand) (fine,med,coarse) % F (fines) Color: black Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: small gravel
		E			6	
		D			7	
			1		8	Depth 14-15 ID sand GW GP GM SW SP SM SC ML CL OL CH OH % G (gravel) 100 % S (sand) (fine,med,coarse) % F (fines) Color: dark gray Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: very coarse almost gravel
					9	
					10	
					11	
2.7	15 17	17			12	
55.7	19 16				13	Depth 15-17 ID SAA GW GP GM SW SP SM SC ML CL OL CH OH % G (gravel) % S (sand) (fine,med,coarse) % F (fines) Color: dark gray Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
1228	11 10	16	2	GP	14	
54.4	10 10			SP	15	
57.7	5 5				16	Depth 17-19 ID sand GW GP GM SW SP SM SC ML CL OL CH OH % G (gravel) 100 % S (sand) (fine,med,coarse) % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: almost silt
5.1	6 6	16		SP	17	
	7 8				18	
5.5	11 15	13		SP	19	

spoon refused at 10', augered to 11'

aw 13'

End of exploration

All sections must be completed in the field.

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter:
Screen Length: 18-8
Screen Type/Size:
Casing Diameter: 2"
Casing Length:
Casing Type:
Sand Size: 18-7
Sand Interval:
Bentonite Interval: 7-5
Grout Interval:
Road Box ☑
Monument Box ☐

GROUNDWATER INFORMATION

Water Level (Initial): 13'
Water Level (static):
Sheen/Product: No
Odor: N W M S
Color:
Other:

Other notes:
- converted to MW22-05
- sampled 13-14 for VOC 8021B

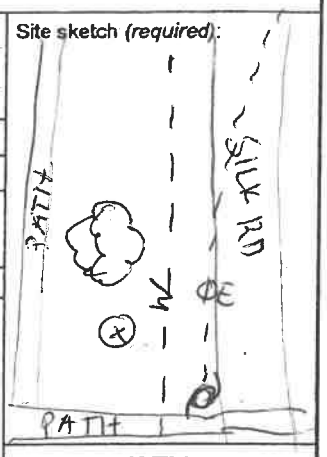
PROJECT: Former Daniel Fagors Facility
Project No.: 405050204
Site location: 1092 N Bennington Rd
Date: 7/13/22 Time: 1115
Drilling Co.: T+K Method: HSA
Hammer weight/drop: Hammer type:
Sampler type: Split spoon Total depth: Boring diameter: 2"

PAGE 1 OF 1

Log of Soil Boring SB22-06

Logged by: HG
Checked by:

Site sketch (required):



SAMPLES OVM (ppm)	SAMPLES Blow Count	SAMPLES Recovery (inches)	SAMPLE	LITHOLOGY	DEPTH (feet)	MATERIAL DESCRIPTION
						Ground Surface Elevation: feet
		AVG			1	Depth 10-11 ID sand w/ gravel GW GP GM SW SP SM SC ML CL OL CH OH ___% G (gravel) 70 % S (sand) (fine,med,coarse) ___% F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
					2	
					3	
					4	Depth 11-12 ID sand
					5	GW GP GM SW SP SM SC ML CL OL CH OH ___% G (gravel) 100 % S (sand) (fine,med,coarse) ___% F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: almost silt
					6	
					7	
		↓	1		8	Depth 12-13 ID sand - silt
					9	GW GP GM SW SP SM SC ML CL OL CH OH ___% G (gravel) 50 % S (sand) (fine,med,coarse) 50 % F (fines) Color: brown Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other: dark staining 13'
					10	
1.8	15	12		SW	11	
2.0	14 10 9			SP	12	
2.1	10	13			13	Depth 13-14 ID gravel ~~w/ silt~~ GW GP GM SW SP SM SC ML CL OL CH OH 100 G (gravel) ___% S (sand) (fine,med,coarse) 20 % F (fines) Color: dark gray Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:
7.6	9 15 16		2	GP	14	
					15	
1.3		17		GP	16	
0.8		—	—	SP	17	Depth 15-16.5 ID SHA GW GP GM SW SP SM SC ML CL OL CH OH ___% G (gravel) ___% S (sand) (fine,med,coarse) ___% F (fines) Color: river gravel Density: (sand/gravel) VL L MD D VD (silt/clay) VS S MST ST VST H Moisture: D M W S; Angularity: R SR SA A Plastic: NP SP P VP EH; Grading: W M P Odor: N W M S Other:

CAW III

End of exploration

All sections must be completed in the field.

16.5-17 sand 100% med. no odor

WELL COMPLETION INFORMATION

Top of Casing:
Screen Diameter:
Screen Length: 16-6
Screen Type/Size:
Casing Diameter: 2"
Casing Length:
Casing Type:
Sand Size: 16-5
Sand Interval:
Bentonite Interval: 5-3
Grout Interval:
Road Box ☑
Monument Box ☐

GROUNDWATER INFORMATION

Water Level (Initial): 11'
Water Level (static):
Sheen/Product: NO
Odor: N W M S
Color:
Other:

Other notes:
- converted to MW22-06
- sampled 13-14' for VOCs 8021B

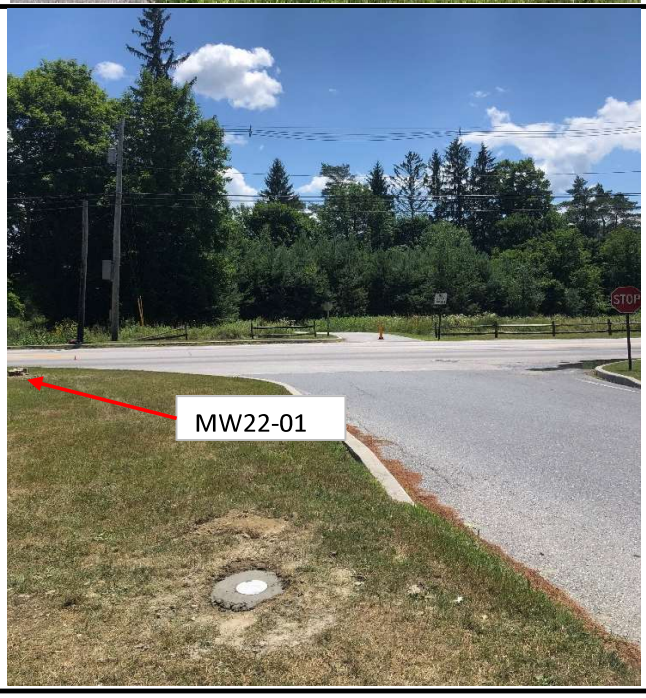
Appendix G

Photographic Documentation

Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 001 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Facing southwest Comments: T&K advancing boring SB22-01 across North Bennington Road from the Site.	
Photograph ID: 002 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Facing south Comments: Finished well MW22-01.	

Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 003 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Facing south Comments: T&K advancing boring SB22-02 across North Bennington Road from the Site.	
Photograph ID: 004 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Facing south Comments: Finished well MW22-02.	

Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 005 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Facing south Comments: T&K advancing boring SB22-03 across Silk Road from the Site.	
Photograph ID: 006 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Facing west Comments: Finished well MW22-03.	

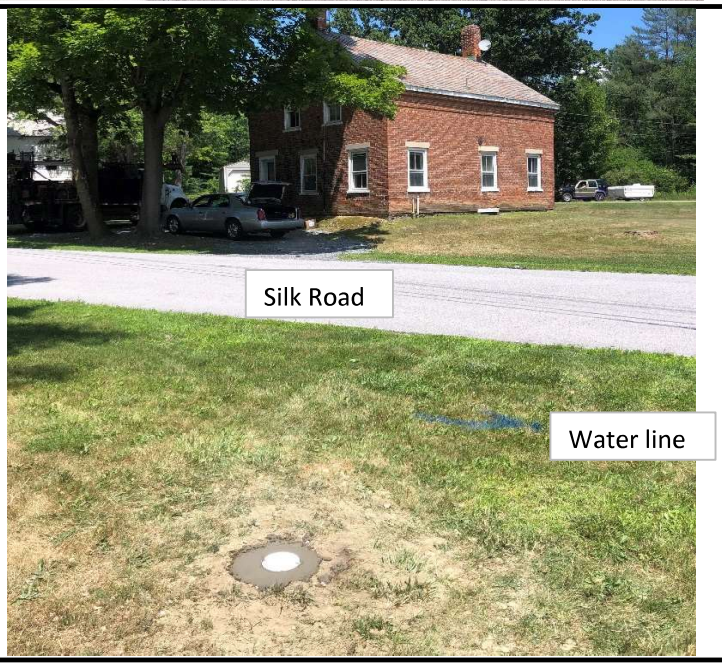
Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 007 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Facing south Comments: T&K advancing boring SB22-04 across Silk Road from the Site.	
Photograph ID: 008 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Facing west Comments: Finished well MW22-03.	

Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 009 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Facing north Comments: T&K advancing boring SB22-05 on Site.	
Photograph ID: 010 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Facing east Comments: Finished well MW22-05.	

Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 011 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Facing north Comments: T&K advancing boring SB22-06 on Site.	
Photograph ID: 012 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Facing east Comments: Finished well MW22-06.	

Photographic Documentation
Supplemental Site Investigation
Former Daniel Fagers Facility
Bennington, Vermont
KAS #405050204, SMS #2005-3341

Photograph ID: 013 Date: July 12, 2022 Location: 1092 N Bennington Rd Direction: Overhead view Comments: Soils exhibiting high PID readings, dark staining, sheen, and strong petroleum odors were observed at soil boring SB22-01.	
Photograph ID: 014 Date: July 13, 2022 Location: 1092 N Bennington Rd Direction: Overhead view Comments: Soils exhibiting high PID readings, dark staining, sheen, and strong petroleum odors were observed at soil boring SB22-04.	

Appendix H

Waste Disposal Documentation

400230

5408

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	VTD 981 886 765	1	(800) 899-4672	400230

GENERATOR

5. Generator's Name and Mailing Address: BENNINGTON COLLEGE
1 COLLEGE DRIVE
BENNINGTON, VT 05201
Generator's Phone: (802) 383-0486

Generator's Site Address (if different than mailing address):
1092 N BENNINGTON ROAD
BENNINGTON, VT 05201

6. Transporter 1 Company Name: NRC EAST ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number: MAC 300 098 399

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: US ECOLOGY BURLINGTON, INC.
54 AVENUE D
WILLISTON, VT 05495
Facility's Phone: (802) 860-1200
U.S. EPA ID Number: VTR 000 517 052

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1 State Regulated Oil Waste, (Oily Soils)	001	DM	250	P	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information
1. H228653BUR / Oily Soils [W:84.09.166600] JOB#178874

14. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Generator's/Offeror's Printed/Typed Name: Kyle Cousino On behalf of Bennington College
Signature:
Month: 08 Day: 25 Year: 22

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kyle Cousino
Signature:
Month: 08 Day: 25 Year: 22

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Matt Maher
Signature:
Month: 9 Day: 6 Year: 22

6-NHM-C-C-11

1-DESIGNATED FACILITY TO DESTINATION

Appendix I

I-Rule Site Investigation Checklist

Vermont Department of Environmental Conservation
Waste Management and Prevention Division
Sites Management Section
I-Rule SITE INVESTIGATION Report Checklist

Site Number: **2005-3341**

Site Name: **Former Daniel Fagers Facility**

Site Address: **1092 North Bennington Road**

Site City/Town: **Bennington**

Report Title: **Supplemental Site Investigation Report**

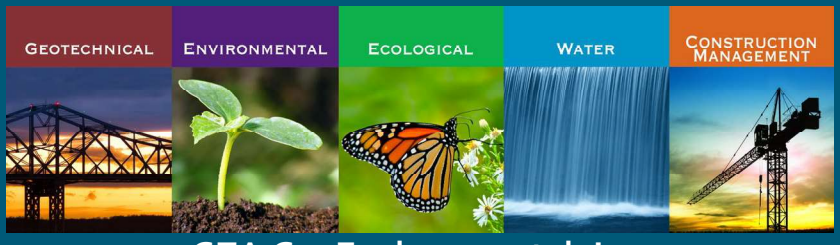
Report Date: **November 14, 2022**

Consultant: **KAS, Inc.**

Report Author: **Haley Grigel**

Deliverable	YES	N/A	Comments	WMPD Use Only	
				Adequate	Inadequate
Subchapter 3. Site Investigation					
§35-305. Site Investigation Report					
Executive Summary	YES				
Site Information. Table of names, addresses, email addresses, and phone numbers	YES				
Current use of property and adjacent properties	YES				
Site Description	YES				
Lat/Long of the site	YES				
Property history	YES				
Site Contaminant background	YES				
Work Plan deviations		N/A			
Sample collection documentation	YES				
Contaminated media characterization (tabulated and compared to standard or site-specific risk assessment)	YES				
Maps: Vicinity Map Site Map Groundwater Flow Direction Map Contaminant Distribution Map	 YES YES YES YES				
Discussion	YES				

Deliverable	YES	N/A	Comments	WMPD Use Only	
				Adequate	Inadequate
Subchapter 3. Site Investigation					
§35-305. Site Investigation Report					
Data presentation	YES				
QA/QC sample results	YES				
IDW	YES				
Conclusions and Recommendations	YES				
Signature and Certification	YES				
List of SOPs used during investigation	YES				
Appendices: Monitoring well and soil boring logs Photographic documentation Field notes Laboratory results Calculations Risk Assessment calculations Hydrogeologic cross sections	 YES YES YES YES	 N/A N/A N/A			



GZA GeoEnvironmental, Inc.

VERMONT

State of Vermont *Agency of Transportation*

To: **Nick Van Den Berg, Materials & Certifications Manager, AOT Chief Engineer's Office**

From: **Michael LaCroix, Traffic Design Project Manager, Street Lighting SME**
Ben Tietze, Traffic Design Engineer
Derek Lyman, Traffic Signal and ITS Manager DS BT DS DL

Date: **July 28, 2023**

Subject: **Global Public Interest Finding (GPIF) for Cree Roadway Lighting Products**

Reason that a Patented or Proprietary Product or Process is Required:
The Vermont Agency of Transportation wishes to increase design and maintenance efficiencies and increase safety to the traveling public by standardizing the type of street lighting used on our roadways. Currently lighting design requires three different designs for each of the luminaires that could be used on a project and then creating a compromise luminaire placement that best meets the guidelines set forth in the VTrans Lighting Guide (2015). This means that the design is never able to optimize luminaire placement to maximize user safety and is always a compromise that meets acceptable limits. Additionally, our operations group who maintains the state lighting system, uses Cree-branded luminaire heads and drivers for ease of use and cost effectiveness. Traffic Signal Operations, who currently manages the state street lighting network, uses exclusively Cree products, and will replace failed luminaires of other types with Cree products.

Product or Process Description:
Cree LEDway lighting is a line of LED street lighting that are in wide use by the Agency in lighting maintenance. They provide a range of products that fit all VTrans intersection lighting designs.

Category D Determination:
To increase design efficiency and produce safer roadway lighting designs for all users, Cree LEDway products should be installed to meet any intersection lighting requirements. Furthermore, this will increase efficiencies in maintenance of our roadway lighting network, allowing our Traffic Signal Operations group to already know the equipment that is out there. Cree LEDway luminaires are also compatible with remote monitoring technology which could be deployed in the future to monitor outages and determine maintenance needs without a crew needing to deploy.

Cost:
The estimated cost for this product or process is approximately $1,000 per assembly.

Effective Period:
This Global PIF may be used for contracts advertised within five years of the date specified above, **July 28, 2028**. After this time, the products or processes will be re-evaluated by the Agency.

MBL/BJT:mbl

Vermont Agency of Transportation
Global Public Interest Finding Related to Materials Procurement for Multiple Projects

The categories listed below describe the specific conditions under which a patented or proprietary product or process may be authorized. This form contains attachments that document the necessary facts, conditions, and citations to authorize a Global Public Interest Finding for the use of **Cree LEDway branded street light products** on Agency contracts.

Despite responsible efforts to identify the most competitive material to perform this function, the Agency, through its Subject Matter Experts, has found that the patented or proprietary product or process (check the appropriate box):

☐ Category A – is the only product or process available that fulfills the required function; or

☒ Category B – is necessary for synchronization with other adjacent resources or existing facilities; or

☐ Category C – is being specified for research or experimental evaluation; or

☐ Category D – has been shown to be cost effective; or

☐ Category E – is for emergency or temporary use and its use is in the interests of public safety.

These findings have been made in accordance with Agency practices, including documentation of the underlying facts compelling the Public Interest Finding.

Recommended by: DocuSigned by: Michael LaCroix 530983C07EF54F2... , Project Manager or Subject Matter Expert

Approved by: DocuSigned by: Mck VanDenBerg 57D4DD3560C24C2... Materials and Certifications Manager

Approved by: DocuSigned by: Erin Sisson D104F679F55643B... , Chief Engineer's Office

VERMONT

State of Vermont *Agency of Transportation*

To: **Matt Bogaczyk, Acting Program Manager, Nick Van Den Berg, Materials and Certifications Manager, Chief Engineer's Office**

From: **Michael LaCroix, Traffic Design Project Manager** DS

Date: **June 12, 2024**

Contract: **Bennington STP 1000(23)**

Subject: **Contract Public Interest Finding (CPIF) for Sika Scofield Concrete Stamping Styles**

Project Location:
In Bennington, at the intersection of VT Route 67A, Matteson Road, Silk Road, and College Drive.

Project Description:
Construction of a new single lane roundabout.

Reason that a Patented or Proprietary Product or Process is Required:
The raised islands in the proposed intersection will have a stamped finished in their concrete material surfaces. The wishes that the pattern and color of the concrete finishes match an existing roundabout on the same stretch of roadway within the town and of those for proposed future roundabouts along the corridor.

Product or Process Description:
Scofield, a Sika brand, has available the "Cobblestone" texture and the "Quicksilver Gray" color that the town desires.

Category A Determination:
Scofield, a Sika brand, has the color and stamping texture identical to the one the town desires.

Quantity and Cost:
No definable quantity can be calculated as it is a specification of the stamped concrete island pay item, and the cost is incidental to the anticipated bid cost for the square yardage of the item proposed.

Effective Period:
This Contract PIF will only be effective for the contract identified above.

Vermont Agency of Transportation
Contract Public Interest Finding Related to Materials Procurement for a Project

The categories listed below describe the specific conditions under which a patented or proprietary product or process may be authorized. This form contains attachments that document the necessary facts, conditions, and citations to authorize a Contract Public Interest Finding for the use of **Scofield Cobblestone in Quicksilver Gray** on the subject contract.

Despite responsible efforts to identify the most competitive material to perform this function, the Agency, through its Project and Program Managers, has found that the patented or proprietary product or process (check the appropriate box):

☒ Category A – is the only product or process available that fulfills the required function; or

☐ Category B – is necessary for synchronization with other adjacent resources or existing facilities; or

☐ Category C – is being specified for research or experimental evaluation; or

☐ Category D – has been shown to be cost effective; or

☐ Category E – is for emergency or temporary use and its use is in the interests of public safety.

These findings have been made in accordance with Agency practices, including documentation of the underlying facts compelling the Public Interest Finding.

Recommended by: DocuSigned by: Michael LaCroix 530983C07EF54F2... , Project Manager

Approved by: DocuSigned by: Matthew Bascom EBF18EF36916455... , Program Manager

Approved by: DocuSigned by: Nick VanDenBerg 57D4DD3560C24C2... , Materials and Certifications Manager

Approved by: DocuSigned by: Jeremy Reed BBE658022DA34B7... , Chief Engineer's Office

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

> "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

"General Decision Number: VT20240049 01/05/2024

Superseded General Decision Number: VT20230049

State: Vermont

Construction Type: Highway

County: Bennington County in Vermont.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number 0 | Publication Date 01/05/2024

SUVT2017-010 08/06/2019

	Rates	Fringes
CARPENTER, Includes Form Work	$ 20.46	3.65
CEMENT MASON/CONCRETE FINISHER	$ 25.34	0.00
ELECTRICIAN	$ 28.28	1.90
HIGHWAY/PARKING LOT STRIPING: Painter	$ 23.76	5.43
INSTALLER - SIGN	$ 18.50	5.52
IRONWORKER, REINFORCING	$ 21.00	4.92
IRONWORKER, STRUCTURAL	$ 28.97	8.72
LABORER: Common or General, Including Asphalt Raking, Shoveling, Spreading and Concrete Work	$ 18.63	3.92
OPERATOR: Backhoe/Excavator/Trackhoe	$ 21.63	2.45
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 21.15	12.05
OPERATOR: Broom/Sweeper	$ 19.94	6.29
OPERATOR: Bulldozer	$ 20.71	0.92
OPERATOR: Crane	$ 22.62	3.78
OPERATOR: Drill	$ 20.23	4.50
OPERATOR: Grader/Blade	$ 20.91	5.79
OPERATOR: Loader	$ 24.13	5.23
OPERATOR: Mechanic	$ 20.45	4.54
OPERATOR: Milling Machine	$ 28.76	16.77
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 21.32	7.24
OPERATOR: Pounder	$ 21.18	0.00
OPERATOR: Roller	$ 21.43	6.47
OPERATOR: Screed	$ 24.50	8.77
TRAFFIC CONTROL: Flagger	$ 16.16 **	6.18
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper	$ 17.42	7.11

TRUCK DRIVER, Includes all
axles including Dump Trucks.....$ 18.54 3.32

TRUCK DRIVER: Distributor
Truck.....$ 22.32 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 ($17.20) or 13658 ($12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of

the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

DISADVANTAGED BUSINESS ENTERPRISE (DBE) POLICY
CONTRACT REQUIREMENTS

Disadvantaged Business Enterprise (DBE) Policy. It shall be the policy of the Vermont Agency of Transportation (VTrans) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBEs) to participate in the performance of all contracts and subcontracts financed with Federal funds as specified by the regulations of the United States Department of Transportation (USDOT), Federal Highway Administration and as set forth below.

1. **Policy.** It is the policy of USDOT that DBEs as defined in 49 Code of Federal Regulation (CFR) Part 26 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 and 23 CFR, Chapter 1, Part 230, Subpart b apply to this contract.

2. **DBE Obligation.** The State and its Contractors agree to ensure that DBEs as defined in 49 CFR Part 26, have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. **Each subcontract the prime contractor signs with a subcontractor must include this assurance:** *The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as VTrans deems appropriate.*

3. **Sanctions for Noncompliance.** The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this contract, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of contract and after the notification of the Vermont Agency of Transportation, Secretary of Transportation, may result in termination of this contract by the State or such remedy as the State deems necessary.

4. **Inclusion in Subcontracts.** The Contractor shall insert in each of its subcontracts this Disadvantaged Business Enterprise (DBE) Policy and also a clause requiring its subcontractors to include this same Policy in any lower tier subcontracts which they may enter into, together with a clause requiring the inclusion of the Policy in any further subcontract that may in turn be made. This Policy shall not be incorporated by reference.

Disadvantaged Business Enterprise (DBE) Program Goals. The Vermont Agency of Transportation (VTrans) is required to set an overall DBE goal for participation in all transportation related Federal-aid projects. The goal is determined following guidelines set forth in 49 CFR 26.45, and based on the availability of ready, willing and able DBEs who submitted bids and quotes for transportation related projects, compared as a percentage of all available contractors who submitted bids and quotes for transportation related projects during the same time period. The DBE goal may be adjusted to take into account other factors impacting DBE utilization, in an effort to narrowly tailor the overall DBE goal. The detailed goal setting methodology and current overall DBE goal may be viewed on the VTrans website at: http://vtrans.vermont.gov/civil-rights/doing-business/dbe-center/program-goals

The VTrans overall DBE goal is currently achieved by a combination of contract specific goals and a race/gender neutral policy. Contractors should be proactive and solicit bids and quotes from certified DBEs for use when submitting their own bids and employ certified DBEs when participating on transportation related projects.

Disadvantaged Business Enterprise (DBE) Definition. A DBE is defined as a business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purposes of this definition:

(1) "Socially and economically disadvantaged person" means an individual who is a citizen or lawful permanent resident of the United States and who is a Woman, Black, Hispanic, Portuguese, Native American, Asian American, or a member of another group, or an individual found to be disadvantaged by the Small Business Administration pursuant to Section 3 of the Small Business Act.

(2) "Owned and controlled" means a business which is:

a. A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.

b. A partnership, joint venture or limited liability company in which at least 51% of the beneficial ownership interests legitimately is held by a disadvantaged person(s).

c. A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests legitimately are held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of the program, a firm is considered a bona fide DBE.

Certified DBE Directory. The current Vermont Unified Disadvantaged Business Enterprise (DBE) Directory is available online at: http://vtrans.vermont.gov/civil-rights/doing-business/dbe-center/directory. This directory contains all currently certified DBEs available for work in Vermont and is updated continuously. Only firms listed in this directory are eligible for DBE credit on Vermont Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the AOT DBE Program Manager for assistance.

Counting DBE Participation Towards Project Goals. For payments made to DBE contractors to be counted toward DBE goals, the DBE contractors must perform a commercially useful function (CUF). The DBE must be responsible for execution of the work of the contract and must carry out its responsibilities by performing, managing, and supervising the work involved, consistent with standard industry practices.

This means that:

- The DBE must also be responsible for ordering its own materials and supplies, determining quantity and quality, negotiating price, installing (where applicable) and paying for the material itself;

- The DBE must perform work commensurate with the amount of its contract;

- The DBE's contribution cannot be that of an extra participant or a conduit through which funds are passed in order to obtain the appearance of DBE participation;

- The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own workforce;

- None of the DBE's work can be subcontracted back to the prime contractor, nor can the DBE employ the prime's or other subcontractor's supervisors currently working on the project;
- The DBE's labor force must be separate and apart from that of the prime contractor or other subcontractors on the project. Transferring crews between primes, subcontractors, and DBE contractors is not acceptable;

- The DBE owner must hold necessary professional or craft license(s) or certification(s) for the type of work he/she performs on the project;

- The DBE may rent or lease, at competitive rates, equipment needed on the project from customary leasing sources or from other subcontractors on the project.

Allowable credit for payments made to DBEs for work performed. A contractor may take credit for payments made to a certified DBE that satisfies CUF requirements at the following rate:

- A DBE Prime Contractor: Count 100% of the value of the work performed by own forces, equipment and materials towards the DBE goals.

- An approved DBE subcontractor: Count 100% of the value of work performed by the DBE's own forces, equipment and materials, excluding the following:

    - The cost of materials/supplies purchased from a non-DBE Prime Contractor.

    - The value of work provided by non-DBE lower tier subcontractors, including non-DBE trucking to deliver asphalt to a DBE contractor.

- A DBE owner-operator of construction equipment: Count 100% of expenditures committed.

- A DBE manufacturer: Count 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.

- A regular DBE dealer/supplier: Count 60% of expenditures committed. A regular dealer/supplier is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment, in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A person may be a dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business, if the person both owns and operates distribution equipment for the products, by the means of a long term agreement, and not by a contract by contract basis.

- A DBE broker: Count for DBE credit only the fees or commissions charged for assistance in the procurement, and, fees and transportation charges for the delivery of materials or supplies required at the job site, but not the cost of materials procured. A broker is defined as any person(s) or firm who arranges or expedites transactions for materials or supplies, and does not take physical possession of the materials or supplies at their place of business for resale.

- A DBE renter of construction equipment to a contractor: Count 20% of expenditures committed, with or without operator.

- A bona fide DBE service provider: Count 100% of reasonable fees or commissions. Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.

- A trucking, hauling or delivery operation: Count 100% of expenditures committed when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the materials and supplies. 100% of expenditures committed when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees, or commissions, the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.

- Any combination of the above.

Removal of Approved DBE From Transportation Related Project. Contractors may not terminate for convenience, any approved DBE subcontractor and perform the work with their own forces, without prior written consent from the AOT DBE Program Manager or the AOT Civil Rights Director

Federal-aid projects which specify a DBE contract goal. The provisions of the Vermont Agency of Transportation Supplemental Specification – Disadvantaged Business Enterprise (DBE) Utilization (CR 160) shall apply to all VTrans Federal-aid projects which specify a DBE contract goal.

Compliance With Prompt Payment Statute. In accordance with Vermont's Prompt Payment Act and VTrans Standard Specifications for Construction, Section 107.01(g), the Contractor

shall fully comply with the provisions of 9 V.S.A. Chapter 102, also referred to as Act No. 74 of 1991 or the Prompt Payment Act, as amended.

Subcontractor Payments. In accordance with VTrans Standard Specifications for Construction, Section 107.01(h), on all federal-aid and state funded contracts, the Contractor, during the life of the Contract and on a monthly basis, shall submit electronically, a listing of payments to subcontractors on the form specified by the State and made available at: http://apps.vtrans.vermont.gov/promptpay/. Electronic reports shall be filed with the Agency Office of Civil Rights by an authorized representative and received in the Agency Office of Civil Rights on or before the tenth working day after month end. Contractors without access to the internet shall obtain and submit manual reports to the Agency Office of Civil Rights. Manual reports shall be signed by an authorized representative, sent to the Agency Office of Civil Rights, and postmarked on or before the tenth working day after month end. There shall be no direct compensation allowed the Contractor for this work, but the cost thereof shall be included in the general cost of the work. In accordance with 9 V.S.A. Section 4003, notwithstanding any contrary agreement, payments made to subcontractors after seven days from receipt of a corresponding progress payment by the State to the Contractor, or seven days after receipt of a subcontractor's invoice, whichever is later, violate this agreement. Violations shall be reported to the Agency Office of Civil Rights for review. Failure to resolve disputes in a timely manner may result in a complaint made to the Agency Pre-qualification Committee. In this Committee's judgment, appropriate penalties may be involved for failure to comply with this specification. Penalties may include suspension, reduction or revocation of the Contractor's pre-qualification rating. This clause shall be included in the prime Contractor's Contract made with all if its subcontractors.

ATTACHMENT C: STANDARD STATE PROVISIONS FOR CONTRACTS AND GRANTS

REVISED DECEMBER 7, 2023

1. Definitions: For purposes of this Attachment, "Party" shall mean the Contractor, Grantee, or Subrecipient, with whom the State of Vermont is executing this Agreement and consistent with the form of the Agreement. "Agreement" shall mean the specific contract or grant to which this form is attached.

2. Entire Agreement: This Agreement, whether in the form of a contract, State-funded grant, or Federally-funded grant, represents the entire agreement between the parties on the subject matter. All prior agreements, representations, statements, negotiations, and understandings shall have no effect. Where an authorized individual is either required to click-through or otherwise accept, or made subject to, any electronic terms and conditions to use or access any product or service provided hereunder, such terms and conditions are not binding and shall have no force or effect. Further, any terms and conditions of Party's invoice, acknowledgment, confirmation, or similar document, shall not apply, and any such terms and conditions on any such document are objected to without need of further notice or objection.

3. Governing Law, Jurisdiction and Venue; No Waiver of Jury Trial: This Agreement will be governed by the laws of the State of Vermont without resort to conflict of laws principles. Any action or proceeding brought by either the State or the Party in connection with this Agreement shall be brought and enforced in the Superior Court of the State of Vermont, Civil Division, Washington Unit. The Party irrevocably submits to the jurisdiction of this court for any action or proceeding regarding this Agreement. The Party agrees that it must first exhaust any applicable administrative remedies with respect to any cause of action that it may have against the State regarding its performance under this Agreement. Party agrees that the State shall not be required to submit to binding arbitration or waive its right to a jury trial.

4. Sovereign Immunity: The State reserves all immunities, defenses, rights, or actions arising out of the State's sovereign status or under the Eleventh Amendment to the United States Constitution. No waiver of the State's immunities, defenses, rights, or actions shall be implied or otherwise deemed to exist by reason of the State's entry into this Agreement.

5. No Employee Benefits For Party: The Party understands that the State will not provide any individual retirement benefits, group life insurance, group health and dental insurance, vacation or sick leave, workers compensation or other benefits or services available to State employees, nor will the State withhold any state or Federal taxes except as required under applicable tax laws, which shall be determined in advance of execution of the Agreement. The Party understands that all tax returns required by the Internal Revenue Code and the State of Vermont, including but not limited to income, withholding, sales and use, and rooms and meals, must be filed by the Party, and information as to Agreement income will be provided by the State of Vermont to the Internal Revenue Service and the Vermont Department of Taxes.

6. Independence: The Party will act in an independent capacity and not as officers or employees of the State.

7. Defense and Indemnity:

A. The Party shall defend the State and its officers and employees against all third-party claims or suits arising in whole or in part from any act or omission of the Party or of any agent of the Party in connection with the performance of this Agreement. The State shall notify the Party in the event of any such claim or suit, and the Party shall immediately retain counsel and otherwise provide a complete defense against the entire claim or suit. The State retains the right to participate at its own expense in the defense of any claim. The State shall have the right to approve all proposed settlements of such claims or suits.

B. After a final judgment or settlement, the Party may request recoupment of specific defense costs and may file suit in Washington Superior Court requesting recoupment. The Party shall be entitled to recoup costs only upon a showing that such costs were entirely unrelated to the defense of any claim arising from an act or omission of the Party in connection with the performance of this Agreement.

C. The Party shall indemnify the State and its officers and employees if the State, its officers, or employees become legally obligated to pay any damages or losses arising from any act or omission of the Party or an agent of the Party in connection with the performance of this Agreement.

D. Notwithstanding any contrary language anywhere, in no event shall the terms of this Agreement or any document furnished by the Party in connection with its performance under this Agreement obligate the State to (1) defend or indemnify the Party or any third party, or (2) otherwise be liable for the expenses or reimbursement, including attorneys' fees, collection

costs or other costs of the Party or any third party.

8. Insurance: During the term of this Agreement, Party, at its expense, shall maintain in full force and effect the insurance coverages set forth in the Vermont State Insurance Specification in effect at the time of incorporation of this Attachment C into this Agreement. The terms of the Vermont State Insurance Specification are hereby incorporated by reference into this Attachment C as if fully set forth herein. A copy of the Vermont State Insurance Specification is available at: https://aoa.vermont.gov/Risk-Claims-COI.

9. Reliance by the State on Representations: All payments by the State under this Agreement will be made in reliance upon the accuracy of all representations made by the Party in accordance with this Agreement, including but not limited to bills, invoices, progress reports, and other proofs of work.

10. False Claims Act: Any liability to the State under the Vermont False Claims Act (32 V.S.A. § 630 et seq.) shall not be limited notwithstanding any agreement of the State to otherwise limit Party's liability.

11. Whistleblower Protections: The Party shall not discriminate or retaliate against one of its employees or agents for disclosing information concerning a violation of law, fraud, waste, abuse of authority, or acts threatening health or safety, including but not limited to allegations concerning the False Claims Act. Further, the Party shall not require such employees or agents to forego monetary awards as a result of such disclosures, nor should they be required to report misconduct to the Party or its agents prior to reporting to any governmental entity and/or the public.

12. Use and Protection of State Information:

A. As between the State and Party, "State Data" includes all data received, obtained, or generated by the Party in connection with performance under this Agreement. Party acknowledges that certain State Data to which the Party may have access may contain information that is deemed confidential by the State, or which is otherwise confidential by law, rule, or practice, or otherwise exempt from disclosure under the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 et seq. ("Confidential State Data").

B. With respect to State Data, Party shall:

- **i.** take reasonable precautions for its protection;
- **ii.** not rent, sell, publish, share, or otherwise appropriate it; and
- **iii.** upon termination of this Agreement for any reason, Party shall dispose of or retain State Data if and to the extent required by this Agreement, law, or regulation, or otherwise requested in writing by the State.

C. With respect to Confidential State Data, Party shall:

- **i.** strictly maintain its confidentiality;
- **ii.** not collect, access, use, or disclose it except as necessary to provide services to the State under this Agreement;
- **iii.** provide at a minimum the same care to avoid disclosure or unauthorized use as it provides to protect its own similar confidential and proprietary information;
- **iv.** implement and maintain administrative, technical, and physical safeguards and controls to protect against any anticipated threats or hazards or unauthorized access or use;
- **v.** promptly notify the State of any request or demand by any court, governmental agency or other person asserting a demand or request for Confidential State Data so that the State may seek an appropriate protective order; and
- **vi.** upon termination of this Agreement for any reason, and except as necessary to comply with subsection B.iii above in this section, return or destroy all Confidential State Data remaining in its possession or control.

D. If Party is provided or accesses, creates, collects, processes, receives, stores, or transmits Confidential State Data in any electronic form or media, Party shall utilize:

- **i.** industry-standard firewall protection;
- **ii.** multi-factor authentication controls;
- **iii.** encryption of electronic Confidential State Data while in transit and at rest;
- **iv.** measures to ensure that the State Data shall not be altered without the prior written consent of the State;
- **v.** measures to protect against destruction, loss, or damage of State Data due to potential environmental hazards, such as fire and water damage;

vi. training to implement the information security measures; and

vii. monitoring of the security of any portions of the Party's systems that are used in the provision of the services against intrusion.

E. No Confidential State Data received, obtained, or generated by the Party in connection with performance under this Agreement shall be processed, transmitted, stored, or transferred by any means outside the United States, except with the express written permission of the State.

F. Party shall notify the State within twenty-four hours after becoming aware of any unauthorized destruction, loss, alteration, disclosure of, or access to, any State Data.

G. State of Vermont Cybersecurity Standard Update: Party confirms that all products and services provided to or for the use of the State under this Agreement shall be in compliance with State of Vermont Cybersecurity Standard Update in effect at the time of incorporation of this Attachment C into this Agreement. The State of Vermont Cybersecurity Standard Update prohibits the use of certain branded products in State information systems or any vendor system, and a copy is available at: https://digitalservices.vermont.gov/cybersecurity/cybersecurity-standards-and-directives

H. In addition to the requirements of this Section 12, Party shall comply with any additional requirements regarding the protection of data that may be included in this Agreement or required by law or regulation.

13. Records Available for Audit: The Party shall maintain all records pertaining to performance under this Agreement. "Records" means any written or recorded information, regardless of physical form or characteristics, which is produced or acquired by the Party in the performance of this Agreement. Records produced or acquired in a machine-readable electronic format shall be maintained in that format. The records described shall be made available at reasonable times during the period of this Agreement and for three years thereafter or for any period required by law for inspection by any authorized representatives of the State or Federal Government. If any litigation, claim, or audit is started before the expiration of the three-year period, the records shall be retained until all litigation, claims, or audit findings involving the records have been resolved.

14. Fair Employment Practices and Americans with Disabilities Act: Party agrees to comply with the requirement of 21 V.S.A. Chapter 5, Subchapter 6, relating to fair employment practices, to the full extent applicable, and shall include this provision in all subcontracts for work performed in Vermont. Party shall also ensure, to the full extent required by the Americans with Disabilities Act of 1990, as amended, that qualified individuals with disabilities receive equitable access to the services, programs, and activities provided by the Party under this Agreement.

15. Offset: The State may offset any sums which the Party owes the State against any sums due the Party under this Agreement; provided, however, that any offset of amounts due the State of Vermont as taxes shall be in accordance with the procedures more specifically provided in 32 V.S.A. § 3113.

16. Taxes Due to the State: Party certifies under the pains and penalties of perjury that, as of the date this Agreement is signed, the Party is in good standing with respect to, or in full compliance with, a plan to pay any and all taxes due the State of Vermont.

17. Taxation of Purchases: All State purchases must be invoiced tax free. An exemption certificate will be furnished upon request with respect to otherwise taxable items.

18. Child Support: (Only applicable if the Party is a natural person, not a corporation or partnership.) Party states that, as of the date this Agreement is signed, Party is not under an obligation to pay child support or is in good standing with respect to or in full compliance with a plan to pay any and all child support payable under a support order. Party makes this statement with regard to support owed to any and all children residing in Vermont. In addition, if the Party is a resident of Vermont, Party makes this statement with regard to support owed to any and all children residing in any other state or territory of the United States.

19. Sub-Agreements: Party shall not assign, subcontract, or subgrant the performance of this Agreement or any portion thereof to any other Party without the prior written approval of the State. Party shall be responsible and liable to the State for all acts or omissions of subcontractors and any other person performing work under this Agreement pursuant to an agreement with Party or any subcontractor.

In the case this Agreement is a contract with a total cost in excess of $250,000, the Party shall provide to the State a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), as amended by Section 17 of Act No. 142 (2010) and by

Section 6 of Act No. 50 (2011).

Party shall include the following provisions of this Attachment C in all subcontracts for work performed solely for the State of Vermont and subcontracts for work performed in the State of Vermont: Section 10 ("False Claims Act"); Section 11 ("Whistleblower Protections"); Section 12 ("Confidentiality and Protection of State Information"); Section 14 ("Fair Employment Practices and Americans with Disabilities Act"); Section 16 ("Taxes Due the State"); Section 18 ("Child Support"); Section 20 ("No Gifts or Gratuities"); Section 22 ("Certification Regarding Debarment"); Section 30 ("State Facilities"); and Section 32.A ("Certification Regarding Use of State Funds").

20. No Gifts or Gratuities: Party shall not give title or possession of anything of substantial value (including property, currency, travel, and/or education programs) to any officer or employee of the State during the term of this Agreement.

21. Regulation of Hydrofluorocarbons: Party confirms that all products provided to or for the use of the State under this Agreement shall not contain hydrofluorocarbons, as prohibited under 10 V.S.A. § 586.

22. Certification Regarding Debarment: Party certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, neither Party nor Party's principals (officers, directors, owners, or partners) are presently debarred, suspended, proposed for debarment, declared ineligible, or excluded from participation in Federal programs, or programs supported in whole or in part by Federal funds. Party further certifies under pains and penalties of perjury that, as of the date that this Agreement is signed, Party is not presently debarred, suspended, nor named on the State's debarment list at: https://bgs.vermont.gov/purchasing-contracting/debarment.

23. Conflict of Interest: Party shall fully disclose, in writing, any conflicts of interest or potential conflicts of interest.

24. Vermont Public Records Act: Party acknowledges and agrees that this Agreement, any and all information obtained by the State from the Party in connection with this Agreement, and any obligations of the State to maintain the confidentiality of information are subject to the State of Vermont Access to Public Records Act, 1 V.S.A. § 315 *et seq.*

25. Force Majeure: Neither the State nor the Party shall be liable to the other for any failure or delay of performance of any obligations under this Agreement to the extent such failure or delay shall have been wholly or principally caused by acts or events beyond its reasonable control rendering performance illegal or impossible (excluding strikes or lockouts) ("Force Majeure"). Where Force Majeure is asserted, the nonperforming party must prove that it made all reasonable efforts to remove, eliminate or minimize such cause of delay or damages, diligently pursued performance of its obligations under this Agreement, substantially fulfilled all non-excused obligations, and timely notified the other party of the likelihood or actual occurrence of an event described in this paragraph.

26. Marketing: Party shall not use the State's logo or otherwise refer to the State in any publicity materials, information pamphlets, press releases, research reports, advertising, sales promotions, trade shows, or marketing materials or similar communications to third parties except with the prior written consent of the State.

27. Termination:

- **A. Non-Appropriation:** If this Agreement extends into more than one fiscal year of the State (July 1 to June 30), and if appropriations are insufficient to support this Agreement, the State may cancel this Agreement at the end of the fiscal year, or otherwise upon the expiration of existing appropriation authority. In the case that this Agreement is funded in whole or in part by Federal funds, and in the event Federal funds become unavailable or reduced, the State may suspend or cancel this Agreement immediately, and the State shall have no obligation to pay Party from State revenues.
- **B. Termination for Cause:** Either party may terminate this Agreement if a party materially breaches its obligations under this Agreement, and such breach is not cured within thirty (30) days after delivery of the non-breaching party's notice or such longer time as the non-breaching party may specify in the notice.
- **C. Termination Assistance:** Upon nearing the end of the final term or termination of this Agreement, without respect to cause, the Party shall take all reasonable and prudent measures to facilitate any transition required by the State. All State property, tangible and intangible, shall be returned to the State upon demand at no additional cost to the State in a format acceptable to the State.

28. Continuity of Performance: In the event of a dispute between the Party and the State, each party will continue to perform its obligations under this Agreement during the resolution of the dispute until this Agreement is terminated in accordance with its terms.

29. No Implied Waiver of Remedies: Either party's delay or failure to exercise any right, power, or remedy under this Agreement shall not impair any such right, power, or remedy, or be construed as a waiver of any such right, power, or remedy. All waivers must be in writing.

30. State Facilities: If the State makes space available to the Party in any State facility during the term of this Agreement for purposes of the Party's performance under this Agreement, the Party shall only use the space in accordance with all policies and procedures governing access to, and use of, State facilities, which shall be made available upon request. State facilities will be made available to Party on an "AS IS, WHERE IS" basis, with no warranties whatsoever.

31. Requirements Pertaining Only to Federal Grants and Subrecipient Agreements: If this Agreement is a grant that is funded in whole or in part by Federal funds:

A. Requirement to Have a Single Audit: The Subrecipient will complete the Subrecipient Annual Report annually within 45 days after its fiscal year end, informing the State of Vermont whether or not a Single Audit is required for the prior fiscal year. If a Single Audit is required, the Subrecipient will submit a copy of the audit report to the Federal Audit Clearinghouse within nine months. If a single audit is not required, only the Subrecipient Annual Report is required. A Single Audit is required if the subrecipient expends $750,000 or more in Federal assistance during its fiscal year and must be conducted in accordance with 2 CFR Chapter I, Chapter II, Part 200, Subpart F. The Subrecipient Annual Report is required to be submitted within 45 days, whether or not a Single Audit is required.

B. Internal Controls: In accordance with 2 CFR Part II, §200.303, the Party must establish and maintain effective internal control over the Federal award to provide reasonable assurance that the Party is managing the Federal award in compliance with Federal statutes, regulations, and the terms and conditions of the award. These internal controls should be in compliance with guidance in "Standards for Internal Control in the Federal Government" issued by the Comptroller General of the United States and the "Internal Control Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission.

C. Mandatory Disclosures: In accordance with 2 CFR Part II, §200.113, Party must disclose, in a timely manner, in writing to the State, all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting the Federal award. Failure to make required disclosures may result in the imposition of sanctions which may include disallowance of costs incurred, withholding of payments, termination of the Agreement, suspension/debarment, etc.

32. Requirements Pertaining Only to State-Funded Grants:

A. Certification Regarding Use of State Funds: If Party is an employer and this Agreement is a State-funded grant in excess of $1,000, Party certifies that none of these State funds will be used to interfere with or restrain the exercise of Party's employee's rights with respect to unionization.

B. Good Standing Certification (Act 154 of 2016): If this Agreement is a State-funded grant, Party hereby represents: (i) that it has signed and provided to the State the form prescribed by the Secretary of Administration for purposes of certifying that it is in good standing (as provided in Section 13(a)(2) of Act 154) with the Agency of Natural Resources and the Agency of Agriculture, Food and Markets, or otherwise explaining the circumstances surrounding the inability to so certify; and (ii) that it will comply with the requirements stated therein.

(End of Standard Provisions)

USDOT Standard Title VI Nondiscrimination Assurances Appendix A, E

Assurance Appendix A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, disability, income-level, or LEP in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations as set forth in Appendix E, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, sex, age, disability, income-level, or LEP.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:

    a. withholding payments to the contractor under the contract until the contractor complies; and/or
    b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement

as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

Assurance Appendix E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq*., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin), as implemented by 49 C.F.R. § 21.1 et seq. and 49 C.F.R. § 303;

- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq*.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq*.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq*.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (102 Stat. 28.), ("*….which restore[d] the broad scope of coverage and to clarify the application of title IX of the Education Amendments of 1972, section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and title VI of the Civil Rights Act of 1964*.");
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Justice regulations at 28 C.F.R. parts 35 and 36, and Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq), as implemented by 49 C.F.R. § 25.1 et seq.

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STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)

1. As used in these specifications:

   a. "Covered Area" means the geographical area described in the solicitation from which this contract resulted.

   b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.

   c. "Employer Identification Number" means the Federal Social Security Number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

   A Minority Group Member is:

   ...American Indian or Alaskan Native
   consisting of all persons having origins in any of the original people of North American and who maintain cultural identification through tribal affiliations or community recognition.

   ...Black
   consisting of all persons having origins in any of the Black racial groups of Africa.

   ...Asian or Pacific Islander
   consisting of all persons having origins in any of the original people of the Far East, Southeast Asia, the Indian Sub-Continent or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippines and Samoa.

   ...Hispanic
   consisting of all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin.

   ...Cape Verde an
   consisting of all persons having origins in the Cape Verde Islands.

   ...Portuguese
   consisting of all persons of Portuguese, Brazilian or other Portuguese culture or origin.

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000.00 the provisions of these specifications and the notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in the Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontract participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. the overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or subcontractor's failure to make good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in Paragraphs 7a through p of these specifications. The goals set for the Contractor in the solicitation from which this contract resulted are expressed as percentages in the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement nor the failure by a union with whom the Contractor has a collective bargaining agreement to refer either minority or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity . The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:

    a. Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment with specific attention to minority or female individuals working at such sites or in such facilities.

    b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notifications to the Regional Director when the union or unions, with which the Contractor has a collective bargaining agreement, have not referred to the Contractor a minority person or woman sent by the Contractor or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under Paragraph 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, Supervisors etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, and providing written notification to, and discussing the Contractor's EEO policy with, other Contractors and subcontractors with whom the Contractor anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notifications to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the EEO policy and Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (Paragraph 7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under Paragraph 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, reflected in the Contractor's minority and female workforce participation , makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's non-compliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under-utilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.

11. The Contractor shall not enter into any subcontract with any person for firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, terminations and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in Paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment-related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application or requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Economic Areas	Timetables	Goals for Minority participation for each trade (%)	Goals for Female Participation in each trade (%)
Entire State of Vermont:			
Vermont 003 Burlington, VT Non-SMSA Counties NH Coos; NH Grafton: NH Sullivan; VT Addison; VT Caledonia; VT Chitten- den; VT Essex; VT Frank- lin; VT Grand Isle; VT Lamoille; VT Orange; VT Orleans; VT Rutland; VT Washington; VT Windsor	Indefinite	0.8	6.9
Connecticut (Mass) 006 Hartford - New Haven Springfield, CT-MA Non-SMSA Counties CT Litchfield; CT Windham; MA Franklin; NH Cheshire; VT Windham	Indefinite	5.9	
New York 007 Albany - Schnec- tady - Troy, NY Non-SMSA Counties NY Clinton; NY Columbia; NY Essex; NY Fulton; NY Greene; NY Hamilton; NY Sohoharie; NY Warren; NY Washington; VT Bennington	Indefinite	2.6	

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The Contractor's compliance with the Executive Order and the regulation in CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3 (a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notifications shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any)

STATE OF VERMONT
AGENCY OF TRANSPORTATION

November, 1985
CA-109

CONTRACTOR'S EEO CERTIFICATION FORM

Certification with regard to the Performance of Previous Contracts of Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports.

The bidder ____, proposed subcontractor _____, hereby certifies that he/she has _____, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246 as amended, and that he/she has _____, has not _____, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

_____	_____	_____
Company	By	Title

NOTE: The above certification is required by the Equal Employment Opportunity regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5 (Generally only contracts or subcontracts of $10,000 or under are exempt.) Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration, or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

STATE OF VERMONT
AGENCY OF TRANSPORTATION
CERTIFICATE OF COMPLIANCE

For a bid/proposal to be considered valid, this form must be completed in its entirety, executed by a duly authorized representative of the bidder, and submitted as part of the response to the proposal.

A. **NON-COLLUSION:** The undersigned certifies under the penalties of perjury under the laws of the State of Vermont and the United States that it has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid/proposal.

B. **DEBARMENT:** The undersigned certifies under the penalties of perjury under the laws of the State of Vermont and the United States that it:

1. Is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency; and

2. Has not within a three-year period preceding this bid/proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

3. Is not presently indicted for, or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph 2 above; and

4. Has not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

5. **Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this bid/proposal, including whom it applies and dates of action. Exceptions will not necessarily result in denial of award but will be considered in determining bidder eligibility and/or responsibility. Providing false information may result in criminal prosecution or administration sanctions.**

C. **BYRD ANTI-LOBBYING:** The undersigned hereby certifies, by signing and submitting this bid/proposal, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or

employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction as required by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

4. The undersigned also agrees by submitting its bid/proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

E. **WORKER CLASSIFICATION COMPLIANCE REQUIREMENT:** In accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), the following provisions and requirements apply to the undersigned when the total project costs exceed $250,000.00.

Bidder is required to self-report the following information relating to past violations, convictions, suspensions, and any other information related to past performance and likely compliance with proper coding and classification of employees. The Agency of Transportation is requiring information on any incidents that occurred in the previous 12 months. Attach additional pages as necessary. **If not applicable, please enter 'Not Applicable' or 'N/A' below.**

Summary of Detailed Information	Date of Notification	Outcome

Bidder hereby certifies that the company/individual is in compliance with the requirements as detailed in Section 32 of Act 54(2009), as amended by Section 17 of Act 142 (2010) and further amended by Section 6 of Act 50 (2011).

Subcontractor Reporting.

A. **Contracts for Services.** The undersigned hereby acknowledges and agrees that if it is a successful bidder, prior to execution of any contract resulting from this solicitation, the undersigned will provide to the State a list of all proposed subcontractors and subcontractors' subcontractors, together with the identity of those subcontractors' workers compensation insurance providers, and additional required or requested information, as applicable, in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), the undersigned will provide any update of such list to the State as additional subcontractors are hired. The undersigned further acknowledges and agrees that the failure to submit subcontractor reporting in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54) will constitute non-compliance and may result in cancellation of contract and/or restriction from bidding on future state contracts.

B. **Construction Contracts**. The Contractor is required to provide a list of subcontractors on the job along with lists of subcontractor's subcontractors and by whom those subcontractors are insured for workers' compensation purposes. This is not a requirement for subcontractor's providing supplies only and no labor to the overall contract or project.

   Additionally, the Contractor shall collect and retain evidence of subcontractors' workers' compensation insurance, such as the ACORD insurance coverage summary sheet. Agency of Transportation will periodically verify the Contractor's compliance.

This information must be updated as necessary and provided to the State as additional subcontractors are hired. If none, please enter 'Not Applicable' or 'N/A' below.

Sub-Contractor	Insured By	Sub-Contractor's Sub	Insured By

The undersigned further acknowledges and agrees that the failure to submit subcontractor reporting in accordance with Section 32 of The Vermont Recovery and Reinvestment Act of 2009 (Act No. 54), and as amended will constitute non-compliance and may result in cancellation of contract and/or restriction from bidding on future state contracts.

As a duly authorized representative of the bidder, I hereby certify that the information above is true and correct.

Date: _____

Duly Authorized Signature: _____

Name and Title of Person Signing:
(Duly Authorized Signer) _____

Company Name: _____

Company Address: _____

_____

E-Mail Address: _____

Minimum Labor and Truck Rates
Under Title 19, Vermont Statutes
Annotated Section 18, as amended

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MONTPELIER

FOR OTHER THAN FEDERAL-AID. In accordance with the provisions of Title 19, VSA, Section 18, the following minimum rate for labor shall apply to this project:

The minimum wage for common labor will not be less than the State or Federal minimum wage, whichever is higher.

ON FEDERAL-AID PROJECTS ONLY.

The minimum rates for labor for Federal-Aid Projects shall be those set in the Wage Determination Decision of the U.S. Secretary of Labor for each project in accordance with the Federal-Aid Highway Act of 1956. When such wage rates are required they shall be included in the proposal. In the event these rates are lower than the Vermont rates, the Vermont rates shall prevail.

TRUCK RATES. In accordance with the provisions of Title 19, VSA, Section 18, the following minimum rates for trucks shall apply to this project:

Trucks, not Including Driver Water Level Body Capacity	Minimum Rates Per YD per Hr.
Trucks, Equipment Loaded	$1.65

STATE OF VERMONT

AGENCY OF TRANSPORTATION

MONTPELIER

COMMODITY INDEX PRICES.

(a) Price Adjustment, Asphalt. When Item 690.0300 is included in the Contract, asphalt price adjustment will be performed according to the requirements of Section 690 for all asphalt and emulsified asphalt incorporated into the work, including that incorporated under Special Specification pay items.

(b) Price Adjustment, Fuel. When Item 690.0400 is included in the Contract, fuel price adjustment will be performed according to the requirements of Section 690 for the pay items specified therein, and for any pay items identified in the Special Provisions as being eligible for fuel price adjustment.

(c) Commodity Index Prices. The Index Prices for asphalt and fuel for this Contract are specified in Table 1.

TABLE 1 – COMMODITY INDEX PRICES FOR THIS CONTRACT

	Asphalt (dollars/ton)	Fuel (dollars/gallon)
Index Price	$636.00	$4.10

VERMONT AGENCY OF TRANSPORTATION
PROPOSAL SCHEDULE OF PAY ITEMS

LETTING DATE: 08/09/2024 11:00 AM

CONTRACT ID:C03196

PROJECT(S):BENNINGTON STP 1000(23)

ITEM NO.	DESCRIPTION	QUANTITY	UNITS
ITEMS COMMON TO ALL ALTERNATES			
201.1000	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	1.000	LS
203.1500	COMMON EXCAVATION	4,420.000	CY
203.1600	SOLID ROCK EXCAVATION	130.000	CY
203.2800	EXCAVATION OF SURFACES AND PAVEMENTS	270.000	CY
203.3000	EARTH BORROW	500.000	CY
203.3100	SAND BORROW	1.000	CY
204.2000	TRENCH EXCAVATION OF EARTH	1,680.000	CY
204.2100	TRENCH EXCAVATION OF ROCK	165.000	CY
204.2200	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	1.000	CY
204.3000	GRANULAR BACKFILL FOR STRUCTURES	1,000.000	CY
210.1000	COARSE-MILLING, BITUMINOUS PAVEMENT	500.000	SY
230.0010	DISPOSAL OF CONTAMINATED MATERIALS (N.A.B.I.)	355,500.000	DL
230.0020	REUSE OF CONTAMINATED MATERIALS	500.000	CY
230.0030	PROJECT OPERATIONS PLAN	1.000	LS
230.0040	PROJECT OPERATIONS COMPLETION REPORT	1.000	LS
230.0050	ENVIRONMENTAL OVERSIGHT	720.000	HR
230.0060	MANAGEMENT OF CONTAMINATED GROUNDWATER	1.000	LS
301.3500	SUBBASE OF DENSE GRADED CRUSHED STONE	5,400.000	CY
404.1100	TACK COAT, EMULSIFIED ASPHALT	21.000	CWT
406.0230	BITUMINOUS CONCRETE PAVEMENT, TYPE IIS, QA TIER III	1,425.000	TON
406.0430	BITUMINOUS CONCRETE PAVEMENT, TYPE IVS, QA TIER III	490.000	TON
406.3400	BITUMINOUS CONCRETE PAVEMENT, NON-PAVER PLACED, TYPE IVS	240.000	SY
406.9100	PAY ADJUSTMENT, BCP, MIXTURE PROPERTIES (N.A.B.I.)	1.000	DL
406.9200	PAY ADJUSTMENT, BCP, MAT DENSITY (N.A.B.I.)	1.000	DL
507.1200	REINFORCING STEEL, LEVEL II	16,500.000	LB
601.0805	12 INCH RCP CLASS III	350.000	LF
601.0806	12 INCH RCP CLASS IV	28.000	LF
601.0810	15 INCH RCP CLASS III	30.000	LF
601.0815	18 INCH RCP CLASS III	240.000	LF
601.0816	18 INCH RCP CLASS IV	120.000	LF
601.2605	12 INCH CPEP(SL)	180.000	LF
601.2615	18 INCH CPEP(SL)	140.000	LF
601.7010	15 INCH CPEPES	1.000	EACH
601.7015	18 INCH CPEPES	2.000	EACH
602.2500001	GRANITE FOREBAY PAVERS	35.000	SY
604.2000	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	7.000	EACH
604.2000	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE (BEEHIVE GRATE)	2.000	EACH
604.2000	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE (DOUBLE GRATE)	3.000	EACH
604.2100	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER	11.000	EACH
604.2100	PRECAST REINFORCED CONCRETE MANHOLE WITH CAST IRON COVER (5 FOOT DIAMETER)	2.000	EACH
604.4000	CHANGING ELEVATION OF DIS, CATCH BASINS, OR MANHOLES	1.000	EACH
604.4200	CHANGING ELEVATION OF SEWER MANHOLES	1.000	EACH
605.1008	UNDERDRAIN PIPE, 8 INCH	200.000	LF

VERMONT AGENCY OF TRANSPORTATION
PROPOSAL SCHEDULE OF PAY ITEMS

LETTING DATE: 08/09/2024 11:00 AM

CONTRACT ID:C03196

PROJECT(S):BENNINGTON STP 1000(23)

ITEM NO.	DESCRIPTION	QUANTITY	UNITS
605.9500	UNDERDRAIN FLUSHING BASIN	1.000	EACH
609.1500	DUST CONTROL WITH CALCIUM CHLORIDE	8.000	TON
613.1001	STONE FILL, TYPE I	25.000	CY
613.1002	STONE FILL, TYPE II	60.000	CY
616.2100	VERTICAL GRANITE CURB	2,100.000	LF
616.2150	VERTICAL GRANITE CURB, MOUNTABLE	1,125.000	LF
618.1005	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	275.000	SY
618.1008	PORTLAND CEMENT CONCRETE SIDEWALK, 8 INCH	100.000	SY
618.1500	BITUMINOUS CONCRETE SIDEWALK	84.000	TON
618.3000	DETECTABLE WARNING SURFACE	270.000	SF
618.4108	STAMPED CONCRETE ISLAND, 8 INCH	1,080.000	SY
619.1700	YIELDING MARKER POSTS	4.000	EACH
620.5500	REMOVAL OF EXISTING FENCE	180.000	LF
622.1000	INSULATION BOARD	0.300	MFBM
625.2006	SLEEVES FOR UTILITIES, PVC, 6 INCH	200.000	LF
625.6002	WIRED CONDUIT, 2 INCH	2,025.000	LF
625.7000	POWER DROP STANCHION	1.000	EACH
625.7010	JUNCTION BOX	10.000	EACH
629.1724	DUCTILE IRON WATER PIPE, CEMENT-LINED, ALL-INCLUSIVE, 6 IN.	25.000	LF
629.1732	DUCTILE IRON WATER PIPE, CEMENT-LINED, ALL-INCLUSIVE, 8 IN.	20.000	LF
629.2524	GATE VALVE WITH VALVE BOX, ALL-INCLUSIVE, 6 INCH	1.000	EACH
629.2532	GATE VALVE WITH VALVE BOX, ALL-INCLUSIVE, 8 INCH	2.000	EACH
629.2800	ADJUST ELEVATION OF VALVE BOX	4.000	EACH
629.3500	HYDRANT, ALL-INCLUSIVE	1.000	EACH
629.3800	REMOVE HYDRANT	1.000	EACH
630.1000	UNIFORMED TRAFFIC OFFICERS	2,100.000	HR
630.1500	FLAGGERS	4,500.000	HR
631.1000	FIELD OFFICE, ENGINEER'S	1.000	LS
631.1600	TESTING EQUIPMENT, CONCRETE	1.000	LS
631.1700	TESTING EQUIPMENT, BITUMINOUS	1.000	LS
631.2600	FIELD OFFICE COMMUNICATIONS (N.A.B.I.)	4,500.000	DL
633.1000	CPM SCHEDULE	13.000	EACH
634.1000	EMPLOYEE TRAINEESHIP	520.000	HR
635.1100	MOBILIZATION/DEMOBILIZATION	1.000	LS
641.1100	TRAFFIC CONTROL, ALL-INCLUSIVE	1.000	LS
641.1200	MAINTENANCE OF PEDESTRIAN TRAFFIC	1.000	LS
641.1500	PORTABLE CHANGEABLE MESSAGE SIGN	6.000	EACH
646.4060	DURABLE 4 INCH WHITE LINE, RECESSED POLYUREA	2,850.000	LF
646.4160	DURABLE 4 INCH YELLOW LINE, RECESSED POLYUREA	3,150.000	LF
646.4460	DURABLE 8 INCH WHITE LINE, RECESSED POLYUREA	170.000	LF
646.4560	DURABLE 8 INCH YELLOW LINE, RECESSED POLYUREA	140.000	LF
646.4660	DURABLE 12 INCH WHITE LINE, RECESSED POLYUREA	60.000	LF
646.4860	DURABLE 24 INCH STOP BAR, RECESSED POLYUREA	16.000	LF
646.4960	DURABLE LETTER OR SYMBOL, RECESSED POLYUREA	18.000	EACH
646.5060	DURABLE CROSSWALK MARKING, RECESSED POLYUREA	95.000	LF

VERMONT AGENCY OF TRANSPORTATION
PROPOSAL SCHEDULE OF PAY ITEMS

LETTING DATE: 08/09/2024 11:00 AM

CONTRACT ID:C03196

PROJECT(S):BENNINGTON STP 1000(23)

ITEM NO.	DESCRIPTION	QUANTITY	UNITS
646.6000	TEMPORARY 4 INCH WHITE LINE	9,000.000	LF
646.6100	TEMPORARY 4 INCH YELLOW LINE	2,600.000	LF
646.6420	TEMPORARY 8 INCH WHITE LINE, PAINT	270.000	LF
646.6500	TEMPORARY 8 INCH YELLOW LINE	265.000	LF
646.6600	TEMPORARY 12 INCH WHITE LINE	120.000	LF
646.6800	TEMPORARY 24 INCH STOP BAR	30.000	LF
646.6900	TEMPORARY LETTER OR SYMBOL	40.000	EACH
646.7000	TEMPORARY CROSSWALK MARKING	185.000	LF
649.1100	GEOTEXTILE FOR ROADBED SEPARATOR	720.000	SY
649.3100	GEOTEXTILE UNDER STONE FILL	150.000	SY
651.1500	TURF ESTABLISHMENT, GENERAL SEED	9,100.000	SY
651.1700	TURF ESTABLISHMENT, TEMPORARY SEED	4,600.000	SY
651.3500	TOPSOIL	1,040.000	CY
653.0100	EPSC PLAN	1.000	LS
653.0200	MONITORING EPSC PLAN	240.000	HR
653.0300	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	4,000.000	DL
653.1000	HAY MULCH	4.000	TON
653.2001	ROLLED EROSION CONTROL PRODUCT, TYPE I	625.000	SY
653.2501	CHECK DAM, TYPE I	25.000	CY
653.3500	STABILIZED CONSTRUCTION ENTRANCE	125.000	CY
653.4001	INLET PROTECTION DEVICE, TYPE I	3.000	EACH
653.4002	INLET PROTECTION DEVICE, TYPE II	12.000	EACH
653.4702	SILT FENCE, TYPE II	285.000	LF
653.5000	BARRIER FENCE	500.000	LF
653.5500	PROJECT DEMARCATION FENCE	2,600.000	LF
656.2002	EVERGREEN TREES, MEDIUM	14.000	EACH
656.2003	EVERGREEN TREES, LARGE	1.000	EACH
656.3003	DECIDUOUS TREES, LARGE	22.000	EACH
656.6500	LANDSCAPE WATERING	18.000	MGAL
656.8000	LANDSCAPE BACKFILL, TRUCK MEASUREMENT	25.000	CY
656.8500	TREE PROTECTION	1.000	LS
675.2000	TRAFFIC SIGN, FLAT SHEET ALUMINUM	240.000	SF
675.3410	SQUARE TUBE SIGN POST AND ANCHOR	560.000	LF
675.5000	SIGN REMOVAL, FLAT SHEET ALUMINUM	37.000	EACH
675.6000	RESETTING SIGNS	1.000	EACH
675.6100	SETTING SALVAGED POSTS	1.000	EACH
678.2020004	RRFB, SOLAR-POWERED, DOUBLE SIDED	6.000	EACH
678.2020005	REMOVE RRFB SYSTEM	2.000	EACH
679.4600	STREET LIGHT ASSEMBLY	14.000	EACH
679.5400	STREET LIGHTING CONTROL DEVICE	1.000	EACH
679.7000	TEMPORARY STREET LIGHT ASSEMBLY	4.000	EACH
681.1020	REMOVE LANDSCAPE ITEMS	1.000	EACH
690.0300	PRICE ADJUSTMENT, ASPHALT (N.A.B.I.)	1.000	DL