Saranac Lofts

120 Broadway

Saranac Lake, New York

Remedial Action Work Plan

NY BCP Site Number: C517015

Prepared for:

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December 2022 DRAFT

CERTIFICATIONS

I, Daniel Bellucci, certify that I am currently a NYS registered professional engineer and that this Remedial Action Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

099470	Month ##, 2022	
NYS Professional Engineer Number	Date	Signature

It is a violation of Article 145 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 145, New York State Education Law.

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EXECUTIVE SUMMARY

Parkview Development & Construction, LLC has established this plan to remediate the property located as 120 Broadway, Village of Saranac Lake, Franklin County, New York (the "Site"). A Remedial Investigation (RI) was completed by Gallagher Bassett Technical Services (GBTS) following a New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Investigation Work Plan (RIWP, April 2022), to compile and evaluate data and information necessary to develop this Remedial Action Work Plan (RAWP). The remedial action described in this document achieves the remedial objectives, complies with applicable environmental standards, criteria and guidance and conforms to applicable laws and regulations.

Site Description and Physical Setting

The Site is a 1.11-acre property located at 120 Broadway, Village of Saranac Lake, Franklin County, New York (identified as Village of Saranac Lake tax lot parcels: Section 446.68, Block 6, Lots 11 and 12). The property is located in a developed village area comprised primarily of small commercial and residential use structures.

The Site is an irregularly-shaped mixed-use (commercial and vacant) parcel comprised of two contiguous tax lots (Lot 12 fronting the northern side of Broadway, with Lot 11 to the rear). A two-story vacant commercial building (a former tire sales/service facility and historical filling station) is located at the southern portion of Lot 12. The remainder of the property is comprised of a gravel parking lot at the rear of the building, and an overgrown yard (entirety of Lot 11). All Figures show the BCP Site boundaries.

Uses at adjoining properties include vacant land (former railroad tracks) to the north, Saranac Lake Volunteer Rescue Squad to the east, multi-family residential developments to the west of Lot 12 and south of Lot 11, bookstore to the south, and a propane storage facility (Hyde Fuel) to the west.

Figure 1 shows the Site location and Figure 2 is a Site map, showing the location of existing buildings and other features (all RAWP Figures show the BCP Site boundaries).

Site History

Site history is identified in a Combined Phase I and II Environmental Site Assessment documenting on-Site soil sampling (GBTS, July 2021). The southern portion of the site (Lot 12) was in use for commercial purposes (as a hotel) as early as 1895 and was developed for use as a filling station and automotive maintenance facility sometime between 1916 and 1924. This area currently contains a small structure that has been most recently used as a tire shop (beginning circa 1969). The northern portion of the property (Lot 11) contained a woodworking factory from at least 1916 through 1965 (remaining portions of these buildings were present on the property as late as 1977). The former filling station reportedly contained two gasoline underground storage tanks (USTs), with capacities in the range of 550 to 1,000-gallons. A suspect fill port (filled with concrete), likely formerly servicing one of the two gasoline USTs, is located at the paved area to the southwest of the building. The report identified potential impacts from former commercial uses, and closed and suspect USTs, as Recognized Environmental Conditions, and noted the potential presence of debris from the demolition of former on-site structures.

A concurrent subsurface investigation confirmed a suspect UST or tank grave at the southwestern corner of Lot 12, and revealed field evidence of gross petroleum contamination in soil in the vicinity of the suspect UST. Based on these findings, GBTS reported spill #2103108 to NYSDEC.

Summary of Proposed Redevelopment Plan

The Remedial Action to be performed under the RAWP is intended to make the Site protective of human health and the environment consistent with the contemplated end use. The proposed redevelopment plan and end use is described here to provide the basis for this assessment (note, however, that the Remedial Action contemplated under this RAWP may also be implemented independent of the proposed redevelopment plan).

Current development plans for the Site include construction of a 17,102 square feet (sf) four-story residential building at the northern portion of the Site (Lot 11), a 2,957 sf three-story shared commercial and residential building at the southern portion (Lot 12), and approximately 12,000 sf of paved parking areas and sidewalks. Both proposed structures will be slab-on-grade, with the structure at Lot 12 having a partial walk-out basement, consistent with the current slope of the Site. The remainder of the Site will contain paved parking areas and sidewalks, with peripheral landscaping. The proposed use is consistent with existing zoning for the property.

The project will result in the excavation and removal of contaminated soils, as well as potential subsurface debris, as regulated waste. Based on known environmental conditions, the project is expected to be managed as a Conditional Track 1 Unrestricted Use property.

Summary of Remedial Investigation

The Remedial Investigation Report (RIR, December 2022) documents Site fieldwork performed in May 2022, supplementing the findings from the earlier GBTS 2021 subsurface investigation (information from this fieldwork is included in the summary below). Subsurface investigations included collection and laboratory analysis of soil, groundwater and soil vapor samples.

1. Conducted an inspection to identify Areas of Concern (AOC) and physical obstructions;
2. Reviewed the findings of the 2021 Phase II investigation, which included: performance of a geophysical survey to identify underground features; extension of twenty-two (22) mechanized soil borings (SB-01 to SB-22); manual collection of thirteen (13) surface soil samples at Lot 11; and, installation of four (4) soil vapor implants (SV-01 to SV-04).
3. Advanced twenty-nine (29) mechanized soil borings (2SB-01 to 2SB-29) and collected a total of sixty-one (61) soil samples (generally two to three samples from each location).
4. Installed and sampled ten (10) permanent groundwater monitoring wells (MW-01, and MW-03 to MW-11); and,
5. Installed and sampled thirteen (13) vapor implants (2SV-01 to 2SV-13), including two (2) sub-slab vapor samples.

Summary of Environmental Findings

1. Local area topography is generally hilly and varied, and the Site lies in a somewhat-level, relatively low area, with overall gentle downward slopes to the southeast, towards the Saranac River. The elevation of the property ranges from approximately 1,547 to 1,560 feet above mean sea level (amsl); the surface slopes downward from a high point at the northwestern corner to a low area immediately north of the on-Site building, then rises to the highest point at the property frontage on Broadway.

2. Depth to groundwater (from well casings) ranged from 3.84 feet (MW-03) to 10.09 feet (MW-01), corresponding to groundwater elevations of approximately 1,541 to 1548 feet amsl, and flow has been inferred to be overall southeasterly, toward the Saranac River.

3. Boring refusal, likely on hard crystalline bedrock, was encountered in several borings, ranging from approximately 1 foot below grade surface (bgs) at the southern end of Lot 12 to 13.5 feet bgs at the northern half of Lot 12 and at Lot 11.

4. Subsurface soils recovered during the RI and earlier investigations generally consisted of variable-texture fill materials (sandy loams and sands, with some ash and coal fragments) ranging in depth from several inches to up to 10 feet bgs, and underlying native materials were generally comprised of sands, sandy loams, sandy clay loams, and clay, with several low-lying areas having peat layers. Wet soil was found in most borings, from the surface (at wetland areas on Lot 11) to as deep as 15 feet bgs at the southern portion of Lot 12.

5. Field evidence of gross petroleum contamination was observed at borings at the southwestern side of the structure (near suspect USTs) and throughout the northern (rear) portion of Lot 12, including soil with sheens, dark staining, strong odors, and elevated photoionization detector (PID) readings (as high as 678 parts per million [ppm]). Petroleum impacts were primarily seen in moist to wet soils near the groundwater interface. Strong petroleum odors and elevated PID readings were observed at wells at and near the release area (MW-01, MW-03, and MW-04).

6. Laboratory data for soil analytes were compared to NYSDEC Remedial Program Soil Cleanup Objectives (SCOs) for Unrestricted Use (UU) and Restricted-Residential Use (RRU) as provided in 6 NYCRR Part 375, Tables 375-6.8(a) and 375-6.8(b), and Guidance Values (GVs) presented in NYSDEC *Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (June 2021). Samples were analyzed in accordance with the RIWP Quality Assurance Project Plan (QAPP), including Target Compound List (TCL) volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) plus tentatively identified compounds (TICs), TAL metals including Cr^{+6} and cyanide, PFAS, polychlorinated biphenyls (PCBs), pesticides, and herbicides.

VOCs related to gasoline were detected above RRU SCOs in soil from one boring located in the petroleum contamination area, immediately north of the Site building, including high levels of BTEX, substituted benzenes, methylcyclohexane, and total TICs. Xylene (a contaminant found in Site groundwater) was reported above the POG SCO in soil from a boring northeast of the building (no other VOCs found in groundwater at high levels were also detected in soil above POG SCOs). Several other samples collected at Lot 12 in areas of overt petroleum impacts (from 5 to 15 feet bgs) contained petroleum VOCs above UU SCOs, and relatively elevated total TICs.

Acetone and methylene chloride were above UU SCOs (but well below RRU SCOs) in multiple samples throughout the site, and one sample contained a marginally elevated level of 2-butanone (MEK). VOC TICs were generally not found in samples from Lot 11.

PAHs were detected above RRU SCOs in three samples (at the far northern end of Lot 12 and at Lot 11); no other sampling locations contained SVOCs above RRU or UU SCOs. Naphthalene (the only SVOC contaminant found at elevated levels in Site groundwater) was reported close to the POG SCO in one sample at Lot 12 (in the area of petroleum impacts).

TAL metals were detected above RRU SCOs in two samples at the northern portion of Lot 12, including barium, cadmium, copper, and lead, and multiple other samples contained TAL metals above UU SCOs, generally cadmium, copper, lead, mercury, and/or zinc.

No pesticides, PCBs, and herbicides were detected in soil samples, with exception of a low level of one pesticide (well below the UU SCO) in a surface sample.

Only limited PFAS impacts were documented in the RIR; perfluorooctanesulfonic acid (PFOS) was detected above the UU GV in one sample but was not detected at elevated levels in groundwater, and low levels of PFOS and/or other PFAS were reported in eight other samples.

7. Laboratory data for groundwater analytes are based on Ambient Water Quality Standards and Guidance Values (AWQS) presented in NYSDEC Division of Water *Technical and Operational Guidance Series 1.1.1* (TOGS 1.1.1) and numerical criteria in the PFAS Guidance (provided only for perfluorooctanoic acid [PFOA] and PFOS).

VOCs and SVOCs were reported above AWQS at Lot 12 in MW-01 (likely release area) and MW-04 (the closest downgradient well), with total VOCs of approximately 5,000 and 700 parts per billion, respectively, and high levels of VOC and SVOC TICs in both wells. Petroleum impacts included elevated levels of BTEX, trimethylbenzenes, cyclohexanes, and naphthalenes. Significant impacts from chlorinated VOCs were limited to elevated levels 1,1,2-trichloroethane (TCA) in MW-04. Trace to low levels of non-chlorinated solvents (e.g., acetone) and non-petroleum SVOCs were reported in other wells.

Multiple metals were reported in all groundwater samples, with elevated levels of both total and dissolved cobalt, iron, manganese, and/or sodium in all wells except MW-05. PFAS were detected in MW-01, MW-04, MW-05, MW-09 and MW-11, with PFOS and/or PFOA reported in MW-04 and MW-09, only, well below NYSDEC guidance values. Hexavalent chromium, cyanide, pesticides, PCBs, and herbicides were not detected in any groundwater samples.

8. Vapor samples were analyzed for VOCs (NYSDEC does not have any standards, criteria or guidance values for volatile chemicals in subsurface vapors). High levels of VOCs related to gasoline were detected at 2SV-06, including cyclohexane, n-heptane, n-hexane, and BTEX and related VOCs (total VOCs over 10,000,000 $\mu g/m^3$). Trace to low levels of one or more of these VOCs were found in other locations (highest overall concentrations were reported nearby at 2SV-05 and 2SV-07).

   The non-chlorinated solvent MEK was reported at relatively elevated levels in nine vapor samples (this VOC was found at a low level in groundwater at MW-08, and above the UU SCO in one soil sample during the earlier investigation). Trace- to low-level contamination by multiple other VOCs was reported in all RI samples, including several detections of tetrachloroethene and methylene chloride, which are identified in New York State Department of Health generic decision matrices for evaluating potential soil vapor intrusion.

Nature and Extent of Contamination

The nature and extent of Site contamination has been established during the RI, inclusive of the results of the 2021 Phase II investigation.

NYSDEC spill #2103108 was reported for the Site based on field evidence of petroleum contamination in soil throughout Lot 12, likely due to a release from former gasoline USTs, and potentially from historical repair activities. Petroleum VOCs are above RRU SCOs and/or POG SCOs in soil near the tank location, and north and northeast of the Site building, and are likely to be present beneath the structure.

High levels of petroleum VOCs (BTEX and substituted benzenes) and SVOCs (naphthalene) are present in groundwater in monitoring wells at the likely release area at the southwestern portion of the Site (MW-01), and northeast of the building (MW-04). The detection of high levels of total TICs in these wells, and in nearby soil borings, is likely indicative of natural degradation of petroleum over an extended period of time. Petroleum appears to be moving in the direction of overall groundwater flow, which is north-northeasterly at Lot 12, and high levels of gasoline VOCs were found in soil vapor at 2SV-06, located downgradient of the contaminated wells. An elevated level of TCA was also reported in groundwater at MW-04, suggesting an on-Site release at or near the Site structure (an off-Site source, however, cannot be ruled out based on current data).

PAH and metal contamination has been detected throughout the Site, generally in fill soils from the upper 0 to 5 feet interval, with a limited number of locations exceeding RRU SCOs. PFAS impacts are similarly limited to upper soils, with only a single, low-level exceedance of NYSDEC SCG. Site groundwater shows low-level metal contamination and impacts by SVOCs (primarily PAHs) and PFAS, which appear to be related to local groundwater conditions rather than a significant on-Site source area. Pesticides, PCBs, and herbicides were not detected in any soil or water samples. Other than the documented petroleum contamination at 2SV-06, soil vapor impacts are typical of urban/commercial settings.

The RI findings are consistent with the Phase II investigation results and indicate significant on-Site contamination associated with the spill event (Lot 12) and general impacts from poor-quality fill, demolition debris, and/or former commercial uses (Lot 11).

Qualitative Human Health Exposure Assessment

The qualitative exposure assessment identified potential completed routes of exposure to construction and remediation workers, as well as trespassers (during construction), through inhalation, ingestion and/or dermal contact of organic compounds (PAHs) and metals during excavation activities, and the potential for dust exposure to off-Site receptors and the public adjacent to the Site. The Construction Health and Safety Plan (CHASP) and the Community Air Monitoring Plan (CAMP) prepared for the Site identify such exposures and provide instructions for on-Site workers and the nearby community to minimize potential exposures during remediation and construction activities. There are no potential environmental impacts through groundwater to surface water discharge.

Summary of the Remedy

Based on known environmental conditions, the Volunteer expects to complete a Conditional Track 1 Unrestricted Use remedy. The proposed remedial action plan achieves all of the remedial action goals established for the project. The proposed remedial action is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants and uses standard methods that are well established in the industry.

The proposed remedial action will consist of:

1. Performance of all required NYS BCP Public Participation activities according to an approved Public Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic compounds.
3. Selection of Track 1 Unrestricted Use SCOs for soil.
4. Site preparation including setup of Site security, equipment mobilization, demolition of the existing building, utility mark outs and marking/staking excavation areas.
5. Completion of a Waste Characterization Study prior to excavation. Waste characterization soil samples will be collected at a frequency dictated by the disposal facility.
6. Removal of any underground storage tanks encountered during demolition work and soil excavation in compliance with applicable local, State and Federal laws and regulations.

7. Removal of all grossly contaminated material in the spill area at Lot 12 (estimated volume 4,500 cubic yards), with excavation to bedrock or clean soil endpoints that meet Track 1 UU SCOs, and a one-time application of an ISCO reagent at the excavation base to degrade petroleum contamination in groundwater (reagents will be applied at or below excavation depths that correspond to the Site water table);

8. Removal of soil at remaining portions of the Site that exceeds Track 1 UU SCOs (estimated volume 2,600 cubic yards, anticipated maximum depth of approximately 13 feet bgs); additional excavation may occur for Site improvements and general, and soil may require removal if found to be unstable or otherwise unacceptable for Site development.

9. Screening of excavated soil/fill for indications of contamination by visual means, odor, and monitoring with a PID, and on-Site segregation of excavated media (as needed).

10. Management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.

11. Transportation and off-Site disposal of all soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.

12. Import of materials to be used for backfill in compliance with this plan and in accordance with applicable laws and regulations. If determined acceptable for re-use by the NYSDEC, existing fill soils that meet Unrestricted Use SCOs may be relocated on the Site for Site development.

13. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.

14. Dewatering in compliance with city, state, and federal laws and regulations. Extracted groundwater will either be containerized for off-Site licensed or permitted disposal, or will be discharged to the local wastewater system incompliance with all municipal requirements, including pre-treatment if warranted.

15. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.

16. Decommissioning of existing monitoring wells, as required, in accordance with NYSDEC protocols;

17. Installation and post-remediation sampling of new monitoring wells in order to document the effectives of the groundwater treatment (the number and location of new wells, the sampling frequency, and the need for any additional groundwater treatment will be determined in consultation with NYSDEC);

18. Installation of an active vapor control measure (e.g., SSDS) at all new Site buildings to mitigate potential migration of vapors into buildings from soil and groundwater, and subsequent post-remediation monitoring of sub-slab vapor and indoor air to document effectiveness of the control (continued active use of the vapor control measure will be based on NYSDEC and NYSDOH review of post construction vapor and air monitoring results);

19. Submission of a Final Engineering Report (FER) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines Site boundaries, lists any changes from this RAWP, and (if required) describes all Institutional and Engineering Controls to be implemented at the Site.

20. Submission of an approved SMP in the FER for management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of ICs and ECs, and reporting at a specified frequency.

21. Recording of an approved environmental easement with the Franklin County Clerk that includes a listing of Institutional Controls. Institutional Controls will be in accordance with NYSDEC requirements for the completed remedy, including (among others) the prohibition of the following: (1) use of groundwater without treatment rendering it safe for the intended use; (2) disturbance of residual contaminated material unless conducted in accordance with the approved SMP; and (3) higher level of land usage without NYSDEC approval. The environmental easement will include a listing of Engineering Controls and a requirement that management of these controls must be in compliance with an approved SMP.

REMEDIAL ACTION WORK PLAN

1 INTRODUCTION

Saranac Lofts Manager LLC has submitted this Remedial Action Work Plan (RAWP) to remediate the property known as 120 Broadway, Village of Saranac Lake, Franklin County, New York (the "Site"). Development plans include demolition of the existing building, construction of two new buildings, and exterior improvements.

This RAWP summarizes the nature and extent of contamination as determined from data gathered during a Remedial Investigation (RI) performed in May 2022. It provides an evaluation of a New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Track 1 cleanup, where Unrestricted Use (UU) Soil Cleanup Objectives (SCOs) are met, and a Track 2 cleanup, meeting Restricted-Residential Use (RRU) SCOs, where Institutional Controls (ICs) and Engineering Controls (ECs) are required to address residual contamination at portions of the Site.

The remedy described in this document is consistent with the procedures defined in NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10), and complies with all applicable standards, criteria and guidance, and with all applicable Federal, State and local laws, regulations and requirements.

The NYSDEC and New York State Department of Health (NYSDOH) have determined that this Site does not pose a significant threat to human health and the environment. The RI for this Site did not identify fish and wildlife resources.

A formal Remedial Design document will not be prepared.

1.1 Site Location and Description

The Site is a 1.11-acre property located at 120 Broadway, Village of Saranac Lake, Franklin County, New York (identified as Village of Saranac Lake tax lot parcels: Section 446.68, Block 6, Lots 11 and 12). The property is located in a developed village area comprised primarily of small commercial and residential use structures.

The Site is an irregularly-shaped mixed-use (commercial and vacant) parcel comprised of two contiguous tax lots (Lot 12 fronting the northern side of Broadway, with Lot 11 to the rear). A two-story vacant commercial building (a former tire sales/service facility and historical filling station) is located at the southern portion of Lot 12. The remainder of the property is comprised of a gravel parking lot at the rear of the building, and an overgrown yard (entirety of Lot 11). All Figures show the BCP Site boundaries.

Uses at adjoining properties include vacant land (former railroad tracks) to the north, Saranac Lake Volunteer Rescue Squad to the east, multi-family residential developments to the west of Lot 12 and south of Lot 11, bookstore to the south, and a propane storage facility (Hyde Fuel) to the west.

Figure 1 shows the Site location and Figure 2 is a Site map, showing the location of existing buildings and other features (all RAWP Figures show the BCP Site boundaries).

1.2 Contemplated Redevelopment Plan

The Remedial Action to be performed under the RAWP is intended to make the Site protective of human health and the environment consistent with the contemplated end use. The proposed redevelopment plan and end use is described here to provide the basis for this assessment. However, the Remedial Action contemplated under this RAWP may be implemented independent of the proposed redevelopment plan.

Development plans for the Site (see Appendix A) include construction of a 17,102 square feet (sf) four-story residential building at the northern portion of the Site (Lot 11), a 2,957 sf three-story shared commercial and residential building at the southern portion (Lot 12), and approximately 12,000 sf of paved parking areas and sidewalks. Both proposed structures will be slab-on-grade, with the structure at Lot 12 having a partial walk-out basement, consistent with the current slope of the Site. The remainder of the Site will contain paved parking areas and sidewalks, with peripheral landscaping. The proposed use is consistent with existing zoning for the property.

It is anticipated that approximately 2,600 cubic yards of petroleum-impacted soil and poor-quality fill materials will be removed to a maximum depth of approximately 13 feet below ground surface (bgs) during the remedial action.

Soil removal for general construction and Site improvements, including Site utilities and stormwater structures, may extend to a maximum depth of 13 feet bgs, and additional soil may require removal if found to be unstable or otherwise unacceptable for development reasons.

Based on known environmental conditions, the project is expected to be managed as a Conditional Track 1 Unrestricted Use property.

Figure 3 shows the remediation excavation plan.

2 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

A Remedial Investigation was performed in May 2022, supplementing the findings from an earlier subsurface investigation by GBTS in 2021 (information from this fieldwork is included in the summary below). Subsurface investigations included collection and laboratory analysis of soil, groundwater and soil vapor samples.

2.1 Summary of Remedial Investigation

The following environmental work plans and reports were developed for the Site:

- Gallagher Bassett Technical Services (GBTS), Remedial Investigation Work Plan (RIWP, April 2022; and,
- GBTS, Remedial Investigation Report (RIR, November 2022).

The following work was performed during the RI:

1. Conducted an inspection to identify Areas of Concern (AOC) and physical obstructions;
2. Reviewed the findings of the 2021 Phase II investigation, which included: performance of a geophysical survey to identify underground features; extension of twenty-two (22) mechanized soil borings (SB-01 to SB-22); manual collection of thirteen (13) surface soil samples at Lot 11; and, installation of four (4) soil vapor implants (SV-01 to SV-04).
3. Advanced twenty-nine (29) mechanized soil borings (2SB-01 to 2SB-29) and collected a total of sixty-one (61) soil samples (generally two to three samples from each location.
4. Installed and sampled ten (10) permanent groundwater monitoring wells (MW-01, and MW-03 to MW-11); and,
5. Installed and sampled thirteen (13) vapor implants (2SV-01 to 2SV-13), including two (2) sub-slab vapor samples.

2.2 Significant Threat

The NYSDEC and NYSDOH have determined that this Site does not pose a significant threat to human health and the environment.

2.3 Site History

Site history is identified in a Combined Phase I and II Environmental Site Assessment documenting on-Site soil sampling (GBTS, July 2021). The southern portion of the Site (Lot 12) was in use for commercial purposes (as a hotel) as early as 1895 and was developed for use as a filling station and automotive maintenance facility sometime between 1916 and 1924. This area currently contains a small structure that has been most recently used as a tire shop (beginning circa 1969). The northern portion of the property (Lot 11) contained a woodworking factory from at least 1916 through 1965 (remaining portions of these buildings were present on the property as late as 1977). The former filling station reportedly contained two gasoline underground storage tanks (USTs), with capacities in the range of 550 to 1,000-gallons. A suspect fill port (filled with concrete), likely formerly servicing one of the two gasoline USTs, is located at the paved area to the southwest of the building. The report identified potential impacts from former commercial uses, and closed and suspect USTs, as Recognized Environmental Conditions, and noted the potential presence of debris from the demolition of former on-Site structures.

A concurrent subsurface investigation confirmed a suspect UST or tank grave at the southwestern corner of Lot 12, and revealed field evidence of gross petroleum contamination in soil in the vicinity of the suspect UST. Based on these findings, GBTS reported spill #2103108 to NYSDEC.

2.4 Site Geology and Hydrogeology

Site geological and hydrogeological conditions, documented in the RIR, are summarized below:

1. Local area topography is generally hilly and varied, and the Site lies in a somewhat-level relatively low area, with overall gentle downward slopes to the southeast, towards the Saranac River. The elevation of the property ranges from approximately 1,547 to 1,560 feet above mean sea level (amsl); the surface slopes downward from a high point at the northwestern corner to a low area immediately north of the on-Site building, then rises to the highest point at the property frontage on Broadway.
2. Depth to groundwater (from well casings) ranged from 3.84 feet (MW-03) to 10.09 feet (MW-01), corresponding to groundwater elevations of approximately 1,541 to 1548 feet amsl, and flow has been inferred to be overall southeasterly, toward the Saranac River.

3. Boring refusal, likely on hard crystalline bedrock, was encountered in several borings, ranging from approximately 1 foot below grade surface (bgs) at the southern end of Lot 12 to 13.5 feet bgs at the northern half of Lot 12 and at Lot 11.

4. Subsurface soils recovered during the RI and earlier investigations generally consisted of variable-texture fill materials (sandy loams and sands, with some ash and coal fragments) ranging in depth from several inches to up to 10 feet bgs, and underlying native materials were generally comprised of sands, sandy loams, sandy clay loams, and clay, with several low-lying areas having peat layers. Wet soil was found in most borings, from the surface (at wetland areas on Lot 11) to as deep as 15 feet bgs at the southern portion of Lot 12.

2.5 Contamination Conditions

2.5.1 Conceptual Model of Site Contamination

The Site is covered to variable depths by a layer of urban fill materials, which may include material sourced from off-Site, impacted locations. Field evidence of petroleum contamination was observed at borings at the southwestern side of the existing Site structure near suspect USTs and throughout the northern (rear) portion of Lot 12, including soil with sheens, dark staining, strong odors, and photoionization detector (PID) readings (as high as 678 parts per million [ppm]). Consistent with observations made during the 2021 investigation, petroleum impacts were primarily seen in moist to wet soils near the groundwater interface. These contamination conditions are likely due to a release from former gasoline USTs, and potentially from historical repair activities.

Petroleum volatile organic compounds (VOCs) are above RRU SCOs and/or the Protection of Groundwater (POG) SCOs in soil near the tank location, and north and northeast of the Site building, and are likely to be present beneath the structure. High levels of petroleum VOCs (BTEX and substituted benzenes) and semi-volatile organic compounds (SVOCs) are present in groundwater at the likely release area at the southwestern portion of the Site and northeast of the building. The detection of high levels of total tentatively identified compounds (TICs) at these locations, as well as in nearby soil borings, is likely indicative of natural degradation of petroleum over an extended period of time. Petroleum appears to be moving in the direction of overall groundwater flow, which is north-northeasterly at Lot 12, and high levels of gasoline VOCs were found in soil vapor at 2SV-06, located downgradient of the release area.

An elevated level of 1,1,2-trichloroethane (TCA, a degreaser) was reported in groundwater immediately north (downgradient) of the existing structure, and relatively high levels of the non-chlorinated solvent 2-butanone (MEK) are present throughout the Site, suggesting potential on-Site releases (off-Site sources, however, cannot be ruled out based on current data).

PAH and metal contamination has been detected throughout the Site, generally in fill soils from the upper 0 to 5 feet interval, with a limited number of locations exceeding RRU SCOs. Impacts from per-and polyfluoroalkyl substances (PFAS) are limited and generally confined to upper soils. Site groundwater shows low-level impacts by metals, SVOCs (primarily polycyclic aromatic hydrocarbons [PAHs]), and PFAS, which appear to be related to local groundwater conditions rather than a significant on-Site source area. Other than the petroleum impacts at 2SV-06, and MEK detections at various locations, soil vapor impacts are typical of urban/commercial settings.

The RI findings are consistent with the Phase II investigation results and indicate significant on-Site contamination associated with the spill event (Lot 12) and general impacts from poor-quality fill, demolition debris, and/or former commercial uses (Lot 11).

2.5.2 Description of Areas of Concern

Based on the investigative findings documented in the RIR, the areas of concern are limited to petroleum contamination in soil, groundwater and vapor associated with NYSDEC spill #2103108, and general impacts to Site media from poor-quality fill and/or former historical commercial uses (primarily PAH and metals contamination in soil and Site-wide vapor impacts). Other than the petroleum release, an evaluation of environmental data and historical information supports the conclusion that significant amounts of hazardous waste have not been disposed at the Site.

2.5.3 Identification of Standards, Criteria and Guidance

The following standards, criteria and guidance (SCG) were referenced during the RI:

- 6 NYCRR Part 182 – Endangered and Threatened Species of Fish and Wildlife
- 6 NYCRR Part 371 – Identification and Listing of Hazardous Wastes
- 6 NYCRR Part 375 – Environmental Remediation Programs;
- 6 NYCRR Part 608 – Use and Protection of Waters
- 6 NYCRR Part 661 – Tidal Wetlands – Land Use Regulations
- 6 NYCRR Part 663 – Freshwater Wetlands Maps and Classification
- 6 NYCRR Parts 700-706 – Water Quality Standards

- 29 CFR Part 1910.120 – Hazardous Waste Operations and Emergency Response
- NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation;
- NYSDEC Ambient Water Quality Standards and Guidance Values – TOGS 1.1.1;
- NYSDEC CP-51 Soil Cleanup Guidance (October 2010)
- NYSDOH Generic Community Air Monitoring Plan
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (GESVI)
- NYSDEC SPOTS #14 – Site Assessments at Bulk Storage Facilities
- NYSDEC Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites

2.5.4 Soil/Fill Contamination

Soil samples were compared to UU, RRU and POG SCOs in NYSDEC Part 375 Tables 375-6.8(a) and (b), and Guidance Values (GVs) presented in NYSDEC *Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs* (PFAS Guidance, June 2021).

Sixty-one (61) samples from twenty-nine (29) mechanized borings (2SB-01 to 2SB-29) were submitted for laboratory analysis, supplementing data from the 2021 investigation, which included soil samples from twenty-two (22) mechanized borings and thirteen (13) manual borings (for collection of surface soil). Two to four soil samples were generally collected from each boring location.

Laboratory analysis was in accordance with the RIWP Quality Assurance Project Plan (QAPP), including Target Compound List (TCL) VOCs and SVOCs, Target Analyte List (TAL) metals plus Cr^{+6}, cyanide, PFAS (NYSDEC target list), polychlorinated biphenyls (PCBs), pesticides and herbicides.

Submission of RI soil samples is summarized in the table, below (relevant results from both the RI and the 2021 investigation are discussed in the text as warranted).

Analyte Class	Number of Samples
TCL VOCs/SVOCs plus TICs	61 (+2 duplicates)
TAL metals, Cr^{+6}, CN	61 (+2 duplicates)
pesticides/PCBs/herbicides	61 (+2 duplicates)
PFAS	56 (+2 duplicates)

VOCs related to gasoline were detected above RRU SCOs in soil from one boring in the area of petroleum contamination immediately north of the building, including: 1,2,4-trimethylbenzene (320 ppm; RRU SCO 52 ppm); xylenes (210 ppm; RRU SCO 100 ppm), methylcyclohexane (110 ppm; SCO not established); and, high levels of TICs (777 ppm). Xylene (a contaminant found in Site groundwater) was reported above the Part 375 POG SCO in soil from a boring northeast of the building (3.4 ppm; POG 1.6 ppm). No other VOCs were reported above RRU SCOs, and no other VOCs found in groundwater at high levels were also detected in soil above POG SCOs. Several other samples collected at Lot 12 in areas of overt petroleum impacts (from 5 to 15 feet bgs) contained petroleum VOCs above UU SCOs, and relatively elevated total TICs (2.59 to 56.1 ppm).

Acetone and methylene chloride were above UU SCOs (but well below RRU SCOs) in multiple samples throughout the Site, and one sample contained marginally elevated MEK. VOC TICs were generally not found in samples from Lot 11.

SVOCs were detected above RRU SCOs in three samples of upper soils (0-5 feet range; far northern end of Lot 12 and in Lot 11), with exceedances restricted to polycyclic aromatic hydrocarbons (PAHs), including maximum reported values for: benzo(a)anthracene (4.38 ppm; RRU SCO 1 ppm); benzo(a)pyrene (3 ppm; RRU SCO 1 ppm); and benzo(b)fluoranthene (6.11 ppm; RRU SCO 1 ppm). No other locations contained SVOCs above RRU or UU SCOs. Naphthalene (the only SVOC contaminant found at elevated levels in Site groundwater) was reported close to the POG SCO in sample 2SB-05 5 (11.6 ppm; POG 12 ppm), which also contained high levels of SVOC total TICs (up to 560 ppm). Relatively high levels of TICs were also reported in two other shallow samples.

TAL metals were detected above RRU SCOs in two samples of upper soils at the northern portion of Lot 12, including maximum reported values for: barium (3,780 ppm; RRU SCO 400 ppm); cadmium (6.48 ppm; RRU SCO 4.3 ppm); copper (429 ppm; RRU SCO 270 ppm); and lead (1,010 ppm; RRU SCO 400 ppm). No other sampling locations contained metals above RRU SCOs. Twelve (12) other samples contained one or more metals at levels above UU SCOs, generally cadmium, copper, lead, mercury, and/or zinc.

No pesticides, PCBs, and herbicides were detected in soil samples, with exception of a low level of endosulfan sulfate (well below the UU SCO) in one surface sample.

The PFAS perfluorooctanesulfonic acid (PFOS) was detected above the UU GV in sample 2SB-08 0-5 (1.22 parts per billion [ppb]; UU GV 0.88 ppb, RRU GV 44 ppb). This PFOS value is also above the POG GV (1 ppb); note, however, that elevated levels of PFOS were not detected in groundwater. Low levels of PFOS and/or other PFAS were reported in eight (8) other samples. Perfluorooctanoic acid (PFOA) was detected in only one sample (2SB-03 5-10 at 0.427 ppb; UU GV 0.66 ppb, POG GV 0.8 ppb).

Tables 1 through 5 provide laboratory results for all soil at the Site, and Figure 4 is a spider map showing the location and summarizing exceedances of UU and RRU SCO.

2.5.5 Groundwater Contamination

Groundwater data from ten (10) Site wells were compared to Ambient Water Quality Standards and Guidance Values (AWQS) presented in NYSDEC Division of Water *Technical and Operational Guidance Series 1.1.1* (TOGS 1.1.1) and numerical criteria in the PFAS Guidance (provided only for PFOA and PFOS).

Multiple petroleum VOCs related to gasoline were detected above AWQS in MW-01 (located in the likely release area) and MW-04 (the closest downgradient well) at Lot 12. Total VOCs were 5,342 ppb at MW-01, including the following (all have AWQS of 5 ppb): 1,2,4-trimethylbenzene (1,440 ppb), 1,3,5-trimethylbenzene (352 ppb), ethyl benzene (1,280 ppb), toluene (707 ppb), and total xylenes (1,196 ppb). Similar contamination was found at MW-04 at lower levels, with total VOCs reported at 682 ppb. Cyclohexane and methylcyclohexane (AWQS not established) were detected at elevated levels in both wells (as high as 112 ppb). Total TICs were 737 ppb at MW-04 and 299 ppb at MW-01.

Petroleum VOCs were detected at MW-03 below AWQS (total VOCs 7.03 ppb) and total TICs were 1 ppb; with the exception of trace p-isopropyltoluene at MW-11, no other petroleum VOCs were reported.

Detected solvents included an elevated level of 1,1,2-trichloroethane (TCA, a degreaser) at MW-04 (32.3 ppb, AWQS 1 ppb), and 1,2-dichloropropane (a degreaser, drycleaning fluid, and/or pesticide) at MW-01 (2.3 ppb, AWQS 1 ppb); no other significant concentrations of chlorinated compounds were detected. Wells MW-05 to MW-06 contained trace to low levels (well below AWQS) of one or more other VOCs, primarily non-chlorinated solvents (e.g., acetone), with no reported TICs.

Significant groundwater contamination by SVOCs is limited to elevated levels of naphthalene (a petroleum hydrocarbon; AWQS 10 ppm) at MW-01 (179 ppb) and MW-04 (14.2). Note: naphthalene was reported in one soil sample above the POG SCO. Both of these wells also contain relatively elevated levels of 2-methylnaphthalene (up to 26.1 ppb; AWQS not established). Trace to low levels of one or more SVOCs, primarily PAHs, were reported in all wells. High levels of TICs were reported at MW-01 (5,978 ppb) and MW-04 (1,079 ppb); no other wells contained TICs.

Multiple metals were reported in all groundwater samples, with elevated levels of both total and dissolved cobalt, iron, manganese, and/or sodium in all wells except MW-05 (cobalt is reported only in MW-01, at a concentration slightly above the AWQS). Manganese levels in soil are well below the POG SCO (SCOs are not established for the remaining metals).

PFAS were reported in groundwater samples from MW-01, MW-04, MW-05, MW-09 and MW-11, with total concentrations ranging from 3.45 to 15.31 ppt. PFOS and/or PFOA were detected in MW-04 and MW-09, only, well below the NYSDEC guidance values of 10 parts per trillion (ppt).

Hexavalent chromium, cyanide, pesticides, PCBs, and herbicides were not detected in any groundwater samples.

Tables 6 through 11 provide laboratory results for all groundwater at the Site, and Figure 5 is a spider map showing the location and summarizing exceedances of AWQS, and indicating detected concentrations of PFAS, in groundwater.

2.5.6 Soil Vapor/Air Contamination

Thirteen (13) RI vapor samples were analyzed for VOCs (note: NYSDEC does not have any SCG for volatile chemicals in subsurface vapors). A PID reading of 145 ppm and high concentrations of multiple VOCs related to gasoline were detected at 2SV-06, including: cyclohexane (1,700,000 $\mu g/m^3$); n-heptane (4,300,000 $\mu g/m^3$); n-hexane (7,700,000 $\mu g/m^3$); and, BTEX and related VOCs (up to 95,000 $\mu g/m^3$). Trace to low levels of one or more of these VOCs were found in other locations (highest overall concentrations were reported nearby at 2SV-05 and 2SV-07).

MEK was reported at relatively high levels (1,400 to 3,400 $\mu g/m^3$) in nine samples (this VOC was found at a low level in groundwater at MW-08, and above the UU SCO in one soil sample during the earlier investigation).

Multiple other VOCs were reported in all RI samples at trace- to low-levels, including several detections of tetrachloroethene (3.7 to 30 µg/m^3) and methylene chloride (1.96 to 73 µg/m^3), which are identified in NYSDOH decision matrices for evaluating soil vapor intrusion.

Soil vapor data are provided in Table 12, and Figure 6 is a spider map that shows sample locations and summarizes soil vapor data.

2.6 Environmental and Public Health Assessments

2.6.1 Qualitative Human Health Exposure Assessment

An exposure assessment was conducted to qualitatively assess the potential impacts of known environmental contaminants associated with the Site on human health, with attention to all possible exposure pathways (i.e. ingestion, inhalation and direct contact). Both current (existing conditions) and future use (proposed restricted-residential use) scenarios were considered. Contaminants were assessed relative to specific impacted media.

The primary contaminants of concern at the Site are petroleum impacts in soil, groundwater, and vapor at Lot 12, metal and PAH contamination in poor-quality fill soils, and Site-wide vapor impacts by MEK. On-Site workers (or trespassers) present during remediation and/or future development activities are the most likely receptor population.

The following section evaluates the elements associated with exposure pathways, and describes how each of these elements pertains to the Site. For all media, the implementation of a Construction Health and Safety Plan (CHASP) and the Community Air Monitoring Plan (CAMP) will mitigate possible impacts to on-Site, off-Site and nearby community receptor populations. Any development activities that involve disturbance, exposure or contact with contaminated media (soil, soil vapor or groundwater) will require monitoring and mitigation plans to address potential direct contact with media, dust generation and contaminant migration.

Soil Vapor

Potential exposure pathways include vapor intrusion within any new Site structures and at off-site properties, and direct contact and/or inhalation of contaminated soil vapor generated during soil excavation or remedial construction. A CAMP would be implemented at the Site (and, as required, at off-site areas) to monitor air quality and minimize potential exposures to vapors for both construction workers and the public. The potential for on-Site and off-Site exposure to soil vapor is expected to decrease after subsurface soils and groundwater have been remediated; new Site structures, however, will require active vapor control measures (systems may subsequently be converted to passive operation based on post-remediation sub-slab vapor and indoor air sampling).

Soil

Direct contact, ingestion and/or inhalation (of particulate matter) are the primary exposure pathways for contaminated soils. People can come into contact if they participate in ground-intrusive work at the Site, or are exposed to dust generated during construction activities that disturb contaminated soil. Outside of excavation activities, there are no likely significant exposures to contaminated soil, either on the Site or at off-site areas. The potential exists for low-level contamination to be present after the completion of remediation and Site development activities. All potential exposure pathways (direct contact, ingestion or inhalation) will likely be mitigated as soils would have been remediated and/or access to soils would be limited by paved areas and building foundations. If a Restricted-Use remedy is selected, the implementation of Institutional Controls will further eliminate potential direct contact with any contaminated soil/fill once construction is complete.

Groundwater

Direct contact and/or ingestion are the primary exposure pathways for contaminated groundwater. Impacted groundwater is not being used for drinking water (or any other purposes) at the Site or at off-site areas, as the area is served by the public water supply. No known private wells exist in the vicinity of the Site. People can come into contact with contaminated groundwater if they participate in ground-intrusive work at the Site. The potential for contact is generally a concern for work conducted at depths near or below the seasonally high local groundwater elevation. Any dissolved contaminants in groundwater downgradient of the Site are anticipated to diminish as a result of Site remediation.

2.6.2 Fish and Wildlife Remedial Impact Analysis

The groundwater chemistry and surface water discharge pathway was evaluated. Based on existing data and the long distance to surface water, there are no expected impacts to surface water from contaminants migrating beneath the Site.

2.7 Interim Remedial Action

No Interim Remedial Measures (IRMs) have been performed at the Site.

2.8 Remedial Action Objectives

Based on RI results, the following Site Remedial Action Objectives (RAOs) have been identified:

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminated soil or fugitive dust.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.
- Restore groundwater aquifer to pre-disposal/pre-release conditions, to the extent practical.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at the Site.

3 DESCRIPTION OF REMEDIAL ACTION PLAN

This section includes a description of the remedial alternatives and provides a comparison and evaluation of the alternatives in terms of required threshold and balancing criteria. As required, a Track 1 Unrestricted Use scenario is evaluated for the remedial action. In comparison, a Track 2 Restricted-Residential Use scenario is evaluated.

The goal of the remedy selection process is to select a remedy that is protective of human health and the environment taking into consideration the current, intended and reasonably anticipated future use of the property. The remedy selection process begins by establishing RAOs for media in which chemical constituents were found in exceedance of applicable standards, criteria and guidance values (SCGs). Remedial alternatives are then developed and evaluated based on the following nine criteria and sustainability:

Threshold Criteria

- Protection of human health and the environment;

Balancing Criteria

- Compliance with SCGs;
- Short-term effectiveness and impacts;
- Long-term effectiveness and permanence;
- Reduction of toxicity, mobility, or volume of contaminated material;
- Implementability;
- Cost effectiveness;
- Community acceptance; and,
- Land use

3.1 Summary of Remedial Alternatives

3.1.1 Proposed Remedial Alternatives

Alternative 1: Site meets Track 1 Unrestricted Use SCOs, with short-term active groundwater and vapor controls as needed, consisting of the following:

1. Selection of NYSDEC 6NYCRR Part 375 Unrestricted Use (Track 1) SCOs.
2. Removal of all soil exceeding Track 1 UU SCOs, and any material grossly contaminated by petroleum, throughout the Site, and confirmation that Track 1 UU SCOs have been achieved with post-excavation endpoint sampling. A Track 1 remedy may employ short-term ICs or ECs for the active remediation of groundwater and soil vapor (not to exceed a duration of five years). Alternative 1 (meeting Track 1 SCOs) is defined by the following actions:
   a. Building demolition, and excavation and disposal of Site soil, to accommodate Site development (depths ranging from 2 feet at parking lots and landscaped areas to a maximum of 13 feet bgs for Site utilities and stormwater structures);
   b. Excavation and disposal of all grossly contaminated soil in the petroleum spill area;
   c. Application of an in situ chemical oxidation (ISCO) reagent at the excavation base within the spill area to actively treat contaminated groundwater, with follow-up groundwater monitoring and subsequent additional active remedial treatment (e.g., ISCO injections) if required by the continuing presence of contamination.
   d. Excavation and disposal of any remaining materials above bedrock that contain contaminants above UU SCOs, estimated at approximately 2,600 cubic yards;
   e. Restoration of the Site to the elevation necessary for Site redevelopment (if required) through importation of approved clean materials; and,
   f. Implementation of measures to actively control potential vapor intrusion into new on-Site structures, such as a sub-slab depressurization system (SSDS).
3. No ICs or ECs are required for a Track 1 cleanup, with exception of those directly related to the short-term active remediation of groundwater and soil vapor. While such controls are in place, the Site will be considered to have achieved a Conditional Track 1 remedy.

Alternative 2: Site meets Track 2 Restricted-Residential Use SCOs, with groundwater and vapor controls, consisting of the following:

1. Selection of NYSDEC 6NYCRR Part 375 Restricted-Residential Use Generic (Track 2) SCOs.
2. Removal of all soil/fill exceeding Track 2 RRU SCOs throughout the Site, and confirmation that Track 2 RRU SCOs have been achieved with post-excavation endpoint sampling. A Track 2 remedy may employ long-term ICs or ECs to address groundwater and/or vapor contamination (building components and exterior pavement/imported backfill, and any vapor-control measures that are converted to passive operation, are not considered to be ECs for the purposes of the Track 2 remedy). Alternative 2 (meeting Track 2 SCOs) is defined by the following actions:
    a. Building demolition, and excavation and disposal of Site soil, to accommodate Site development (depths ranging from 2 feet at parking lots and landscaped areas to a maximum of 13 feet bgs for Site utilities and stormwater structures);
    b. Excavation and disposal of all grossly contaminated soil in the petroleum spill area;
    c. Application of an ISCO reagent at the excavation base within the spill area to actively treat contaminated groundwater, with follow-up monitoring to document natural attenuation of contamination over time, and subsequent additional remedial treatment if required by the continuing presence of significant contamination conditions.
    d. Excavation and disposal of any remaining materials that contain contaminants above RRU SCOs, estimated at approximately 2,300 cubic yards;
    e. Restoration of the Site to the elevation necessary for Site redevelopment (if required) through importation of approved clean materials; and,
    a. Implementation of measures to actively control potential vapor intrusion into new on-Site structures, such as a SSDS.
3. Establishment of use restrictions including prohibitions on the use of Site groundwater; prohibitions of restricted Site uses, such as farming or vegetable gardening, to prevent future exposure pathways; and prohibition of a higher level of land use without NYSDEC approval;

Elements Common to Both Alternatives

An approved Site Management Plan (SMP) will be developed to ensure long-term management of all Engineering and Institutional Controls, including the performance of periodic inspections and certification that the controls are performing as intended, and an environmental easement will be recorded with the Franklin County Clerk listing Institutional and Engineering Controls, and specifying compliance with the SMP.

3.1.2 Evaluation of Threshold Criteria

Protection of Public Health and the Environment

This criterion is an evaluation of the remedy's ability to protect public health and the environment, and an assessment of how risks posed through each existing or potential pathway of exposure are eliminated, reduced or controlled through removal, treatment, and implementation of Engineering Controls or Institutional Controls. Protection of public health and the environment must be achieved for all approved remedial actions.

Alternative 1 would be more protective of human health and the environment by removing all soil/fill exceeding Track 1 Unrestricted Use SCOs, thus eliminating the potential for direct contact with contaminated soil/fill once construction is complete and eliminating the risk of contaminants leaching into groundwater from the Site.

Alternative 2 would achieve comparable protections of human health and the environment by removing all soil/fill exceeding Track 2 Restricted-Residential Use SCOs. Implementing Institutional Controls including a SMP would ensure that Engineering Controls (management of contaminated groundwater by active treatment and/or monitored natural attenuation, and operation of an active SSDS) are effective, and that inappropriate Site uses are prevented, ensuring that the remedy remains protective of public health in the future.

For both Alternatives, potential exposure to contaminated soils or groundwater during construction would be minimized by implementing a CHASP, an approved Soil/Materials Management Plan (SoMP), and CAMP. Potential contact with any contaminated groundwater would be prevented as its use is prohibited by local laws and regulations.

3.1.3 Evaluation of Balancing Criteria

Compliance with Standards, Criteria and Guidance

This evaluation criterion assesses the ability of the alternative for conformance with SCGs that are applicable, relevant and appropriate. Principal SCGs that are applicable, relevant and appropriate for evaluating the alternatives for remediation of this BCP site include the following:

- 6 NYCRR Part 360 and Part 364 Solid Waste Management Requirements
- 6 NYCRR Part 364 Waste Transporter Permits
- 6 NYCRR Part 371, Identification and Listing of Hazardous Wastes
- 6 NYCRR Part 372, Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities
- 6 NYCRR Subpart 374-1, Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
- 6 NYCRR Part 375, Environmental Remediation Programs, Subparts 375-1 (Remedial Program Requirements), 375-3 (Brownfield Cleanup Program), and 375-6 (Soil Cleanup Objectives)
- 6 NYCRR Part 376, Land Disposal Restrictions
- 6 NYCRR Part 608, Use and Protection of Waters
- 6 NYCRR Parts 700-706, Water Quality Standards
- 6 NYCRR Part 750 State Pollutant Discharge Elimination System (SPDES) Permits
- 10 NYCRR Part 67, Lead
- 29 CFR Part 1910.120, Hazardous Waste Operations and Emergency Response
- NYSDEC CP-51 Soil Cleanup Guidance (October 2010)
- NYSDEC DER-2, Making Changes to Selected Remedies (May 2008)
- NYSDEC DER-10, Technical Guidance for Site Investigation and Remediation (May 2010)
- NYSDEC DER-23, Citizen Participation Handbook for Remedial Programs (January 2010)
- NYSDEC TAGM 3028, "Contained In" Criteria for Environmental Media (August 1997)
- NYSDEC TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values, (June 2004)
- NYSDOH Generic Community Air Monitoring Plan (May 2010)
- USEPA OSWER Directive 9200.4-17, Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites (November 1997)

Additional regulations and guidance are applicable, relevant, and appropriate to the remedial alternatives and will be complied in connection with implementation of the remedial program; however, the list above is intended to represent the principal SCGs which should be considered in evaluating the remedial alternatives for the BCP site.

Conformance with the appropriate standards for remediation of contaminated soil is an important criterion in evaluating the remedial alternatives for the BCP Site. Presently, in New York State 6 NYCRR Part 375 establishes the primary SCGs associated with remediation of contaminated soil at Sites that are in the BCP.

If proposing remediation pursuant to a Track other than Track 1 (Unrestricted Use), Part 375 requires evaluation of at least one remedial alternative pursuant to Track I (Unrestricted Use) and one other alternative developed by the applicant for the proposed use of the BCP site. The proposed remedial alternatives have been prepared in conformance with this requirement.

Alternative 1 would achieve compliance with the remedial goals, chemical-specific SCGs and RAOs for soil through removal of soil to achieve Track 1 Unrestricted Use SCOs, and short-term, active remediation of impacted groundwater and vapor. Alternative 2 would achieve compliance through removal of soil to achieve Track 2 SCOs, and short-term and/or long-term remediation of impacted groundwater and vapor. Alternative 2 would impose Institutional Controls, including an environmental easement prohibiting any higher use of the Site, and a SMP would ensure proper maintenance of Engineering Controls and compliance with Institutional Controls.

Health and safety measures in the CHASP and CAMP will be implemented during redevelopment under this RAWP. For both Alternatives, focused attention on means and methods employed during the remedial action would ensure that handling and management of contaminated material would be in compliance with applicable SCGs. These measures will protect Site workers and the surrounding community from exposure to Site-related contaminants.

Short-Term Effectiveness and Impacts

This evaluation criterion assesses the effects of the alternative during the construction and implementation phase until remedial action objectives are met. Under this criterion, alternatives are evaluated with respect to their short-term effects during the remedial action on public health and the environment during implementation of the remedial action, including protection of the community, protection of onsite workers and environmental impacts.

Both Alternatives have similar short-term effectiveness during their implementation, as each requires remediation of the spill area, including addressing groundwater and vapor impacts, and excavation of poor-quality urban fill material. Each alternative would result in short-term dust generation impacts associated with excavation, handling, load out of materials, and truck traffic. Short-term impacts could potentially be higher for Alternative 1 since the excavation of greater amounts of soil and fill could take place. However, focused attention to means and methods during a Track 1 removal action, including community air monitoring and appropriate truck routing, would minimize the overall impact of these activities.

An additional short-term adverse impact and risk to the community associated with each remedial alternative is increased truck traffic. Truck traffic would be routed on the most direct course using major thoroughfares where possible and flag persons would be used to protect pedestrians at Site entrances and exits. The differences in total truck trips between Alternative 1 and Alternative 2, both export and import of materials, is expected to be limited.

The potential adverse impact to the community, workers and the environment for each alternative would be minimized through implementation of control plans including a CHASP, a CAMP and a SoMP, during soil disturbance activities and would minimize release of contaminants into the environment. Each alternative provides short-term effectiveness in protecting the surrounding community by decreasing the risk of contact with contaminants. Construction workers operating under appropriate management procedures and a CHASP would provide protection from on-Site contaminants by using personal protective equipment (PPE) would be worn consistent with the documented risks within the respective work zones.

Long-Term Effectiveness and Permanence

This evaluation criterion addresses the results of a remedial action in terms of its permanence and the quantity and nature of waste and residual contamination at the Site after response objectives have been met, such as permanence of the remedial alternative, magnitude of remaining contamination, adequacy of controls including the adequacy and suitability of Engineering Controls and Institutional Controls that may be used to manage remaining contamination and assessment of containment systems and Institutional Controls that are designed to eliminate exposures to contaminants, and long-term reliability of Engineering Controls.

Alternative 1 would achieve long-term effectiveness and permanence related to on-Site contamination through removal of soil to achieve Track 1 Unrestricted Use SCOs. Alternative 2 would achieve compliance through removal of soil to achieve Track 2 Restricted-Residential Use SCOs. Alternative 2 would impose Institutional Controls, including an environmental easement prohibiting any higher use of the Site, and a SMP would ensure proper maintenance of Engineering Controls and compliance with Institutional Controls.

Reduction of Toxicity, Mobility, or Volume of Contaminated Material

This evaluation criterion assesses the remedial alternative's use of remedial technologies that permanently and significantly reduce toxicity, mobility, or volume of contaminants as their principal element. The following is the hierarchy of source removal and control measures that are to be used to remediate a Site, ranked from most preferable to least preferable: removal and/or treatment, containment, elimination of exposure and treatment of source at the point of exposure. It is preferred to use treatment or removal to eliminate contaminants at a Site, reduce the total mass of toxic contaminants, cause irreversible reduction in contaminants mobility, or reduce of total volume of contaminated media.

Both Alternative 1 and Alternative 2 would permanently eliminate the toxicity, mobility, and volume of contaminants from on-Site soil by removing all soil in excess of applicable SCOs. Alternative 2 would remove the majority impacted soils, leaving a minimal volume of contaminated material, which would generally be inaccessible (covered by buildings, paved areas, and imported clean backfill), and the implementation of Institutional Controls and a SMP will protect on-Site residents, workers and the near-by community from any relevant exposures to Site-related contaminants.

Implementability

This evaluation criterion addresses the technical and administrative feasibility of implementing an alternative and the availability of various services and materials required during its implementation, including technical feasibility of construction and operation, reliability of the selected technology, ease of undertaking remedial action, monitoring considerations, administrative feasibility (e.g. obtaining permits for remedial activities), and availability of services and materials.

The techniques, materials and equipment to implement each Alternative are readily available and have been proven to be effective in remediating the contaminants present on the Site. They use standard equipment and technologies that are well established in the industry. The reliability of each remedy is also high. Neither Alternative 1 nor Alternative 2 have meaningful implement-ability issues.

Cost Effectiveness

This evaluation criterion addresses the cost of alternatives, including capital costs (construction costs, equipment costs, and disposal costs, engineering expenses, etc.) and Site management costs (costs incurred after remedial construction is complete) necessary to ensure the continued effectiveness of a remedial action.

Short-term costs for Alternative 1 are higher than for Alternative 2 since an additional volume of soil (for comparison assumed to be approximately 300 cubic yards) must be removed.

Long-term costs for Alternative 2 are potentially higher than Alternative 1 since ECS and a SMP may be implemented over the long term.

Cost estimates for each Remedial Alternative are included as Appendix B.

Community Acceptance

This evaluation criterion addresses community opinion and support for the remedial action (observations here will be supplemented by public comment received on the RAWP).

This RAWP will be subject to a public review under the NYSDEC BCP and will provide the opportunity for detailed public input on the remedial alternatives and the selected remedy. Public comments will be considered by NYSDEC prior to approval of this plan. Under all alternatives, the overall goals of the remedial program, to protect public health and the environment and eliminate potential contaminant exposures, have been broadly supported by citizens in the Village of Saranac Lake and Franklin County communities.

Land Use

This evaluation criterion addresses the proposed use of the property. This evaluation has considered reasonably anticipated future uses of the Site and takes into account: current use and historical and/or recent development patterns; applicable zoning laws and maps; New York

Department of State's Brownfield Opportunity Areas (BOA) pursuant to section 970-r of the general municipal law; applicable land use plans; proximity to real property currently used for residential use, and to commercial, industrial, agricultural, and/or recreational areas; environmental justice impacts, Federal or State land use designations; population growth patterns and projections; accessibility to existing infrastructure; proximity of the Site to important cultural resources and natural resources, potential vulnerability of groundwater to contamination that might emanate from the Site, proximity to flood plains, geography and geology; and current Institutional Controls applicable to the Site.

The proposed development is consistent with existing zoning (E-1 Commercial zoning district, which permits a mixed development of residential and commercial uses).

The current, intended, and reasonably anticipated future land use of the Site and its surroundings are compatible with the selected remedy of soil remediation. The proposed future use of the Site includes demolition of the existing Site structure, and new construction for residential and commercial uses, consistent with overall uses in the neighborhood. All proposed Alternatives are protective of public health and the environment for the planned residential and commercial uses. The proposed use is consistent with recent development patterns. The surrounding area is a well-developed village setting and predominantly consists of residential and commercial uses, in zoning districts designated for residential and commercial uses. The planned development would remediate a contaminated parcel and provide modern mixed-use residential and commercial buildings. The proposed development would clean up the property and make it safer, create new employment opportunities, living space for city residents and associated societal benefits to the community, and other economic benefits from land revitalization.

Temporary short-term project impacts will be mitigated through Site management controls and truck traffic controls during remediation activities.

The Site is not in close proximity to important cultural resources, including federal or state historic or heritage sites or Native American religious sites, natural resources, waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species. The Site is located in a developed area and not in proximity to fish or wildlife and neither alternative would result in any potential exposure pathways of contaminant migration affecting fish or wildlife. The remedial action is also protective of groundwater natural resources. The Site does not lie in a Federal Emergency Management Agency (FEMA)-designated flood plain.

Each Alternative is equally protective of natural resources and cultural resources, and the improvements in the current environmental condition of the Site achieved by each considered Alternative are consistent with local government goals for cleanup of contaminated land.

3.2 Selection of the Preferred Remedy

The preferred remedy for the Site is Alternative 1, the Track 1 Unrestricted Use remedy. All soil that exceeds UU SCOs will be removed from the Site to meet Track 1 requirements, which will be confirmed with post-excavation sampling. Cleanup of the petroleum spill area through removal of all grossly contaminated soil is likely to result in attainment of UU SCOs in remaining soil. Metals and PAH contamination above UU SCOs in soil at Lot 11 is found in the upper five feet of soil, which is expected to be generally removed for Site development (removal of excess soils to meet UU SCOs is likely to be limited and therefore to generate only marginal extra costs).

ISCO to treat petroleum and other organic contaminants in groundwater at the spill area is anticipated to result in significant contaminant degradation and acceptable water quality at this Site (such technologies are well developed and effective, and their use via application to the excavation base can be practically supplemented through subsequent direct injections, if warranted). Removal of grossly contaminated soil and groundwater treatment in the spill area is also likely to result in significant decreases in soil vapor levels, and the need for active vapor-reduction measures at the new structures can be re-evaluated after completion of the remedial action.

Following soil removal, and during the time interval of active groundwater and vapor remediation, the Site will be considered to have achieved a Conditional Track 1 cleanup; should ongoing groundwater treatment/monitoring, or use of an active vapor control measure, extend beyond five years, the Site will be characterized as having achieved a Track 2 Restricted-Residential Use cleanup. Either of these scenarios are considered protective of the health of both construction workers and future Site residents. In addition, as a planned part of redevelopment, all remaining soils on the Site will be covered with building slabs, pavement and landscaped areas with imported clean soil, further reducing the potential for future residents to come in contact with any remaining contaminated soil. As applicable, Institutional Controls will be implemented to further prevent any potential exposures to residual contamination, and a SMP would ensure maintenance of any Engineering Controls and compliance with Institutional Controls.

As applicable for a Conditional Track 1 cleanup, or should the Site eventually achieve a Track 2 cleanup, use restrictions will be imposed on the Site (e.g., the use of groundwater from the Site; prohibitions of restricted Site uses, such as farming or vegetable gardening, to prevent future exposure pathways; and prohibition of a higher level of land use without NYSDEC approval). The property would receive an environmental easement registered with the County Clerk memorializing these Institutional Controls.

The following land use factor evaluation examines whether the selected alternative is acceptable based on the following criteria (below) as required by Article 27, Title 14 of the Environmental Conservation Law 27-1415.

Zoning

The Site is located in an E-1 Commercial zoning district, which permits a mixed development of residential and commercial uses. Proposed use is consistent with applicable zoning laws. The implementation of Alternative 1 and the proposed final use are consistent with recent development in the surrounding area.

Applicable Community Master Plans or Land Use Plans

Implementation of Alternative 1 is consistent with: current use and the historical and most recent development patterns; applicable zoning laws and maps; NYS Department of State's Brownfield Opportunity Areas (BOA) pursuant to section 970-r of the general municipal law; applicable land use plans; and proximity to real property currently used for residential and commercial use, and to commercial, industrial, and recreational areas. The current, intended, and reasonably anticipated future land use of the Site and surroundings are compatible with Alternative 1. The proposed future use of the Site includes the construction and renovation of on-Site mixed-use residential and commercial buildings, consistent with existing uses in the neighborhood.

Surrounding Property Uses

The Site is located in a well-developed village setting comprised primarily of residential and commercial properties; the final use and the proposed remedial action are consistent with these surrounding property uses. There are no sensitive receptors within 500 feet of the Site.

Impacts to adjoining/nearby properties during implementation of Alternative 1 will be minimized through strict adherence to local regulations governing construction activities, and implementation of Site-specific plans (see Section 4.1, Governing Documents), including Health and Safety and Community Air Monitoring Plans.

Public Participation

This RAWP will be subject to a public review under the NYSDEC BCP and will provide the opportunity for detailed public input on the remedial alternatives and the selected remedy. This public comment will be considered by NYSDEC prior to approval of this plan. The project Public Participation Plan is provided in Appendix C. Observations here will be supplemented by public comment received on the RAWP. Under Alternative 1, the overall goals of the remedial program, to protect public health and the environment and eliminate potential contaminant exposures, have been broadly supported by citizens in the Village of Saranac Lake and in Franklin County communities.

Environmental Justice Concerns

Implementation of Alternative 1 would clean up the property and make it safer, create new employment opportunities, living space for future city residents and associated societal benefits to the community, and other economic benefits from land revitalization.

Land Use Designations

The areas surrounding the site are comprised primarily of residential and commercial properties. The proposed use resulting from the implementation of Alternative 1 is consistent with these land uses.

Population growth patterns

Implementation of Alternative 1 and the proposed use is compliant with the property's zoning and is consistent with recent development patterns.

Accessibility to Existing Infrastructure

The Site has ready access to city infrastructure including roads, mass transit and public utilities. Implementation of Alternative 1 is compatible with current and future access and utilization of existing infrastructure.

Proximity to Cultural Resources

The Site is not in close proximity to important cultural resources, including federal, state, or local historic or heritage sites, or Native American religious sites. Implementation of Alternative 1 would not negatively impact any important cultural resources.

Proximity to Natural Resources

The Site is located in a well-developed village setting and is not near significant natural resources. Implementation of Alternative 1 would not result in any potential exposure pathways of contaminant migration affecting fish or wildlife.

Off-Site Groundwater Impacts

Alternative 1 is protective of groundwater resources. There are no known uses of groundwater in the vicinity of the Site.

Proximity to Floodplains

The Site does not lie in a Federal Emergency Management Agency (FEMA)-designated flood plain. Implementation of Alternative 1 would not introduce a receptor sensitive to flooding into an area susceptible to flooding.

Geography and Geology of the Site

Local area topography is generally hilly and varied, and the Site lies in a somewhat-level relatively low area. The Site surface slopes downward from a high point at the northwestern corner to a low area immediately north of the on-Site building, then rises to the highest point at the property frontage on Broadway. Fill (including poor quality materials) is present at varying depth across the Site (up to 10 feet bgs) and is underlain by native materials generally comprised of sands, sandy loams, sandy clay loams, and clay, with several low-lying areas having peat layers. Hard, crystalline bedrock is likely present at varying depths across the Site, ranging from near the surface at the southern end of Lot 12 to approximately 14 feet bgs at the northern half of Lot 12 and at Lot 11. Implementation of Alternative 1 is consistent with these Site conditions.

Current Institutional Controls

The Site is not currently encumbered with any institutional controls.

Sustainability of the Remedial Action

Planned Site construction would not result in significantly higher energy usage than would be incurred by construction conducted in non-contaminated sites. The Alternative 1 remedial plan would take into consideration the shortest trucking routes during off-Site disposal of materials, which would reduce greenhouse gas emissions and conserve energy used to fuel trucks.

3.3 Summary of Selected Remedial Actions

The proposed Track 1 Unrestricted Use cleanup plan achieves all of the remedial action goals established for the project. The proposed remedial action is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants and uses standard methods that are well established in the industry.

The proposed remedial action will consist of:

1. Performance of all required NYS BCP Public Participation activities according to an approved Public Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic compounds.
3. Selection of Track 1 Unrestricted Use SCOs for soil.
4. Site preparation including setup of Site security, equipment mobilization, demolition of the existing building, utility mark outs and marking/staking excavation areas.
5. Completion of a Waste Characterization Study prior to excavation. Waste characterization soil samples will be collected at a frequency dictated by the disposal facility.
6. Removal of any underground storage tanks encountered during demolition work and soil excavation in compliance with applicable local, State and Federal laws and regulations.
7. Removal of all grossly contaminated material in the spill area at Lot 12 (estimated volume 2,300 cubic yards), with excavation to bedrock or clean soil endpoints that meet Track 1 UU SCOs, and a one-time application of an ISCO reagent at the excavation base to degrade petroleum contamination in groundwater (reagents will be applied at or below excavation depths that correspond to the Site water table);

8. Removal of soil at remaining portions of the Site that exceeds Track 1 UU SCOs (estimated volume 300 cubic yards, anticipated maximum depth of approximately 5 feet bgs); additional excavation may occur for Site improvements and general construction (likely maximum depth 13 feet bgs), and soil may require removal if found to be unstable or otherwise unacceptable for Site development.

9. Screening of excavated soil/fill for indications of contamination by visual means, odor, and monitoring with a PID, and on-Site segregation of excavated media (as needed).

10. Management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.

11. Transportation and off-Site disposal of all soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.

12. Import of materials to be used for backfill in compliance with this plan and in accordance with applicable laws and regulations. If determined acceptable for re-use by the NYSDEC, existing fill soils that meet Unrestricted Use SCOs may be relocated on the Site for Site development.

13. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.

14. Dewatering in compliance with city, state, and federal laws and regulations. Extracted groundwater will either be containerized for off-Site licensed or permitted disposal, or will discharged to the local wastewater system incompliance with all municipal requirements, including pre-treatment if warranted.

15. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.

16. Decommissioning of existing monitoring wells, as required, in accordance with NYSDEC protocols;

17. Installation and post-remediation sampling of new monitoring wells in order to document the effectives of the groundwater treatment (the number and location of new wells, the sampling frequency, and the need for any additional groundwater treatment will be determined in consultation with NYSDEC);

18. Installation of an active vapor control measure (e.g., SSDS) at all new Site buildings to mitigate potential migration of vapors into buildings from soil and groundwater, and subsequent post-remediation monitoring of sub-slab vapor and indoor air to document effectiveness of the control (continued active use of the vapor control measure will be based on NYSDEC and NYSDOH review of post construction vapor and air monitoring results);

19. Submission of a Final Engineering Report (FER) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines Site boundaries, lists any changes from this RAWP, and describes all Institutional and Engineering Controls to be implemented at the Site.

20. Submission of an approved SMP in the FER for management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of ICs and ECs, and reporting at a specified frequency.

21. Recording of an approved environmental easement with the County Clerk that includes a listing of Institutional Controls. Institutional Controls will be in accordance with NYSDEC requirements for the completed remedy, including (among others) the prohibition of the following: (1) use of groundwater without treatment rendering it safe for the intended use; (2) disturbance of residual contaminated material unless conducted in accordance with the approved SMP; and (3) higher level of land usage without NYSDEC approval. The environmental easement will include a listing of Engineering Controls and a requirement that management of these controls must be in compliance with an approved SMP.

4 REMEDIAL ACTION PROGRAM

4.1 Governing Documents

All remedial work performed under this plan will be in full compliance with the governing documents described in this section of the RAWP.

4.1.1 Construction Health and Safety Plan (CHASP)

All remedial work performed under this plan will be in full compliance with regulatory requirements, including Site and worker safety requirements mandated by Federal OSHA.

The Volunteer and associated parties preparing the remedial documents submitted to the State and those performing the construction work, are completely responsible for the preparation of an appropriate Health and Safety Plan and for the appropriate performance of work according to that plan and applicable laws.

The CHASP and requirements defined in this Remedial Action Work Plan pertain to all remedial and invasive work performed at the Site until the issuance of a Certificate of Completion. A copy of the CHASP is provided as Appendix D.

The site-specific CHASP will be reviewed with Site personnel and appropriate sub-contractors prior to the initiation of fieldwork. All proposed work will be performed in “Level D” PPE unless field conditions warrant additional protection.

The Site Safety Coordinator will be Scott Spitzer of GBTS unless otherwise specified and approved by the NYSDEC. A resume will be provided to NYSDEC prior to the start of remedial construction.

Confined space entry will comply with all OSHA requirements to address the potential risk posed by combustible and toxic gasses. Potential confined spaces on this project include utility trenches and other excavation areas.

4.1.2 Quality Assurance Project Plan (QAPP)

A QAPP, detailing procedures necessary to generate data of sufficient quality and quantity to represent successful performance of the Remedial Action, is provided as Appendix E. The QAPP includes a Sampling and Analysis Plan (SAP), detailing sampling and analysis of all media (endpoint samples, waste characterization samples, fill and soil cover samples, etc.), and which identifies methods for sample collection and handling.

4.1.3 Soil/Materials Management Plan (SoMP)

All soil removal will follow the SoMP plan as specified in Section 5.4, below. The SoMP includes detailed plans for managing all soils/materials that are disturbed at the Site, including excavation, handling, storage, transport and disposal, and includes all controls that will be applied to these efforts to assure effective, nuisance-free performance in compliance with all applicable Federal, State and local laws and regulations.

All contaminant source removal areas will be surveyed at the completion of excavation. This information will be provided on maps in the FER.

4.1.4 Storm-Water Pollution Prevention Plan (SWPPP)

The Volunteer is responsible for ensuring that a Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the Site prior to demolition and soil removal activities. The plan will address requirements of New York State Storm-Water Management Regulations including physical methods to control and/or divert surface water flows and to limit the potential for erosion and migration of Site soils, via wind or water, and will accommodate construction sequencing and staging areas. The erosion and sediment controls will be in conformance with requirements in the New York State Guidelines for Urban Erosion and Sediment Control.

4.1.5 Community Air Monitoring Plan (CAMP)

The NYSDOH Generic CAMP (provided in the HASP) will be initiated during all ground intrusive activities, and during any other fieldwork that is reasonably likely to generate significant dust or vapors from known or suspected contaminated soils. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells. The implementation of the CAMP will document the presence or absence of VOCs and dust in the air surrounding the work zone, which may migrate off-Site due to fieldwork activities. This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data.

Mitigation measures may include reducing the surface area of contaminated soil being disturbed at one time, watering exposed soils to reduce fugitive dust and odors, or stopping excavation activities. Dust suppression will be conducted during construction activities that will disturb on-Site soils and may include misting, reduction in soil movement, or cessation of excavation.

Real-time air monitoring for VOCs and particulate levels at the perimeter of the exclusion zone or work area will be performed. Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. Monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or occupied structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.

All 15-minute readings must be recorded and be available for NYSDEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter ($\mu g/m^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed and work will continue provided that downwind PM-10 particulate levels do not exceed 150 $\mu g/m^3$ above the upwind level and provided that no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 $\mu g/m^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and will be available for NYSDEC personnel to review.

4.1.6 Contractors Site Operations Plan (SOP)

The Remedial Engineer has reviewed all plans and submittals for this remedial project (including those listed above and contractor and sub-contractor document submittals) and confirms that they are in compliance with this RAWP. The Remedial Engineer is responsible to ensure that all later document submittals for this remedial project, including contractor and sub-contractor document submittals, are in compliance with this RAWP. All remedial documents will be submitted to NYSDEC and NYSDOH in a timely manner and prior to the start of work.

4.1.7 Public Participation Plan

A Public Participation Plan, including an overview of the BCP program, background of the Site, a summary of the investigative findings for the Site, and public participation activities is provided in Appendix C.

A certification of mailing will be sent by the Volunteer to the NYSDEC project manager following the distribution of all Fact Sheets and notices that includes: (1) certification that the Fact Sheets were mailed, (2) the date they were mailed; (3) a copy of the Fact Sheet, (4) a list of recipients (contact list); and (5) a statement that the repository was inspected on (specific date) and that it contained all of applicable project documents.

No changes will be made to approved Fact Sheets authorized for release by NYSDEC without written consent of the NYSDEC. No other information (e.g., brochures and flyers) will be included with the Fact Sheet mailing.

Document repositories have been established at the following locations and contain all applicable project documents:

Saranac Lake Free Library
109 Main Street
Saranac Lake, NY 12983
Attn: Peter Benson
(518) 891-4190
saranaclakefreelibrary@gmail.com
Hours: Mon – Sat 10:30 AM – 5:30 PM

NYSDEC Region 5
1115 NYS Rt. 86, P.O. Box 296
Ray Brook, NY 12977
(518) 897-1200
Info.R5@dec.ny.gov
Hours: (call for appointment)

4.2 General Remedial Construction Information

4.2.1 Project Organization

Principal personnel who will participate in the remedial action include the Professional Engineer (PE), Daniel Bellucci and the Qualified Environmental Professional (QEP), Victoria Panico, CHMM. NYSDEC will be notified of any change to principal personnel. Resumes of key personnel are provided in the QAPP.

4.2.2 Remedial Engineer and Qualified Environmental Professional

Remedial Engineer

The Remedial Engineer (RE) for this project will be Daniel Bellucci. The Remedial Engineer is a registered professional engineer licensed by the State of New York. The Remedial Engineer will have primary direct responsibility for implementation of the remedial program for the Saranac Lofts Site (No. C517015). The Remedial Engineer will certify in the FER that the remedial activities were observed by qualified environmental professionals under their supervision and that the remediation requirements set forth in the Remedial Action Work Plan and any other relevant provisions of ECL 27-1419 have been achieved in full conformance with that Plan. Other Remedial Engineer certification requirements are listed later in this RAWP.

The Remedial Engineer will coordinate the work of other contractors and subcontractors involved in all aspects of remedial construction, including soil excavation, stockpiling, characterization, removal and disposal, air monitoring, emergency spill response, import of backfill, and management of waste transport and disposal. The Remedial Engineer will be responsible for all appropriate communication with NYSDEC and NYSDOH.

The Remedial Engineer will review all pre-remedial plans submitted by contractors for compliance with this Remedial Action Work Plan and will certify compliance in the FER.

The Remedial Engineer will provide the certifications listed in Section 11.2 in the FER.

Qualified Environmental Professional

The Qualified Environmental Professional (QEP) for this project will be Victoria Panico, CHMM. The QEP will oversee environmental remedial activities on the Site, document the proper removal of contaminated soils, collect waste characterization as well as site integrity samples, inspect and certify the proper importation of approval fill soils, and assist the Remedial Engineer in the preparation of documents including the FER, the SMP, and periodic status reports.

4.2.3 Remedial Action Construction Schedule

A schedule for performance of the remedial work is provided in Section 10.

4.2.4 Work Hours

The hours for operation of remedial construction will be in conformance with Village of Saranac Lake regulations (expected to be from 7 am to 5 pm; NYSDEC will be notified by the Volunteer of any variances). No remedial work will be conducted on weekend days (Saturday or Sunday) unless expressly permitted by NYSDEC. NYSDEC reserves the right to deny alternate remedial construction hours.

4.2.5 Site Security

The Site will be secured at a minimum with a six-foot fence and locking gates to protect the public during all construction activities.

4.2.6 Traffic Control

Traffic control will be provided by the contractor during equipment entrance and egress from the Site. Trucks will follow the approved truck route in Section 5.4.4. Drivers of trucks leaving the Site with excavated soil/fill will be instructed to proceed without stopping in the vicinity of the site to prevent neighborhood impacts.

4.2.7 Contingency Plan

If unknown conditions are encountered during sub-grade removal (e.g., discovery of unidentified UST), the Contingency Plan (provided in Section 5.5) and all applicable NYSDEC guidelines will be followed to address the condition(s).

4.2.8 Worker Training and Monitoring

The Volunteer is responsible for insuring that all Site contractors provide their workers with applicable training (i.e. HAZWOPER, site safety training and medical monitoring, as necessary).

4.2.9 Agency Approvals

The Volunteer has addressed all SEQRA requirements. All permits or government approvals required for remedial construction have been, or will be, obtained prior to the start of remedial construction. Acceptance of this RAWP by NYSDEC does not constitute satisfaction of these requirements and will not be a substitute for any required permit.

The Site is located in an E-1 Commercial zoning district, which permits a mixed development of residential and commercial uses. Proposed use is consistent with applicable zoning laws. A Certificate of Completion will not be issued for the project unless conformance with zoning designation is demonstrated.

4.2.10 Pre-Construction Meeting with NYSDEC

A pre-construction meeting among NYSDEC, the Volunteer, the RE and QEP, and the General Contractor will take place prior to the start of remedial construction activities.

4.2.11 Emergency Contact Information

An emergency contact list with names and telephone numbers that will define the specific project contacts for use by NYSDEC and NYSDOH in the case of a day or night emergency is provided below (additional information is provided in the CHASP).

Table: Emergency Contact Information

Emergency Agencies	Phone Numbers
EMERGENCY	911
Adirondack Medical Center - Saranac Lake	(518) 891-4141 or 911
Village of Saranac Lake - Police Department	(518) 891-4428 or 911
Village of Saranac Lake - Fire Department	(518) 891-2333 or 911
City Hall	(518) 891-4150
Department of Public Works	(518) 891-4160
Site Health and Safety Officer, Richard Hooker - GBTS	(845) 452-1658
Remedial Engineer, Daniel Bellucci, PE	(845) 803-4347
Construction Manager	TBD

4.3 Site Preparation

4.3.1 Agency Notification and Mobilization

Notifications

The NYSDEC will be notified in writing at least five (5) business days prior to the initiation of any of the on-Site work and during the course of the fieldwork. Changes to fieldwork scheduling will be provided via email. All applicable local agencies will also be notified prior to the initiation of site work. NYSDEC will have the opportunity to participate in all remediation project status meetings (adequate notice of these meetings will be provided).

Prior to the implementation of any ground intrusive activities, a request for a complete utility mark-out of the Site will be submitted in conformance with New York State Department of Labor regulations. Confirmation of underground utility locations will be secured, and a field check of the utility mark-out will be conducted prior to the initiation of work. Site utilities will be protected (as necessary) by the contractor or Volunteer.

Site Mobilization

Mobilization will be conducted as necessary for each phase of work at the Site. Mobilization includes field personnel orientation, equipment mobilization (including securing all sampling equipment needed for the field investigation), marking/staking sampling locations and utility mark-outs. Each field team member will attend an orientation meeting to become familiar with the general operation of the Site, health and safety requirements, and field procedures. Site mobilization will be conducted in a manner such that erosion and sedimentation control, utility marker and easement layout, and other Site preparation tasks are fully instituted before construction begins.

4.3.2 Erosion and Sedimentation Controls

This section describes preventative measures that will be taken to protect the Site from soil erosion and sedimentation during remedial activities. A final ESCP, reflecting final Site development plans and any approved modifications to the scope of remedial work, will be submitted to the NYSDEC for review and approval prior to the start of construction activities (preliminary plans are provided in Appendix A).

The final ESCP will include the following elements:

- A location map including the proximity of the Site to relevant off-Site features;
- An Existing Conditions Site Plan;
- A grading plan and construction timetable including finished elevations and addressing the sequencing of the project; and,
- The location and type of all erosion and sediment control measures (e.g., silt fence, hay bales, stabilized construction entrance, etc.) and sequencing of the measures, if needed.

The remediation will occur in such a way as to permit on-Site stormwater to remain on the Site.

4.3.3 Stabilized Construction Entrance(s)

Steps will be taken to ensure that trucks departing the site will not track soil, fill or debris off-Site. Such actions may include use of cleaned asphalt or concrete roads or use of stone or other aggregate-based egress paths between the truck inspection station and the property exit. Measures will be taken to ensure that adjacent roadways will be kept clean of project related soils, fill and debris.

4.3.4 Utility Marker and Easements Layout

The Volunteer and its contractors are solely responsible for the identification of utilities that might be affected by work under the RAWP and implementation of all required, appropriate, or necessary health and safety measures during performance of work under this RAWP. The Volunteer and its contractors are solely responsible for safe execution of all invasive and other work performed under this RAWP. The Volunteer and its contractors must obtain any local, State or Federal permits or approvals pertinent to such work that may be required to perform work under this RAWP. Approval of this RAWP by NYSDEC does not constitute satisfaction of these requirements.

The presence of utilities and easements on the Site has been investigated by the Remedial Engineer. It is noted that a right of way (ROW) traversing the Site in the western portion of Lot 11 will be extinguished prior to initiation of remedial construction. It has been determined that no risk or impediment to the planned work under this Remedial Action Work Plan is posed by utilities or easements on the Site.

4.3.5 Sheeting and Shoring

Appropriate management of structural stability of on-Site or off-Site structures during on-Site activities including excavation is the sole responsibility of the Volunteer and its contractors. The Volunteer and its contractors are solely responsible for safe execution of all work performed under this Plan. The Volunteer and its contractors must obtain any local, State or Federal permits or approvals that may be required to perform work under this Plan. The Volunteer and its contractors are solely responsible for the implementation of all required, appropriate, or necessary health and safety measures during performance of work under the approved Plan.

4.3.6 Equipment and Material Staging

Equipment and materials will be stored and staged in a manner that complies with applicable laws and regulations. Specific Site areas will be designated for the staging of equipment and materials. Staging areas will be located and managed such that: a) non-contaminated materials do not contact or become intermixed with contaminated materials; and, b) the likelihood of worker and/or visitor exposures to contaminated media is minimized.

4.3.7 Decontamination Area

Decontamination of field equipment will be conducted to prevent Site cross-contamination, minimize the potential for off-Site contamination and to reduce exposures to contaminated media. All decontamination activities will be documented in field logbooks.

Trucks and other heavy equipment remaining on-Site will be brushed to remove easily accessible gross accumulations of soil at the end of each work day, and prior to moving between excavation areas or moving toward the Site exit. A dedicated decontamination area will be provided as part of the erosion and sedimentation control for vehicles exiting the Site, and will be designed such that there is continuity between the equipment wash area and the clean egress path. Heavy equipment will be brushed and sprayed with high-pressure water and/or steam to remove soil adhering to surfaces (including wheels and vehicle undercarriages), prior to exiting the Site.

Any non-disposable sampling equipment or PPE requiring decontamination will be conducted on a decontamination line setup on plastic sheeting, proceeding from dirty to clean. All items (disassembled as needed) will be washed/brushed thoroughly in an Alconox (or similar) solution, then rinsed with clean water (and/or nitric acid and methanol, as appropriate) per established USEPA decontamination protocols. All down-hole gauging and pumping equipment will be allowed to run fully submerged in both soapy and clean water. Rinse blanks will be collected as per the requirements of the QAPP.

Equipment known or suspected to be impacted by petroleum or solvent contamination, grossly contaminated media or materials subject to conditions specified in the Contingency Plan (Section 5.5), will be decontaminated on an engineered pad designed to capture and contain wash water, which will be containerized and characterized prior to off-Site disposal at a permitted facility. Based on Site conditions documented in the RIR, decontamination rinse water generated during other decontamination activities will be allowed to infiltrate into on-Site soils, either directly to the surface (for minor quantities of water that are not likely to exhibit sheet flow) or to the subsurface via engineered discharge pits.

4.3.8 Site Fencing

Site fencing (6 feet minimum with locking gate) will be installed as part of Site preparation, as needed.

4.3.9 Demobilization

Demobilization will include:

- Restoration of any temporary access areas and any areas that may have been disturbed to accommodate support areas (e.g., staging, decontamination, storage, temporary water management, and access areas);
- Removal of sediment from erosion control measures and truck wash and disposal of materials in accordance with applicable laws and regulations;
- Equipment decontamination; and,
- General refuse disposal.

Equipment will be decontaminated and demobilized at the completion of all field activities. Investigation equipment and large equipment (e.g., soil excavators) will be washed at the truck inspection station as necessary. In addition, all investigation and remediation derived waste will be appropriately disposed.

4.3.10 Well Decommissioning

Any monitoring wells located within construction areas will be properly decommissioned according to technical guidance provided in NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy. The well casing will be exposed to a depth corresponding to the depth of planned excavation in the immediate vicinity of the well, the exposed casing will be cut off at the level of the excavation floor and the remaining subsurface portion of the casing will be grouted in-place, as per CP-43 Section 6.0.

4.4 Reporting

All daily and monthly Reports will be included in the FER.

4.4.1 Daily Reports

Daily reports will be submitted to NYSDEC and NYSDOH Project Managers by noon of the next business day after the end of the reporting period, and will include:

- An update of progress made during the reporting day;
- Locations of work and quantities of material imported and exported from the Site;
- References to alpha-numeric map for Site activities;
- A summary of any and all complaints with relevant details (names, phone numbers);
- A summary of CAMP finding, including excursions; and,
- An explanation of notable Site conditions.

Daily reports are not intended to be the mode of communication for notification to the NYSDEC of emergencies (accident, spill), requests for changes to the RAWP or other sensitive or time critical information. However, such conditions must also be included in the daily reports. Emergency conditions and changes to the RAWP will be addressed directly to NYSDEC Project Manager via personal communication.

Daily Reports will include a description of daily activities keyed to an alpha-numeric map for the Site that identifies work areas. These reports will include a summary of air sampling results, odor and dust problems and corrective actions, and all complaints received from the public.

Figure 7 shows a predefined alpha-numeric grid for use in identifying all locations described in reports submitted to NYSDEC.

The NYSDEC assigned project number will appear on all reports.

4.4.2 Monthly Reports

Monthly reports prepared in accordance with DER-10 Section 5.7(b) will be submitted to NYSDEC and NYSDOH Project Managers within one week following the end of the month of the reporting period.

Reports will include, at a minimum:

- Activities relative to the Site during the previous reporting period and those anticipated for the next reporting period, including a quantitative presentation of work performed (i.e. tons of material exported and imported, etc.);
- Description of approved activity modifications, including changes of work scope and/or schedule;
- Sampling results received following internal data review and validation, as applicable; and,
- An update of the remedial schedule including the percentage of project completion, unresolved delays encountered or anticipated that may affect the future schedule, and efforts made to mitigate such delays.

4.4.3 Other Reporting

Photographs will be taken of all remedial activities and submitted to NYSDEC in digital (JPEG) format. Photos will illustrate all remedial program elements and will be of acceptable quality.

Representative photos of the Site prior to any Remedial Actions will be provided. Representative photos will be provided of each contaminant source, source area and Site structures before, during and after remediation. Photos will be included in the daily reports as needed, and a comprehensive collection of photos will be included in the FER.

Job-site record keeping for all remedial work will be appropriately documented. These records will be maintained on-Site at all times during the project and be available for inspection by NYSDEC and NYSDOH staff.

4.4.4 Complaint Management Plan

All complaints from citizens will be promptly reported to NYSDEC. Complaints will be addressed and outcomes will also be reported to NYSDEC in daily reports. Notices to NYSDEC will include the nature of the complaint, the party providing the complaint, and the actions taken to resolve any problems.

Any public complaints regarding nuisances or other Site conditions will be handled as follows:

- Information from the person making the complaint (name, phone number, address, etc.) will be obtained, if possible, so follow-up can be completed.
- The nature of the complaint, date, time, and weather conditions will be noted.
- The complaint will be addressed by on-Site personnel.
- The person logging the complaint will be re-contacted (if contact information was provided), so that the resolution of the complaint can be documented.
- In the event that the complaint cannot be resolved, the NYSDEC project manager will be contacted in writing.

4.4.5 Deviations from the Remedial Action Work Plan

All changes to the RAWP will be reported to the NYSDEC Project Manager and will be documented in daily reports and reported in the FER.

The process to be followed if there are any deviations from the RAWP will include a request for approval for the change from NYSDEC noting the following:

- Reasons for deviating from the approved RAWP;
- Effect of the deviations on overall remedy; and,
- Determination that the remedial action with the deviation(s) is protective of public health and the environment.

Notification will be provided to NYSDEC by telephone for conditions requiring immediate action (e.g., conditions judged to be a danger to on-Site personnel or the surrounding community).

5 DETAILS OF PROPOSED REMEDIAL ACTIONS

5.1 Soil Removal Activities

5.1.1 Estimated Volume of Regulated Materials to Be Removed

Figure 3 shows proposed soil excavation areas for Site remediation. All grossly contaminated material in the spill area at Lot 12, estimated at 2,300 cubic yards, will be removed down to bedrock or to clean soil endpoints. Contaminated soil outside the spill area, primarily in Lot 11, will be excavated to an anticipated maximum depth of 5 feet bgs, resulting in removal of an additional estimated 3,000 cubic yards.

No fill material will be re-used without approval by the NYSDEC and no on-Site fill material will be used to regrade areas below the static water level.

5.1.2 Soil Clean-up Objectives

The Soil Cleanup Objectives for this Site are the Part 375 Unrestricted Use SCOs.

Soil and materials management will be conducted in accordance with the Soil Management Plan as described below.

Tables 1 through 5 show exceedances of both Unrestricted and Restricted-Residential SCOs for all soil/fill at the Site. Figure 4 is a spider map that shows exceedances of Track 1 UU SCOs.

5.2 Remedial Performance Evaluation

The following post-excavation endpoint sampling procedures will be followed. All resulting data will be compared to the Track 1 SCOs.

5.2.1 End-Point Sampling Frequency

Discrete soil samples will be collected (at a minimum) from each 30 linear feet of wall (at least one sample per wall) and from every 900 square feet of excavation floor (at least one sample per floor) in excavation areas. The number and location of confirmatory endpoint samples will be determined based on the actual field conditions (excavation size, presence of bedrock, etc.), in consultation with NYSDEC.

All confirmatory endpoint samples will be analyzed for Part 375 parameters (TCL VOCs and TCL SVOCs, TAL metals, pesticides, herbicides, PCBs and cyanide) and PFAS. Based on RI data and Site conditions, the Volunteer may request that a portion of the confirmatory endpoint samples be analyzed for a reduced list of parameters.

5.2.2 Methodology

Underlying and surrounding soils will be visually inspected and screened with the PID after the removal of soils necessary for construction and at hot spot areas. Soil samples will be collected using dedicated, disposable plastic trowels and latex gloves (collection for PFAS will follow methodology as specified in the QAPP). Samples will be placed in laboratory-supplied containers, properly stored in coolers, and transported to a NYSDOH-certified laboratory within 48 hours under chain of custody procedures. If confirmatory endpoint sampling indicates contamination above applicable SCOs, additional targeted excavation rounds will be conducted until all residual soil achieves compliance with the SCOs.

5.2.3 Reporting of Results

All data will be provided to the NYSDEC within 72 hours of receipt. Any recommendations for additional testing will be reviewed with the NYSDEC prior to commencing this fieldwork.

5.2.4 QA/QC

Quality Assurance / Quality Control protocols are fully specified in the QAPP (Appendix E). QA/QC methodology includes the following:

- One duplicate sample for every 20 samples collected will be submitted to the approved laboratory for analysis of the same parameters.
- Endpoint samples will be appropriately packaged, placed in coolers and transferred under proper Chain of Custody to the analytical laboratory. Samples will be containerized in appropriate laboratory provided glassware and shipped in plastic coolers. Samples will be preserved through the use of ice to maintain a temperature of 4^{o} C.
- Dedicated disposable sampling materials will be used for the collection endpoint samples, eliminating the need to prepare equipment (rinsate) blanks. However, if non-disposable equipment is used, (stainless steel scoop, etc.) field rinsate blanks will be prepared at the rate of one for every eight samples collected.

5.2.5 Data Usability Summary Reports

Complete laboratory data packages will be provided to an independent, third-party data validator. A summary of the findings in the Data Usability Summary Reports (DUSRs) will be provided in the FER.

5.2.6 Reporting of End-Point Data in FER

Chemical analysis of end-point and contingency samples will be conducted by a NYSDOH ELAP certified laboratory. The FER will provide all end-point sample results and exceedances of SCOs. All data submitted as part of the FER will be in an electronic data deliverable (EDD) format that complies with the NYSDEC Electronic Data Warehouse Standards (EDWS).

5.3 Estimated Material Removal Quantities

The estimated quantity of soil/petroleum-impacted material to be removed from the Site is 2,600 cubic yards.

5.4 Soil/Materials Management Plan

5.4.1 Soil Screening Methods

Soil screening and assessment will be performed by a qualified environmental professional or experienced field technician under the direction of the Remedial Engineer during all remedial and development excavations into known or potentially contaminated material. Soil screening will be performed regardless of when the invasive work is done and will include all excavation and invasive work performed during the remedy and during development phase, such as excavations for foundations and utility work, prior to issuance of the Certificate of Completion.

Grossly contaminated soil will be identified by the presence of: non-aqueous phase liquids (NAPL); visual indications of staining, discoloration or the presence of other obvious signs of contamination; noticeable odors associated with petroleum, solvents or other chemicals; and/or elevated PID readings compared to background levels.

Soil screening will be used to establish excavation end-points by: 1) establishing the absence of soil exhibiting significant field evidence of contamination (grossly contaminated media) or debris materials likely to be associated with contaminants of concern (e.g., urban fill); and, 2) identifying the presence of non-disturbed native soils. The use of direct-reading hand-held screening devices (e.g., PID) will be employed, as appropriate, to determine likely excavation boundaries; final endpoints, however, will only be established through laboratory analysis of confirmatory samples.

All primary contaminant sources (including but not limited to tanks and/or petroleum spill areas) identified during Site Characterization, Remedial Investigation, and Remedial Action will be surveyed by a surveyor licensed to practice in the State of New York. This information will be provided on maps in the FER.

Screening will be performed by qualified environmental professionals. Resumes will be provided for all personnel responsible for field screening (i.e. those representing the Remedial Engineer) of invasive work for unknown contaminant sources during remediation and development work.

5.4.2 Stockpile Methods

All stockpile activities will be compliant with applicable laws and regulations. Stockpile areas will be appropriately graded to control run-off and will be located in areas not subject to flooding or excessive sheet flow during storm events. Material to be stockpiled will be placed within an area designed and constructed to contain the materials from all sides and prevent runoff and dispersion. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible.

Excavated soil from known and/or suspected areas of contamination (e.g., petroleum spill areas, drains, etc.) will be stockpiled separately and will be segregated from clean soil and construction materials. Stockpiles will be used only when necessary and will be removed as soon as practicable. Excavated soils will be stockpiled on, at minimum, double layers of 8-mil minimum sheeting. Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected daily. Results of inspections will be recorded in a logbook maintained at the Site and available for inspection by NYSDEC.

Soil stockpiles will be continuously encircled with silt fences. Hay bales (or equivalent) will be used as needed near catch basins, surface waters and other discharge points.

Water will be available on-Site at suitable supply and pressure for use in dust control.

5.4.3 Materials Excavation and Load Out

The Remedial Engineer, or a qualified environmental professional under their supervision, will oversee all invasive work and the excavation and load-out of all excavated material.

The Volunteer and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the Site has been investigated by the Remedial Engineer. It is noted that a right of way (ROW) traversing the Site in the western portion of Lot 11 will be extinguished prior to initiation of remedial construction. It has been determined that no risk or impediment to the planned work under this Remedial Action Work Plan is posed by utilities or easements on the Site.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-Site. The on-Site Qualified Environmental Professional under the Remedial Engineer's directive will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the Site until the remedial construction is complete.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site sediment tracking.

The on-Site Qualified Environmental Professional under the Remedial Engineer's directive will be responsible for ensuring that all egress points for truck and equipment transport from the Site will be clean of dirt and other materials derived from the Site during Site remediation and development. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site -derived materials.

The Volunteer and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all invasive work, the structural integrity of excavations, and for structures that may be affected by excavations (such as building foundations and bridge footings).

The on-Site Qualified Environmental Professional under the Remedial Engineer's directive will ensure that Site development activities will not interfere with, or otherwise impair or compromise, remedial activities proposed in this Remedial Action Work Plan.

Each spill area or other significant site condition to be remediated (e.g., unknown USTs) will be removed and end-point remedial performance sampling completed before excavations related to Site development commence proximal to the impacted area.

Development-related grading cuts and fills will not be performed without NYSDEC approval and will not interfere with, or otherwise impair or compromise, the performance of remediation required by this plan.

Mechanical processing of historical fill and contaminated soil on-Site is prohibited.

5.4.4 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Final truck transport routes will be determined based on the selected soil repositories. All trucks will follow established NYS DOT Truck Routes, as available. At this time it is expected that trucks will proceed on Broadway (NY Route 86) and then to relevant State highways (e.g., NY Route 3). All trucks loaded with Site materials will exit the vicinity of the Site using only the final, approved truck routes. This is the most appropriate approach and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off- Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; and (g) community input.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during Site remediation and development.

Queuing of trucks will be performed on-Site (as available) in order to minimize off-Site disturbance (off-Site queuing will be minimized).

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used. All trucks will be washed prior to leaving the Site. Truck wash waters will be collected and disposed of off-Site in an appropriate manner.

5.4.5 Materials Disposal Off-Site

Waste disposal locations, to be established at a later date, will be reported to the NYSDEC Project Manager prior to the start of remedial excavation. The total quantity of material expected to be disposed off-Site is anticipated to be 2,600 cubic yards of soil and petroleum-impacted materials. Several separate disposal facilities may be secured (as warranted), based on the expected composition of known contaminated soils. Information from the disposal facilities will be sent to the NYSDEC before the initiation of soil removal at the Site.

All soil/fill/solid waste excavated and removed from the Site will be treated as contaminated and regulated material and will be disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this Site is proposed for unregulated disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to NYSDEC's Project Manager. Unregulated off-Site management of materials from this Site is prohibited without formal NYSDEC approval.

Material that does not meet Track 1 Unrestricted Use SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility). No material potentially falling into this category is anticipated on this project.

The following documentation will be obtained and reported by the Remedial Engineer for each disposal location used in this project to fully demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter from the Remedial Engineer or BCP Volunteer to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter will state that material to be disposed is contaminated material generated at an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the FER.

Non-hazardous historical fill and contaminated soils taken off-Site will be handled in accordance with 6NYCRR Part 360. Historical fill and contaminated soils from the Site are prohibited from being disposed at Part 360-16 Registration Facilities (also known as Soil Recycling Facilities).

Soils that are contaminated but non-hazardous and are being removed from the Site are considered by the Division of Materials Management (DMM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC Region 3 DMM. This material is prohibited from being sent or redirected to a Part 360-16 Registration Facility. In this case, as dictated by DMM, special procedures will include, at a minimum, a letter to the C/D facility that provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on-Site or off-Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

The FER will include an accounting of the destination of all material removed from the Site during this Remedial Action, including excavated soil, contaminated soil, historical fill, solid waste, and hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. This information will also be presented in a tabular form in the FER.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the FER.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in full compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. Sampling and analytical methods, sampling frequency, analytical results and QA/QC will be reported in the FER. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

5.4.6 Materials Reuse On-Site

Soil and fill that is derived from the property that meets the soil cleanup objectives established in this plan may be reused on-Site. “Reuse on-Site” means material that is excavated during the remedy or development, does not leave the property, and is relocated within the same property and on comparable soil/fill material, and addressed pursuant to Engineering Controls. The on-Site QEP under the Remedial Engineer’s directive will ensure that procedures defined for materials reuse in this RAWP are followed and that unacceptable material will not remain on-Site.

On-Site soils and urban fill determined by the NYSDEC to be acceptable for on-Site re-use will not be placed below the static water level.

Concrete crushing or processing on-Site is prohibited.

Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site is prohibited for reuse on-Site.

Contaminated on-Site material, including historical fill and contaminated soil, removed for grading or other purposes will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. This will be expressed in the final SMP.

5.4.7 Fluids Management

Dewatering may be required based on the proposed maximum depths of excavation. Any dewatering on the Site will be completed consistent with applicable local, State, and Federal regulations rules and regulations. All liquids to be removed from the Site, including dewatering fluids, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. A municipal permit will be obtained for any liquids discharged into the public sewer system.

Discharge of water generated during remedial construction to surface waters (i.e. a local pond, stream or river) is prohibited without a SPDES permit. No such discharge is anticipated for this project.

5.4.8 Demarcation

The proposed plan is a Conditional Track 1 cleanup; no soils above UU SCOs will remain on the Site and a demarcation layer for residual contamination is therefore not required.

5.4.9 Backfill from Off-Site Sources

Importation of gravel and subgrade aggregate for construction purposes (e.g., to be used under foundation components) will be from a NYSDEC-approved source/facility (a properly completed soil import/reuse form will be submitted to the NYSDEC project manager for approval prior to importing material). The Remedial Engineer/QEP will ensure that the material does not include any prohibited material (e.g., solid waste) and does not exhibit field evidence of contamination. No other backfill materials are anticipated.

The FER will include the following certification by the Remedial Engineer: "I certify that all import of soils from off-Site, including source evaluation, approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Remedial Action Work Plan".

Should additional materials be needed, all imported soils will meet NYSDEC approved backfill quality objectives for this Site. These NYSDEC approved backfill soil quality objectives are the lower of the protection of groundwater or the protection of public health soil cleanup objectives for Restricted-Residential Use as set forth in Table 375-6.8(b) of 6 NYCRR Part 375. Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved Remedial Action Work Plan or its approval by NYSDEC should be construed as an approval for this purpose.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Nothing in this Remedial Action Work Plan should be construed as an approval for this purpose.

Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

5.4.10 Stormwater Pollution Prevention

An ESCP that conforms to the requirements of the NYSDEC Division of Water guidelines and NYS regulations will be developed by the Contractor and approved by the RE. This plan will be provided to the NYSDEC prior to any remedial or development construction activities. Silt fencing or hay bales will be installed around the entire perimeter of the remedial construction area and be inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the RAWP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

5.4.11 Community Air Monitoring Plan

A CAMP will be implemented during all ground intrusive activities. Exceedances observed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers and included in the Daily Report.

5.4.12 Odor, Dust and Nuisance Control Plan

Suppression of odors, dust and other nuisance conditions will be conducted during all invasive work performed during construction activities. The FER will include the following certification by the Remedial Engineer: “I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with dust and odor suppression methodology defined in the Remedial Action Work Plan.”

Odor Control Plan

This odor control plan is capable of controlling emissions of nuisance odors off-Site. Specific odor control methods to be used on a routine basis will include minimizing the generation of vapors and/or odors. If nuisance odors are identified at the Site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of all other complaints about the project. Implementation of all odor controls, including the halt of work, will be the responsibility of the Volunteer's Remedial Engineer, who is responsible for certifying the FER.

All necessary means will be employed to prevent on- and off-Site nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-Site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

Dust Control Plan

A dust suppression plan that addresses dust management during invasive on-Site work, will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-Site water truck or other equivalent equipment for road wetting capable of spraying water directly onto off-road areas including excavations and stockpiles (water will be available on-Site at suitable supply and pressure for use in dust control if a dedicated water truck is not utilized).
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, non-vegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water spraying.
- Materials will be hauled in properly tarped containers or vehicles, which will travel at restricted speeds while on-Site.

- All reasonable attempts will be made to keep visible and/or fugitive dust to a minimum and adhere to particulate emissions limits identified in the CAMP.

Other Nuisances

A plan for rodent control will be developed and utilized by the contractor prior to and during Site clearing and Site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work and will conform, at a minimum, to NYCDEP noise control standards.

5.5 Contingency Plan

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during excavation. Identification of unknown contamination source areas during Site work will be promptly communicated to NYSDEC's Project Manager.

Petroleum spills will be reported to the NYSDEC Spill Hotline. These findings will be included in the daily report.

If previously unidentified contaminant sources are found during on-Site remedial excavation or development-related excavation, sampling will be performed on contaminated source material and surrounding soils and reported to NYSDEC. Chemical analytical testing will be performed for TCL volatiles and semi-volatiles, pesticides/PCBs, and TAL metals, as appropriate.

This section describes actions that must occur upon the discovery of previously unknown contaminated material(s), USTs, demolition debris or other unknown unidentifiable material that requires special handling. On-Site personnel should be prepared to respond appropriately if the following previously unknown materials are encountered (if encountered, this material could result in a recommendation from the Remedial Engineer/QEP for an immediate, temporary shutdown of construction activities):

- Previously unknown tanks (including drums) containing a liquid product that is not likely to be water and is likely to present a threat to worker health or safety;

- Previously unknown demolition debris, which could contain significant quantities of asbestos, the disturbance of which is determined, based on field observations, to violate or likely to violate Federal, State, or local asbestos regulations; and,
- Material which cannot be readily identified.

5.5.1 Procedures for Encountered Underground Storage Tanks

The procedures outlined in this Section will be adhered to if any unknown tanks are encountered during the remedial action.

Closure of any encountered USTs at the Site will be in accordance with the requirements of DER-10, Section 5.5. Any encountered, previously unknown USTs will be visually inspected to determine if liquids are present in the tank. Significant quantities of liquid remaining in the tanks will be drummed on the Site or removed by a properly licensed disposal company and the particular product (e.g., fuel oil, diesel, etc.) will be identified prior to off-Site disposal at a permitted facility. Manifests of liquid waste management will be maintained by the RE/QEP and will be included in the FER. All encountered USTs will be disposed of pursuant to applicable Petroleum Bulk Storage (PBS) and hazardous waste regulations. The tanks and all ancillary piping will be removed from the ground and inspected for evidence of failure. A photographic record of the tanks will be generated and evidence of tank failure will be noted. The tanks will be purged of petroleum/chemical vapors, properly stenciled as scrap metal, and transported to a metal recycling facility for destruction. A record of tank destruction will be secured by the RE/QEP and will be included in the FER.

Any surrounding soil exhibiting petroleum contamination will be excavated until “clean” soils (soils not exhibiting field evidence of petroleum contamination) are encountered. Confirmatory soil samples will be collected from the base and from the walls of the tank grave and will be analyzed for both VOCs and SVOCs per CP-51 guidelines.

5.5.2 Procedures for Encountered Demolition Debris

To the extent practical, all clearly identifiable material suspected of containing asbestos will be removed from the waste stream and handled separately (if encountered). The RE will recommend that asbestos material visible in the waste stream be separated and analyzed to determine the percent of asbestos present. All applicable Federal, State and local asbestos handling regulations will be followed.

Depending on the amount of asbestos material identified in the waste stream, the RE may recommend to the Volunteer's Representative that a licensed and accredited asbestos inspector be retained to manage the handling and disposition of asbestos material. Approval to retain an asbestos inspector will be made by the Volunteer's Representative. Samples will be collected by a properly licensed asbestos inspector and submitted to a NYSDOH ELAP- certified laboratory for analysis, depending on the amount and type of material encountered.

Minor amounts of asbestos may be removed from the waste stream and disposed of in accordance with applicable State and local asbestos remediation requirements. An asbestos abatement firm will be retained to properly handle and remove minor amounts of asbestos. The presence of significant quantities of asbestos will result in a temporary shutdown of the Site.

5.5.3 Procedures for Encountered Unknown Material

Material which cannot be readily identified but which is considered, based on field observations, to be material that needs further investigation before disposal will be properly stockpiled (as per the SoMP) in an area separate from all other stockpiled material.

5.5.4 Screening and Laboratory Analysis

Unknown material will be screened with a PID and all recorded levels will be documented. Samples will be collected and analyzed to identify the compounds present and to assist in determining appropriate disposal practices. Until determined by laboratory analysis otherwise, this material will be considered a hazardous substance. Specific materials known to require sampling and analysis prior to final disposition include all building components and debris containing painted surfaces and/or caulk. A plan to describe the handling and disposal of such materials will be submitted to NYSDEC for review and approval.

If previously unknown underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation or development related construction, sampling will be performed on product, sediment, and surrounding soils, etc. Chemical analytical work will be for full scan parameters (TAL metals, TCL volatiles and semi-volatiles, TCL pesticides, and PCBs). These analyses will not be limited to CP-51 petroleum list parameters where tanks are identified without prior approval by NYSDEC. Analyses will not be otherwise limited without NYSDEC approval.

6 MANAGEMENT OF RESIDUAL CONTAMINATION

Residual contamination in the form of impacted groundwater and vapor is expected to remain at of the Site following removal of soil exceeding Track 1 UU SCOs. The Engineering and Institutional Controls detailed below are intended to actively address this contamination, consistent with a Conditional Track 1 cleanup. ICs and operation and maintenance of active ECs will be detailed in the SMP. The FER will document post-excavation contamination on the Site in tables and maps.

6.1 ENGINEERING CONTROLS

6.1.1 Active Groundwater Treatment

An in situ chemical oxidation reagent will be applied at the excavation base within the spill area to actively treat contaminated groundwater (petroleum compounds and other VOCs), which is anticipated to result in significant contaminant degradation and acceptable water quality at this Site within five years or less. Reagents will be applied at or below the excavation depths that correspond to the Site water table. The selected ISCO technology, and the application method and rate, based on manufacturer design calculations and recommendations, will be presented to NYSDEC for review and approval (a formal Remedial Design is not proposed at this time).

A groundwater monitoring network will be established at the Site, after final backfilling of soil excavation areas, to document post-remediation groundwater quality and help determine the need for any additional remedial actions, such as follow-up ISCO injections or other response actions. The number, location, and sampling regime for the permanent groundwater wells will be determined in consultation with NYSDEC and NYSDOH, and a Work Plan will be submitted for review and approval. At least one round of post-remediation groundwater sampling will be conducted and the results reported to NYSDEC prior to issuance of the final FER.

6.1.2 Vapor Control System

All new Site buildings will be required to have an active SSDS, or other acceptable measures, to mitigate the migration of vapors into the building from soil and groundwater. Final plans for the vapor control systems, stamped by a Professional Engineer, will be provided to NYSDEC prior to the start of building construction. The need for the ongoing use of an active control system will be determined after NYSDEC and NYSDOH review of the results of post-remediation concurrent sampling of sub-slab vapor and indoor air at the Site structures. Under a Track 1 cleanup, the vapor control system can operate for no more than five years to meet the applicable contaminant-specific remedial goals established for other contaminated media. If post-construction vapor and indoor air data indicate long-term operation of an active SSDS is required, then a Track 4 cleanup will be achieved, and the SSDS will be considered an EC for the Site.

6.2 INSTITUTIONAL CONTROLS

A Conditional Track 1 remedial action is proposed for the Site and Institutional Controls are required. Institutional Controls will be incorporated in this remedial action to manage groundwater treatment and vapor mitigation systems, and render the Site protective of public health and the environment. A Site-specific Environmental Easement will be recorded with Franklin County to provide an enforceable means of ensuring the continual and proper management of the Engineering Controls and protection of public health and the environment in perpetuity, or until released in writing by NYSDEC. It requires that the grantor of the Environmental Easement and the grantor's successors and assigns adhere to all Institutional Controls placed on this Site by this NYSDEC-approved remedy.

The Environmental Easement would provide restrictions on Site usage and mandate operation, maintenance, monitoring and reporting measures for all Institutional Controls and Engineering Controls. A SMP would be prepared describing appropriate methods and procedures to ensure compliance with all Institutional and Environmental Controls required by the Environmental Easement. Once the SMP has been approved by the NYSDEC, compliance with the SMP is required by the grantor of the Environmental Easement and grantor's successors and assigns.

ENVIRONMENTAL EASEMENT

An Environmental Easement, as defined in Article 71 Title 36 of the Environmental Conservation Law, is required when residual contamination is left on-Site after the Remedial Action is complete. An Environmental Easement approved by NYSDEC will be filed and recorded with the Franklin County Clerk. The Environmental Easement would be submitted as part of the FER.

The Environmental Easement renders the Site a Controlled Property. The Environmental Easement must be recorded with Franklin County before the Certificate of Completion can be issued by NYSDEC. A series of Institutional Controls would be required under a Conditional Track 1 remedy to prevent future exposure to residual groundwater and vapor contamination. These

Institutional Controls are requirements or restrictions placed on the Site that are listed in, and required by, the Environmental Easement.

The Controlled Property (Site) would also have a series of Institutional Controls in the form of Site restrictions and requirements. The Site restrictions that apply to the Controlled Property may include:

- Use of groundwater underlying the Controlled Property is prohibited without treatment rendering it safe for intended purpose;
- All future activities on the Controlled Property that will disturb residual contaminated material are prohibited unless they are conducted in accordance with the soil management provisions in the SMP;
- The Controlled Property may be used for Unrestricted Use, provided the short-term Engineering and Institutional Controls included in the SMP are employed;
- Grantor agrees to submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow. This annual statement must be certified by an expert that the NYSDEC finds acceptable.

7 FINAL ENGINEERING REPORT

A Final Engineering Report will be submitted to NYSDEC following implementation of the Remedial Action defined in this RAWP.

7.1 FER Elements

The FER provides the documentation that the remedial work required under this RAWP has been completed and has been performed in compliance with this plan. The FER will provide a comprehensive account of the locations and characteristics of all material removed from the Site including the surveyed map(s) of all sources. The FER will include as-built drawings for all constructed elements, calculation and manufacturer documentation for treatment systems, certifications, manifests, and bills of lading. The FER will provide a description of the changes in the Remedial Action from the elements provided in the RAWP and associated design documents. The FER will provide a tabular summary of all performance evaluation sampling results and all material characterization results and other sampling and chemical analysis performed as part of the Remedial Action. The FER will be prepared in conformance with DER-10.

Where determined to be necessary by NYSDEC, a Financial Assurance Plan will be required to ensure the sufficiency of revenue to perform long-term operations, maintenance and monitoring tasks defined in the SMP and Environmental Easement. This determination will be made by NYSDEC in the context of the FER review.

The FER will include written and photographic documentation of all remedial work performed under this remedy.

The FER will include an itemized tabular description of actual costs incurred during all aspects of the Remedial Action.

The FER will provide a thorough summary of all residual contamination left on the Site after the remedy is complete. Residual contamination includes all contamination that exceeds the Track 1 Unrestricted Use SCO in 6NYCRR Part 375-6. A table that shows exceedances from Track 1 Unrestricted SCOs for all soil/fill remaining at the Site after the Remedial Action and a map that shows the location and summarizes exceedances from Track 1 Unrestricted SCOs for all soil/fill remaining at the Site after the Remedial Action will be included in the FER. The FER must provide an explanation for why the material was not removed as part of the Remedial Action.

The Final Engineering Report will include an accounting of the destination of all material removed from the Site, including excavated contaminated soil, historic fill, solid waste, hazardous waste, non-regulated material, and fluids. Documentation associated with disposal of all material must also include records and approvals for receipt of the material. It will provide an accounting of the origin and chemical quality of all material imported onto the Site.

Before approval of a FER and issuance of a Certificate of Completion, all project reports must be submitted in digital form on electronic media (PDF).

7.2 Site Management Plan

A Conditional Track 1 remedial action is proposed for the Site and Site Management is therefore required. Implementation of the SMP will be the last phase of remediation and begins with the approval of the FER and issuance of the Certificate of Completion for the Remedial Action. The SMP is submitted as part of the FER but would be written in a manner that allows its removal and use as a complete and independent document. Site Management continues in perpetuity or until released in writing by NYSDEC. The property owner is responsible to ensure that all Site Management responsibilities defined in the Environmental Easement and the SMP are performed.

The SMP is intended to provide a detailed description of the procedures required to manage residual contamination left in place at the Site following completion of the Remedial Action in accordance with the BCA with the NYSDEC. This includes (as appropriate following completion of the final remedy): (1) development, implementation, and management of all Engineering and Institutional Controls; (2) development and implementation of monitoring systems and a Monitoring Plan; (3) development of a plan to operate and maintain any treatment, collection, containment, or recovery systems (including, where appropriate, preparation of an Operation and Maintenance Manual); (4) submittal of Site Management Reports, performance of inspections and certification of results, and demonstration of proper communication of Site information to NYSDEC; and (5) defining criteria for termination of treatment system operation.

To address these needs, this SMP would include the following plans (as warranted): (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring; (3) as needed, an Operation and Maintenance Plan for any vapor interceptor systems; and (4) a Site Management Reporting Plan for submittal of data, information, recommendations, and certifications to NYSDEC. The SMP will be prepared in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation and the guidelines provided by NYSDEC.

Site management activities, reporting, and EC/IC certification would be scheduled on a certification period basis. The certification period would be annually for the first three years; modifications to this frequency may be proposed in that third year. The SMP would be based on a calendar year and due for submission to NYSDEC by March 1 of the year following the reporting period.

No exclusions for handling of residual contaminated soils would be provided in the SMP. All handling of residual contaminated material would be subject to provisions contained in the SMP.

7.3 Certifications

The following certification will appear in front of the Executive Summary of the FER. The certification will be signed by the Remedial Engineer Daniel Bellucci who is a Professional Engineer registered in New York State. This certification will be appropriately signed and stamped. The certification will include the following statements:

I, Daniel Bellucci, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established for the remedy.

I certify that all documents generated in support of this report have been submitted in accordance with the DER's electronic submission protocols and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the Site are contained in environmental easements created and recorded pursuant ECL Section 71-3605 and that all affected local governments, as defined in ECL Section 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the Site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class “A” misdemeanor, pursuant to Section 210.45 of the Penal Law. I, [name], of [business address], am certifying as Owner’s Designated Site Representative for the site.

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

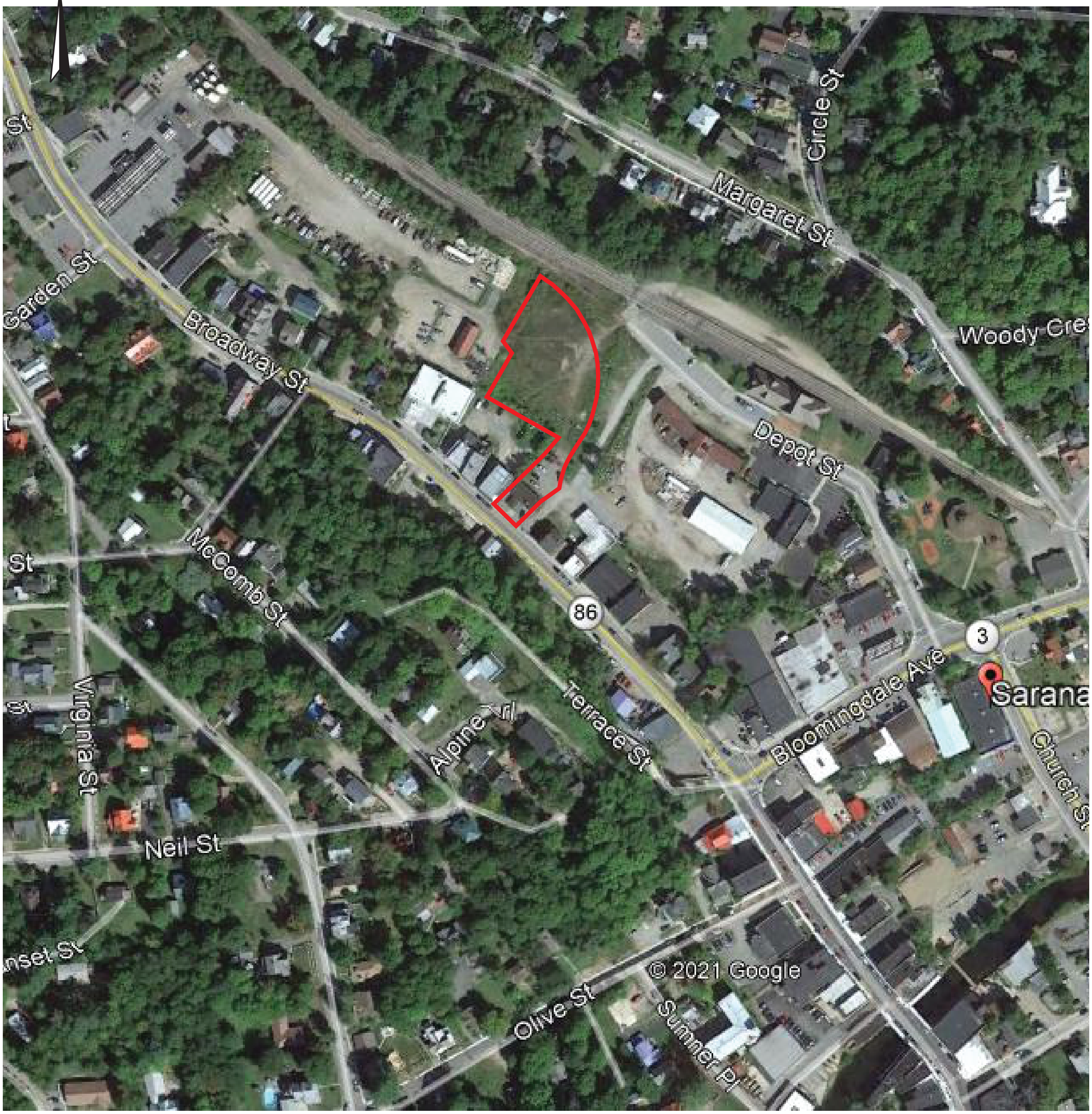
8 SCHEDULE

Demolition of the existing Site structures, and excavation of soils, will commence in January 2023. Currently, a three-month soil excavation period is anticipated. If the schedule for remediation and development activities changes, it will be updated and submitted to NYSDEC.

The current project schedule is presented below:

Week	Action
January 2022	NYSDEC approval of RAWP
March-June 2023	Contractor mobilization and Site preparation; demolition; soil excavation/disposal; confirmatory endpoint sampling
June/September 2023	Preparation of FER and SMP
December 2023	Secure FER approval

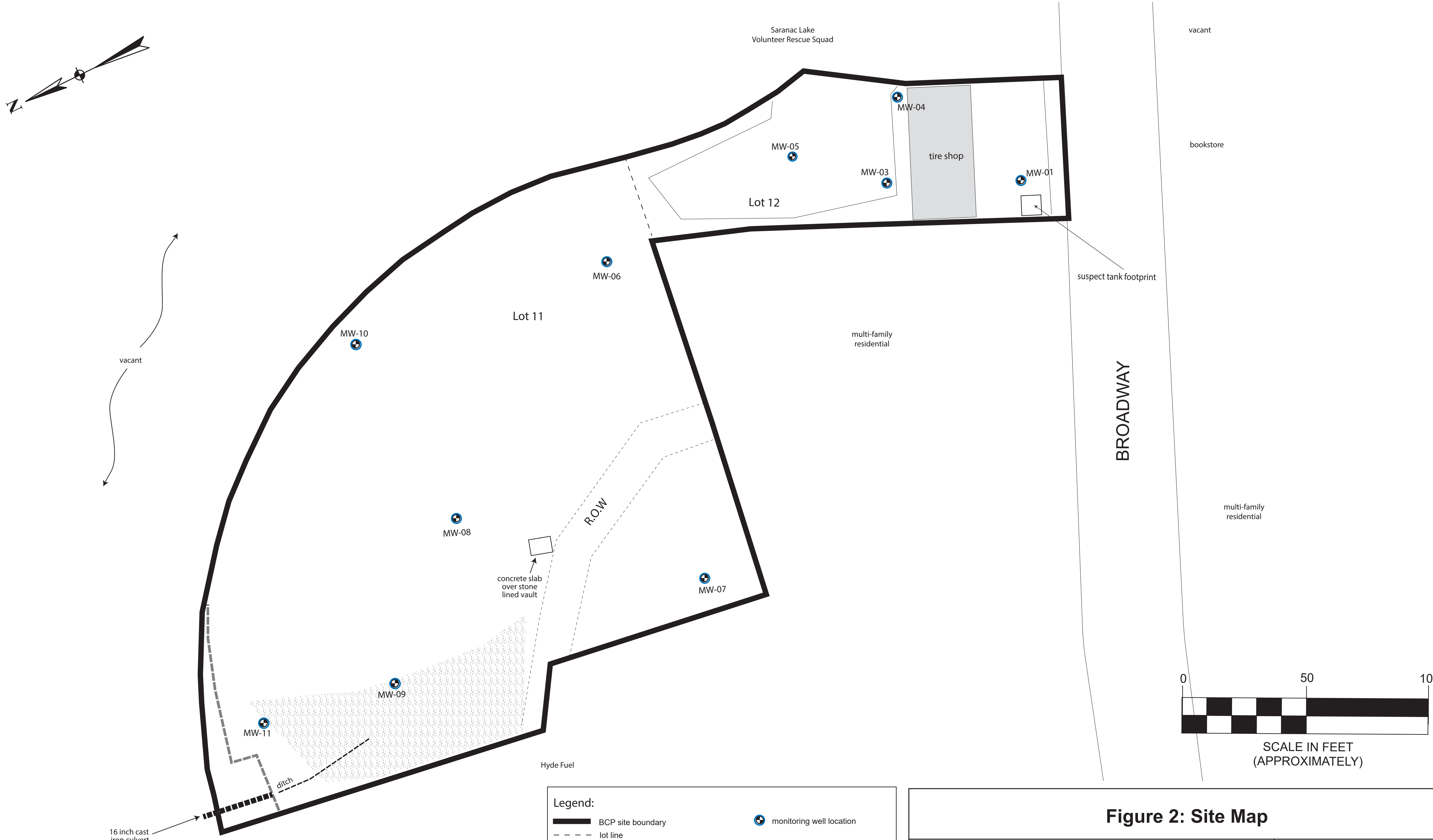
FIGURES



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 1: Site Location Map Saranac Lofts BCP Site C517015 120 Broadway Village of Saranac Lake Franklin County, New York	Legend: BCP site boundary 0 150 300 SCALE IN FEET (APPROXIMATELY)	File: 21003-0066 December 2022 Figures

GALLAGHER BASSETT | TECHNICAL SERVICES



Legend:
- BCP site boundary
- lot line
- retaining wall
- area of wet surface soil
- monitoring well location

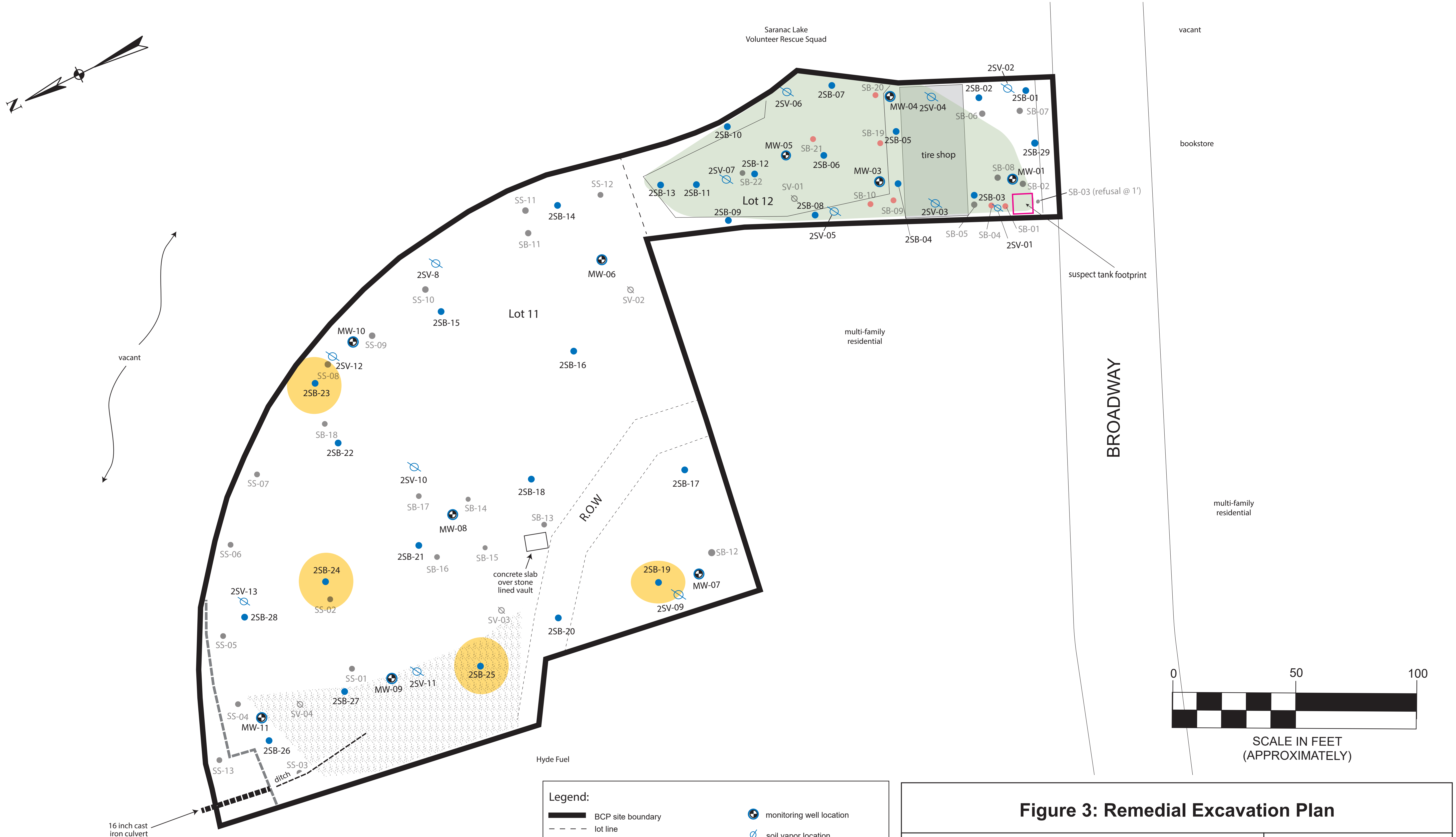
Figure 2: Site Map

Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

File: 21003-0066	
Scale as shown	
December 2022	Figures

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

GALLAGHER BASSETT | TECHNICAL SERVICES



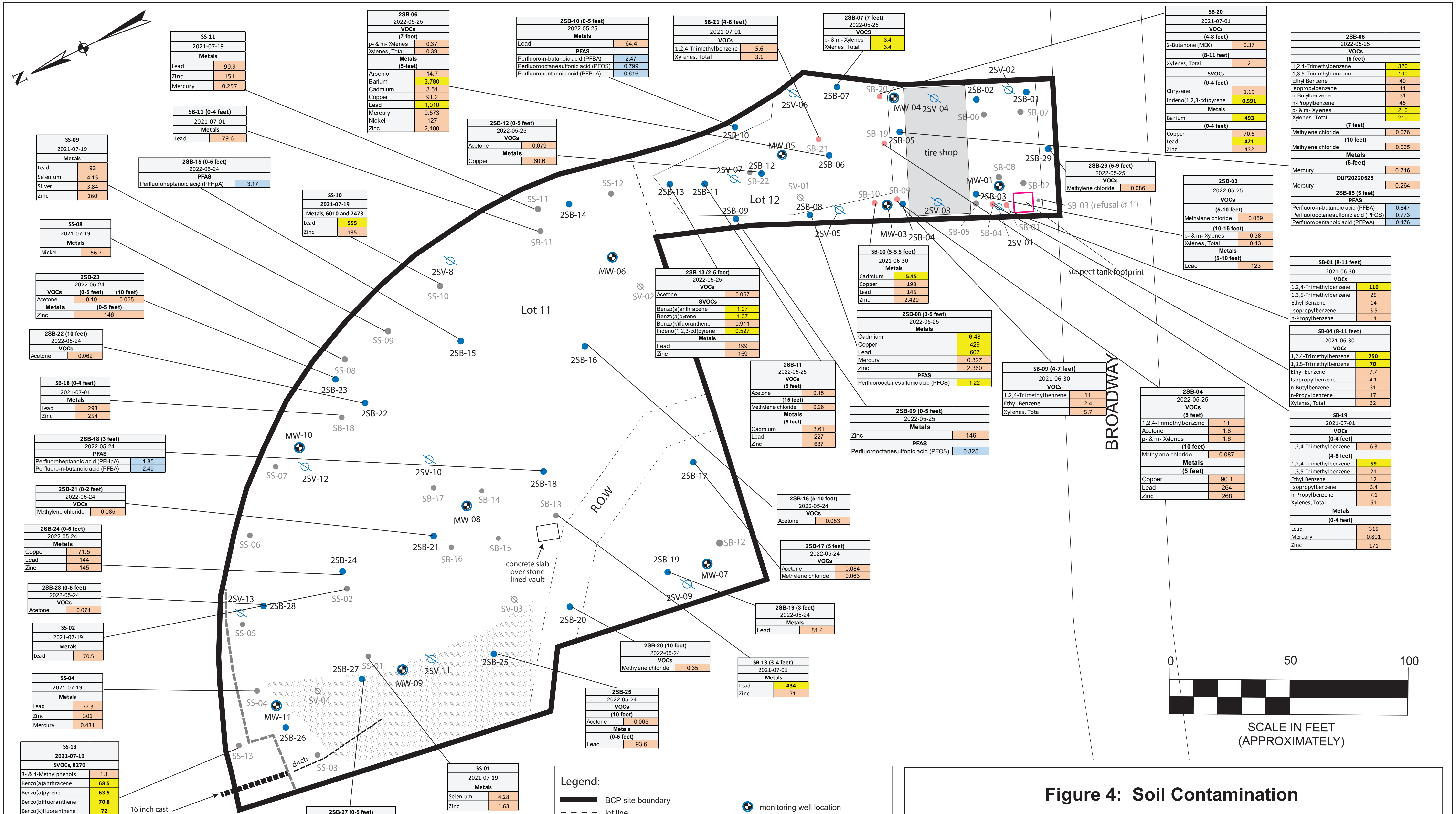
Legend:

- BCP site boundary
- lot line
- retaining wall
- area of wet surface soil
- previous soil sample location
- previous soil boring with evidence of petroleum contamination
- previous soil vapor location
- monitoring well location
- soil vapor location
- boring location
- Petroleum Spill Area: All grossly impacted soil to be removed (excavation to bedrock as needed)
- Poor-Quality Fill Soils: Soil to be removed to 5 feet below grade

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 3: Remedial Excavation Plan	
Saranac Lofts BCP Site C517015 120 Broadway Village of Saranac Lake Franklin County, New York	File: 21003-0066 Scale as shown December 2022 | Figures

GALLAGHER BASSETT | TECHNICAL SERVICES



SS-11	
2021-07-19	
Metals	
Lead	90.9
Zinc	151
Mercury	0.257

SB-11 (0-4 feet)	
2021-07-01	
Metals	
Lead	79.6

SS-09	
2021-07-19	
Metals	
Lead	93
Selenium	4.15
Silver	3.84
Zinc	160

2SB-15 (0-5 feet)	
2022-05-24	
PFAS	
Perfluoroheptanoic acid (PFHpA)	3.17

SS-10	
2021-07-19	
Metals, 6010 and 7473	
Lead	555
Zinc	135

SS-08	
2021-07-19	
Metals	
Nickel	56.7

2SB-23		
2022-05-24		
VOCs	(0-5 feet)	(10 feet)
Acetone	0.19	0.065
Metals	(0-5 feet)	
Zinc	146	

2SB-22 (10 feet)	
2022-05-24	
VOCs	
Acetone	0.062

SB-18 (0-4 feet)	
2021-07-01	
Metals	
Lead	293
Zinc	254

2SB-18 (3 feet)	
2022-05-24	
PFAS	
Perfluoroheptanoic acid (PFHpA)	1.85
Perfluoro-n-butanoic acid (PFBA)	2.49

2SB-21 (0-2 feet)	
2022-05-24	
VOCs	
Methylene chloride	0.085

2SB-24 (0-5 feet)	
2022-05-24	
Metals	
Copper	71.5
Lead	144
Zinc	145

2SB-28 (0-5 feet)	
2022-05-24	
VOCs	
Acetone	0.071

SS-02	
2021-07-19	
Metals	
Lead	70.5

SS-04	
2021-07-19	
Metals	
Lead	72.3
Zinc	301
Mercury	0.431

SS-13	
2021-07-19	
SVOCs, 8270	
3- & 4-Methylphenols	1.1
Benzo(a)anthracene	68.5
Benzo(a)pyrene	63.5
Benzo(b)fluoranthene	70.8
Benzo(k)fluoranthene	72
Chrysene	74.1
Dibenzo(a,h)anthracene	16.4
Indeno(1,2,3-cd)pyrene	47
Phenol	0.866
Pyrene	105
Metals, 6010 and 7473	
Copper	57
Lead	66.9

2SB-27 (0-5 feet)	
2022-05-24	
VOCs	
2-Butanone (MEK)	0.15
Acetone	0.19

SS-01	
2021-07-19	
Metals	
Selenium	4.28
Zinc	1.63

2SB-06	
2022-05-25	
VOCs	
(7-feet)	
p- & m- Xylenes	0.37
Xylenes, Total	0.39
Metals	
(5-feet)	
Arsenic	14.7
Barium	3,780
Cadmium	3.51
Copper	91.2
Lead	1,010
Mercury	0.573
Nickel	127
Zinc	2,400

2SB-10 (0-5 feet)	
2022-05-25	
Metals	
Lead	64.4
PFAS	
Perfluoro-n-butanoic acid (PFBA)	2.47
Perfluorooctanesulfonic acid (PFOS)	0.799
Perfluoropentanoic acid (PFPeA)	0.616

SB-21 (4-8 feet)	
2021-07-01	
VOCs	
1,2,4-Trimethylbenzene	5.6
Xylenes, Total	3.1

2SB-07 (7 feet)	
2022-05-25	
VOCS	
p- & m- Xylenes	3.4
Xylenes, Total	3.4

2SB-12 (0-5 feet)	
2022-05-25	
VOCs	
Acetone	0.079
Metals	
Copper	60.6

SB-20	
2021-07-01	
VOCs	
(4-8 feet)	
2-Butanone (MEK)	0.37
(8-11 feet)	
Xylenes, Total	2
SVOCs	
(0-4 feet)	
Chrysene	1.19
Indeno(1,2,3-cd)pyrene	0.591
Metals	
Barium	493
(0-4 feet)	
Copper	70.5
Lead	421
Zinc	432

2SB-05	
2022-05-25	
VOCs	
(5 feet)	
1,2,4-Trimethylbenzene	320
1,3,5-Trimethylbenzene	100
Ethyl Benzene	40
Isopropylbenzene	14
n-Butylbenzene	31
n-Propylbenzene	45
p- & m- Xylenes	210
Xylenes, Total	210
(7 feet)	
Methylene chloride	0.076
(10 feet)	
Methylene chloride	0.065
Metals	
(5-feet)	
Mercury	0.716
DUP20220525	
Mercury	0.264
2SB-05 (5 feet)	
PFAS	
Perfluoro-n-butanoic acid (PFBA)	0.847
Perfluorooctanesulfonic acid (PFOS)	0.773
Perfluoropentanoic acid (PFPeA)	0.476

2SB-29 (5-9 feet)	
2022-05-25	
VOCs	
Methylene chloride	0.086

2SB-03	
2022-05-25	
VOCs	
(5-10 feet)	
Methylene chloride	0.059
(10-15 feet)	
p- & m- Xylenes	0.38
Xylenes, Total	0.43
Metals	
(5-10 feet)	
Lead	123

SB-10 (5-5.5 feet)	
2021-06-30	
Metals	
Cadmium	5.45
Copper	193
Lead	146
Zinc	2,420

2SB-13 (2-5 feet)	
2022-05-25	
VOCs	
Acetone	0.057
SVOCs	
Benzo(a)anthracene	1.07
Benzo(a)pyrene	1.07
Benzo(k)fluoranthene	0.911
Indeno(1,2,3-cd)pyrene	0.527
Metals	
Lead	199
Zinc	159

2SB-08 (0-5 feet)	
2022-05-25	
Metals	
Cadmium	6.48
Copper	429
Lead	607
Mercury	0.327
Zinc	2,360
PFAS	
Perfluorooctanesulfonic acid (PFOS)	1.22

2SB-11	
2022-05-25	
VOCs	
(5 feet)	
Acetone	0.15
(15 feet)	
Methylene chloride	0.26
Metals	
(5 feet)	
Cadmium	3.61
Lead	227
Zinc	687

2SB-09 (0-5 feet)	
2022-05-25	
Metals	
Zinc	146
PFAS	
Perfluorooctanesulfonic acid (PFOS)	0.325

SB-09 (4-7 feet)	
2021-06-30	
VOCs	
1,2,4-Trimethylbenzene	11
Ethyl Benzene	2.4
Xylenes, Total	5.7

SB-01 (8-11 feet)	
2021-06-30	
VOCs	
1,2,4-Trimethylbenzene	110
1,3,5-Trimethylbenzene	25
Ethyl Benzene	14
Isopropylbenzene	3.5
n-Propylbenzene	14

SB-04 (8-11 feet)	
2021-06-30	
VOCs	
1,2,4-Trimethylbenzene	750
1,3,5-Trimethylbenzene	70
Ethyl Benzene	7.7
Isopropylbenzene	4.1
n-Butylbenzene	31
n-Propylbenzene	17
Xylenes, Total	32

2SB-04	
2022-05-25	
VOCs	
(5 feet)	
1,2,4-Trimethylbenzene	11
Acetone	1.8
p- & m- Xylenes	1.6
(10 feet)	
Methylene chloride	0.087
Metals	
(5 feet)	
Copper	90.1
Lead	264
Zinc	268

SB-19	
2021-07-01	
VOCs	
(0-4 feet)	
1,2,4-Trimethylbenzene	6.3
(4-8 feet)	
1,2,4-Trimethylbenzene	59
1,3,5-Trimethylbenzene	21
Ethyl Benzene	12
Isopropylbenzene	3.4
n-Propylbenzene	7.1
Xylenes, Total	61
Metals	
(0-4 feet)	
Lead	315
Mercury	0.801
Zinc	171

2SB-16 (5-10 feet)	
2022-05-24	
VOCs	
Acetone	0.083

2SB-17 (5 feet)	
2022-05-24	
VOCs	
Acetone	0.084
Methylene chloride	0.063

2SB-19 (3 feet)	
2022-05-24	
Metals	
Lead	81.4

2SB-20 (10 feet)	
2022-05-24	
VOCs	
Methylene chloride	0.35

SB-13 (3-4 feet)	
2021-07-01	
Metals	
Lead	434
Zinc	171

2SB-25	
2022-05-24	
VOCs	
(10 feet)	
Acetone	0.065
Metals	
(0-5 feet)	
Lead	93.6

Legend:

- BCP site boundary
- lot line
- retaining wall
- area of wet surface soil
- previous soil sample location
- previous soil boring with evidence of petroleum contamination
- previous soil vapor location
- monitoring well location
- soil vapor location
- boring location

All VOC, SVOCs and Metals data in mg/Kg (ppm)
Analyte Above UU SCO
Analyte Above RRU SCO
PFAS Data in µg/Kg (ppb)
Analyte Detected

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 4: Soil Contamination

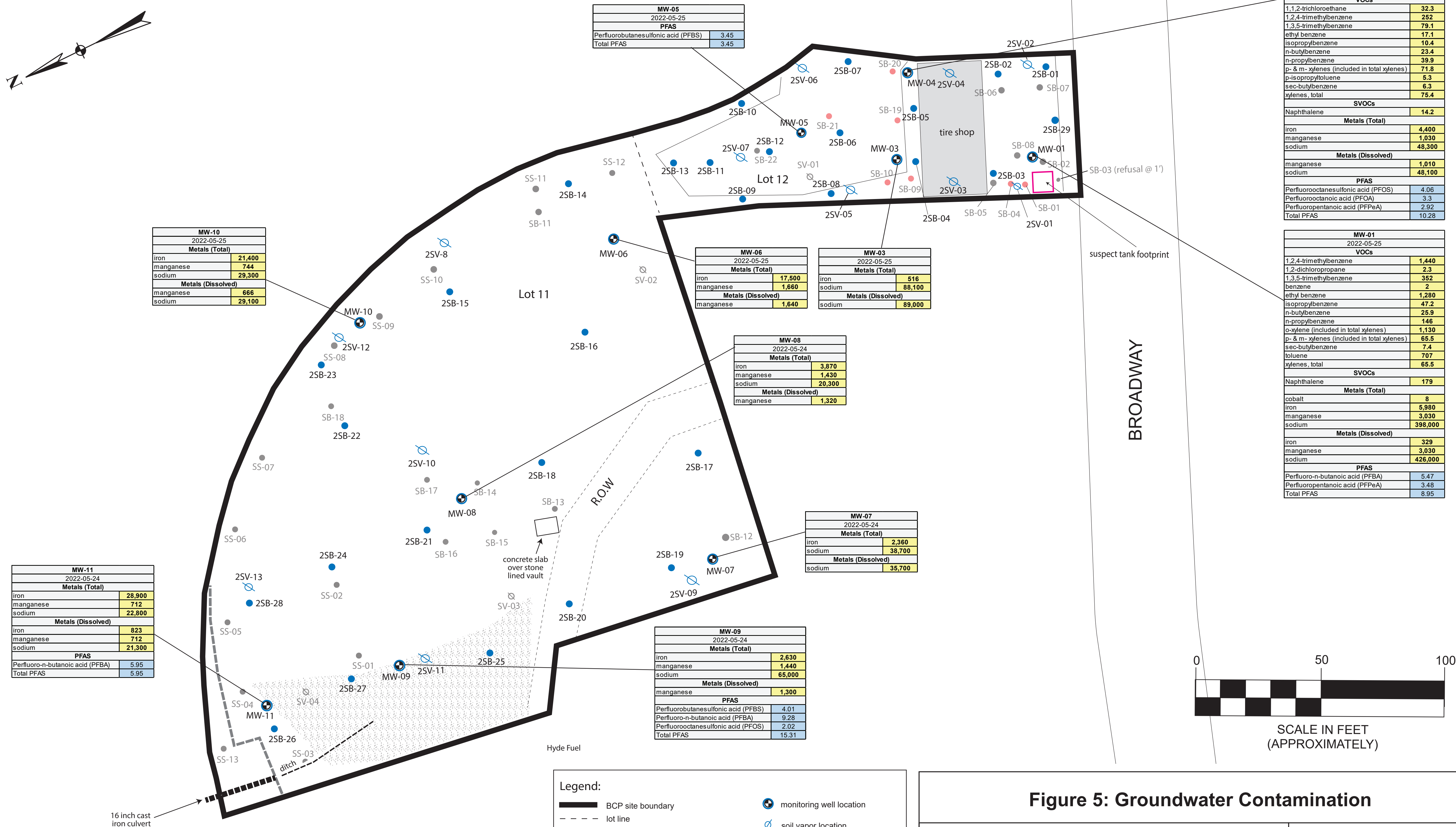
Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

File: 21003-0066

Scale as shown

December 2022 | Figures

GALLAGHER BASSETT | TECHNICAL SERVICES



MW-05	
2022-05-25	
PFAS	
Perfluorobutanesulfonic acid (PFBS)	3.45
Total PFAS	3.45

MW-04	
2022-05-25	
VOCs	
1,1,2-trichloroethane	32.3
1,2,4-trimethylbenzene	252
1,3,5-trimethylbenzene	79.1
ethyl benzene	17.1
isopropylbenzene	10.4
n-butylbenzene	23.4
n-propylbenzene	39.9
p- & m- xylenes (included in total xylenes)	71.8
p-isopropyltoluene	5.3
sec-butylbenzene	6.3
xylenes, total	75.4
SVOCs	
Naphthalene	14.2
Metals (Total)	
iron	4,400
manganese	1,030
sodium	48,300
Metals (Dissolved)	
manganese	1,010
sodium	48,100
PFAS	
Perfluorooctanesulfonic acid (PFOS)	4.06
Perfluorooctanoic acid (PFOA)	3.3
Perfluoropentanoic acid (PFPeA)	2.92
Total PFAS	10.28

MW-10	
2022-05-25	
Metals (Total)	
iron	21,400
manganese	744
sodium	29,300
Metals (Dissolved)	
manganese	666
sodium	29,100

MW-06	
2022-05-25	
Metals (Total)	
iron	17,500
manganese	1,660
Metals (Dissolved)	
manganese	1,640

MW-03	
2022-05-25	
Metals (Total)	
iron	516
sodium	88,100
Metals (Dissolved)	
sodium	89,000

MW-01	
2022-05-25	
VOCs	
1,2,4-trimethylbenzene	1,440
1,2-dichloropropane	2.3
1,3,5-trimethylbenzene	352
benzene	2
ethyl benzene	1,280
isopropylbenzene	47.2
n-butylbenzene	25.9
n-propylbenzene	146
o-xylene (included in total xylenes)	1,130
p- & m- xylenes (included in total xylenes)	65.5
sec-butylbenzene	7.4
toluene	707
xylenes, total	65.5
SVOCs	
Naphthalene	179
Metals (Total)	
cobalt	8
iron	5,980
manganese	3,030
sodium	398,000
Metals (Dissolved)	
iron	329
manganese	3,030
sodium	426,000
PFAS	
Perfluoro-n-butanoic acid (PFBA)	5.47
Perfluoropentanoic acid (PFPeA)	3.48
Total PFAS	8.95

MW-08	
2022-05-24	
Metals (Total)	
iron	3,870
manganese	1,430
sodium	20,300
Metals (Dissolved)	
manganese	1,320

MW-07	
2022-05-24	
Metals (Total)	
iron	2,360
sodium	38,700
Metals (Dissolved)	
sodium	35,700

MW-11	
2022-05-24	
Metals (Total)	
iron	28,900
manganese	712
sodium	22,800
Metals (Dissolved)	
iron	823
manganese	712
sodium	21,300
PFAS	
Perfluoro-n-butanoic acid (PFBA)	5.95
Total PFAS	5.95

MW-09	
2022-05-24	
Metals (Total)	
iron	2,630
manganese	1,440
sodium	65,000
Metals (Dissolved)	
manganese	1,300
PFAS	
Perfluorobutanesulfonic acid (PFBS)	4.01
Perfluoro-n-butanoic acid (PFBA)	9.28
Perfluorooctanesulfonic acid (PFOS)	2.02
Total PFAS	15.31

Legend:

- BCP site boundary
- lot line
- retaining wall
- area of wet surface soil
- previous soil sample location
- previous soil boring with evidence of petroleum contamination
- previous soil vapor location
- monitoring well location
- soil vapor location
- boring location

All VOC, SVOC, Metals data in µg/L (ppb)
Concentrations above AWQS
PFAS Data in ng/l (ppt)
Analyte Detected

Figure 5: Groundwater Contamination

Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

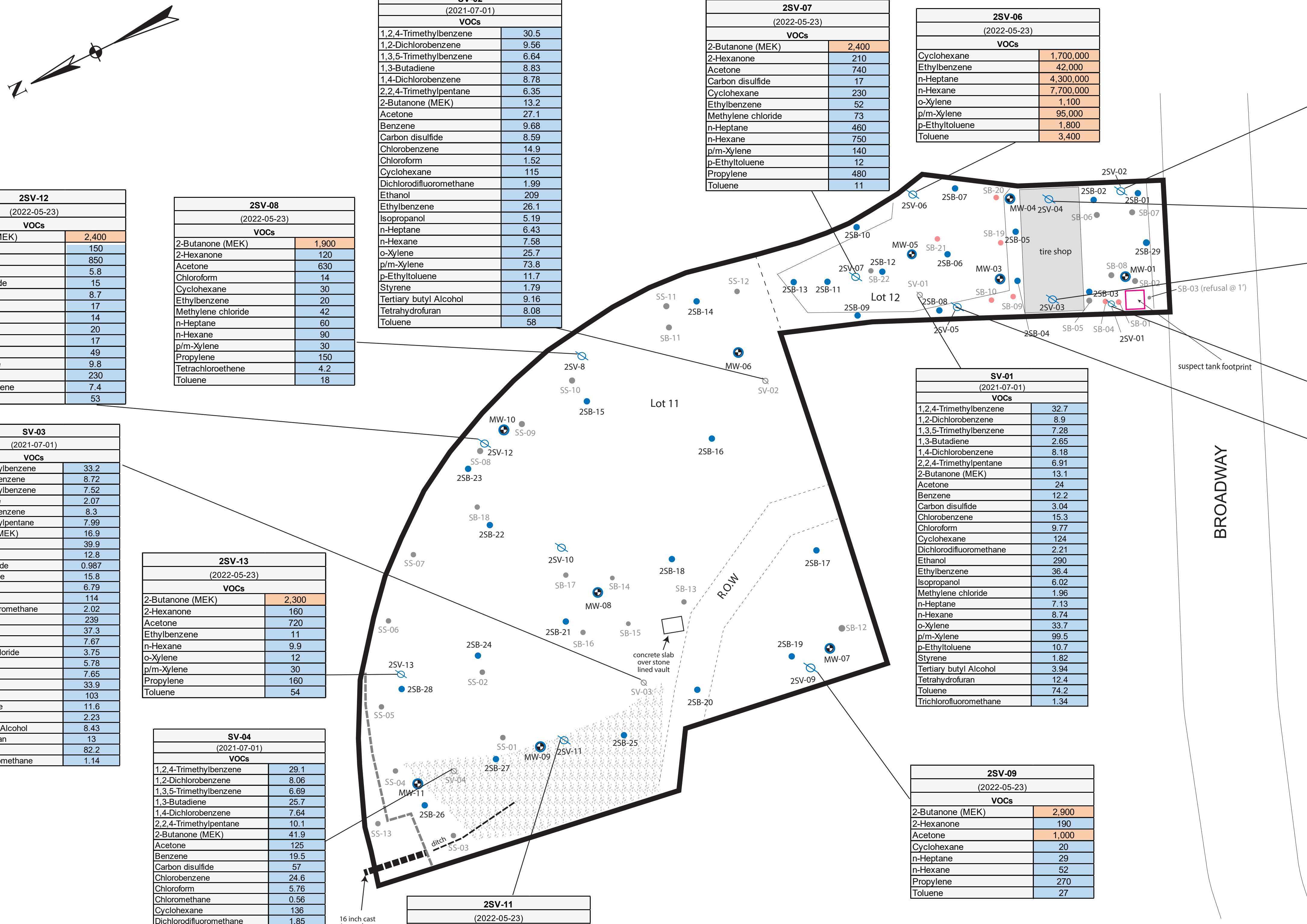
File: 21003-0066

Scale as shown

December 2022 | Figures

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

GALLAGHER BASSETT | TECHNICAL SERVICES



SV-02	
(2021-07-01)	
VOCs	
1,2,4-Trimethylbenzene	30.5
1,2-Dichlorobenzene	9.56
1,3,5-Trimethylbenzene	6.64
1,3-Butadiene	8.83
1,4-Dichlorobenzene	8.78
2,2,4-Trimethylpentane	6.35
2-Butanone (MEK)	13.2
Acetone	27.1
Benzene	9.68
Carbon disulfide	8.59
Chlorobenzene	14.9
Chloroform	1.52
Cyclohexane	115
Dichlorodifluoromethane	1.99
Ethanol	209
Ethylbenzene	26.1
Isopropanol	5.19
n-Heptane	6.43
n-Hexane	7.58
o-Xylene	25.7
p/m-Xylene	73.8
p-Ethyltoluene	11.7
Styrene	1.79
Tertiary butyl Alcohol	9.16
Tetrahydrofuran	8.08
Toluene	58

2SV-07	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	2,400
2-Hexanone	210
Acetone	740
Carbon disulfide	17
Cyclohexane	230
Ethylbenzene	52
Methylene chloride	73
n-Heptane	460
n-Hexane	750
p/m-Xylene	140
p-Ethyltoluene	12
Propylene	480
Toluene	11

2SV-06	
(2022-05-23)	
VOCs	
Cyclohexane	1,700,000
Ethylbenzene	42,000
n-Heptane	4,300,000
n-Hexane	7,700,000
o-Xylene	1,100
p/m-Xylene	95,000
p-Ethyltoluene	1,800
Toluene	3,400

2SV-02	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	1,600
2-Hexanone	150
Acetone	530
Benzene	6.4
Carbon disulfide	5.7
Cyclohexane	14
Ethylbenzene	10
Methylene chloride	65
n-Heptane	23
n-Hexane	33
o-Xylene	9.5
p/m-Xylene	25
Propylene	150
Tetrachloroethene	3.7
Toluene	94

2SV-12	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	2,400
2-Hexanone	150
Acetone	850
Benzene	5.8
Carbon disulfide	15
Cyclohexane	8.7
Ethylbenzene	17
n-Heptane	14
n-Hexane	20
o-Xylene	17
p/m-Xylene	49
p-Ethyltoluene	9.8
Propylene	230
Tetrachloroethene	7.4
Toluene	53

2SV-08	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	1,900
2-Hexanone	120
Acetone	630
Chloroform	14
Cyclohexane	30
Ethylbenzene	20
Methylene chloride	42
n-Heptane	60
n-Hexane	90
p/m-Xylene	30
Propylene	150
Tetrachloroethene	4.2
Toluene	18

2SV-03	
(2022-05-23)	
VOCs	
1,2,4-Trimethylbenzene	4.3
2-Butanone (MEK)	11
Acetone	340
Dichlorodifluoromethane	2.6
Ethylbenzene	3.6
Isopropanol	8.1
n-Hexane	1.7
p-Ethyltoluene	4.5
Tetrachloroethene	23
Toluene	2.3
Trichlorofluoromethane	3.4

2SV-04	
(2022-05-23)	
VOCs	
1,2,4-Trimethylbenzene	5
2-Butanone (MEK)	2.3
4-Methyl-2-pentanone	5.6
Acetone	16
Dichlorodifluoromethane	2.6
Ethylbenzene	1
Isopropanol	19
n-Heptane	0.97
n-Hexane	0.91
o-Xylene	1.1
p/m-Xylene	3
p-Ethyltoluene	4.8
Propylene	0.44
Styrene	2
Tetrachloroethene	8.2
Toluene	2.7
Trichlorofluoromethane	3.7
Vinyl acetate	0.84

SV-03	
(2021-07-01)	
VOCs	
1,2,4-Trimethylbenzene	33.2
1,2-Dichlorobenzene	8.72
1,3,5-Trimethylbenzene	7.52
1,3-Butadiene	2.07
1,4-Dichlorobenzene	8.3
2,2,4-Trimethylpentane	7.99
2-Butanone (MEK)	16.9
Acetone	39.9
Benzene	12.8
Carbon disulfide	0.987
Chlorobenzene	15.8
Chloroform	6.79
Cyclohexane	114
Dichlorodifluoromethane	2.02
Ethanol	239
Ethylbenzene	37.3
Isopropanol	7.67
Methylene chloride	3.75
n-Heptane	5.78
n-Hexane	7.65
o-Xylene	33.9
p/m-Xylene	103
p-Ethyltoluene	11.6
Styrene	2.23
Tertiary butyl Alcohol	8.43
Tetrahydrofuran	13
Toluene	82.2
Trichlorofluoromethane	1.14

2SV-13	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	2,300
2-Hexanone	160
Acetone	720
Ethylbenzene	11
n-Hexane	9.9
o-Xylene	12
p/m-Xylene	30
Propylene	160
Toluene	54

SV-01	
(2021-07-01)	
VOCs	
1,2,4-Trimethylbenzene	32.7
1,2-Dichlorobenzene	8.9
1,3,5-Trimethylbenzene	7.28
1,3-Butadiene	2.65
1,4-Dichlorobenzene	8.18
2,2,4-Trimethylpentane	6.91
2-Butanone (MEK)	13.1
Acetone	24
Benzene	12.2
Carbon disulfide	3.04
Chlorobenzene	15.3
Chloroform	9.77
Cyclohexane	124
Dichlorodifluoromethane	2.21
Ethanol	290
Ethylbenzene	36.4
Isopropanol	6.02
Methylene chloride	1.96
n-Heptane	7.13
n-Hexane	8.74
o-Xylene	33.7
p/m-Xylene	99.5
p-Ethyltoluene	10.7
Styrene	1.82
Tertiary butyl Alcohol	3.94
Tetrahydrofuran	12.4
Toluene	74.2
Trichlorofluoromethane	1.34

2SV-05	
(2022-05-23)	
VOCs	
1,3-Butadiene	20
2-Butanone (MEK)	3,400
2-Hexanone	200
Acetone	960
Benzene	20
Carbon disulfide	8.7
Cyclohexane	26
Methylene chloride	16
n-Heptane	46
n-Hexane	190
Propylene	470
Toluene	52

2SV-01	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	1,400
2-Hexanone	140
Acetone	420
Benzene	45
Carbon disulfide	15
Cyclohexane	8.8
Ethylbenzene	8.2
n-Heptane	26
n-Hexane	61
p/m-Xylene	16
Propylene	170
Tetrachloroethene	30
Toluene	120

SV-04	
(2021-07-01)	
VOCs	
1,2,4-Trimethylbenzene	29.1
1,2-Dichlorobenzene	8.06
1,3,5-Trimethylbenzene	6.69
1,3-Butadiene	25.7
1,4-Dichlorobenzene	7.64
2,2,4-Trimethylpentane	10.1
2-Butanone (MEK)	41.9
Acetone	125
Benzene	19.5
Carbon disulfide	57
Chlorobenzene	24.6
Chloroform	5.76
Chloromethane	0.56
Cyclohexane	136
Dichlorodifluoromethane	1.85
Ethanol	237
Ethylbenzene	49.1
Isopropanol	17.8
n-Heptane	11.3
n-Hexane	14.2
o-Xylene	41.5
p/m-Xylene	129
p-Ethyltoluene	10.1
Styrene	1.94
Tertiary butyl Alcohol	7.58
Tetrahydrofuran	11
Toluene	89.3

2SV-09	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	2,900
2-Hexanone	190
Acetone	1,000
Cyclohexane	20
n-Heptane	29
n-Hexane	52
Propylene	270
Toluene	27

2SV-11	
(2022-05-23)	
VOCs	
2-Butanone (MEK)	1,500
2-Hexanone	96
Acetone	490
Chloroform	10
Cyclohexane	10
Ethylbenzene	46
n-Heptane	23
n-Hexane	36
o-Xylene	19
p/m-Xylene	49
Propylene	160
Toluene	140

Legend:
- BCP site boundary
- lot line
- retaining wall
- area of wet surface soil
- previous soil sample location
- previous soil boring with evidence of petroleum contamination
- previous soil vapor location
- monitoring well location
- soil vapor location
- boring location

All data in µg/m3
Detected concentrations
VOCs ≥ 1,000 µg/m^3

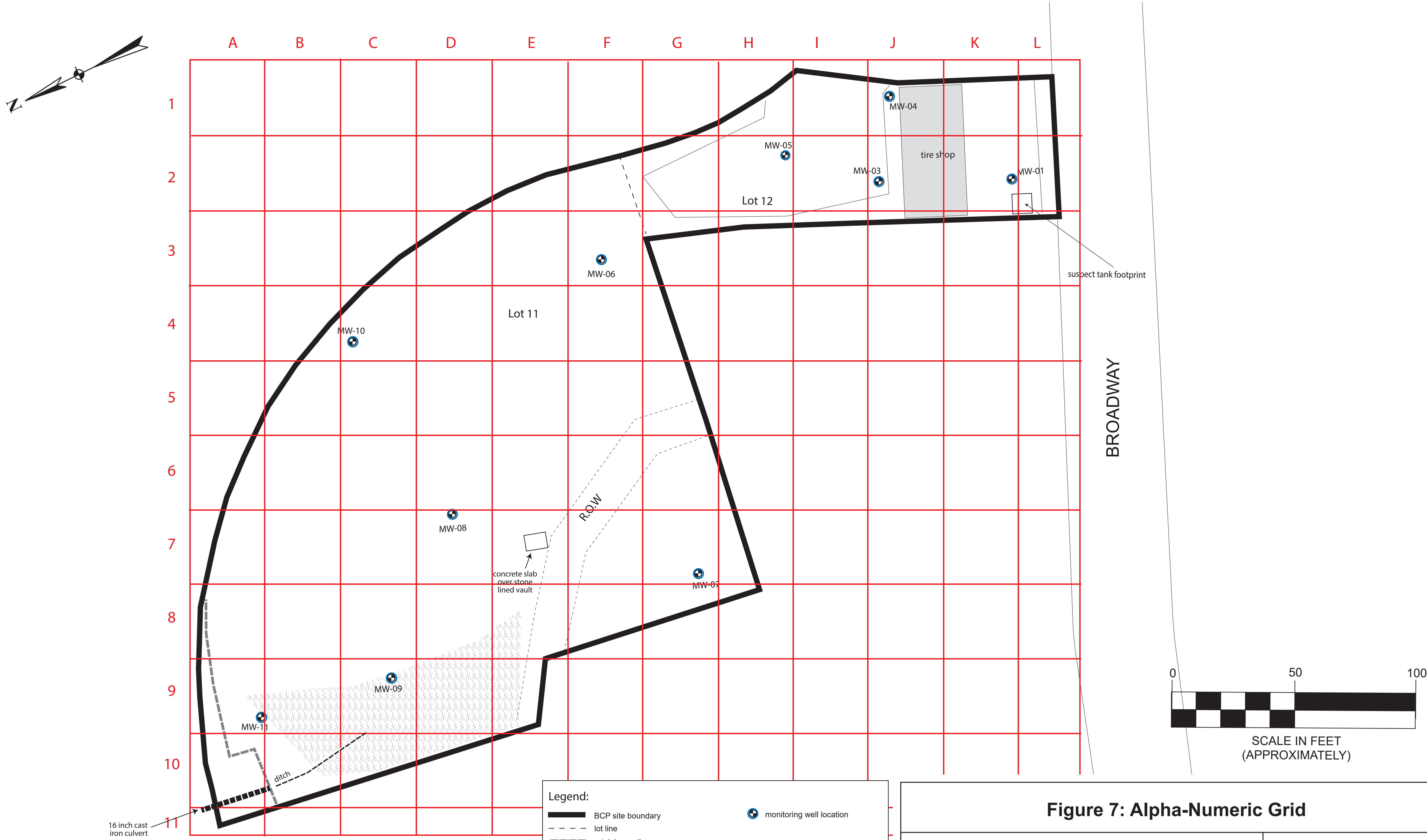
0 50 100
SCALE IN FEET
(APPROXIMATELY)

Figure 6: Soil Vapor Contamination

Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

File: 21003-0066
Scale as shown
December 2022 | Figures

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.



Legend:

- BCP site boundary
- lot line
- retaining wall
- area of wet surface soil
- monitoring well location

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 7: Alpha-Numeric Grid

Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

File: 21003-0066
Scale as shown
December 2022 | Figures

TABLES

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-01 5-10		2SB-02 0-5		2SB-02 5-7		2SB-03 5-10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
1,1,1,2-Tetrachloroethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,1,1-Trichloroethane	0.68	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,1,2-Trichloroethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,1-Dichloroethane	0.27	26	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2,3-Trichlorobenzene	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2,3-Trichloropropane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2,4-Trichlorobenzene	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2,4-Trimethylbenzene	3.6	52	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2-Dibromoethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2-Dichlorobenzene	1.1	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2-Dichloroethane	0.02	3.1	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,2-Dichloropropane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,3,5-Trimethylbenzene	8.4	52	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,3-Dichlorobenzene	2.4	49	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,4-Dichlorobenzene	1.8	13	0.0036	U	0.0047	U	0.0023	U	0.0029	U
1,4-Dioxane	0.1	13	0.071	U	0.093	U	0.045	U	0.058	U
2-Butanone (MEK)	0.12	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
2-Hexanone	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
4-Methyl-2-pentanone	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Acetone	0.05	100	0.011	J	0.023		0.0045	U	0.0059	J
Acrolein	NA	NA	0.0071	U	0.0093	U	0.0045	U	0.0058	U
Acrylonitrile	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Benzene	0.06	4.8	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Bromochloromethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Bromodichloromethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Bromoform	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Bromomethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Carbon disulfide	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Carbon tetrachloride	0.76	2.4	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Chlorobenzene	1.1	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Chloroethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Chloroform	0.37	49	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Chloromethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
cis-1,3-Dichloropropylene	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Cyclohexane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Dibromochloromethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Dibromomethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Dichlorodifluoromethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Ethyl Benzene	1	41	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Hexachlorobutadiene	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Isopropylbenzene	2.3	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Methyl acetate	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Methylcyclohexane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Methylene chloride	0.05	100	0.02		0.018	J	0.012		0.059	
n-Butylbenzene	12	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
n-Propylbenzene	3.9	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
o-Xylene	0.26	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
p- & m- Xylenes	0.26	100	0.0071	U	0.0093	U	0.0045	U	0.0058	U
p-Isopropyltoluene	10	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
sec-Butylbenzene	11	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Styrene	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
tert-Butyl alcohol (TBA)	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
tert-Butylbenzene	5.9	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Tetrachloroethylene (PCE)	1.3	19	0.0036	U	0.0047	U	0.0038	J	0.012	
Toluene	0.7	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0036	U	0.0047	U	0.0023	U	0.0029	U
trans-1,3-Dichloropropylene	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Trichloroethylene (TCE)	0.47	21	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Trichlorofluoromethane	NA	NA	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Vinyl chloride (VC)	0.02	0.9	0.0036	U	0.0047	U	0.0023	U	0.0029	U
Xylenes, Total	0.26	100	0.011	U	0.014	U	0.0068	U	0.0086	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-03 10-15		2SB-03 20		2SB-04 5		2SB-04 10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		100		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,1,1-Trichloroethane	0.68	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,1,2-Trichloroethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,1-Dichloroethane	0.27	26	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2,3-Trichlorobenzene	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2,3-Trichloropropane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2,4-Trichlorobenzene	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2,4-Trimethylbenzene	3.6	52	0.089		0.0032	J	11	D	0.0028	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2-Dibromoethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2-Dichlorobenzene	1.1	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2-Dichloroethane	0.02	3.1	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,2-Dichloropropane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,3,5-Trimethylbenzene	8.4	52	0.024		0.0081		3.5	D	0.0028	U
1,3-Dichlorobenzene	2.4	49	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,4-Dichlorobenzene	1.8	13	0.0025	U	0.0022	U	0.63	U	0.0028	U
1,4-Dioxane	0.1	13	0.049	U	0.043	U	13	U	0.055	U
2-Butanone (MEK)	0.12	100	0.0025	U	0.0041	J	0.63	U	0.0028	U
2-Hexanone	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
4-Methyl-2-pentanone	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Acetone	0.05	100	0.014		0.026		1.8	JD	0.011	
Acrolein	NA	NA	0.0049	U	0.0049	J	1.3	U	0.0055	U
Acrylonitrile	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Benzene	0.06	4.8	0.0025	U	0.0022	U	0.63	U	0.0028	U
Bromochloromethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Bromodichloromethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Bromoform	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Bromomethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Carbon disulfide	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Carbon tetrachloride	0.76	2.4	0.0025	U	0.0022	U	0.63	U	0.0028	U
Chlorobenzene	1.1	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
Chloroethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Chloroform	0.37	49	0.0025	U	0.0022	U	0.63	U	0.0028	U
Chloromethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
cis-1,3-Dichloropropylene	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Cyclohexane	NA	NA	0.013		0.0033	J	0.67	JD	0.0028	U
Dibromochloromethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Dibromomethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Dichlorodifluoromethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Ethyl Benzene	1	41	0.087		0.036		0.63	U	0.0028	U
Hexachlorobutadiene	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Isopropylbenzene	2.3	100	0.0039	J	0.0022	U	0.63	U	0.0028	U
Methyl acetate	NA	NA	0.0025	U	0.0022	U	1.6	D	0.0028	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
Methylcyclohexane	NA	NA	0.016		0.0022	U	3.4	D	0.0028	U
Methylene chloride	0.05	100	0.016		0.0092		1.3	U	0.087	
n-Butylbenzene	12	100	0.0025	U	0.0022	U	1.2	JD	0.0028	U
n-Propylbenzene	3.9	100	0.0078		0.0031	J	1.1	JD	0.0028	U
o-Xylene	0.26	100	0.05		0.0022	U	0.63	U	0.0028	U
p- & m- Xylenes	0.26	100	0.38		0.025		1.6	JD	0.0055	U
p-Isopropyltoluene	10	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
sec-Butylbenzene	11	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
Styrene	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
tert-Butyl alcohol (TBA)	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
tert-Butylbenzene	5.9	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
Tetrachloroethylene (PCE)	1.3	19	0.0025	U	0.0022	U	0.63	U	0.0028	U
Toluene	0.7	100	0.012		0.0022	U	0.63	U	0.0028	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0025	U	0.0022	U	0.63	U	0.0028	U
trans-1,3-Dichloropropylene	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Trichloroethylene (TCE)	0.47	21	0.0025	U	0.0022	U	0.63	U	0.0028	U
Trichlorofluoromethane	NA	NA	0.0025	U	0.0022	U	0.63	U	0.0028	U
Vinyl chloride (VC)	0.02	0.9	0.0025	U	0.0022	U	0.63	U	0.0028	U
Xylenes, Total	0.26	100	0.43		0.025		1.9	U	0.0083	U
Total VOC TICs	NA	NA	**0.091**		**0.0477**		**56.1**		ND	

Analyte Detected	Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)
Analyte Above UU SCO	
Analyte Above RRU SCO	
Xylenes Above POG SCO (1.6)	

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-05 5		2SB-05 7		2SB-05 10		2SB-06 5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	500		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,1,1-Trichloroethane	0.68	100	5.2	U	0.0033	U	0.0076	U	0.008	U
1,1,2,2-Tetrachloroethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,1,2-Trichloroethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,1-Dichloroethane	0.27	26	5.2	U	0.0033	U	0.0076	U	0.008	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2,3-Trichlorobenzene	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2,3-Trichloropropane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2,4-Trichlorobenzene	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2,4-Trimethylbenzene	3.6	52	**320**	D	0.058		0.061		0.008	U
1,2-Dibromo-3-chloropropane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2-Dibromoethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2-Dichlorobenzene	1.1	100	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2-Dichloroethane	0.02	3.1	5.2	U	0.0033	U	0.0076	U	0.008	U
1,2-Dichloropropane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
1,3,5-Trimethylbenzene	8.4	52	**100**	D	0.014		0.018		0.008	U
1,3-Dichlorobenzene	2.4	49	5.2	U	0.0033	U	0.0076	U	0.008	U
1,4-Dichlorobenzene	1.8	13	5.2	U	0.0033	U	0.0076	U	0.008	U
1,4-Dioxane	0.1	13	100	U	0.065	U	0.15	U	0.16	U
2-Butanone (MEK)	0.12	100	5.2	U	0.0033	U	0.0076	U	0.0095	J
2-Hexanone	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
4-Methyl-2-pentanone	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Acetone	0.05	100	10	U	0.023		0.027	J	0.05	
Acrolein	NA	NA	10	U	0.0065	U	0.023	J	0.016	U
Acrylonitrile	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Benzene	0.06	4.8	5.2	U	0.0033	U	0.0076	U	0.008	U
Bromochloromethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Bromodichloromethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Bromoform	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Bromomethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Carbon disulfide	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Carbon tetrachloride	0.76	2.4	5.2	U	0.0033	U	0.0076	U	0.008	U
Chlorobenzene	1.1	100	5.2	U	0.0033	U	0.0076	U	0.008	U
Chloroethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Chloroform	0.37	49	5.2	U	0.0033	U	0.0076	U	0.008	U
Chloromethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	5.2	U	0.0033	U	0.0076	U	0.008	U
cis-1,3-Dichloropropylene	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Cyclohexane	NA	NA	5.2	U	0.02		0.023		0.064	
Dibromochloromethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Dibromomethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Dichlorodifluoromethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Ethyl Benzene	1	41	40	D	0.0097		0.018		0.008	U
Hexachlorobutadiene	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Isopropylbenzene	2.3	100	14	D	0.0033	U	0.0076	U	0.008	U
Methyl acetate	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Methyl tert-butyl ether (MTBE)	0.93	100	5.2	U	0.0033	U	0.0076	U	0.008	U
Methylcyclohexane	NA	NA	110	D	0.03		0.033		0.044	
Methylene chloride	0.05	100	10	U	0.076		0.065		0.021	J
n-Butylbenzene	12	100	31	D	0.0039	J	0.0076	U	0.008	U
n-Propylbenzene	3.9	100	45	D	0.0042	J	0.0076	U	0.008	U
o-Xylene	0.26	100	5.2	U	0.0033	U	0.0076	U	0.008	U
p- & m- Xylenes	0.26	100	**210**	D	0.052		0.093		0.016	U
p-Isopropyltoluene	10	NA	6.5	JD	0.0033	U	0.0076	U	0.008	U
sec-Butylbenzene	11	100	5.2	U	0.0033	U	0.0076	U	0.008	U
Styrene	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
tert-Butyl alcohol (TBA)	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
tert-Butylbenzene	5.9	100	5.2	U	0.0033	U	0.0076	U	0.008	U
Tetrachloroethylene (PCE)	1.3	19	5.2	U	0.0033	U	0.0076	U	0.008	U
Toluene	0.7	100	5.2	U	0.0033	U	0.008	J	0.008	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	5.2	U	0.0033	U	0.0076	U	0.008	U
trans-1,3-Dichloropropylene	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Trichloroethylene (TCE)	0.47	21	5.2	U	0.0033	U	0.0076	U	0.008	U
Trichlorofluoromethane	NA	NA	5.2	U	0.0033	U	0.0076	U	0.008	U
Vinyl chloride (VC)	0.02	0.9	5.2	U	0.0033	U	0.0076	U	0.008	U
Xylenes, Total	0.26	100	**210**	D	0.052		0.093		0.024	U
Total VOC TICs	NA	NA	**777**		**0.318**		**0.298**		**0.433**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-06 7		2SB-06 10		2SB-06 13.5		2SB-07 7	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	100		1		1		100	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,1,1-Trichloroethane	0.68	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,1,2-Trichloroethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,1-Dichloroethane	0.27	26	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2,3-Trichlorobenzene	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2,3-Trichloropropane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2,4-Trichlorobenzene	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2,4-Trimethylbenzene	3.6	52	1	D	0.0069		0.0027	U	2.4	D
1,2-Dibromo-3-chloropropane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2-Dibromoethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2-Dichlorobenzene	1.1	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2-Dichloroethane	0.02	3.1	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,2-Dichloropropane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,3,5-Trimethylbenzene	8.4	52	0.18		0.0025	U	0.0027	U	0.65	D
1,3-Dichlorobenzene	2.4	49	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,4-Dichlorobenzene	1.8	13	0.0025	U	0.0025	U	0.0027	U	0.27	U
1,4-Dioxane	0.1	13	0.049	U	0.051	U	0.054	U	5.5	U
2-Butanone (MEK)	0.12	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
2-Hexanone	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
4-Methyl-2-pentanone	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Acetone	0.05	100	0.031		0.0093	J	0.0067	J	0.55	U
Acrolein	NA	NA	0.04		0.0051	U	0.0054	U	0.55	U
Acrylonitrile	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Benzene	0.06	4.8	0.0025	U	0.0025	U	0.0027	U	0.27	U
Bromochloromethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Bromodichloromethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Bromoform	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Bromomethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Carbon disulfide	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Carbon tetrachloride	0.76	2.4	0.0025	U	0.0025	U	0.0027	U	0.27	U
Chlorobenzene	1.1	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
Chloroethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Chloroform	0.37	49	0.0025	U	0.0025	U	0.0027	U	0.27	U
Chloromethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
cis-1,3-Dichloropropylene	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Cyclohexane	NA	NA	0.19		0.0025	U	0.0027	U	0.69	D
Dibromochloromethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Dibromomethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Dichlorodifluoromethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Ethyl Benzene	1	41	0.069		0.0025	U	0.0027	U	0.59	D
Hexachlorobutadiene	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Isopropylbenzene	2.3	100	0.03		0.0025	U	0.0027	U	0.27	U
Methyl acetate	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
Methylcyclohexane	NA	NA	1.9	D	0.0041	J	0.0027	U	1.6	D
Methylene chloride	0.05	100	0.0071	J	0.015		0.011		0.55	U
n-Butylbenzene	12	100	0.028		0.0025	U	0.0027	U	0.27	U
n-Propylbenzene	3.9	100	0.055		0.0025	U	0.0027	U	0.3	JD
o-Xylene	0.26	100	0.017		0.0025	U	0.0027	U	0.27	U
p- & m- Xylenes	0.26	100	0.37		0.0051	U	0.0054	U	3.4	D
p-Isopropyltoluene	10	NA	0.014		0.0025	U	0.0027	U	0.27	U
sec-Butylbenzene	11	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
Styrene	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
tert-Butyl alcohol (TBA)	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
tert-Butylbenzene	5.9	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
Tetrachloroethylene (PCE)	1.3	19	0.0025	U	0.0025	U	0.0027	U	0.27	U
Toluene	0.7	100	0.0032	J	0.0025	U	0.0027	U	0.27	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0025	U	0.0025	U	0.0027	U	0.27	U
trans-1,3-Dichloropropylene	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Trichloroethylene (TCE)	0.47	21	0.0025	U	0.0025	U	0.0027	U	0.27	U
Trichlorofluoromethane	NA	NA	0.0025	U	0.0025	U	0.0027	U	0.27	U
Vinyl chloride (VC)	0.02	0.9	0.0025	U	0.0025	U	0.0027	U	0.27	U
Xylenes, Total	0.26	100	0.39		0.0076	U	0.0081	U	3.4	D
Total VOC TICs	NA	NA	2.59		ND		ND		9.8	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-07 12		2SB-08 0-5		2SB-08 5-10		2SB-09 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,1,1-Trichloroethane	0.68	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,1,2-Trichloroethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,1-Dichloroethane	0.27	26	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2,3-Trichlorobenzene	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2,3-Trichloropropane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2,4-Trichlorobenzene	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2,4-Trimethylbenzene	3.6	52	0.047		0.0059	U	0.0025	U	0.0025	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2-Dibromoethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2-Dichlorobenzene	1.1	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2-Dichloroethane	0.02	3.1	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,2-Dichloropropane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,3,5-Trimethylbenzene	8.4	52	0.014		0.0059	U	0.0025	U	0.0025	U
1,3-Dichlorobenzene	2.4	49	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,4-Dichlorobenzene	1.8	13	0.0031	U	0.0059	U	0.0025	U	0.0025	U
1,4-Dioxane	0.1	13	0.062	U	0.12	U	0.051	U	0.051	U
2-Butanone (MEK)	0.12	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
2-Hexanone	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
4-Methyl-2-pentanone	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Acetone	0.05	100	0.024		0.012	U	0.0085	J	0.02	
Acrolein	NA	NA	0.018		0.012	U	0.0051	U	0.0051	U
Acrylonitrile	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Benzene	0.06	4.8	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Bromochloromethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Bromodichloromethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Bromoform	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Bromomethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Carbon disulfide	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Carbon tetrachloride	0.76	2.4	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Chlorobenzene	1.1	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Chloroethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Chloroform	0.37	49	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Chloromethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
cis-1,3-Dichloropropylene	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Cyclohexane	NA	NA	0.026		0.0059	U	0.0025	U	0.0025	U
Dibromochloromethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Dibromomethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Dichlorodifluoromethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Ethyl Benzene	1	41	0.016		0.0059	U	0.0025	U	0.0025	U
Hexachlorobutadiene	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Isopropylbenzene	2.3	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Methyl acetate	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Methylcyclohexane	NA	NA	0.031		0.0059	U	0.0025	U	0.0025	U
Methylene chloride	0.05	100	0.015		0.038		0.017		0.0098	J
n-Butylbenzene	12	100	0.004	J	0.0059	U	0.0025	U	0.0025	U
n-Propylbenzene	3.9	100	0.0065		0.0059	U	0.0025	U	0.0025	U
o-Xylene	0.26	100	0.01		0.0059	U	0.0025	U	0.0025	U
p- & m- Xylenes	0.26	100	0.067		0.012	U	0.0051	U	0.0051	U
p-Isopropyltoluene	10	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
sec-Butylbenzene	11	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Styrene	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
tert-Butyl alcohol (TBA)	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
tert-Butylbenzene	5.9	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Tetrachloroethylene (PCE)	1.3	19	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Toluene	0.7	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0031	U	0.0059	U	0.0025	U	0.0025	U
trans-1,3-Dichloropropylene	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Trichloroethylene (TCE)	0.47	21	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Trichlorofluoromethane	NA	NA	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Vinyl chloride (VC)	0.02	0.9	0.0031	U	0.0059	U	0.0025	U	0.0025	U
Xylenes, Total	0.26	100	0.077		0.018	U	0.0076	U	0.0076	U
Total VOC TICs	NA	NA	**0.382**		ND		ND		ND	

Analyte Detected	Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)
Analyte Above UU SCO	
Analyte Above RRU SCO	
Xylenes Above POG SCO (1.6)	

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,1,1-Trichloroethane	0.68	100	0.0022	U	0.002	U	0.0025	U	0.003	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,1,2-Trichloroethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,1-Dichloroethane	0.27	26	0.0022	U	0.002	U	0.0025	U	0.003	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2,3-Trichlorobenzene	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2,3-Trichloropropane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2,4-Trichlorobenzene	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2,4-Trimethylbenzene	3.6	52	0.0022	U	0.1		0.0025	U	0.003	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2-Dibromoethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2-Dichlorobenzene	1.1	100	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2-Dichloroethane	0.02	3.1	0.0022	U	0.002	U	0.0025	U	0.003	U
1,2-Dichloropropane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
1,3,5-Trimethylbenzene	8.4	52	0.0022	U	0.0022	J	0.0025	U	0.003	U
1,3-Dichlorobenzene	2.4	49	0.0022	U	0.002	U	0.0025	U	0.003	U
1,4-Dichlorobenzene	1.8	13	0.0022	U	0.002	U	0.0025	U	0.003	U
1,4-Dioxane	0.1	13	0.044	U	0.04	U	0.051	U	0.06	U
2-Butanone (MEK)	0.12	100	0.0022	U	0.0098		0.0025	U	0.042	
2-Hexanone	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
4-Methyl-2-pentanone	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Acetone	0.05	100	0.014		0.032		0.023		0.15	
Acrolein	NA	NA	0.0044	U	0.004	U	0.0051	U	0.006	U
Acrylonitrile	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Benzene	0.06	4.8	0.0022	U	0.002	U	0.0025	U	0.003	U
Bromochloromethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Bromodichloromethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Bromoform	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Bromomethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Carbon disulfide	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Carbon tetrachloride	0.76	2.4	0.0022	U	0.002	U	0.0025	U	0.003	U
Chlorobenzene	1.1	100	0.0022	U	0.002	U	0.0025	U	0.003	U
Chloroethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Chloroform	0.37	49	0.0022	U	0.002	U	0.0025	U	0.003	U
Chloromethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0022	U	0.002	U	0.0025	U	0.003	U
cis-1,3-Dichloropropylene	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Cyclohexane	NA	NA	0.0022	U	0.0033	J	0.0025	U	0.003	U
Dibromochloromethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Dibromomethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Dichlorodifluoromethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Ethyl Benzene	1	41	0.0022	U	0.002	U	0.0025	U	0.003	U
Hexachlorobutadiene	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Isopropylbenzene	2.3	100	0.0022	U	0.0031	J	0.0025	U	0.003	U
Methyl acetate	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0022	U	0.002	U	0.0025	U	0.003	U
Methylcyclohexane	NA	NA	0.0022	U	0.0044		0.0025	U	0.003	U
Methylene chloride	0.05	100	0.012		0.02		0.0063	J	0.0062	J
n-Butylbenzene	12	100	0.0022	U	0.0087		0.0025	U	0.003	U
n-Propylbenzene	3.9	100	0.0022	U	0.011		0.0025	U	0.003	U
o-Xylene	0.26	100	0.0022	U	0.002	U	0.0025	U	0.003	U
p- & m- Xylenes	0.26	100	0.0044	U	0.0052	J	0.0051	U	0.006	U
p-Isopropyltoluene	10	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
sec-Butylbenzene	11	100	0.0022	U	0.002	U	0.0025	U	0.003	U
Styrene	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
tert-Butyl alcohol (TBA)	NA	NA	0.0022	U	0.0025	J	0.0025	U	0.003	U
tert-Butylbenzene	5.9	100	0.0022	U	0.002	U	0.0025	U	0.003	U
Tetrachloroethylene (PCE)	1.3	19	0.0022	U	0.002	U	0.0025	U	0.003	U
Toluene	0.7	100	0.0022	U	0.002	U	0.0026	J	0.003	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0022	U	0.002	U	0.0025	U	0.003	U
trans-1,3-Dichloropropylene	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Trichloroethylene (TCE)	0.47	21	0.0022	U	0.002	U	0.0025	U	0.003	U
Trichlorofluoromethane	NA	NA	0.0022	U	0.002	U	0.0025	U	0.003	U
Vinyl chloride (VC)	0.02	0.9	0.0022	U	0.002	U	0.0025	U	0.003	U
Xylenes, Total	0.26	100	0.0065	U	0.0059	U	0.0076	U	0.009	U
Total VOC TICs	NA	NA	ND		**0.333**		ND		ND	

Legend
Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-11 7		2SB-11 15		2SB-12 0-5		2SB-12 5-10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,1,1-Trichloroethane	0.68	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,1,2-Trichloroethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,1-Dichloroethane	0.27	26	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2,3-Trichlorobenzene	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2,3-Trichloropropane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2,4-Trichlorobenzene	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2,4-Trimethylbenzene	3.6	52	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2-Dibromoethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2-Dichlorobenzene	1.1	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2-Dichloroethane	0.02	3.1	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,2-Dichloropropane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,3,5-Trimethylbenzene	8.4	52	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,3-Dichlorobenzene	2.4	49	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,4-Dichlorobenzene	1.8	13	0.0025	U	0.006	U	0.0028	U	0.0023	U
1,4-Dioxane	0.1	13	0.051	U	0.12	U	0.056	U	0.046	U
2-Butanone (MEK)	0.12	100	0.0037	J	0.006	U	0.02		0.0023	U
2-Hexanone	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
4-Methyl-2-pentanone	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Acetone	0.05	100	0.036		0.03		0.079		0.0061	J
Acrolein	NA	NA	0.0051	U	0.012	U	0.0056	U	0.0046	U
Acrylonitrile	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Benzene	0.06	4.8	0.0025	U	0.006	U	0.0028	U	0.0023	U
Bromochloromethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Bromodichloromethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Bromoform	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Bromomethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Carbon disulfide	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Carbon tetrachloride	0.76	2.4	0.0025	U	0.006	U	0.0028	U	0.0023	U
Chlorobenzene	1.1	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
Chloroethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Chloroform	0.37	49	0.0025	U	0.006	U	0.0028	U	0.0023	U
Chloromethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
cis-1,3-Dichloropropylene	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Cyclohexane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Dibromochloromethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Dibromomethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Dichlorodifluoromethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Ethyl Benzene	1	41	0.0025	U	0.006	U	0.0028	U	0.0023	U
Hexachlorobutadiene	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Isopropylbenzene	2.3	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
Methyl acetate	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
Methylcyclohexane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Methylene chloride	0.05	100	0.009	J	0.26		0.029		0.0073	J
n-Butylbenzene	12	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
n-Propylbenzene	3.9	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
o-Xylene	0.26	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
p- & m- Xylenes	0.26	100	0.0051	U	0.012	U	0.0056	U	0.0046	U
p-Isopropyltoluene	10	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
sec-Butylbenzene	11	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
Styrene	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
tert-Butyl alcohol (TBA)	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
tert-Butylbenzene	5.9	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
Tetrachloroethylene (PCE)	1.3	19	0.0025	U	0.006	U	0.0028	U	0.0023	U
Toluene	0.7	100	0.0032	J	0.006	U	0.0028	U	0.0023	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0025	U	0.006	U	0.0028	U	0.0023	U
trans-1,3-Dichloropropylene	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Trichloroethylene (TCE)	0.47	21	0.0025	U	0.006	U	0.0028	U	0.0023	U
Trichlorofluoromethane	NA	NA	0.0025	U	0.006	U	0.0028	U	0.0023	U
Vinyl chloride (VC)	0.02	0.9	0.0025	U	0.006	U	0.0028	U	0.0023	U
Xylenes, Total	0.26	100	0.0076	U	0.018	U	0.0083	U	0.007	U
Total VOC TICs	NA	NA	ND		ND		**0.0817**		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-13 0-2		DUP20220525		2SB-13 2-5		2SB-13 10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,1,1-Trichloroethane	0.68	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,1,2-Trichloroethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,1-Dichloroethane	0.27	26	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2,3-Trichlorobenzene	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2,3-Trichloropropane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2,4-Trichlorobenzene	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2,4-Trimethylbenzene	3.6	52	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2-Dibromoethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2-Dichlorobenzene	1.1	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2-Dichloroethane	0.02	3.1	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,2-Dichloropropane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,3,5-Trimethylbenzene	8.4	52	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,3-Dichlorobenzene	2.4	49	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,4-Dichlorobenzene	1.8	13	0.0037	U	0.0051	U	0.0025	U	0.0024	U
1,4-Dioxane	0.1	13	0.073	U	0.1	U	0.051	U	0.047	U
2-Butanone (MEK)	0.12	100	0.0037	U	0.0051	U	0.01		0.0024	J
2-Hexanone	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
4-Methyl-2-pentanone	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Acetone	0.05	100	0.0073	U	0.01	U	0.057		0.022	
Acrolein	NA	NA	0.0073	U	0.01	U	0.0051	U	0.0047	U
Acrylonitrile	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Benzene	0.06	4.8	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Bromochloromethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Bromodichloromethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Bromoform	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Bromomethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Carbon disulfide	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Carbon tetrachloride	0.76	2.4	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Chlorobenzene	1.1	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Chloroethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Chloroform	0.37	49	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Chloromethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
cis-1,3-Dichloropropylene	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Cyclohexane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Dibromochloromethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Dibromomethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Dichlorodifluoromethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Ethyl Benzene	1	41	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Hexachlorobutadiene	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Isopropylbenzene	2.3	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Methyl acetate	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Methylcyclohexane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Methylene chloride	0.05	100	0.0073	U	0.01	U	0.008	J	0.013	
n-Butylbenzene	12	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
n-Propylbenzene	3.9	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
o-Xylene	0.26	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
p- & m- Xylenes	0.26	100	0.0073	U	0.01	U	0.0051	U	0.0047	U
p-Isopropyltoluene	10	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
sec-Butylbenzene	11	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Styrene	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
tert-Butyl alcohol (TBA)	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
tert-Butylbenzene	5.9	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Tetrachloroethylene (PCE)	1.3	19	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Toluene	0.7	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0037	U	0.0051	U	0.0025	U	0.0024	U
trans-1,3-Dichloropropylene	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Trichloroethylene (TCE)	0.47	21	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Trichlorofluoromethane	NA	NA	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Vinyl chloride (VC)	0.02	0.9	0.0037	U	0.0051	U	0.0025	U	0.0024	U
Xylenes, Total	0.26	100	0.011	U	0.015	U	0.0076	U	0.0071	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-14 10-13.5		2SB-15 0-5		2SB-15 10		2SB-16 5-10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,1,1-Trichloroethane	0.68	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,1,2-Trichloroethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,1-Dichloroethane	0.27	26	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2,3-Trichlorobenzene	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2,3-Trichloropropane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2,4-Trichlorobenzene	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2,4-Trimethylbenzene	3.6	52	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2-Dibromoethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2-Dichlorobenzene	1.1	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2-Dichloroethane	0.02	3.1	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,2-Dichloropropane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,3,5-Trimethylbenzene	8.4	52	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,3-Dichlorobenzene	2.4	49	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,4-Dichlorobenzene	1.8	13	0.0024	U	0.0023	U	0.0024	U	0.0024	U
1,4-Dioxane	0.1	13	0.048	U	0.046	U	0.049	U	0.047	U
2-Butanone (MEK)	0.12	100	0.0024	U	0.0044	J	0.0029	J	0.018	
2-Hexanone	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
4-Methyl-2-pentanone	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Acetone	0.05	100	0.014		0.043		0.044		0.083	
Acrolein	NA	NA	0.0048	U	0.0046	U	0.0049	U	0.0047	U
Acrylonitrile	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Benzene	0.06	4.8	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Bromochloromethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Bromodichloromethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Bromoform	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Bromomethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Carbon disulfide	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Carbon tetrachloride	0.76	2.4	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Chlorobenzene	1.1	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Chloroethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Chloroform	0.37	49	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Chloromethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
cis-1,3-Dichloropropylene	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Cyclohexane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Dibromochloromethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Dibromomethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Dichlorodifluoromethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Ethyl Benzene	1	41	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Hexachlorobutadiene	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Isopropylbenzene	2.3	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Methyl acetate	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Methylcyclohexane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Methylene chloride	0.05	100	0.011		0.0047	J	0.013		0.0047	U
n-Butylbenzene	12	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
n-Propylbenzene	3.9	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
o-Xylene	0.26	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
p- & m- Xylenes	0.26	100	0.0048	U	0.0046	U	0.0049	U	0.0047	U
p-Isopropyltoluene	10	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
sec-Butylbenzene	11	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Styrene	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
tert-Butyl alcohol (TBA)	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
tert-Butylbenzene	5.9	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Tetrachloroethylene (PCE)	1.3	19	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Toluene	0.7	100	0.0055		0.0023	U	0.0024	U	0.0024	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0024	U	0.0023	U	0.0024	U	0.0024	U
trans-1,3-Dichloropropylene	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Trichloroethylene (TCE)	0.47	21	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Trichlorofluoromethane	NA	NA	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Vinyl chloride (VC)	0.02	0.9	0.0024	U	0.0023	U	0.0024	U	0.0024	U
Xylenes, Total	0.26	100	0.0072	U	0.007	U	0.0073	U	0.0071	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-16 15		2SB-17 5		2SB-17 15		2SB-18 3	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,1,1-Trichloroethane	0.68	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,1,2-Trichloroethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,1-Dichloroethane	0.27	26	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2,3-Trichlorobenzene	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2,3-Trichloropropane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2,4-Trichlorobenzene	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2,4-Trimethylbenzene	3.6	52	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2-Dibromoethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2-Dichlorobenzene	1.1	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2-Dichloroethane	0.02	3.1	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,2-Dichloropropane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,3,5-Trimethylbenzene	8.4	52	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,3-Dichlorobenzene	2.4	49	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,4-Dichlorobenzene	1.8	13	0.0023	U	0.0078	U	0.0027	U	0.0028	U
1,4-Dioxane	0.1	13	0.046	U	0.16	U	0.055	U	0.056	U
2-Butanone (MEK)	0.12	100	0.0023	U	0.0078	U	0.0027	U	0.0031	J
2-Hexanone	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
4-Methyl-2-pentanone	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Acetone	0.05	100	0.035		0.084		0.0085	J	0.037	
Acrolein	NA	NA	0.0046	U	0.016	U	0.0055	U	0.0056	U
Acrylonitrile	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Benzene	0.06	4.8	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Bromochloromethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Bromodichloromethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Bromoform	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Bromomethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Carbon disulfide	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Carbon tetrachloride	0.76	2.4	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Chlorobenzene	1.1	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Chloroethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Chloroform	0.37	49	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Chloromethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
cis-1,3-Dichloropropylene	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Cyclohexane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Dibromochloromethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Dibromomethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Dichlorodifluoromethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Ethyl Benzene	1	41	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Hexachlorobutadiene	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Isopropylbenzene	2.3	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Methyl acetate	NA	NA	0.0033	J	0.0078	U	0.0027	U	0.0028	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Methylcyclohexane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Methylene chloride	0.05	100	0.024		0.063		0.0085	J	0.027	
n-Butylbenzene	12	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
n-Propylbenzene	3.9	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
o-Xylene	0.26	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
p- & m- Xylenes	0.26	100	0.0046	U	0.016	U	0.0055	U	0.0056	U
p-Isopropyltoluene	10	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
sec-Butylbenzene	11	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Styrene	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
tert-Butyl alcohol (TBA)	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
tert-Butylbenzene	5.9	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Tetrachloroethylene (PCE)	1.3	19	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Toluene	0.7	100	0.0047		0.0078	U	0.0027	U	0.0028	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0023	U	0.0078	U	0.0027	U	0.0028	U
trans-1,3-Dichloropropylene	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Trichloroethylene (TCE)	0.47	21	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Trichlorofluoromethane	NA	NA	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Vinyl chloride (VC)	0.02	0.9	0.0023	U	0.0078	U	0.0027	U	0.0028	U
Xylenes, Total	0.26	100	0.007	U	0.023	U	0.0082	U	0.0084	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected	Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)
Analyte Above UU SCO	
Analyte Above RRU SCO	
Xylenes Above POG SCO (1.6)	

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-18 10		2SB-19 3		2SB-19 15		2SB-20 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,1,1-Trichloroethane	0.68	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,1,2-Trichloroethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,1-Dichloroethane	0.27	26	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2,3-Trichlorobenzene	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2,3-Trichloropropane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2,4-Trichlorobenzene	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2,4-Trimethylbenzene	3.6	52	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2-Dibromoethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2-Dichlorobenzene	1.1	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2-Dichloroethane	0.02	3.1	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,2-Dichloropropane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,3,5-Trimethylbenzene	8.4	52	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,3-Dichlorobenzene	2.4	49	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,4-Dichlorobenzene	1.8	13	0.0025	U	0.0043	U	0.0037	U	0.005	U
1,4-Dioxane	0.1	13	0.049	U	0.086	U	0.074	U	0.1	U
2-Butanone (MEK)	0.12	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
2-Hexanone	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
4-Methyl-2-pentanone	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Acetone	0.05	100	0.026		0.0086	U	0.013	J	0.039	
Acrolein	NA	NA	0.0049	U	0.0086	U	0.0074	U	0.01	U
Acrylonitrile	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Benzene	0.06	4.8	0.0025	U	0.0043	U	0.0037	U	0.005	U
Bromochloromethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Bromodichloromethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Bromoform	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Bromomethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Carbon disulfide	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Carbon tetrachloride	0.76	2.4	0.0025	U	0.0043	U	0.0037	U	0.005	U
Chlorobenzene	1.1	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
Chloroethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Chloroform	0.37	49	0.0025	U	0.0043	U	0.0037	U	0.005	U
Chloromethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
cis-1,3-Dichloropropylene	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Cyclohexane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Dibromochloromethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Dibromomethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Dichlorodifluoromethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Ethyl Benzene	1	41	0.0025	U	0.0043	U	0.0037	U	0.005	U
Hexachlorobutadiene	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Isopropylbenzene	2.3	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
Methyl acetate	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
Methylcyclohexane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Methylene chloride	0.05	100	0.006	J	0.018		0.042		0.35	
n-Butylbenzene	12	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
n-Propylbenzene	3.9	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
o-Xylene	0.26	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
p- & m- Xylenes	0.26	100	0.0049	U	0.0086	U	0.0074	U	0.01	U
p-Isopropyltoluene	10	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
sec-Butylbenzene	11	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
Styrene	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
tert-Butyl alcohol (TBA)	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
tert-Butylbenzene	5.9	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
Tetrachloroethylene (PCE)	1.3	19	0.0025	U	0.0043	U	0.0037	U	0.005	U
Toluene	0.7	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0025	U	0.0043	U	0.0037	U	0.005	U
trans-1,3-Dichloropropylene	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Trichloroethylene (TCE)	0.47	21	0.0025	U	0.0043	U	0.0037	U	0.005	U
Trichlorofluoromethane	NA	NA	0.0025	U	0.0043	U	0.0037	U	0.005	U
Vinyl chloride (VC)	0.02	0.9	0.0025	U	0.0043	U	0.0037	U	0.005	U
Xylenes, Total	0.26	100	0.0074	U	0.013	U	0.011	U	0.015	U
Total VOC TICs	NA	NA	ND		ND		ND		**0.011**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-21 0-2		DUP20220524		2SB-21 2-5		2SB-21 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-25		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,1,1-Trichloroethane	0.68	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,1,2-Trichloroethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,1-Dichloroethane	0.27	26	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2,3-Trichlorobenzene	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2,3-Trichloropropane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2,4-Trichlorobenzene	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2,4-Trimethylbenzene	3.6	52	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2-Dibromoethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2-Dichlorobenzene	1.1	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2-Dichloroethane	0.02	3.1	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,2-Dichloropropane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,3,5-Trimethylbenzene	8.4	52	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,3-Dichlorobenzene	2.4	49	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,4-Dichlorobenzene	1.8	13	0.0043	U	0.002	U	0.0027	U	0.0026	U
1,4-Dioxane	0.1	13	0.086	U	0.041	U	0.053	U	0.053	U
2-Butanone (MEK)	0.12	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
2-Hexanone	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
4-Methyl-2-pentanone	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Acetone	0.05	100	0.0086	U	0.0041	U	0.0053	U	0.034	
Acrolein	NA	NA	0.0086	U	0.0041	U	0.0053	U	0.0053	U
Acrylonitrile	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Benzene	0.06	4.8	0.0043	U	0.002	U	0.0027	U	0.0026	U
Bromochloromethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Bromodichloromethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Bromoform	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Bromomethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Carbon disulfide	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Carbon tetrachloride	0.76	2.4	0.0043	U	0.002	U	0.0027	U	0.0026	U
Chlorobenzene	1.1	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
Chloroethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Chloroform	0.37	49	0.0043	U	0.002	U	0.0027	U	0.0026	U
Chloromethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
cis-1,3-Dichloropropylene	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Cyclohexane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Dibromochloromethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Dibromomethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Dichlorodifluoromethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Ethyl Benzene	1	41	0.0043	U	0.002	U	0.0027	U	0.0026	U
Hexachlorobutadiene	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Isopropylbenzene	2.3	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
Methyl acetate	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
Methylcyclohexane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Methylene chloride	0.05	100	0.085		0.0053	J	0.027		0.008	J
n-Butylbenzene	12	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
n-Propylbenzene	3.9	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
o-Xylene	0.26	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
p- & m- Xylenes	0.26	100	0.0086	U	0.0041	U	0.0053	U	0.0053	U
p-Isopropyltoluene	10	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
sec-Butylbenzene	11	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
Styrene	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
tert-Butyl alcohol (TBA)	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
tert-Butylbenzene	5.9	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
Tetrachloroethylene (PCE)	1.3	19	0.0043	U	0.002	U	0.0027	U	0.0026	U
Toluene	0.7	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0043	U	0.002	U	0.0027	U	0.0026	U
trans-1,3-Dichloropropylene	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Trichloroethylene (TCE)	0.47	21	0.0043	U	0.002	U	0.0027	U	0.0026	U
Trichlorofluoromethane	NA	NA	0.0043	U	0.002	U	0.0027	U	0.0026	U
Vinyl chloride (VC)	0.02	0.9	0.0043	U	0.002	U	0.0027	U	0.0026	U
Xylenes, Total	0.26	100	0.013	U	0.0061	U	0.008	U	0.0079	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected	Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)
Analyte Above UU SCO	
Analyte Above RRU SCO	
Xylenes Above POG SCO (1.6)	

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-22 5		2SB-22 10		2SB-23 0-5		2SB-23 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,1,1-Trichloroethane	0.68	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,1,2-Trichloroethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,1-Dichloroethane	0.27	26	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2,3-Trichlorobenzene	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2,3-Trichloropropane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2,4-Trichlorobenzene	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2,4-Trimethylbenzene	3.6	52	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2-Dibromoethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2-Dichlorobenzene	1.1	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2-Dichloroethane	0.02	3.1	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,2-Dichloropropane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,3,5-Trimethylbenzene	8.4	52	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,3-Dichlorobenzene	2.4	49	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,4-Dichlorobenzene	1.8	13	0.0026	U	0.0025	U	0.0033	U	0.0023	U
1,4-Dioxane	0.1	13	0.052	U	0.05	U	0.065	U	0.047	U
2-Butanone (MEK)	0.12	100	0.0026	U	0.0025	U	0.021		0.0038	J
2-Hexanone	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
4-Methyl-2-pentanone	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Acetone	0.05	100	0.042		0.062		0.19		0.065	
Acrolein	NA	NA	0.0052	U	0.005	U	0.0065	U	0.0047	U
Acrylonitrile	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Benzene	0.06	4.8	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Bromochloromethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Bromodichloromethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Bromoform	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Bromomethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Carbon disulfide	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Carbon tetrachloride	0.76	2.4	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Chlorobenzene	1.1	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Chloroethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Chloroform	0.37	49	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Chloromethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
cis-1,3-Dichloropropylene	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Cyclohexane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Dibromochloromethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Dibromomethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Dichlorodifluoromethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Ethyl Benzene	1	41	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Hexachlorobutadiene	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Isopropylbenzene	2.3	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Methyl acetate	NA	NA	0.0026	U	0.0025	U	0.0052	J	0.0023	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Methylcyclohexane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Methylene chloride	0.05	100	0.034		0.023		0.03		0.0047	U
n-Butylbenzene	12	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
n-Propylbenzene	3.9	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
o-Xylene	0.26	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
p- & m- Xylenes	0.26	100	0.0052	U	0.005	U	0.0065	U	0.0047	U
p-Isopropyltoluene	10	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
sec-Butylbenzene	11	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Styrene	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
tert-Butyl alcohol (TBA)	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
tert-Butylbenzene	5.9	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Tetrachloroethylene (PCE)	1.3	19	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Toluene	0.7	100	0.0073		0.0025	U	0.0033	U	0.0023	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0026	U	0.0025	U	0.0033	U	0.0023	U
trans-1,3-Dichloropropylene	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Trichloroethylene (TCE)	0.47	21	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Trichlorofluoromethane	NA	NA	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Vinyl chloride (VC)	0.02	0.9	0.0026	U	0.0025	U	0.0033	U	0.0023	U
Xylenes, Total	0.26	100	0.0078	U	0.0076	U	0.0098	U	0.007	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

U= Not Detected ≥ value / All data in mg/Kg (ppm)		Sample ID	2SB-24 0-5		2SB-24 10		2SB-25 0-5		2SB-25 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,1,1-Trichloroethane	0.68	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,1,2-Trichloroethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,1-Dichloroethane	0.27	26	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2,3-Trichlorobenzene	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2,3-Trichloropropane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2,4-Trichlorobenzene	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2,4-Trimethylbenzene	3.6	52	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2-Dibromoethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2-Dichlorobenzene	1.1	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2-Dichloroethane	0.02	3.1	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,2-Dichloropropane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,3,5-Trimethylbenzene	8.4	52	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,3-Dichlorobenzene	2.4	49	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,4-Dichlorobenzene	1.8	13	0.0032	U	0.0022	U	0.0039	U	0.0031	U
1,4-Dioxane	0.1	13	0.063	U	0.043	U	0.077	U	0.062	U
2-Butanone (MEK)	0.12	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
2-Hexanone	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
4-Methyl-2-pentanone	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Acetone	0.05	100	0.011	J	0.032		0.041		0.065	
Acrolein	NA	NA	0.0063	U	0.0043	U	0.0077	U	0.0062	U
Acrylonitrile	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Benzene	0.06	4.8	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Bromochloromethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Bromodichloromethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Bromoform	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Bromomethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Carbon disulfide	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Carbon tetrachloride	0.76	2.4	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Chlorobenzene	1.1	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Chloroethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Chloroform	0.37	49	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Chloromethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
cis-1,3-Dichloropropylene	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Cyclohexane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Dibromochloromethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Dibromomethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Dichlorodifluoromethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Ethyl Benzene	1	41	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Hexachlorobutadiene	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Isopropylbenzene	2.3	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Methyl acetate	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Methylcyclohexane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Methylene chloride	0.05	100	0.0063	U	0.0054	J	0.0077	U	0.0087	J
n-Butylbenzene	12	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
n-Propylbenzene	3.9	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
o-Xylene	0.26	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
p- & m- Xylenes	0.26	100	0.0063	U	0.0043	U	0.0077	U	0.0062	U
p-Isopropyltoluene	10	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
sec-Butylbenzene	11	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Styrene	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
tert-Butyl alcohol (TBA)	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
tert-Butylbenzene	5.9	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Tetrachloroethylene (PCE)	1.3	19	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Toluene	0.7	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0032	U	0.0022	U	0.0039	U	0.0031	U
trans-1,3-Dichloropropylene	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Trichloroethylene (TCE)	0.47	21	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Trichlorofluoromethane	NA	NA	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Vinyl chloride (VC)	0.02	0.9	0.0032	U	0.0022	U	0.0039	U	0.0031	U
Xylenes, Total	0.26	100	0.0095	U	0.0065	U	0.012	U	0.0093	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Legend	
Analyte Detected	Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)
Analyte Above UU SCO	
Analyte Above RRU SCO	
Xylenes Above POG SCO (1.6)	

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,1,1-Trichloroethane	0.68	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,1,2-Trichloroethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,1-Dichloroethane	0.27	26	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2,3-Trichlorobenzene	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2,3-Trichloropropane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2,4-Trichlorobenzene	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2,4-Trimethylbenzene	3.6	52	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2-Dibromoethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2-Dichlorobenzene	1.1	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2-Dichloroethane	0.02	3.1	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,2-Dichloropropane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,3,5-Trimethylbenzene	8.4	52	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,3-Dichlorobenzene	2.4	49	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,4-Dichlorobenzene	1.8	13	0.0023	U	0.0018	U	0.0038	U	0.0024	U
1,4-Dioxane	0.1	13	0.047	U	0.037	U	0.077	U	0.049	U
2-Butanone (MEK)	0.12	100	0.0023	J	0.0025	J	0.15		0.0024	U
2-Hexanone	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
4-Methyl-2-pentanone	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Acetone	0.05	100	0.035		0.032		0.19		0.034	
Acrolein	NA	NA	0.0047	U	0.0037	U	0.0077	U	0.0049	U
Acrylonitrile	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Benzene	0.06	4.8	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Bromochloromethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Bromodichloromethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Bromoform	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Bromomethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Carbon disulfide	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Carbon tetrachloride	0.76	2.4	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Chlorobenzene	1.1	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Chloroethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Chloroform	0.37	49	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Chloromethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
cis-1,3-Dichloropropylene	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Cyclohexane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Dibromochloromethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Dibromomethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Dichlorodifluoromethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Ethyl Benzene	1	41	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Hexachlorobutadiene	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Isopropylbenzene	2.3	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Methyl acetate	NA	NA	0.0023	U	0.0018	U	0.0049	J	0.0024	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Methylcyclohexane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Methylene chloride	0.05	100	0.0047	U	0.0038	J	0.0096	J	0.0068	J
n-Butylbenzene	12	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
n-Propylbenzene	3.9	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
o-Xylene	0.26	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
p- & m- Xylenes	0.26	100	0.0047	U	0.0037	U	0.0077	U	0.0049	U
p-Isopropyltoluene	10	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
sec-Butylbenzene	11	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Styrene	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
tert-Butyl alcohol (TBA)	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
tert-Butylbenzene	5.9	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Tetrachloroethylene (PCE)	1.3	19	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Toluene	0.7	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0023	U	0.0018	U	0.0038	U	0.0024	U
trans-1,3-Dichloropropylene	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Trichloroethylene (TCE)	0.47	21	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Trichlorofluoromethane	NA	NA	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Vinyl chloride (VC)	0.02	0.9	0.0023	U	0.0018	U	0.0038	U	0.0024	U
Xylenes, Total	0.26	100	0.007	U	0.0055	U	0.011	U	0.0073	U
Total VOC TICs	NA	NA	ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 1: VOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1	
VOCs, 8260	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,1,1-Trichloroethane	0.68	100	0.0046	U	0.0023	U	0.0021	U
1,1,2,2-Tetrachloroethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,1,2-Trichloroethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,1-Dichloroethane	0.27	26	0.0046	U	0.0023	U	0.0021	U
1,1-Dichloroethylene (1,1-DCE)	0.33	100	0.0046	U	0.0023	U	0.0021	U
1,2,3-Trichlorobenzene	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,2,3-Trichloropropane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,2,4-Trichlorobenzene	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,2,4-Trimethylbenzene	3.6	52	0.0046	U	0.0023	U	0.0021	U
1,2-Dibromo-3-chloropropane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,2-Dibromoethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,2-Dichlorobenzene	1.1	100	0.0046	U	0.0023	U	0.0021	U
1,2-Dichloroethane	0.02	3.1	0.0046	U	0.0023	U	0.0021	U
1,2-Dichloropropane	NA	NA	0.0046	U	0.0023	U	0.0021	U
1,3,5-Trimethylbenzene	8.4	52	0.0046	U	0.0023	U	0.0021	U
1,3-Dichlorobenzene	2.4	49	0.0046	U	0.0023	U	0.0021	U
1,4-Dichlorobenzene	1.8	13	0.0046	U	0.0023	U	0.0021	U
1,4-Dioxane	0.1	13	0.093	U	0.046	U	0.042	U
2-Butanone (MEK)	0.12	100	0.01		0.0023	J	0.0021	U
2-Hexanone	NA	NA	0.0046	U	0.0023	U	0.0021	U
4-Methyl-2-pentanone	NA	NA	0.0046	U	0.0023	U	0.0021	U
Acetone	0.05	100	0.071		0.032		0.0091	
Acrolein	NA	NA	0.0093	U	0.0046	U	0.0042	U
Acrylonitrile	NA	NA	0.0046	U	0.0023	U	0.0021	U
Benzene	0.06	4.8	0.0046	U	0.0023	U	0.0021	U
Bromochloromethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Bromodichloromethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Bromoform	NA	NA	0.0046	U	0.0023	U	0.0021	U
Bromomethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Carbon disulfide	NA	NA	0.0046	U	0.0023	U	0.0021	U
Carbon tetrachloride	0.76	2.4	0.0046	U	0.0023	U	0.0021	U
Chlorobenzene	1.1	100	0.0046	U	0.0023	U	0.0021	U
Chloroethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Chloroform	0.37	49	0.0046	U	0.0023	U	0.0021	U
Chloromethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
cis-1,2-Dichloroethylene (cis-DCE)	0.25	100	0.0046	U	0.0023	U	0.0021	U
cis-1,3-Dichloropropylene	NA	NA	0.0046	U	0.0023	U	0.0021	U
Cyclohexane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Dibromochloromethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Dibromomethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Dichlorodifluoromethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Ethyl Benzene	1	41	0.0046	U	0.0023	U	0.0021	U
Hexachlorobutadiene	NA	NA	0.0046	U	0.0023	U	0.0021	U
Isopropylbenzene	2.3	100	0.0046	U	0.0023	U	0.0021	U
Methyl acetate	NA	NA	0.0046	U	0.0023	U	0.0021	U
Methyl tert-butyl ether (MTBE)	0.93	100	0.0046	U	0.0023	U	0.0021	U
Methylcyclohexane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Methylene chloride	0.05	100	0.0093	U	0.021		0.086	
n-Butylbenzene	12	100	0.0046	U	0.0023	U	0.0021	U
n-Propylbenzene	3.9	100	0.0046	U	0.0023	U	0.0021	U
o-Xylene	0.26	100	0.0046	U	0.0023	U	0.0021	U
p- & m- Xylenes	0.26	100	0.0093	U	0.0046	U	0.0042	U
p-Isopropyltoluene	10	NA	0.0046	U	0.0023	U	0.0021	U
sec-Butylbenzene	11	100	0.0046	U	0.0023	U	0.0021	U
Styrene	NA	NA	0.0046	U	0.0023	U	0.0021	U
tert-Butyl alcohol (TBA)	NA	NA	0.0046	U	0.0023	U	0.0021	U
tert-Butylbenzene	5.9	100	0.0046	U	0.0023	U	0.0021	U
Tetrachloroethylene (PCE)	1.3	19	0.0046	U	0.0023	U	0.0021	U
Toluene	0.7	100	0.0046	U	0.0023	U	0.0021	U
trans-1,2-Dichloroethylene (trans-DCE)	0.19	100	0.0046	U	0.0023	U	0.0021	U
trans-1,3-Dichloropropylene	NA	NA	0.0046	U	0.0023	U	0.0021	U
Trichloroethylene (TCE)	0.47	21	0.0046	U	0.0023	U	0.0021	U
Trichlorofluoromethane	NA	NA	0.0046	U	0.0023	U	0.0021	U
Vinyl chloride (VC)	0.02	0.9	0.0046	U	0.0023	U	0.0021	U
Xylenes, Total	0.26	100	0.014	U	0.0069	U	0.0063	U
Total VOC TICs	NA	NA	ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO
Xylenes Above POG SCO (1.6)

Note: UU SCOs equivalent to POG SCOs, except xylenes (POG SCO 1.6)

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-01 5-10		2SB-02 0-5		2SB-02 5-7		2SB-03 5-10		2SB-03 10-15	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
1,2,4-Trichlorobenzene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
1,2-Dichlorobenzene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
1,3-Dichlorobenzene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
1,4-Dichlorobenzene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
2,4,5-Trichlorophenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2,4,6-Trichlorophenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2,4-Dichlorophenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2,4-Dimethylphenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2,4-Dinitrophenol	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
2,4-Dinitrotoluene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2,6-Dinitrotoluene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2-Chloronaphthalene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2-Chlorophenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2-Methylnaphthalene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2-Methylphenol	0.33	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
2-Nitroaniline	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
2-Nitrophenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
3- & 4-Methylphenols	0.33	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
3,3'-Dichlorobenzidine	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
3-Nitroaniline	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
4-Bromophenyl phenyl ether	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
4-Chloro-3-methylphenol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
4-Chloroaniline	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
4-Chlorophenyl phenyl ether	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
4-Nitroaniline	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
4-Nitrophenol	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
Acenaphthene	20	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Acenaphthylene	100	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Acetophenone	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Aniline	NA	NA	0.178	U	0.173	U	0.19	U	0.198	U	0.183	U
Anthracene	100	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Atrazine	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Benzaldehyde	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Benzidine	NA	NA	0.178	U	0.173	U	0.19	U	0.198	U	0.183	U
Benzo(a)anthracene	1	1	0.0445	U	0.12	D	0.0474	U	0.0496	U	0.0458	U
Benzo(a)pyrene	1	1	0.0445	U	0.125	D	0.0474	U	0.0593	JD	0.0458	U
Benzo(b)fluoranthene	1	1	0.0445	U	0.093	D	0.0474	U	0.0496	U	0.0458	U
Benzo(g,h,i)perylene	100	100	0.0445	U	0.0744	JD	0.0474	U	0.0496	U	0.0458	U
Benzo(k)fluoranthene	0.8	3.9	0.0445	U	0.108	D	0.0474	U	0.0514	JD	0.0458	U
Benzoic acid	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Benzyl alcohol	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Benzyl butyl phthalate	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Bis(2-chloroethoxy)methane	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Bis(2-chloroethyl)ether	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Caprolactam	NA	NA	0.0888	U	0.0862	U	0.0947	U	0.0989	U	0.0913	U
Carbazole	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Chrysene	1	3.9	0.0445	U	0.103	D	0.0474	U	0.0648	JD	0.0458	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Dibenzofuran	7	59	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Diethyl phthalate	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Dimethyl phthalate	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Di-n-butyl phthalate	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Di-n-octyl phthalate	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Fluoranthene	100	100	0.0445	U	0.256	D	0.0474	U	0.17	D	0.0458	U
Fluorene	30	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Hexachlorobenzene	0.33	1.2	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Hexachlorobutadiene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Hexachlorocyclopentadiene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Hexachloroethane	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0445	U	0.0703	JD	0.0474	U	0.0496	U	0.0458	U
Isophorone	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Naphthalene	12	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Nitrobenzene	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
N-Nitrosodimethylamine	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
N-nitroso-di-n-propylamine	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
N-Nitrosodiphenylamine	NA	NA	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Pentachlorophenol	0.8	6.7	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Phenanthrene	100	100	0.0445	U	0.0682	JD	0.0474	U	0.214	D	0.0458	U
Phenol	0.33	100	0.0445	U	0.0432	U	0.0474	U	0.0496	U	0.0458	U
Pyrene	100	100	0.0445	U	0.191	D	0.0474	U	0.138	D	0.0458	U
Total SVOC TICs			ND		ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-03 20		2SB-04 5		2SB-04 10		2SB-05 5		2SB-05 7	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2		20		10	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0477	U	0.0577	U	0.048	U	0.856	D	0.297	D
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
1,2,4-Trichlorobenzene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
1,2-Dichlorobenzene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
1,3-Dichlorobenzene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
1,4-Dichlorobenzene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
2,4,5-Trichlorophenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2,4,6-Trichlorophenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2,4-Dichlorophenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2,4-Dimethylphenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2,4-Dinitrophenol	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
2,4-Dinitrotoluene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2,6-Dinitrotoluene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2-Chloronaphthalene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2-Chlorophenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2-Methylnaphthalene	NA	NA	0.0477	U	0.0577	U	0.048	U	19.5	D	6.59	D
2-Methylphenol	0.33	100	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
2-Nitroaniline	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
2-Nitrophenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
3- & 4-Methylphenols	0.33	100	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
3,3'-Dichlorobenzidine	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
3-Nitroaniline	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
4-Bromophenyl phenyl ether	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
4-Chloro-3-methylphenol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
4-Chloroaniline	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
4-Chlorophenyl phenyl ether	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
4-Nitroaniline	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
4-Nitrophenol	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
Acenaphthene	20	100	0.0477	U	0.0577	U	0.048	U	0.593	D	0.218	D
Acenaphthylene	100	100	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Acetophenone	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Aniline	NA	NA	0.19	U	0.231	U	0.192	U	0.264	U	0.191	U
Anthracene	100	100	0.0477	U	0.0577	U	0.048	U	1.38	D	0.0479	U
Atrazine	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzaldehyde	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzidine	NA	NA	0.19	U	0.231	U	0.192	U	0.264	U	0.191	U
Benzo(a)anthracene	1	1	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzo(a)pyrene	1	1	0.0477	U	0.0635	JD	0.048	U	0.251	D	0.0479	U
Benzo(b)fluoranthene	1	1	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzo(g,h,i)perylene	100	100	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzo(k)fluoranthene	0.8	3.9	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzoic acid	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzyl alcohol	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Benzyl butyl phthalate	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Bis(2-chloroethoxy)methane	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Bis(2-chloroethyl)ether	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Caprolactam	NA	NA	0.0951	U	0.115	U	0.0958	U	0.132	U	0.0956	U
Carbazole	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Chrysene	1	3.9	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Dibenzofuran	7	59	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Diethyl phthalate	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Dimethyl phthalate	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Di-n-butyl phthalate	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Di-n-octyl phthalate	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Fluoranthene	100	100	0.0477	U	0.0577	U	0.048	U	0.101	JD	0.0479	U
Fluorene	30	100	0.0477	U	0.0577	U	0.048	U	0.857	D	0.0479	U
Hexachlorobenzene	0.33	1.2	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Hexachlorobutadiene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Hexachlorocyclopentadiene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Hexachloroethane	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Isophorone	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Naphthalene	12	100	0.0477	U	0.0577	U	0.048	U	11.6	D	4.69	D
Nitrobenzene	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
N-Nitrosodimethylamine	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
N-nitroso-di-n-propylamine	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
N-Nitrosodiphenylamine	NA	NA	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Pentachlorophenol	0.8	6.7	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Phenanthrene	100	100	0.0477	U	0.0577	U	0.048	U	1.37	D	0.445	D
Phenol	0.33	100	0.0477	U	0.0577	U	0.048	U	0.0662	U	0.0479	U
Pyrene	100	100	0.0477	U	0.0577	U	0.048	U	0.11	JD	0.0479	U
Total SVOC TICs			ND		ND		ND		**560**		**183**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	**2SB-05 10**		**2SB-06 5**		**2SB-06 7**		**2SB-06 10**		**2SB-06 13.5**	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
1,2,4-Trichlorobenzene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
1,2-Dichlorobenzene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
1,3-Dichlorobenzene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
1,4-Dichlorobenzene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
2,4,5-Trichlorophenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2,4,6-Trichlorophenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2,4-Dichlorophenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2,4-Dimethylphenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2,4-Dinitrophenol	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
2,4-Dinitrotoluene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2,6-Dinitrotoluene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2-Chloronaphthalene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2-Chlorophenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2-Methylnaphthalene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2-Methylphenol	0.33	100	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
2-Nitroaniline	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
2-Nitrophenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
3- & 4-Methylphenols	0.33	100	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
3,3'-Dichlorobenzidine	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
3-Nitroaniline	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
4-Bromophenyl phenyl ether	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
4-Chloro-3-methylphenol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
4-Chloroaniline	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
4-Chlorophenyl phenyl ether	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
4-Nitroaniline	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
4-Nitrophenol	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
Acenaphthene	20	100	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Acenaphthylene	100	100	0.0497	U	0.0629	JD	0.0485	U	0.0483	U	0.0468	U
Acetophenone	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Aniline	NA	NA	0.198	U	0.2	U	0.194	U	0.193	U	0.187	U
Anthracene	100	100	0.0497	U	0.055	JD	0.0485	U	0.0483	U	0.0468	U
Atrazine	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Benzaldehyde	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Benzidine	NA	NA	0.198	U	0.2	U	0.194	U	0.193	U	0.187	U
Benzo(a)anthracene	1	1	0.0497	U	0.141	D	0.0485	U	0.0483	U	0.0468	U
Benzo(a)pyrene	1	1	0.0497	U	0.126	D	0.0485	U	0.0483	U	0.0468	U
Benzo(b)fluoranthene	1	1	0.0497	U	0.126	D	0.0485	U	0.0483	U	0.0468	U
Benzo(g,h,i)perylene	100	100	0.0497	U	0.0892	JD	0.0485	U	0.0483	U	0.0468	U
Benzo(k)fluoranthene	0.8	3.9	0.0497	U	0.119	D	0.0485	U	0.0483	U	0.0468	U
Benzoic acid	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Benzyl alcohol	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Benzyl butyl phthalate	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Bis(2-chloroethoxy)methane	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Bis(2-chloroethyl)ether	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Caprolactam	NA	NA	0.0991	U	0.0996	U	0.0968	U	0.0964	U	0.0934	U
Carbazole	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Chrysene	1	3.9	0.0497	U	0.147	D	0.0485	U	0.0483	U	0.0468	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Dibenzofuran	7	59	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Diethyl phthalate	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Dimethyl phthalate	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Di-n-butyl phthalate	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Di-n-octyl phthalate	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Fluoranthene	100	100	0.0497	U	0.19	D	0.0485	U	0.0483	U	0.0468	U
Fluorene	30	100	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Hexachlorobenzene	0.33	1.2	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Hexachlorobutadiene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Hexachlorocyclopentadiene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Hexachloroethane	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0497	U	0.0797	JD	0.0485	U	0.0483	U	0.0468	U
Isophorone	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Naphthalene	12	100	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Nitrobenzene	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
N-Nitrosodimethylamine	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
N-nitroso-di-n-propylamine	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
N-Nitrosodiphenylamine	NA	NA	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Pentachlorophenol	0.8	6.7	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Phenanthrene	100	100	0.0497	U	0.0797	JD	0.0485	U	0.0483	U	0.0468	U
Phenol	0.33	100	0.0497	U	0.0499	U	0.0485	U	0.0483	U	0.0468	U
Pyrene	100	100	0.0497	U	0.166	D	0.0485	U	0.0483	U	0.0468	U
Total SVOC TICs			ND		ND		ND		ND		ND	

Analyte Detected

Analyte Above UU SCO

Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-07 7		2SB-07 12		2SB-08 0-5		2SB-08 5-10		2SB-09 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
1,2,4-Trichlorobenzene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
1,2-Dichlorobenzene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
1,3-Dichlorobenzene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
1,4-Dichlorobenzene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
2,4,5-Trichlorophenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2,4,6-Trichlorophenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2,4-Dichlorophenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2,4-Dimethylphenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2,4-Dinitrophenol	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
2,4-Dinitrotoluene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2,6-Dinitrotoluene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2-Chloronaphthalene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2-Chlorophenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2-Methylnaphthalene	NA	NA	0.146	D	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2-Methylphenol	0.33	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
2-Nitroaniline	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
2-Nitrophenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
3- & 4-Methylphenols	0.33	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
3,3'-Dichlorobenzidine	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
3-Nitroaniline	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
4-Bromophenyl phenyl ether	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
4-Chloro-3-methylphenol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
4-Chloroaniline	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
4-Chlorophenyl phenyl ether	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
4-Nitroaniline	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
4-Nitrophenol	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
Acenaphthene	20	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Acenaphthylene	100	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Acetophenone	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Aniline	NA	NA	0.195	U	0.207	U	0.218	U	0.193	U	0.197	U
Anthracene	100	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Atrazine	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Benzaldehyde	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Benzidine	NA	NA	0.195	U	0.207	U	0.218	U	0.193	U	0.197	U
Benzo(a)anthracene	1	1	0.0488	U	0.0517	U	0.203	D	0.0484	U	0.0493	U
Benzo(a)pyrene	1	1	0.0488	U	0.0517	U	0.23	D	0.0484	U	0.0493	U
Benzo(b)fluoranthene	1	1	0.0488	U	0.0517	U	0.191	D	0.0484	U	0.0493	U
Benzo(g,h,i)perylene	100	100	0.0488	U	0.0517	U	0.149	D	0.0484	U	0.0493	U
Benzo(k)fluoranthene	0.8	3.9	0.0488	U	0.0517	U	0.208	D	0.0484	U	0.0493	U
Benzoic acid	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Benzyl alcohol	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Benzyl butyl phthalate	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Bis(2-chloroethoxy)methane	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Bis(2-chloroethyl)ether	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Caprolactam	NA	NA	0.0975	U	0.103	U	0.109	U	0.0965	U	0.0985	U
Carbazole	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Chrysene	1	3.9	0.0488	U	0.0517	U	0.215	D	0.0484	U	0.0493	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Dibenzofuran	7	59	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Diethyl phthalate	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Dimethyl phthalate	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Di-n-butyl phthalate	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Di-n-octyl phthalate	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Fluoranthene	100	100	0.0488	U	0.0517	U	0.333	D	0.0484	U	0.0493	U
Fluorene	30	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Hexachlorobenzene	0.33	1.2	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Hexachlorobutadiene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Hexachlorocyclopentadiene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Hexachloroethane	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0488	U	0.0517	U	0.132	D	0.0484	U	0.0493	U
Isophorone	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Naphthalene	12	100	0.0958	JD	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Nitrobenzene	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
N-Nitrosodimethylamine	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
N-nitroso-di-n-propylamine	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
N-Nitrosodiphenylamine	NA	NA	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Pentachlorophenol	0.8	6.7	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Phenanthrene	100	100	0.0488	U	0.0517	U	0.112	D	0.0484	U	0.0493	U
Phenol	0.33	100	0.0488	U	0.0517	U	0.0545	U	0.0484	U	0.0493	U
Pyrene	100	100	0.0488	U	0.0517	U	0.291	D	0.0484	U	0.0493	U
Total SVOC TICs			ND		ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5		2SB-11 7	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0488	U	0.0766	JD	0.0486	U	0.0501	U	0.0484	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
1,2,4-Trichlorobenzene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
1,2-Dichlorobenzene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
1,3-Dichlorobenzene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
1,4-Dichlorobenzene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
2,4,5-Trichlorophenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2,4,6-Trichlorophenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2,4-Dichlorophenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2,4-Dimethylphenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2,4-Dinitrophenol	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
2,4-Dinitrotoluene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2,6-Dinitrotoluene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2-Chloronaphthalene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2-Chlorophenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2-Methylnaphthalene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2-Methylphenol	0.33	100	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
2-Nitroaniline	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
2-Nitrophenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
3- & 4-Methylphenols	0.33	100	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
3,3'-Dichlorobenzidine	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
3-Nitroaniline	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
4-Bromophenyl phenyl ether	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
4-Chloro-3-methylphenol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
4-Chloroaniline	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
4-Chlorophenyl phenyl ether	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
4-Nitroaniline	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
4-Nitrophenol	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
Acenaphthene	20	100	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Acenaphthylene	100	100	0.0488	U	0.0511	U	0.0486	U	0.101	D	0.0484	U
Acetophenone	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Aniline	NA	NA	0.195	U	0.204	U	0.194	U	0.2	U	0.193	U
Anthracene	100	100	0.0488	U	0.0603	JD	0.0486	U	0.129	D	0.0484	U
Atrazine	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Benzaldehyde	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Benzidine	NA	NA	0.195	U	0.204	U	0.194	U	0.2	U	0.193	U
Benzo(a)anthracene	1	1	0.0488	U	0.0905	JD	0.0486	U	0.583	D	0.0484	U
Benzo(a)pyrene	1	1	0.0488	U	0.0511	U	0.0486	U	0.594	D	0.0484	U
Benzo(b)fluoranthene	1	1	0.0488	U	0.0511	U	0.0486	U	0.48	D	0.0484	U
Benzo(g,h,i)perylene	100	100	0.0488	U	0.0872	JD	0.0486	U	0.385	D	0.0484	U
Benzo(k)fluoranthene	0.8	3.9	0.0488	U	0.0511	U	0.0486	U	0.5	D	0.0484	U
Benzoic acid	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Benzyl alcohol	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Benzyl butyl phthalate	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Bis(2-chloroethoxy)methane	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Bis(2-chloroethyl)ether	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0488	U	1.87	D	0.0486	U	0.0501	U	0.0484	U
Caprolactam	NA	NA	0.0974	U	0.102	U	0.0969	U	0.0999	U	0.0965	U
Carbazole	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Chrysene	1	3.9	0.0488	U	0.116	D	0.0486	U	0.545	D	0.0484	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0488	U	0.0511	U	0.0486	U	0.129	D	0.0484	U
Dibenzofuran	7	59	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Diethyl phthalate	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Dimethyl phthalate	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Di-n-butyl phthalate	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Di-n-octyl phthalate	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Fluoranthene	100	100	0.0488	U	0.143	D	0.0486	U	0.723	D	0.0484	U
Fluorene	30	100	0.0488	U	0.079	JD	0.0486	U	0.0501	U	0.0484	U
Hexachlorobenzene	0.33	1.2	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Hexachlorobutadiene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Hexachlorocyclopentadiene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Hexachloroethane	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0488	U	0.0511	U	0.0486	U	0.315	D	0.0484	U
Isophorone	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Naphthalene	12	100	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Nitrobenzene	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
N-Nitrosodimethylamine	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
N-nitroso-di-n-propylamine	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
N-Nitrosodiphenylamine	NA	NA	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Pentachlorophenol	0.8	6.7	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Phenanthrene	100	100	0.0488	U	0.216	D	0.0486	U	0.248	D	0.0484	U
Phenol	0.33	100	0.0488	U	0.0511	U	0.0486	U	0.0501	U	0.0484	U
Pyrene	100	100	0.0488	U	0.18	D	0.0486	U	0.692	D	0.0484	U
Total SVOC TICs			ND		**21.6**		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-11 15		2SB-12 0-5		2SB-12 5-10		2SB-13 0-2		DUP20220525	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
1,2,4-Trichlorobenzene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
1,2-Dichlorobenzene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
1,3-Dichlorobenzene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
1,4-Dichlorobenzene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
2,4,5-Trichlorophenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2,4,6-Trichlorophenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2,4-Dichlorophenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2,4-Dimethylphenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2,4-Dinitrophenol	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
2,4-Dinitrotoluene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2,6-Dinitrotoluene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2-Chloronaphthalene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2-Chlorophenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2-Methylnaphthalene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2-Methylphenol	0.33	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
2-Nitroaniline	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
2-Nitrophenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
3- & 4-Methylphenols	0.33	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
3,3'-Dichlorobenzidine	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
3-Nitroaniline	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
4-Bromophenyl phenyl ether	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
4-Chloro-3-methylphenol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
4-Chloroaniline	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
4-Chlorophenyl phenyl ether	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
4-Nitroaniline	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
4-Nitrophenol	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
Acenaphthene	20	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Acenaphthylene	100	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Acetophenone	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Aniline	NA	NA	0.189	U	0.198	U	0.2	U	0.173	U	0.179	U
Anthracene	100	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Atrazine	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Benzaldehyde	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Benzidine	NA	NA	0.189	U	0.198	U	0.2	U	0.173	U	0.179	U
Benzo(a)anthracene	1	1	0.0474	U	0.0496	U	0.0501	U	0.11	D	0.0891	JD
Benzo(a)pyrene	1	1	0.0474	U	0.0496	U	0.0501	U	0.125	D	0.0934	D
Benzo(b)fluoranthene	1	1	0.0474	U	0.0496	U	0.0501	U	0.146	D	0.107	D
Benzo(g,h,i)perylene	100	100	0.0474	U	0.0496	U	0.0501	U	0.11	D	0.0755	JD
Benzo(k)fluoranthene	0.8	3.9	0.0474	U	0.0496	U	0.0501	U	0.118	D	0.0805	JD
Benzoic acid	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Benzyl alcohol	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Benzyl butyl phthalate	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Bis(2-chloroethoxy)methane	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Bis(2-chloroethyl)ether	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Caprolactam	NA	NA	0.0945	U	0.0989	U	0.1	U	0.0862	U	0.0892	U
Carbazole	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Chrysene	1	3.9	0.0474	U	0.0496	U	0.0501	U	0.141	D	0.103	D
Dibenzo(a,h)anthracene	0.33	0.33	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Dibenzofuran	7	59	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Diethyl phthalate	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Dimethyl phthalate	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Di-n-butyl phthalate	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Di-n-octyl phthalate	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Fluoranthene	100	100	0.0474	U	0.0498	JD	0.0501	U	0.219	D	0.153	D
Fluorene	30	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Hexachlorobenzene	0.33	1.2	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Hexachlorobutadiene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Hexachlorocyclopentadiene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Hexachloroethane	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0474	U	0.0496	U	0.0501	U	0.0834	JD	0.0976	D
Isophorone	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Naphthalene	12	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Nitrobenzene	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
N-Nitrosodimethylamine	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
N-nitroso-di-n-propylamine	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
N-Nitrosodiphenylamine	NA	NA	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Pentachlorophenol	0.8	6.7	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Phenanthrene	100	100	0.0474	U	0.0496	U	0.0501	U	0.0565	JD	0.0556	JD
Phenol	0.33	100	0.0474	U	0.0496	U	0.0501	U	0.0432	U	0.0447	U
Pyrene	100	100	0.0474	U	0.0514	JD	0.0501	U	0.184	D	0.155	D
Total SVOC TICs			ND		**16.7**		**ND**		**0.767**		**ND**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-13 2-5		2SB-13 10		2SB-14 10-13.5		2SB-15 0-5		2SB-15 10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
1,2,4-Trichlorobenzene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
1,2-Dichlorobenzene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
1,3-Dichlorobenzene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
1,4-Dichlorobenzene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
2,4,5-Trichlorophenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2,4,6-Trichlorophenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2,4-Dichlorophenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2,4-Dimethylphenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2,4-Dinitrophenol	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
2,4-Dinitrotoluene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2,6-Dinitrotoluene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2-Chloronaphthalene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2-Chlorophenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2-Methylnaphthalene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2-Methylphenol	0.33	100	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
2-Nitroaniline	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
2-Nitrophenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
3- & 4-Methylphenols	0.33	100	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
3,3'-Dichlorobenzidine	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
3-Nitroaniline	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
4-Bromophenyl phenyl ether	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
4-Chloro-3-methylphenol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
4-Chloroaniline	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
4-Chlorophenyl phenyl ether	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
4-Nitroaniline	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
4-Nitrophenol	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
Acenaphthene	20	100	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Acenaphthylene	100	100	0.183	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Acetophenone	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Aniline	NA	NA	0.189	U	0.182	U	0.187	U	0.191	U	0.203	U
Anthracene	100	100	0.26	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Atrazine	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzaldehyde	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzidine	NA	NA	0.189	U	0.182	U	0.187	U	0.191	U	0.203	U
Benzo(a)anthracene	1	1	**1.07**	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzo(a)pyrene	1	1	**1.07**	D	0.0455	U	0.0468	U	0.172	D	0.0507	U
Benzo(b)fluoranthene	1	1	0.926	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzo(g,h,i)perylene	100	100	0.57	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzo(k)fluoranthene	0.8	3.9	0.911	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzoic acid	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzyl alcohol	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Benzyl butyl phthalate	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Bis(2-chloroethoxy)methane	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Bis(2-chloroethyl)ether	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Caprolactam	NA	NA	0.0944	U	0.0907	U	0.0934	U	0.0953	U	0.101	U
Carbazole	NA	NA	0.0581	JD	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Chrysene	1	3.9	1	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Dibenzo(a,h)anthracene	0.33	0.33	0.236	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Dibenzofuran	7	59	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Diethyl phthalate	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Dimethyl phthalate	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Di-n-butyl phthalate	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Di-n-octyl phthalate	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Fluoranthene	100	100	1.63	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Fluorene	30	100	0.0596	JD	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Hexachlorobenzene	0.33	1.2	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Hexachlorobutadiene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Hexachlorocyclopentadiene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Hexachloroethane	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	**0.527**	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Isophorone	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Naphthalene	12	100	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Nitrobenzene	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
N-Nitrosodimethylamine	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
N-nitroso-di-n-propylamine	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
N-Nitrosodiphenylamine	NA	NA	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Pentachlorophenol	0.8	6.7	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Phenanthrene	100	100	0.619	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Phenol	0.33	100	0.0473	U	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Pyrene	100	100	1.38	D	0.0455	U	0.0468	U	0.0478	U	0.0507	U
Total SVOC TICs			**ND**		**ND**		**ND**		**ND**		**ND**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-16 5-10		2SB-16 15		2SB-17 5		2SB-17 15		2SB-18 3	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
1,2,4-Trichlorobenzene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
1,2-Dichlorobenzene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
1,3-Dichlorobenzene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
1,4-Dichlorobenzene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
2,4,5-Trichlorophenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2,4,6-Trichlorophenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2,4-Dichlorophenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2,4-Dimethylphenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2,4-Dinitrophenol	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
2,4-Dinitrotoluene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2,6-Dinitrotoluene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2-Chloronaphthalene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2-Chlorophenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2-Methylnaphthalene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0526	JD
2-Methylphenol	0.33	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
2-Nitroaniline	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
2-Nitrophenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
3- & 4-Methylphenols	0.33	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
3,3'-Dichlorobenzidine	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
3-Nitroaniline	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
4,6-Dinitro-2-methylphenol	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
4-Bromophenyl phenyl ether	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
4-Chloro-3-methylphenol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
4-Chloroaniline	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
4-Chlorophenyl phenyl ether	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
4-Nitroaniline	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
4-Nitrophenol	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
Acenaphthene	20	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Acenaphthylene	100	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Acetophenone	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Aniline	NA	NA	0.285	U	0.268	U	0.203	U	0.187	U	0.197	U
Anthracene	100	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.104	D
Atrazine	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Benzaldehyde	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Benzidine	NA	NA	0.285	U	0.268	U	0.203	U	0.187	U	0.197	U
Benzo(a)anthracene	1	1	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.212	D
Benzo(a)pyrene	1	1	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.217	D
Benzo(b)fluoranthene	1	1	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.188	D
Benzo(g,h,i)perylene	100	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.137	D
Benzo(k)fluoranthene	0.8	3.9	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.162	D
Benzoic acid	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Benzyl alcohol	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Benzyl butyl phthalate	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Bis(2-chloroethoxy)methane	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Bis(2-chloroethyl)ether	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Caprolactam	NA	NA	0.142	U	0.134	U	0.102	U	0.0933	U	0.0982	U
Carbazole	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Chrysene	1	3.9	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.207	D
Dibenzo(a,h)anthracene	0.33	0.33	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Dibenzofuran	7	59	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Diethyl phthalate	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Dimethyl phthalate	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Di-n-butyl phthalate	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Di-n-octyl phthalate	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Fluoranthene	100	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.395	D
Fluorene	30	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0644	JD
Hexachlorobenzene	0.33	1.2	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Hexachlorobutadiene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Hexachlorocyclopentadiene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Hexachloroethane	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.109	D
Isophorone	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Naphthalene	12	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0596	JD
Nitrobenzene	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
N-Nitrosodimethylamine	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
N-nitroso-di-n-propylamine	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
N-Nitrosodiphenylamine	NA	NA	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Pentachlorophenol	0.8	6.7	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Phenanthrene	100	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.234	D
Phenol	0.33	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.0492	U
Pyrene	100	100	0.0714	U	0.067	U	0.0509	U	0.0468	U	0.323	D
Total SVOC TICs			**ND**		**ND**		**ND**		**ND**		**ND**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-18 10		2SB-19 3		2SB-19 15		2SB-20 10		2SB-21 0-2	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
1,2,4-Trichlorobenzene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
1,2-Dichlorobenzene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
1,3-Dichlorobenzene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
1,4-Dichlorobenzene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
2,4,5-Trichlorophenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2,4,6-Trichlorophenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2,4-Dichlorophenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2,4-Dimethylphenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2,4-Dinitrophenol	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
2,4-Dinitrotoluene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2,6-Dinitrotoluene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2-Chloronaphthalene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2-Chlorophenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2-Methylnaphthalene	NA	NA	0.0243	U	0.027	J	0.0238	U	0.0246	U	0.0225	U
2-Methylphenol	0.33	100	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
2-Nitroaniline	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
2-Nitrophenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
3- & 4-Methylphenols	0.33	100	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
3,3'-Dichlorobenzidine	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
3-Nitroaniline	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
4-Bromophenyl phenyl ether	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
4-Chloro-3-methylphenol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
4-Chloroaniline	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
4-Chlorophenyl phenyl ether	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
4-Nitroaniline	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
4-Nitrophenol	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
Acenaphthene	20	100	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Acenaphthylene	100	100	0.0243	U	0.0646		0.0238	U	0.0246	U	0.0225	U
Acetophenone	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Aniline	NA	NA	0.0972	U	0.0941	U	0.0949	U	0.0984	U	0.0898	U
Anthracene	100	100	0.0243	U	0.0526		0.0238	U	0.0246	U	0.0225	U
Atrazine	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Benzaldehyde	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Benzidine	NA	NA	0.0972	U	0.0941	U	0.0949	U	0.0984	U	0.0898	U
Benzo(a)anthracene	1	1	0.0243	U	0.26		0.0238	U	0.0246	U	0.0452	
Benzo(a)pyrene	1	1	0.0243	U	0.207		0.0238	U	0.0246	U	0.0459	
Benzo(b)fluoranthene	1	1	0.0243	U	0.222		0.0238	U	0.0246	U	0.0527	
Benzo(g,h,i)perylene	100	100	0.0243	U	0.124		0.0238	U	0.0246	U	0.0362	J
Benzo(k)fluoranthene	0.8	3.9	0.0243	U	0.192		0.0238	U	0.0246	U	0.0491	
Benzoic acid	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Benzyl alcohol	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Benzyl butyl phthalate	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Bis(2-chloroethoxy)methane	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Bis(2-chloroethyl)ether	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Caprolactam	NA	NA	0.0486	U	0.047	U	0.0474	U	0.0492	U	0.0448	U
Carbazole	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Chrysene	1	3.9	0.0243	U	0.243		0.0238	U	0.0246	U	0.0487	
Dibenzo(a,h)anthracene	0.33	0.33	0.0243	U	0.0432	J	0.0238	U	0.0246	U	0.0225	U
Dibenzofuran	7	59	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Diethyl phthalate	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Dimethyl phthalate	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Di-n-butyl phthalate	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Di-n-octyl phthalate	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Fluoranthene	100	100	0.0243	U	0.442		0.0238	U	0.0246	U	0.0624	
Fluorene	30	100	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Hexachlorobenzene	0.33	1.2	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Hexachlorobutadiene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Hexachlorocyclopentadiene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Hexachloroethane	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0243	U	0.179		0.0238	U	0.0246	U	0.0487	
Isophorone	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Naphthalene	12	100	0.0243	U	0.0255	J	0.0238	U	0.0246	U	0.0225	U
Nitrobenzene	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
N-Nitrosodimethylamine	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
N-nitroso-di-n-propylamine	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
N-Nitrosodiphenylamine	NA	NA	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Pentachlorophenol	0.8	6.7	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Phenanthrene	100	100	0.0243	U	0.137		0.0238	U	0.0246	U	0.0225	U
Phenol	0.33	100	0.0243	U	0.0235	U	0.0238	U	0.0246	U	0.0225	U
Pyrene	100	100	0.0243	U	0.432		0.0238	U	0.0246	U	0.0613	
Total SVOC TICs			**ND**		**ND**		**ND**		**ND**		**ND**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	DUP20220524		2SB-21 2-5		2SB-21 10		2SB-22 5		2SB-22 10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	2		1		1		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
1,2,4-Trichlorobenzene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
1,2-Dichlorobenzene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
1,3-Dichlorobenzene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
1,4-Dichlorobenzene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
2,4,5-Trichlorophenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2,4,6-Trichlorophenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2,4-Dichlorophenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2,4-Dimethylphenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2,4-Dinitrophenol	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
2,4-Dinitrotoluene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2,6-Dinitrotoluene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2-Chloronaphthalene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2-Chlorophenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2-Methylnaphthalene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2-Methylphenol	0.33	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
2-Nitroaniline	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
2-Nitrophenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
3- & 4-Methylphenols	0.33	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
3,3'-Dichlorobenzidine	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
3-Nitroaniline	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
4-Bromophenyl phenyl ether	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
4-Chloro-3-methylphenol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
4-Chloroaniline	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
4-Chlorophenyl phenyl ether	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
4-Nitroaniline	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
4-Nitrophenol	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
Acenaphthene	20	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Acenaphthylene	100	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Acetophenone	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Aniline	NA	NA	0.181	U	0.0946	U	0.094	U	0.2	U	0.201	U
Anthracene	100	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Atrazine	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzaldehyde	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzidine	NA	NA	0.181	U	0.0946	U	0.094	U	0.2	U	0.201	U
Benzo(a)anthracene	1	1	0.078	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzo(a)pyrene	1	1	0.078	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzo(b)fluoranthene	1	1	0.0867	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzo(g,h,i)perylene	100	100	0.0693	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzo(k)fluoranthene	0.8	3.9	0.0686	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzoic acid	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzyl alcohol	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Benzyl butyl phthalate	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Bis(2-chloroethoxy)methane	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Bis(2-chloroethyl)ether	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Caprolactam	NA	NA	0.0904	U	0.0472	U	0.0469	U	0.0998	U	0.1	U
Carbazole	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Chrysene	1	3.9	0.0802	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Dibenzofuran	7	59	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Diethyl phthalate	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Dimethyl phthalate	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Di-n-butyl phthalate	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Di-n-octyl phthalate	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Fluoranthene	100	100	0.104	D	0.0237	U	0.0235	U	0.05	U	0.0503	U
Fluorene	30	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Hexachlorobenzene	0.33	1.2	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Hexachlorobutadiene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Hexachlorocyclopentadiene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Hexachloroethane	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0802	JD	0.0237	U	0.0235	U	0.05	U	0.0503	U
Isophorone	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Naphthalene	12	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Nitrobenzene	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
N-Nitrosodimethylamine	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
N-nitroso-di-n-propylamine	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
N-Nitrosodiphenylamine	NA	NA	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Pentachlorophenol	0.8	6.7	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Phenanthrene	100	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Phenol	0.33	100	0.0453	U	0.0237	U	0.0235	U	0.05	U	0.0503	U
Pyrene	100	100	0.105	D	0.0237	U	0.0235	U	0.05	U	0.0503	U
Total SVOC TICs			ND		ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-23 0-5		2SB-23 10		2SB-24 0-5		2SB-24 10		2SB-25 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	5		2		5		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0476	U	0.051	U	0.0547	JD	0.0475	U	0.0508	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
1,2,4-Trichlorobenzene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
1,2-Dichlorobenzene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
1,3-Dichlorobenzene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
1,4-Dichlorobenzene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
2,4,5-Trichlorophenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2,4,6-Trichlorophenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2,4-Dichlorophenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2,4-Dimethylphenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2,4-Dinitrophenol	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
2,4-Dinitrotoluene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2,6-Dinitrotoluene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2-Chloronaphthalene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2-Chlorophenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2-Methylnaphthalene	NA	NA	0.0562	JD	0.051	U	0.13	D	0.0475	U	0.0508	U
2-Methylphenol	0.33	100	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
2-Nitroaniline	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
2-Nitrophenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
3- & 4-Methylphenols	0.33	100	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
3,3'-Dichlorobenzidine	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
3-Nitroaniline	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
4,6-Dinitro-2-methylphenol	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
4-Bromophenyl phenyl ether	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
4-Chloro-3-methylphenol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
4-Chloroaniline	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
4-Chlorophenyl phenyl ether	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
4-Nitroaniline	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
4-Nitrophenol	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
Acenaphthene	20	100	0.106	D	0.051	U	0.562	D	0.0475	U	0.0508	U
Acenaphthylene	100	100	0.352	D	0.051	U	0.0463	U	0.0475	U	0.0508	U
Acetophenone	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Aniline	NA	NA	0.19	U	0.204	U	0.185	U	0.19	U	0.203	U
Anthracene	100	100	0.736	D	0.051	U	1.24	D	0.0475	U	0.0508	U
Atrazine	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Benzaldehyde	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Benzidine	NA	NA	0.19	U	0.204	U	0.185	U	0.19	U	0.203	U
Benzo(a)anthracene	1	1	**4.38**	D	0.051	U	**1.99**	D	0.0475	U	0.0508	U
Benzo(a)pyrene	1	1	**3**	D	0.051	U	**1.51**	D	0.0475	U	0.0508	U
Benzo(b)fluoranthene	1	1	**6.11**	D	0.051	U	**1.21**	D	0.0475	U	0.0508	U
Benzo(g,h,i)perylene	100	100	1.91	D	0.051	U	0.882	D	0.0475	U	0.0508	U
Benzo(k)fluoranthene	0.8	3.9	2.31	D	0.051	U	0.981	D	0.0475	U	0.0508	U
Benzoic acid	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Benzyl alcohol	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Benzyl butyl phthalate	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Bis(2-chloroethoxy)methane	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Bis(2-chloroethyl)ether	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Caprolactam	NA	NA	0.095	U	0.102	U	0.0924	U	0.0949	U	0.101	U
Carbazole	NA	NA	0.339	D	0.051	U	0.426	D	0.0475	U	0.0508	U
Chrysene	1	3.9	3.87	D	0.051	U	1.8	D	0.0475	U	0.0508	U
Dibenzo(a,h)anthracene	0.33	0.33	**0.888**	D	0.051	U	**0.344**	D	0.0475	U	0.0508	U
Dibenzofuran	7	59	0.101	D	0.051	U	0.311	D	0.0475	U	0.0508	U
Diethyl phthalate	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Dimethyl phthalate	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Di-n-butyl phthalate	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Di-n-octyl phthalate	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Fluoranthene	100	100	6.67	D	0.051	U	4.21	D	0.0475	U	0.068	JD
Fluorene	30	100	0.219	D	0.051	U	0.573	D	0.0475	U	0.0508	U
Hexachlorobenzene	0.33	1.2	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Hexachlorobutadiene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Hexachlorocyclopentadiene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Hexachloroethane	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	**2.85**	D	0.051	U	**1.17**	D	0.0475	U	0.0508	U
Isophorone	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Naphthalene	12	100	0.125	D	0.051	U	0.157	D	0.0475	U	0.0508	U
Nitrobenzene	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
N-Nitrosodimethylamine	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
N-nitroso-di-n-propylamine	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
N-Nitrosodiphenylamine	NA	NA	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Pentachlorophenol	0.8	6.7	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Phenanthrene	100	100	1.9	D	0.051	U	4.72	D	0.0475	U	0.0508	U
Phenol	0.33	100	0.0476	U	0.051	U	0.0463	U	0.0475	U	0.0508	U
Pyrene	100	100	4.72	D	0.051	U	3.94	D	0.0475	U	0.0624	JD
Total SVOC TICs			**ND**		**ND**		**ND**		**ND**		**ND**	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-25 10		2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	2		2		2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
1,2,4-Trichlorobenzene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
1,2-Dichlorobenzene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
1,3-Dichlorobenzene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
1,4-Dichlorobenzene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
2,4,5-Trichlorophenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2,4,6-Trichlorophenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2,4-Dichlorophenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2,4-Dimethylphenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2,4-Dinitrophenol	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
2,4-Dinitrotoluene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2,6-Dinitrotoluene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2-Chloronaphthalene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2-Chlorophenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2-Methylnaphthalene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2-Methylphenol	0.33	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
2-Nitroaniline	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
2-Nitrophenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
3- & 4-Methylphenols	0.33	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
3,3'-Dichlorobenzidine	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
3-Nitroaniline	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
4-Bromophenyl phenyl ether	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
4-Chloro-3-methylphenol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
4-Chloroaniline	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
4-Chlorophenyl phenyl ether	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
4-Nitroaniline	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
4-Nitrophenol	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
Acenaphthene	20	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Acenaphthylene	100	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Acetophenone	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Aniline	NA	NA	0.198	U	0.183	U	0.183	U	0.202	U	0.196	U
Anthracene	100	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Atrazine	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Benzaldehyde	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Benzidine	NA	NA	0.198	U	0.183	U	0.183	U	0.202	U	0.196	U
Benzo(a)anthracene	1	1	0.0495	U	0.0459	U	0.0457	U	0.181	D	0.0491	U
Benzo(a)pyrene	1	1	0.0495	U	0.0459	U	0.0457	U	0.151	D	0.0491	U
Benzo(b)fluoranthene	1	1	0.0495	U	0.0459	U	0.0457	U	0.144	D	0.0491	U
Benzo(g,h,i)perylene	100	100	0.0495	U	0.0459	U	0.0457	U	0.0999	JD	0.0491	U
Benzo(k)fluoranthene	0.8	3.9	0.0495	U	0.0459	U	0.0457	U	0.113	D	0.0491	U
Benzoic acid	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Benzyl alcohol	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Benzyl butyl phthalate	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Bis(2-chloroethoxy)methane	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Bis(2-chloroethyl)ether	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Caprolactam	NA	NA	0.0988	U	0.0916	U	0.0912	U	0.101	U	0.0979	U
Carbazole	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Chrysene	1	3.9	0.0495	U	0.0459	U	0.0457	U	0.153	D	0.0491	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Dibenzofuran	7	59	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Diethyl phthalate	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Dimethyl phthalate	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Di-n-butyl phthalate	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Di-n-octyl phthalate	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Fluoranthene	100	100	0.0495	U	0.0459	U	0.0457	U	0.3	D	0.0491	U
Fluorene	30	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Hexachlorobenzene	0.33	1.2	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Hexachlorobutadiene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Hexachlorocyclopentadiene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Hexachloroethane	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0495	U	0.0459	U	0.0457	U	0.121	D	0.0491	U
Isophorone	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Naphthalene	12	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Nitrobenzene	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
N-Nitrosodimethylamine	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
N-nitroso-di-n-propylamine	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
N-Nitrosodiphenylamine	NA	NA	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Pentachlorophenol	0.8	6.7	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Phenanthrene	100	100	0.0495	U	0.0459	U	0.0457	U	0.139	D	0.0491	U
Phenol	0.33	100	0.0495	U	0.0459	U	0.0457	U	0.0505	U	0.0491	U
Pyrene	100	100	0.0495	U	0.0459	U	0.0457	U	0.259	D	0.0491	U
Total SVOC TICs			ND		ND		ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 2: SVOCs in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-25	
All data in mg/Kg (ppm)		Dilution	2		2		2	
SVOCs, 8270	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1'-Biphenyl	NA	NA	0.0466	U	0.0471	U	0.047	U
1,2,4,5-Tetrachlorobenzene	NA	NA	0.0931	U	0.0941	U	0.0937	U
1,2,4-Trichlorobenzene	NA	NA	0.0466	U	0.0471	U	0.047	U
1,2-Dichlorobenzene	NA	NA	0.0466	U	0.0471	U	0.047	U
1,2-Diphenylhydrazine (Azobenzene)	NA	NA	0.0466	U	0.0471	U	0.047	U
1,3-Dichlorobenzene	NA	NA	0.0466	U	0.0471	U	0.047	U
1,4-Dichlorobenzene	NA	NA	0.0466	U	0.0471	U	0.047	U
2,3,4,6-Tetrachlorophenol	NA	NA	0.0931	U	0.0941	U	0.0937	U
2,4,5-Trichlorophenol	NA	NA	0.0466	U	0.0471	U	0.047	U
2,4,6-Trichlorophenol	NA	NA	0.0466	U	0.0471	U	0.047	U
2,4-Dichlorophenol	NA	NA	0.0466	U	0.0471	U	0.047	U
2,4-Dimethylphenol	NA	NA	0.0466	U	0.0471	U	0.047	U
2,4-Dinitrophenol	NA	NA	0.0931	U	0.0941	U	0.0937	U
2,4-Dinitrotoluene	NA	NA	0.0466	U	0.0471	U	0.047	U
2,6-Dinitrotoluene	NA	NA	0.0466	U	0.0471	U	0.047	U
2-Chloronaphthalene	NA	NA	0.0466	U	0.0471	U	0.047	U
2-Chlorophenol	NA	NA	0.0466	U	0.0471	U	0.047	U
2-Methylnaphthalene	NA	NA	0.0466	U	0.0471	U	0.047	U
2-Methylphenol	0.33	100	0.0466	U	0.0471	U	0.047	U
2-Nitroaniline	NA	NA	0.0931	U	0.0941	U	0.0937	U
2-Nitrophenol	NA	NA	0.0466	U	0.0471	U	0.047	U
3- & 4-Methylphenols	0.33	100	0.0466	U	0.0471	U	0.047	U
3,3'-Dichlorobenzidine	NA	NA	0.0466	U	0.0471	U	0.047	U
3-Nitroaniline	NA	NA	0.0931	U	0.0941	U	0.0937	U
4,6-Dinitro-2-methylphenol	NA	NA	0.0931	U	0.0941	U	0.0937	U
4-Bromophenyl phenyl ether	NA	NA	0.0466	U	0.0471	U	0.047	U
4-Chloro-3-methylphenol	NA	NA	0.0466	U	0.0471	U	0.047	U
4-Chloroaniline	NA	NA	0.0466	U	0.0471	U	0.047	U
4-Chlorophenyl phenyl ether	NA	NA	0.0466	U	0.0471	U	0.047	U
4-Nitroaniline	NA	NA	0.0931	U	0.0941	U	0.0937	U
4-Nitrophenol	NA	NA	0.0931	U	0.0941	U	0.0937	U
Acenaphthene	20	100	0.0466	U	0.0471	U	0.047	U
Acenaphthylene	100	100	0.0466	U	0.0471	U	0.047	U
Acetophenone	NA	NA	0.0466	U	0.0471	U	0.047	U
Aniline	NA	NA	0.186	U	0.188	U	0.188	U
Anthracene	100	100	0.0466	U	0.0471	U	0.047	U
Atrazine	NA	NA	0.0466	U	0.0471	U	0.047	U
Benzaldehyde	NA	NA	0.0466	U	0.0471	U	0.047	U
Benzidine	NA	NA	0.186	U	0.188	U	0.188	U
Benzo(a)anthracene	1	1	0.0781	JD	0.0471	U	0.047	U
Benzo(a)pyrene	1	1	0.0677	JD	0.0471	U	0.047	U
Benzo(b)fluoranthene	1	1	0.0655	JD	0.0471	U	0.047	U
Benzo(g,h,i)perylene	100	100	0.0466	U	0.0471	U	0.047	U
Benzo(k)fluoranthene	0.8	3.9	0.0491	JD	0.0471	U	0.047	U
Benzoic acid	NA	NA	0.0466	U	0.0471	U	0.047	U
Benzyl alcohol	NA	NA	0.0466	U	0.0471	U	0.047	U
Benzyl butyl phthalate	NA	NA	0.0466	U	0.0471	U	0.047	U
Bis(2-chloroethoxy)methane	NA	NA	0.0466	U	0.0471	U	0.047	U
Bis(2-chloroethyl)ether	NA	NA	0.0466	U	0.0471	U	0.047	U
Bis(2-chloroisopropyl)ether	NA	NA	0.0466	U	0.0471	U	0.047	U
Bis(2-ethylhexyl)phthalate	NA	NA	0.0466	U	0.0471	U	0.047	U
Caprolactam	NA	NA	0.0931	U	0.0941	U	0.0937	U
Carbazole	NA	NA	0.0466	U	0.0471	U	0.047	U
Chrysene	1	3.9	0.0707	JD	0.0471	U	0.047	U
Dibenzo(a,h)anthracene	0.33	0.33	0.0466	U	0.0471	U	0.047	U
Dibenzofuran	7	59	0.0466	U	0.0471	U	0.047	U
Diethyl phthalate	NA	NA	0.0466	U	0.0471	U	0.047	U
Dimethyl phthalate	NA	NA	0.0466	U	0.0471	U	0.047	U
Di-n-butyl phthalate	NA	NA	0.0466	U	0.0471	U	0.047	U
Di-n-octyl phthalate	NA	NA	0.0466	U	0.0471	U	0.047	U
Fluoranthene	100	100	0.138	D	0.0471	U	0.047	U
Fluorene	30	100	0.0466	U	0.0471	U	0.047	U
Hexachlorobenzene	0.33	1.2	0.0466	U	0.0471	U	0.047	U
Hexachlorobutadiene	NA	NA	0.0466	U	0.0471	U	0.047	U
Hexachlorocyclopentadiene	NA	NA	0.0466	U	0.0471	U	0.047	U
Hexachloroethane	NA	NA	0.0466	U	0.0471	U	0.047	U
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.0536	JD	0.0471	U	0.047	U
Isophorone	NA	NA	0.0466	U	0.0471	U	0.047	U
Naphthalene	12	100	0.0466	U	0.0471	U	0.047	U
Nitrobenzene	NA	NA	0.0466	U	0.0471	U	0.047	U
N-Nitrosodimethylamine	NA	NA	0.0466	U	0.0471	U	0.047	U
N-nitroso-di-n-propylamine	NA	NA	0.0466	U	0.0471	U	0.047	U
N-Nitrosodiphenylamine	NA	NA	0.0466	U	0.0471	U	0.047	U
Pentachlorophenol	0.8	6.7	0.0466	U	0.0471	U	0.047	U
Phenanthrene	100	100	0.096	D	0.0471	U	0.047	U
Phenol	0.33	100	0.0466	U	0.0471	U	0.047	U
Pyrene	100	100	0.121	D	0.0471	U	0.047	U
Total SVOC TICs			ND		ND		ND	

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-01 5-10		2SB-02 0-5		2SB-02 5-7		2SB-03 5-10		2SB-03 10-15		2SB-03 20	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	10,000		4,600		7,860		10,600		8,940		10,100	
Antimony	NA	NA	2.71	*U*	2.62	*U*	2.85	*U*	2.97	*U*	2.78	*U*	2.86	*U*
Arsenic	13	16	1.62	*U*	1.57	*U*	1.71	*U*	1.78	*U*	1.67	*U*	1.72	*U*
Barium	350	400	18.9		10.6		22.5		39.5		18		16.6	
Beryllium	7.2	72	0.054	*U*	0.052	*U*	0.057	*U*	0.059	*U*	0.056	*U*	0.057	*U*
Cadmium	2.5	4.3	0.325	*U*	0.314	*U*	0.342	*U*	0.357	*U*	0.334	*U*	0.343	*U*
Calcium	NA	NA	3,840		3,430		4,110		3,620		3,350		5,060	
Chromium	30	180	9.6		3.71		8.09		6.18		6.3		5.83	
Chromium (+6)	1	110	0.541	*U*	0.523	*U*	0.569	*U*	0.595	*U*	0.557	*U*	0.572	*U*
Cobalt	NA	NA	5.01		2.58		4.29		3.16		4.04		4.82	
Copper	50	270	3.2		2.09	*U*	4.18		11		3.21		3.34	
Iron	NA	NA	18,300		12,700		18,100		15,100		15,400		18,200	
Lead	63	400	0.541	*U*	2.15		13.4		123		0.557	*U*	2.38	
Magnesium	NA	NA	2,260		1,510		2,030		1,870		2,210		2,030	
Manganese	1,600	2,000	195		108		165		79.5		73.7		87.3	
Mercury	0.18	0.81	0.0325	*U*	0.0314	*U*	0.0729		0.0981		0.0334	*U*	0.0343	*U*
Nickel	30	310	5.23		1.89		4.46		4.63		3.07		2.73	
Potassium	NA	NA	549	*B*	271	*B*	414	*B*	333	*B*	409	*B*	597	*B*
Selenium	3.9	180	2.71	*U*	2.62	*U*	2.85	*U*	2.97	*U*	2.78	*U*	2.86	*U*
Silver	2	180	0.541	*U*	0.523	*U*	0.569	*U*	0.595	*U*	0.557	*U*	0.572	*U*
Sodium	NA	NA	869		226		323		166		359		549	
Thallium	NA	NA	2.71	*U*	2.62	*U*	2.85	*U*	2.97	*U*	2.78	*U*	2.86	*U*
Vanadium	NA	NA	14.8		8.41		14.7		13.9		10.8		13.4	
Zinc	109	10,000	24.5		24.2		52.8		89.8		27.3		33.6	
Cyanide (total)	27	27	0.541	*U*	0.523	*U*	0.569	*U*	0.595	*U*	0.557	*U*	0.572	*U*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-04 5		2SB-04 10		2SB-05 5		2SB-05 7		2SB-05 10		2SB-06 5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	100		1		500		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	6,540		3,010		11,500		5,200		2,400		13,300	
Antimony	NA	NA	3.5	U	2.88	U	3.97	U	2.88	U	2.98	U	370	
Arsenic	13	16	2.1	U	1.73	U	2.38	U	1.73	U	1.79	U	14.7	
Barium	350	400	130		8.8		96.5		11.2		7.16		**3,780**	
Beryllium	7.2	72	0.07	U	0.089		0.094		0.058	U	0.492		0.28	
Cadmium	2.5	4.3	0.836		0.346	U	0.519		0.345	U	0.358	U	3.51	
Calcium	NA	NA	8,930		2,610		5,850		2,120		1,380		29,200	
Chromium	30	180	7.87		3.98		8.32		4.37		3.35		23.8	
Chromium (+6)	1	110	0.7	U	0.577	U	0.794	U	0.575	U	0.596	U	0.601	U
Cobalt	NA	NA	3.4		2.71		4.03		2.42		1.94		6.76	
Copper	50	270	90.1		24.1		10.7		2.3	U	2.38	U	91.2	
Iron	NA	NA	12,300		15,100		9,160		6,970		9,060		19,100	
Lead	63	400	264		0.577	U	51.4		2.93		0.596	U	**1,010**	
Magnesium	NA	NA	1,440		1,220		1,710		1,670		1,280		1,810	
Manganese	1,600	2,000	143		89.9		88.8		48.7		66.6		237	
Mercury	0.18	0.81	0.149		0.0346	U	0.716		0.0345	U	0.0358	U	0.573	
Nickel	30	310	4.33		2.66		4.24		2.08		1.7		127	
Potassium	NA	NA	323	B	251	B	423	B	343	B	247	B	995	B
Selenium	3.9	180	3.5	U	2.88	U	3.97	U	2.88	U	2.98	U	3.01	U
Silver	2	180	0.7	U	0.577	U	0.794	U	0.575	U	0.596	U	0.601	U
Sodium	NA	NA	352		225		242		170		112		645	
Thallium	NA	NA	3.5	U	2.88	U	3.97	U	2.88	U	2.98	U	3.01	U
Vanadium	NA	NA	15.2		8.63		10.5		6.66		6.42		15.3	
Zinc	109	10,000	268		24.7		84.6		16.9		18.8		2,400	
Cyanide (total)	27	27	0.7	U	0.577	U	0.794	U	0.575	U	0.596	U	0.601	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-06 7		2SB-06 10		2SB-06 13.5		2SB-07 7		2SB-07 12		2SB-08 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	100		1		1		100		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	2,670		2,830		2,680		3,250		2,850		4,910	
Antimony	NA	NA	2.91	*U*	2.91	*U*	2.87	*U*	2.93	*U*	3.11	*U*	3.27	*U*
Arsenic	13	16	1.75	*U*	1.75	*U*	1.72	*U*	1.76	*U*	1.87	*U*	2.38	
Barium	350	400	11.8		7.78		6.89		15.8		10.3		250	
Beryllium	7.2	72	0.058	*U*	0.165		0.088		0.059	*U*	0.158		0.094	
Cadmium	2.5	4.3	0.35	*U*	0.349	*U*	0.344	*U*	0.352	*U*	0.373	*U*	**6.48**	
Calcium	NA	NA	1,470		2,420		2,080		1,780		1,710		10,300	
Chromium	30	180	3.1		3.01		4.01		3.56		4.15		16	
Chromium (+6)	1	110	0.583	*U*	0.582	*U*	0.573	*U*	0.586	*U*	0.622	*U*	0.654	*U*
Cobalt	NA	NA	1.57		2.21		2.43		2		2.87		3.78	
Copper	50	270	2.33	*U*	2.33	*U*	2.29	*U*	2.35	*U*	2.49	*U*	**429**	
Iron	NA	NA	4,000		10,800		14,200		5,540		16,300		12,000	
Lead	63	400	0.775		0.582	*U*	0.573	*U*	0.913		0.622	*U*	**607**	
Magnesium	NA	NA	905		1,140		1,810		1,220		1,340		1,550	
Manganese	1,600	2,000	27.9		205		183		36.8		61.4		167	
Mercury	0.18	0.81	0.035	*U*	0.0349	*U*	0.0344	*U*	0.0352	*U*	0.0373	*U*	0.327	
Nickel	30	310	1.47		1.77		2.46		2		2.28		8.49	
Potassium	NA	NA	251	*B*	240	*B*	245	*B*	306	*B*	294	*B*	456	*B*
Selenium	3.9	180	2.91	*U*	2.91	*U*	2.87	*U*	2.93	*U*	3.11	*U*	3.27	*U*
Silver	2	180	0.583	*U*	0.582	*U*	0.573	*U*	0.586	*U*	0.622	*U*	0.654	*U*
Sodium	NA	NA	160		204		111		123		139		263	
Thallium	NA	NA	2.91	*U*	2.91	*U*	2.87	*U*	2.93	*U*	3.11	*U*	3.27	*U*
Vanadium	NA	NA	4.1		6.17		9.71		6.34		7.05		11.8	
Zinc	109	10,000	14.5		17.7		21.1		15		19		2,360	
Cyanide (total)	27	27	0.583	*U*	0.582	*U*	0.573	*U*	0.586	*U*	0.622	*U*	0.654	*U*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-08 5-10		2SB-09 0-5		2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	2,310		3,380		9,160		5,220		2,880		5,550	
Antimony	NA	NA	2.94	U	2.96	U	2.97	U	3.07	U	2.99	U	3.02	U
Arsenic	13	16	1.76	U	1.78	U	1.78	U	1.87		1.8	U	4.21	
Barium	350	400	6.83		29.4		56.6		45.5		13		82	
Beryllium	7.2	72	0.089		0.077		0.206		0.061	U	0.06	U	0.214	
Cadmium	2.5	4.3	0.353	U	0.468		0.356	U	0.368	U	0.359	U	3.61	
Calcium	NA	NA	1,670		1,930		3,570		2,000		1,780		11,400	
Chromium	30	180	3.54		5.24		9.65		5.24		3.35		10.4	
Chromium (+6)	1	110	0.588	U	0.592	U	0.593	U	0.613	U	0.599	U	0.605	U
Cobalt	NA	NA	2.01		2.34		7.71		2.87		1.81		4.56	
Copper	50	270	2.35	U	9.56		6.28		7.31		2.39	U	40.8	
Iron	NA	NA	9,190		9,780		20,300		5,870		5,740		18,600	
Lead	63	400	0.588	U	46.9		0.593	U	64.4		0.599	U	227	
Magnesium	NA	NA	916		1,400		3,580		1,100		979		4,320	
Manganese	1,600	2,000	60.4		151		231		37.8		31.8		188	
Mercury	0.18	0.81	0.0353	U	0.0355	U	0.0356	U	0.0368	U	0.0359	U	0.124	
Nickel	30	310	1.87		2.35		8.36		3.58		2.42		11.7	
Potassium	NA	NA	217	B	363	B	1,610		291		229		423	
Selenium	3.9	180	2.94	U	2.96	U	2.97	U	3.07	U	2.99	U	3.02	U
Silver	2	180	0.588	U	0.592	U	0.593	U	0.613	U	0.599	U	0.605	U
Sodium	NA	NA	118		87.9		320		188		105		227	
Thallium	NA	NA	2.94	U	2.96	U	2.97	U	3.07	U	2.99	U	3.02	U
Vanadium	NA	NA	6.66		6.82		20.3		11.4		5.21		19	
Zinc	109	10,000	15.8		146		32.4		65.7		19		687	
Cyanide (total)	27	27	0.588	U	0.592	U	0.593	U	0.613	U	0.599	U	0.605	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-11 7		2SB-11 15		2SB-12 0-5		2SB-12 5-10		2SB-13 0-2		DUP20220525	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	3,010		3,450		3,510		2,400		6,250		6,920	
Antimony	NA	NA	2.9	U	2.9	U	3.01	U	3.01	U	2.63	U	2.69	U
Arsenic	13	16	1.74	U	1.74	U	1.81	U	1.81	U	1.58	U	2.46	
Barium	350	400	11.6		13.7		33.7		10.3		37		39.2	
Beryllium	7.2	72	0.132		0.072		0.06	U	0.06	U	0.381		0.203	
Cadmium	2.5	4.3	0.348	U	0.348	U	0.362	U	0.361	U	0.315	U	0.323	U
Calcium	NA	NA	1,780		2,030		2,580		1,980		8,730		7,830	
Chromium	30	180	4.15		5.35		4.82		4.42		9.18		9.05	
Chromium (+6)	1	110	0.58	U	0.58	U	0.603	U	0.602	U	0.526	U	0.538	U
Cobalt	NA	NA	2.22		3.35		1.72		1.52		6.06		7.09	
Copper	50	270	2.32	U	3.21		60.6		2.82		15		19.8	
Iron	NA	NA	8,450		14,300		4,520		4,050		14,800		17,400	
Lead	63	400	0.667		0.58	U	19.6		0.681		10.3		13.6	
Magnesium	NA	NA	1,330		1,530		658		974		4,920		3,880	
Manganese	1,600	2,000	40.6		153		31.8		36		219		337	
Mercury	0.18	0.81	0.0348	U	0.0348	U	0.0866		0.0361	U	0.0315	U	0.264	
Nickel	30	310	1.16	U	3.49		1.8		1.62		8.88		10.6	
Potassium	NA	NA	255		367		232		200		1,140		913	
Selenium	3.9	180	2.9	U	2.9	U	3.01	U	3.01	U	2.63	U	2.69	U
Silver	2	180	0.58	U	0.58	U	0.603	U	0.602	U	0.526	U	0.538	U
Sodium	NA	NA	125		129		123		84.9		294		240	
Thallium	NA	NA	2.9	U	2.9	U	3.01	U	3.01	U	2.63	U	2.69	U
Vanadium	NA	NA	6.94		10.6		5.82		3.42		20		25.2	
Zinc	109	10,000	22.6		22.3		105		29.5		48.8		59.3	
Cyanide (total)	27	27	0.58	U	0.58	U	0.603	U	0.602	U	0.526	U	0.538	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil

NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-13 2-5		2SB-13 10		2SB-14 10-13.5		2SB-15 0-5		2SB-15 10		2SB-16 5-10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	3,610		2,760		5,690		5,910		4,360		2,240	
Antimony	NA	NA	2.91	*U*	2.79	*U*	2.84	*U*	2.91	*U*	3.04	*U*	2.92	*U*
Arsenic	13	16	2.24		1.68	*U*	1.7	*U*	1.75	*U*	1.83	*U*	1.75	*U*
Barium	350	400	68.3		10.2		18.4		41.5		16.8		8.32	
Beryllium	7.2	72	0.101		0.157		0.057	*U*	0.058	*U*	0.061	*U*	0.232	
Cadmium	2.5	4.3	0.394		0.335	*U*	0.34	*U*	0.35	*U*	0.365	*U*	0.35	*U*
Calcium	NA	NA	3,120		1,910		3,970		1,890		2,760		2,420	
Chromium	30	180	5.78		4.45		7.6		8.62		6.51		3.96	
Chromium (+6)	1	110	0.583	*U*	0.558	*U*	0.567	*U*	0.583	*U*	0.609	*U*	0.583	*U*
Cobalt	NA	NA	2.85		2.7		5.69		3.63		4.45		4.09	
Copper	50	270	16.1		2.23	*U*	5.23		2.33	*U*	4.48		5.3	
Iron	NA	NA	8,930		11,100		18,900		8,240		16,400		10,100	
Lead	63	400	199		0.558	*U*	0.567	*U*	2.37		0.609	*U*	0.583	*U*
Magnesium	NA	NA	1,280		1,270		2,160		1,320		1,670		812	
Manganese	1,600	2,000	109		46		287		61.3		123		110	
Mercury	0.18	0.81	0.11		0.0335	*U*	0.034	*U*	0.035	*U*	0.0365	*U*	0.035	*U*
Nickel	30	310	10.8		2.46		4.95		4.02		3.64		2.26	
Potassium	NA	NA	266		266		665		398		636		181	
Selenium	3.9	180	2.91	*U*	2.79	*U*	2.84	*U*	2.91	*U*	3.04	*U*	2.92	*U*
Silver	2	180	0.583	*U*	0.558	*U*	0.567	*U*	0.583	*U*	0.609	*U*	0.583	*U*
Sodium	NA	NA	211		121		330		94		199		83.5	
Thallium	NA	NA	2.91	*U*	2.79	*U*	2.84	*U*	2.91	*U*	3.04	*U*	2.92	*U*
Vanadium	NA	NA	8.33		9.45		16.5		18		15.8		10.3	
Zinc	109	10,000	159		19.4		55		16.7		20.7		18.3	
Cyanide (total)	27	27	0.583	*U*	0.558	*U*	0.567	*U*	0.583	*U*	0.609	*U*	0.583	*U*

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	**2SB-16 15**		**2SB-17 5**		**2SB-17 15**		**2SB-18 3**		**2SB-18 10**		**2SB-19 3**	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	7,420		2,860		3,560		11,300		2,720		3,610	
Antimony	NA	NA	2.78	U	3.05	U	2.81	U	2.98	U	3	U	2.85	U
Arsenic	13	16	1.67	U	1.83	U	1.68	U	1.79	U	1.8	U	1.71	U
Barium	350	400	33.9		25.8		9.26		40.9		8.82		24.7	
Beryllium	7.2	72	0.063		0.089		0.144		0.062		0.092		0.057	U
Cadmium	2.5	4.3	0.333	U	0.366	U	0.337	U	0.358	U	0.36	U	0.342	U
Calcium	NA	NA	3,020		1,860		1,840		4,260		1,580		5,150	
Chromium	30	180	6.82		4.36		4.16		7.32		4.16		6.5	
Chromium (+6)	1	110	0.556	U	0.611	U	0.561	U	0.596	U	0.6	U	0.571	U
Cobalt	NA	NA	5.21		1.16		2.77		4.08		2.77		4.37	
Copper	50	270	6.21		2.66		2.25	U	7.37		2.4	U	15.8	
Iron	NA	NA	17,000		3,620		12,900		14,700		13,700		14,100	
Lead	63	400	0.556	U	0.611	U	0.561	U	60.3		0.6	U	81.4	
Magnesium	NA	NA	2,670		710		2,170		1,640		1,320		1,730	
Manganese	1,600	2,000	226		25.4		92.7		95.2		61.4		139	
Mercury	0.18	0.81	0.0333	U	0.0366	U	0.0337	U	0.0818		0.036	U	0.0444	
Nickel	30	310	6.24		1.62		2.38		3.75		2.18		6.84	
Potassium	NA	NA	1,080		196		257		415		334		435	
Selenium	3.9	180	2.78	U	3.05	U	2.81	U	2.98	U	3	U	2.85	U
Silver	2	180	0.556	U	0.611	U	0.561	U	0.596	U	0.6	U	0.571	U
Sodium	NA	NA	209		71.2		100		185		99		186	
Thallium	NA	NA	2.78	U	3.05	U	2.81	U	2.98	U	3	U	2.85	U
Vanadium	NA	NA	14.3		4.03		7.66		14.4		7.87		9.89	
Zinc	109	10,000	30.1		16.1		21.7		75.7		19.8		83.9	
Cyanide (total)	27	27	0.556	U	0.611	U	0.561	U	0.596	U	0.6	U	0.571	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	**2SB-19 15**		**2SB-20 10**		**2SB-21 0-2**		**DUP20220524**		**2SB-21 2-5**		**2SB-21 10**	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	2,030		2,690		3,460		3,300		3,350		2,870	
Antimony	NA	NA	2.93	U	3.01	U	2.7	U	2.72	U	2.88	U	2.9	U
Arsenic	13	16	1.76	U	1.8	U	1.62	U	1.63	U	1.73	U	1.74	U
Barium	350	400	4.54		12.8		18.7		21		14.5		10.9	
Beryllium	7.2	72	0.312		0.537		0.054	U	0.054	U	0.06		0.069	
Cadmium	2.5	4.3	0.351	U	0.361	U	0.324	U	0.326	U	0.345	U	0.348	U
Calcium	NA	NA	1,690		2,610		2,710		2,500		2,360		1,620	
Chromium	30	180	2.32		2.6		3.68		3.73		6.85		3.82	
Chromium (+6)	1	110	0.585	U	0.601	U	0.539	U	0.543	U	0.576	U	0.58	U
Cobalt	NA	NA	1.41		2.49		3.79		5.95		3.95		2.79	
Copper	50	270	2.34	U	3.83		10.9		22.5		3.39		2.32	U
Iron	NA	NA	11,300		24,800		12,400		13,000		14,600		11,700	
Lead	63	400	0.585	U	0.601	U	4.85		3.04		0.576	U	0.58	U
Magnesium	NA	NA	1,370		1,550		2,190		4,090		1,340		1,540	
Manganese	1,600	2,000	91.8		99.6		98.8		71.4		60.3		63.4	
Mercury	0.18	0.81	0.0351	U	0.0361	U	0.0324	U	0.0326	U	0.0345	U	0.0348	U
Nickel	30	310	1.23		1.34		3.89		9.82		3.89		2.35	
Potassium	NA	NA	174		186		541		1,450		384		409	
Selenium	3.9	180	2.93	U	3.01	U	2.7	U	2.72	U	2.88	U	2.9	U
Silver	2	180	0.585	U	0.601	U	0.539	U	0.543	U	0.576	U	0.58	U
Sodium	NA	NA	78.5		99.2		185		215		121		104	
Thallium	NA	NA	2.93	U	3.01	U	2.7	U	2.72	U	2.88	U	2.9	U
Vanadium	NA	NA	5.04		8.99		7.96		6.68		14		7.64	
Zinc	109	10,000	27.2		60.9		38.4		28.7		18.1		16.6	
Cyanide (total)	27	27	0.585	U	0.601	U	0.539	U	0.543	U	0.576	U	0.58	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-22 5		2SB-22 10		2SB-23 0-5		2SB-23 10		2SB-24 0-5		2SB-24 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	3,690		7,180		4,870		8,370		5,980		2,050	
Antimony	NA	NA	3.01	U	3.03	U	2.86	U	3.07	U	2.84	U	2.9	U
Arsenic	13	16	1.81	U	1.82	U	1.71	U	1.84	U	2.02		1.74	U
Barium	350	400	16.4		30.2		23.8		48.6		119		6.62	
Beryllium	7.2	72	0.06	U	0.061	U	0.215		0.125		0.197		0.105	
Cadmium	2.5	4.3	0.361	U	0.363	U	0.343	U	0.368	U	0.341	U	0.348	U
Calcium	NA	NA	2,470		3,190		5,780		3,030		3,120		1,290	
Chromium	30	180	6.12		7.75		11.3		9.42		8.26		3.89	
Chromium (+6)	1	110	0.602	U	0.606	U	0.571	U	0.614	U	0.569	U	0.58	U
Cobalt	NA	NA	3.42		6.26		3.85		7.33		5		1.9	
Copper	50	270	2.82		5.62		11.1		5.2		71.5		2.32	U
Iron	NA	NA	15,200		21,200		18,500		20,600		16,200		10,800	
Lead	63	400	0.602	U	0.606	U	39.4		0.614	U	144		0.58	U
Magnesium	NA	NA	1,410		2,560		2,560		2,860		1,330		1,070	
Manganese	1,600	2,000	56.7		158		117		97.6		95.3		39.6	
Mercury	0.18	0.81	0.0361	U	0.0363	U	0.0343	U	0.0368	U	0.0341	U	0.0348	U
Nickel	30	310	2.52		5.76		6.4		8.05		8.39		1.91	
Potassium	NA	NA	557		1,020		482		1,370		531		170	
Selenium	3.9	180	3.01	U	3.03	U	2.86	U	3.07	U	2.84	U	2.9	U
Silver	2	180	0.602	U	0.606	U	0.571	U	0.614	U	0.569	U	0.58	U
Sodium	NA	NA	146		269		141		260		205		77.1	
Thallium	NA	NA	3.01	U	3.03	U	2.86	U	3.07	U	2.84	U	2.9	U
Vanadium	NA	NA	14.3		18.2		13.5		21.3		14.4		5.82	
Zinc	109	10,000	18.4		26.7		117		29.7		145		14.3	
Cyanide (total)	27	27	0.602	U	0.606	U	0.571	U	0.614	U	0.569	U	0.58	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-25 0-5		2SB-25 10		2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	1		1		1		1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	4,950		4,330		5,500		2,670		4,320		2,820	
Antimony	NA	NA	3.06	U	2.99	U	2.82	U	2.76	U	3.06	U	3.02	U
Arsenic	13	16	1.83	U	1.79	U	2.65		1.66	U	1.84	U	1.81	U
Barium	350	400	81.5		22.4		28.8		10		37.1		10.5	
Beryllium	7.2	72	0.274		0.07		0.517		0.166		0.135		0.22	
Cadmium	2.5	4.3	0.367	U	0.359	U	0.338	U	0.331	U	0.367	U	0.363	U
Calcium	NA	NA	3,800		2,050		5,560		1,290		3,440		1,190	
Chromium	30	180	6.29		5.87		6.94		3.84		5.45		3.45	
Chromium (+6)	1	110	0.612	U	0.598	U	0.564	U	0.552	U	0.612	U	0.605	U
Cobalt	NA	NA	5.22		3.96		5.18		3.08		3.32		3.1	
Copper	50	270	17.4		2.85		17.3		2.21	U	11.4		2.42	U
Iron	NA	NA	17,900		14,900		8,860		12,600		10,400		10,300	
Lead	63	400	93.6		0.878		28.4		0.552	U	57.6		0.605	U
Magnesium	NA	NA	1,670		1,800		1,560		1,400		1,230		1,490	
Manganese	1,600	2,000	92.7		75		68.2		70.4		83.5		39.9	
Mercury	0.18	0.81	0.0367	U	0.0359	U	0.0338	U	0.0331	U	0.0367	U	0.0363	U
Nickel	30	310	7.16		3.74		6.98		2.13		5.68		2.21	
Potassium	NA	NA	452		680		707		284		306		261	
Selenium	3.9	180	3.06	U	2.99	U	2.82	U	2.76	U	3.06	U	3.02	U
Silver	2	180	0.612	U	0.598	U	0.564	U	0.552	U	0.612	U	0.605	U
Sodium	NA	NA	203		169		344		93.8		111		84.2	
Thallium	NA	NA	3.06	U	2.99	U	2.82	U	2.76	U	3.06	U	3.02	U
Vanadium	NA	NA	13.1		11.7		13.8		6.56		10.1		5.96	
Zinc	109	10,000	66		21.8		36.8		19.3		76.1		22.8	
Cyanide (total)	27	27	0.612	U	0.598	U	0.564	U	0.552	U	0.612	U	0.605	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: TAL Metals in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-25	
All data in mg/Kg (ppm)		Dilution	1		1		1	
Metals, 6010 and 7473	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aluminum	NA	NA	4,450		5,060		8,720	
Antimony	NA	NA	2.82	U	2.84	U	2.83	U
Arsenic	13	16	1.69	U	1.7	U	1.7	U
Barium	350	400	36.5		12.1		20.2	
Beryllium	7.2	72	0.153		0.057	U	0.057	U
Cadmium	2.5	4.3	0.338	U	0.341	U	0.339	U
Calcium	NA	NA	2,650		4,380		2,340	
Chromium	30	180	6.57		7.07		7.38	
Chromium (+6)	1	110	0.564	U	0.568	U	0.565	U
Cobalt	NA	NA	4.16		7.74		3.54	
Copper	50	270	12.1		6.09		2.49	
Iron	NA	NA	12,500		19,600		18,000	
Lead	63	400	29.4		0.568	U	0.565	U
Magnesium	NA	NA	1,230		3,500		1,420	
Manganese	1,600	2,000	61.4		69.8		79.4	
Mercury	0.18	0.81	0.0338	U	0.0341	U	0.0339	U
Nickel	30	310	5.33		8.64		3.54	
Potassium	NA	NA	441		466		321	
Selenium	3.9	180	2.82	U	2.84	U	2.83	U
Silver	2	180	0.564	U	0.568	U	0.565	U
Sodium	NA	NA	132		223		348	
Thallium	NA	NA	2.82	U	2.84	U	2.83	U
Vanadium	NA	NA	12.8		15.3		17.2	
Zinc	109	10,000	37.2		35.7		15.9	
Cyanide (total)	27	27	0.564	U	0.568	U	0.565	U

Analyte Detected
Analyte Above UU SCO
Analyte Above RRU SCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-01 5-10		2SB-02 0-5		2SB-02 5-7		2SB-03 5-10		2SB-03 10-15		2SB-03 20	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
4,4'-DDE	0.0033	8.9	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
4,4'-DDT	0.0033	7.9	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Aldrin	0.005	0.097	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
alpha-BHC	0.02	0.48	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
alpha-Chlordane	0.094	4.2	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
beta-BHC	0.036	0.36	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Chlordane (total)	NA	NA	0.0352	U	0.0343	U	0.0366	U	0.0389	U	0.0363	U	0.0374	U
delta-BHC	0.04	100	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Dieldrin	0.005	0.2	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Endosulfan I	2.4	24	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Endosulfan II	2.4	24	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Endosulfan sulfate	2.4	24	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Endrin	0.014	11	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Endrin aldehyde	NA	NA	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Endrin ketone	NA	NA	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
gamma-BHC (Lindane)	0.1	1.3	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
gamma-Chlordane	NA	NA	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Heptachlor	0.042	2.1	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Heptachlor Epoxide	NA	NA	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Methoxychlor	NA	NA	0.00176	U	0.00172	U	0.00183	U	0.00194	U	0.00181	U	0.00187	U
Toxaphene	NA	NA	0.176	U	0.172	U	0.183	U	0.194	U	0.181	U	0.187	U

		Sample ID	2SB-01 5-10		2SB-02 0-5		2SB-02 5-7		2SB-03 5-10		2SB-03 10-15		2SB-03 20	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor 1221	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor 1232	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor 1242	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor 1248	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor 1254	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor 1260	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U
Aroclor, Total	0.1	1.00	0.0178	U	0.0173	U	0.0185	U	0.0196	U	0.0183	U	0.0189	U

		Sample ID	2SB-01 5-10		2SB-02 0-5		2SB-02 5-7		2SB-03 5-10		2SB-03 10-15		2SB-03 20	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0214	U	0.0209	U	0.0226	U	0.0231	U	0.022	U	0.0223	U
2,4,5-TP (Silvex)	3.8	100.00	0.0214	U	0.0209	U	0.0226	U	0.0231	U	0.022	U	0.0223	U
2,4-D	NA	NA	0.0214	U	0.0209	U	0.0226	U	0.0231	U	0.022	U	0.0223	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	**2SB-04 5**		**2SB-04 10**		**2SB-05 5**		**2SB-05 7**		**2SB-05 10**		**2SB-06 5**	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
4,4'-DDE	0.0033	8.9	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
4,4'-DDT	0.0033	7.9	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Aldrin	0.005	0.097	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
alpha-BHC	0.02	0.48	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
alpha-Chlordane	0.094	4.2	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
beta-BHC	0.036	0.36	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Chlordane (total)	NA	NA	0.0456	U	0.0377	U	0.0512	U	0.0369	U	0.0393	U	0.0385	U
delta-BHC	0.04	100	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Dieldrin	0.005	0.2	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Endosulfan I	2.4	24	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Endosulfan II	2.4	24	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Endosulfan sulfate	2.4	24	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Endrin	0.014	11	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Endrin aldehyde	NA	NA	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Endrin ketone	NA	NA	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
gamma-BHC (Lindane)	0.1	1.3	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
gamma-Chlordane	NA	NA	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Heptachlor	0.042	2.1	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Heptachlor Epoxide	NA	NA	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Methoxychlor	NA	NA	0.00228	U	0.00188	U	0.00256	U	0.00184	U	0.00197	U	0.00193	U
Toxaphene	NA	NA	0.228	U	0.188	U	0.256	U	0.184	U	0.197	U	0.193	U

		Sample ID	**2SB-04 5**		**2SB-04 10**		**2SB-05 5**		**2SB-05 7**		**2SB-05 10**		**2SB-06 5**	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	100		1		500		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor 1221	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor 1232	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor 1242	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor 1248	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor 1254	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor 1260	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U
Aroclor, Total	0.1	1.00	0.023	U	0.019	U	0.0259	U	0.0186	U	0.0199	U	0.0195	U

		Sample ID	**2SB-04 5**		**2SB-04 10**		**2SB-05 5**		**2SB-05 7**		**2SB-05 10**		**2SB-06 5**	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	100		1		500		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0279	U	0.0226	U	0.0311	U	0.0223	U	0.0235	U	0.0238	U
2,4,5-TP (Silvex)	3.8	100.00	0.0279	U	0.0226	U	0.0311	U	0.0223	U	0.0235	U	0.0238	U
2,4-D	NA	NA	0.0279	U	0.0226	U	0.0311	U	0.0223	U	0.0235	U	0.0238	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-06 7		2SB-06 10		2SB-06 13.5		2SB-07 7		2SB-07 12		2SB-08 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
4,4'-DDE	0.0033	8.9	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
4,4'-DDT	0.0033	7.9	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Aldrin	0.005	0.097	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
alpha-BHC	0.02	0.48	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
alpha-Chlordane	0.094	4.2	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
beta-BHC	0.036	0.36	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Chlordane (total)	NA	NA	0.0379	U	0.0379	U	0.0373	U	0.0382	U	0.0407	U	0.0426	U
delta-BHC	0.04	100	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Dieldrin	0.005	0.2	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Endosulfan I	2.4	24	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Endosulfan II	2.4	24	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Endosulfan sulfate	2.4	24	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Endrin	0.014	11	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Endrin aldehyde	NA	NA	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Endrin ketone	NA	NA	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
gamma-BHC (Lindane)	0.1	1.3	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
gamma-Chlordane	NA	NA	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Heptachlor	0.042	2.1	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Heptachlor Epoxide	NA	NA	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Methoxychlor	NA	NA	0.0019	U	0.00189	U	0.00187	U	0.00191	U	0.00203	U	0.00213	U
Toxaphene	NA	NA	0.19	U	0.189	U	0.187	U	0.191	U	0.203	U	0.213	U

		Sample ID	2SB-06 7		2SB-06 10		2SB-06 13.5		2SB-07 7		2SB-07 12		2SB-08 0-5	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	100		1		1		100		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor 1221	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor 1232	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor 1242	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor 1248	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor 1254	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor 1260	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U
Aroclor, Total	0.1	1.00	0.0192	U	0.0191	U	0.0188	U	0.0193	U	0.0205	U	0.0215	U

		Sample ID	2SB-06 7		2SB-06 10		2SB-06 13.5		2SB-07 7		2SB-07 12		2SB-08 0-5	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	100		1		1		100		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0231	U	0.023	U	0.0227	U	0.0231	U	0.0247	U	0.0259	U
2,4,5-TP (Silvex)	3.8	100.00	0.0231	U	0.023	U	0.0227	U	0.0231	U	0.0247	U	0.0259	U
2,4-D	NA	NA	0.0231	U	0.023	U	0.0227	U	0.0231	U	0.0247	U	0.0259	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-08 5-10		2SB-09 0-5		2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
4,4'-DDE	0.0033	8.9	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
4,4'-DDT	0.0033	7.9	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Aldrin	0.005	0.097	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
alpha-BHC	0.02	0.48	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
alpha-Chlordane	0.094	4.2	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
beta-BHC	0.036	0.36	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Chlordane (total)	NA	NA	0.0382	U	0.0386	U	0.039	U	0.0398	U	0.0385	U	0.0393	U
delta-BHC	0.04	100	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Dieldrin	0.005	0.2	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Endosulfan I	2.4	24	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Endosulfan II	2.4	24	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Endosulfan sulfate	2.4	24	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Endrin	0.014	11	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Endrin aldehyde	NA	NA	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Endrin ketone	NA	NA	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
gamma-BHC (Lindane)	0.1	1.3	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
gamma-Chlordane	NA	NA	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Heptachlor	0.042	2.1	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Heptachlor Epoxide	NA	NA	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Methoxychlor	NA	NA	0.00191	U	0.00193	U	0.00195	U	0.00199	U	0.00192	U	0.00196	U
Toxaphene	NA	NA	0.191	U	0.193	U	0.195	U	0.199	U	0.192	U	0.196	U

		Sample ID	2SB-08 5-10		2SB-09 0-5		2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor 1221	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor 1232	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor 1242	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor 1248	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor 1254	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor 1260	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U
Aroclor, Total	0.1	1.00	0.0193	U	0.0195	U	0.0197	U	0.0201	U	0.0194	U	0.0198	U

		Sample ID	2SB-08 5-10		2SB-09 0-5		2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0232	U	0.0235	U	0.0234	U	0.0243	U	0.0236	U	0.024	U
2,4,5-TP (Silvex)	3.8	100.00	0.0232	U	0.0235	U	0.0234	U	0.0243	U	0.0236	U	0.024	U
2,4-D	NA	NA	0.0232	U	0.0235	U	0.0234	U	0.0243	U	0.0236	U	0.024	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-11 7		2SB-11 15		2SB-12 0-5		2SB-12 5-10		2SB-13 0-2		DUP20220525	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
4,4'-DDE	0.0033	8.9	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
4,4'-DDT	0.0033	7.9	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Aldrin	0.005	0.097	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
alpha-BHC	0.02	0.48	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
alpha-Chlordane	0.094	4.2	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
beta-BHC	0.036	0.36	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Chlordane (total)	NA	NA	0.0382	U	0.0381	U	0.0393	U	0.0396	U	0.0341	U	0.0345	U
delta-BHC	0.04	100	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Dieldrin	0.005	0.2	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Endosulfan I	2.4	24	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Endosulfan II	2.4	24	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Endosulfan sulfate	2.4	24	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Endrin	0.014	11	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Endrin aldehyde	NA	NA	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Endrin ketone	NA	NA	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
gamma-BHC (Lindane)	0.1	1.3	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
gamma-Chlordane	NA	NA	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Heptachlor	0.042	2.1	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Heptachlor Epoxide	NA	NA	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Methoxychlor	NA	NA	0.00191	U	0.00191	U	0.00196	U	0.00198	U	0.00171	U	0.00172	U
Toxaphene	NA	NA	0.191	U	0.191	U	0.196	U	0.198	U	0.171	U	0.172	U

		Sample ID	2SB-11 7		2SB-11 15		2SB-12 0-5		2SB-12 5-10		2SB-13 0-2		DUP20220525	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor 1221	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor 1232	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor 1242	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor 1248	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor 1254	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor 1260	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U
Aroclor, Total	0.1	1.00	0.0193	U	0.0193	U	0.0198	U	0.02	U	0.0172	U	0.0174	U

		Sample ID	2SB-11 7		2SB-11 15		2SB-12 0-5		2SB-12 5-10		2SB-13 0-2		DUP20220525	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0229	U	0.0226	U	0.0238	U	0.0238	U	0.0206	U	0.021	U
2,4,5-TP (Silvex)	3.8	100.00	0.0229	U	0.0226	U	0.0238	U	0.0238	U	0.0206	U	0.021	U
2,4-D	NA	NA	0.0229	U	0.0226	U	0.0238	U	0.0238	U	0.0206	U	0.021	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-13 2-5		2SB-13 10		2SB-14 10-13.5		2SB-15 0-5		2SB-15 10		2SB-16 5-10	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
4,4'-DDE	0.0033	8.9	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
4,4'-DDT	0.0033	7.9	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Aldrin	0.005	0.097	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
alpha-BHC	0.02	0.48	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
alpha-Chlordane	0.094	4.2	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
beta-BHC	0.036	0.36	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Chlordane (total)	NA	NA	0.038	U	0.0365	U	0.0373	U	0.0378	U	0.0396	U	0.0375	U
delta-BHC	0.04	100	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Dieldrin	0.005	0.2	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Endosulfan I	2.4	24	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Endosulfan II	2.4	24	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Endosulfan sulfate	2.4	24	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Endrin	0.014	11	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Endrin aldehyde	NA	NA	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Endrin ketone	NA	NA	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
gamma-BHC (Lindane)	0.1	1.3	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
gamma-Chlordane	NA	NA	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Heptachlor	0.042	2.1	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Heptachlor Epoxide	NA	NA	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Methoxychlor	NA	NA	0.0019	U	0.00182	U	0.00187	U	0.00189	U	0.00198	U	0.00187	U
Toxaphene	NA	NA	0.19	U	0.182	U	0.187	U	0.189	U	0.198	U	0.187	U

		Sample ID	2SB-13 2-5		2SB-13 10		2SB-14 10-13.5		2SB-15 0-5		2SB-15 10		2SB-16 5-10	
		Sample Date	2022-05-25		2022-05-25		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor 1221	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor 1232	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor 1242	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor 1248	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor 1254	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor 1260	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U
Aroclor, Total	0.1	1.00	0.0192	U	0.0184	U	0.0188	U	0.0191	U	0.02	U	0.0189	U

		Sample ID	2SB-13 2-5		2SB-13 10		2SB-14 10-13.5		2SB-15 0-5		2SB-15 10		2SB-16 5-10	
		Sample Date	2022-05-25		2022-05-25		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0232	U	0.022	U	0.0223	U	0.0229	U	0.024	U	0.0228	U
2,4,5-TP (Silvex)	3.8	100.00	0.0232	U	0.022	U	0.0223	U	0.0229	U	0.024	U	0.0228	U
2,4-D	NA	NA	0.0232	U	0.022	U	0.0223	U	0.0229	U	0.024	U	0.0228	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-16 15		2SB-17 5		2SB-17 15		2SB-18 3		2SB-18 10		2SB-19 3	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
4,4'-DDE	0.0033	8.9	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
4,4'-DDT	0.0033	7.9	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Aldrin	0.005	0.097	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
alpha-BHC	0.02	0.48	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
alpha-Chlordane	0.094	4.2	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
beta-BHC	0.036	0.36	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Chlordane (total)	NA	NA	0.0362	U	0.04	U	0.0363	U	0.0392	U	0.0387	U	0.0367	U
delta-BHC	0.04	100	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Dieldrin	0.005	0.2	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Endosulfan I	2.4	24	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Endosulfan II	2.4	24	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Endosulfan sulfate	2.4	24	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Endrin	0.014	11	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Endrin aldehyde	NA	NA	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Endrin ketone	NA	NA	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
gamma-BHC (Lindane)	0.1	1.3	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
gamma-Chlordane	NA	NA	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Heptachlor	0.042	2.1	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Heptachlor Epoxide	NA	NA	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Methoxychlor	NA	NA	0.00181	U	0.002	U	0.00182	U	0.00196	U	0.00193	U	0.00183	U
Toxaphene	NA	NA	0.181	U	0.2	U	0.182	U	0.196	U	0.193	U	0.183	U

		Sample ID	2SB-16 15		2SB-17 5		2SB-17 15		2SB-18 3		2SB-18 10		2SB-19 3	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor 1221	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor 1232	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor 1242	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor 1248	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor 1254	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor 1260	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U
Aroclor, Total	0.1	1.00	0.0183	U	0.0202	U	0.0183	U	0.0198	U	0.0195	U	0.0185	U

		Sample ID	2SB-16 15		2SB-17 5		2SB-17 15		2SB-18 3		2SB-18 10		2SB-19 3	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0218	U	0.0242	U	0.0223	U	0.0232	U	0.0236	U	0.0225	U
2,4,5-TP (Silvex)	3.8	100.00	0.0218	U	0.0242	U	0.0223	U	0.0232	U	0.0236	U	0.0225	U
2,4-D	NA	NA	0.0218	U	0.0242	U	0.0223	U	0.0232	U	0.0236	U	0.0225	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-19 15		2SB-20 10		2SB-21 0-2		DUP20220524		2SB-21 2-5		2SB-21 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
4,4'-DDE	0.0033	8.9	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
4,4'-DDT	0.0033	7.9	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Aldrin	0.005	0.097	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
alpha-BHC	0.02	0.48	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
alpha-Chlordane	0.094	4.2	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
beta-BHC	0.036	0.36	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Chlordane (total)	NA	NA	0.0379	U	0.0386	U	0.0354	U	0.0355	U	0.0369	U	0.0381	U
delta-BHC	0.04	100	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Dieldrin	0.005	0.2	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Endosulfan I	2.4	24	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Endosulfan II	2.4	24	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Endosulfan sulfate	2.4	24	0.00189	U	0.00193	U	0.00177	U	0.0105	D	0.00184	U	0.00191	U
Endrin	0.014	11	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Endrin aldehyde	NA	NA	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Endrin ketone	NA	NA	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
gamma-BHC (Lindane)	0.1	1.3	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
gamma-Chlordane	NA	NA	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Heptachlor	0.042	2.1	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Heptachlor Epoxide	NA	NA	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Methoxychlor	NA	NA	0.00189	U	0.00193	U	0.00177	U	0.00178	U	0.00184	U	0.00191	U
Toxaphene	NA	NA	0.189	U	0.193	U	0.177	U	0.178	U	0.184	U	0.191	U

		Sample ID	2SB-19 15		2SB-20 10		2SB-21 0-2		DUP20220524		2SB-21 2-5		2SB-21 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor 1221	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor 1232	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor 1242	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor 1248	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor 1254	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor 1260	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U
Aroclor, Total	0.1	1.00	0.0191	U	0.0195	U	0.0179	U	0.0179	U	0.0186	U	0.0193	U

		Sample ID	2SB-19 15		2SB-20 10		2SB-21 0-2		DUP20220524		2SB-21 2-5		2SB-21 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0232	U	0.0238	U	0.0213	U	0.0214	U	0.0229	U	0.0228	U
2,4,5-TP (Silvex)	3.8	100.00	0.0232	U	0.0238	U	0.0213	U	0.0214	U	0.0229	U	0.0228	U
2,4-D	NA	NA	0.0232	U	0.0238	U	0.0213	U	0.0214	U	0.0229	U	0.0228	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-22 5		2SB-22 10		2SB-23 0-5		2SB-23 10		2SB-24 0-5		2SB-24 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
4,4'-DDE	0.0033	8.9	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
4,4'-DDT	0.0033	7.9	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Aldrin	0.005	0.097	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
alpha-BHC	0.02	0.48	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
alpha-Chlordane	0.094	4.2	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
beta-BHC	0.036	0.36	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Chlordane (total)	NA	NA	0.0396	U	0.0396	U	0.0373	U	0.0393	U	0.0374	U	0.038	U
delta-BHC	0.04	100	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Dieldrin	0.005	0.2	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Endosulfan I	2.4	24	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Endosulfan II	2.4	24	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Endosulfan sulfate	2.4	24	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Endrin	0.014	11	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Endrin aldehyde	NA	NA	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Endrin ketone	NA	NA	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
gamma-BHC (Lindane)	0.1	1.3	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
gamma-Chlordane	NA	NA	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Heptachlor	0.042	2.1	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Heptachlor Epoxide	NA	NA	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Methoxychlor	NA	NA	0.00198	U	0.00198	U	0.00187	U	0.00197	U	0.00187	U	0.0019	U
Toxaphene	NA	NA	0.198	U	0.198	U	0.187	U	0.197	U	0.187	U	0.19	U

		Sample ID	2SB-22 5		2SB-22 10		2SB-23 0-5		2SB-23 10		2SB-24 0-5		2SB-24 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor 1221	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor 1232	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor 1242	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor 1248	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor 1254	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor 1260	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U
Aroclor, Total	0.1	1.00	0.02	U	0.02	U	0.0188	U	0.0199	U	0.0189	U	0.0192	U

		Sample ID	2SB-22 5		2SB-22 10		2SB-23 0-5		2SB-23 10		2SB-24 0-5		2SB-24 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0235	U	0.024	U	0.0226	U	0.0242	U	0.0222	U	0.0228	U
2,4,5-TP (Silvex)	3.8	100.00	0.0235	U	0.024	U	0.0226	U	0.0242	U	0.0222	U	0.0228	U
2,4-D	NA	NA	0.0235	U	0.024	U	0.0226	U	0.0242	U	0.0222	U	0.0228	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-25 0-5		2SB-25 10		2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
All data in mg/Kg (ppm)		Dilution	5		5		5		5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
4,4'-DDE	0.0033	8.9	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
4,4'-DDT	0.0033	7.9	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Aldrin	0.005	0.097	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
alpha-BHC	0.02	0.48	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
alpha-Chlordane	0.094	4.2	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
beta-BHC	0.036	0.36	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Chlordane (total)	NA	NA	0.0397	U	0.0387	U	0.0362	U	0.0357	U	0.0397	U	0.0394	U
delta-BHC	0.04	100	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Dieldrin	0.005	0.2	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Endosulfan I	2.4	24	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Endosulfan II	2.4	24	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Endosulfan sulfate	2.4	24	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Endrin	0.014	11	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Endrin aldehyde	NA	NA	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Endrin ketone	NA	NA	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
gamma-BHC (Lindane)	0.1	1.3	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
gamma-Chlordane	NA	NA	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Heptachlor	0.042	2.1	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Heptachlor Epoxide	NA	NA	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Methoxychlor	NA	NA	0.00199	U	0.00194	U	0.00181	U	0.00179	U	0.00199	U	0.00197	U
Toxaphene	NA	NA	0.199	U	0.194	U	0.181	U	0.179	U	0.199	U	0.197	U

		Sample ID	2SB-25 0-5		2SB-25 10		2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor 1221	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor 1232	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor 1242	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor 1248	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor 1254	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor 1260	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U
Aroclor, Total	0.1	1.00	0.02	U	0.0195	U	0.0183	U	0.018	U	0.0201	U	0.0199	U

		Sample ID	2SB-25 0-5		2SB-25 10		2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0241	U	0.0237	U	0.0222	U	0.022	U	0.0244	U	0.0239	U
2,4,5-TP (Silvex)	3.8	100.00	0.0241	U	0.0237	U	0.0222	U	0.022	U	0.0244	U	0.0239	U
2,4-D	NA	NA	0.0241	U	0.0237	U	0.0222	U	0.022	U	0.0244	U	0.0239	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 4: Pesticides, PCBs, and Herbicides in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-25	
All data in mg/Kg (ppm)		Dilution	5		5		5	
Pesticides, 8081	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.0033	13	0.00181	U	0.00182	U	0.00182	U
4,4'-DDE	0.0033	8.9	0.00181	U	0.00182	U	0.00182	U
4,4'-DDT	0.0033	7.9	0.00181	U	0.00182	U	0.00182	U
Aldrin	0.005	0.097	0.00181	U	0.00182	U	0.00182	U
alpha-BHC	0.02	0.48	0.00181	U	0.00182	U	0.00182	U
alpha-Chlordane	0.094	4.2	0.00181	U	0.00182	U	0.00182	U
beta-BHC	0.036	0.36	0.00181	U	0.00182	U	0.00182	U
Chlordane (total)	NA	NA	0.0361	U	0.0365	U	0.0365	U
delta-BHC	0.04	100	0.00181	U	0.00182	U	0.00182	U
Dieldrin	0.005	0.2	0.00181	U	0.00182	U	0.00182	U
Endosulfan I	2.4	24	0.00181	U	0.00182	U	0.00182	U
Endosulfan II	2.4	24	0.00181	U	0.00182	U	0.00182	U
Endosulfan sulfate	2.4	24	0.00181	U	0.00182	U	0.00182	U
Endrin	0.014	11	0.00181	U	0.00182	U	0.00182	U
Endrin aldehyde	NA	NA	0.00181	U	0.00182	U	0.00182	U
Endrin ketone	NA	NA	0.00181	U	0.00182	U	0.00182	U
gamma-BHC (Lindane)	0.1	1.3	0.00181	U	0.00182	U	0.00182	U
gamma-Chlordane	NA	NA	0.00181	U	0.00182	U	0.00182	U
Heptachlor	0.042	2.1	0.00181	U	0.00182	U	0.00182	U
Heptachlor Epoxide	NA	NA	0.00181	U	0.00182	U	0.00182	U
Methoxychlor	NA	NA	0.00181	U	0.00182	U	0.00182	U
Toxaphene	NA	NA	0.181	U	0.182	U	0.182	U

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
		Sample Date	2022-05-24		2022-05-24		2022-05-25	
		Dilution	1		1		1	
PCBs, 8082	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor 1221	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor 1232	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor 1242	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor 1248	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor 1254	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor 1260	0.1	1.00	0.0182	U	0.0184	U	0.0184	U
Aroclor, Total	0.1	1.00	0.0182	U	0.0184	U	0.0184	U

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
		Sample Date	2022-05-24		2022-05-24		2022-05-25	
		Dilution	1		1		1	
Herbicides, 8151	**UU SCO**	**RRU SCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	NA	NA	0.0225	U	0.022	U	0.022	U
2,4,5-TP (Silvex)	3.8	100.00	0.0225	U	0.022	U	0.022	U
2,4-D	NA	NA	0.0225	U	0.022	U	0.022	U

Analyte Detected

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-01 5-10		2SB-03 5-10		2SB-03 10-15		2SB-03 20		2SB-04 5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
N-EtFOSAA	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
N-MeFOSAA	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorononanoic acid (PFNA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.256	U	0.427	B	0.269	U	0.269	U	0.346	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.256	U	0.296	U	0.269	U	0.269	U	0.346	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

U= Not Detected ≥ value / *Data in µg/Kg (ppb)*		Sample ID	2SB-04 10		2SB-05 5		2SB-05 7		2SB-06 5		2SB-06 7	
		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
N-EtFOSAA	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
N-MeFOSAA	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.287	U	0.847		0.273	U	0.296	U	0.279	U
Perfluorononanoic acid (PFNA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.287	U	0.773		0.273	U	0.296	U	0.279	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.287	U	0.476		0.273	U	0.296	U	0.279	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.287	U	0.38	U	0.273	U	0.296	U	0.279	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-06 13.5		2SB-07 7		2SB-08 0-5		2SB-08 5-10		2SB-09 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
N-EtFOSAA	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
N-MeFOSAA	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorononanoic acid (PFNA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.273	U	0.281	U	1.22		0.291	U	0.325	
Perfluorooctanoic acid (PFOA)	0.66	33	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.273	U	0.281	U	0.317	U	0.291	U	0.291	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-09 10		2SB-10 0-5		2SB-10 5-10		2SB-11 5		2SB-11 7	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
N-EtFOSAA	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
N-MeFOSAA	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.281	U	2.47		0.282	U	0.292	U	0.287	U
Perfluorononanoic acid (PFNA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.281	U	0.799		0.282	U	0.292	U	0.287	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.281	U	0.616		0.282	U	0.292	U	0.287	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.281	U	0.304	U	0.282	U	0.292	U	0.287	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-11 15		2SB-12 0-5		2SB-12 5-10		2SB-13 0-2		DUP20220525	
U= Not Detected ≥ value		Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
N-EtFOSAA	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
N-MeFOSAA	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorodecanoic acid (PFDA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorododecanoic acid (PFDoA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorohexanoic acid (PFHxA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorononanoic acid (PFNA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.271	*U*	0.278	*U*	0.276	*U*	0.299		0.316	
Perfluorooctanoic acid (PFOA)	0.66	33	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoropentanoic acid (PFPeA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.271	*U*	0.278	*U*	0.276	*U*	0.261	*U*	0.251	*U*

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil

NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

U= Not Detected ≥ value / *Data in µg/Kg (ppb)*		Sample ID	**2SB-13 2-5**		**2SB-13 10**		**2SB-14 10-13.5**		**2SB-15 0-5**		**2SB-15 10**	
		Sample Date	2022-05-25		2022-05-25		2022-05-24		2022-05-24		2022-05-24	
		Dilution	1		1		1		5		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
N-EtFOSAA	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
N-MeFOSAA	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorodecanoic acid (PFDA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorododecanoic acid (PFDoA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	3.17	*D*	0.288	*U*
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorohexanoic acid (PFHxA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorononanoic acid (PFNA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorooctanoic acid (PFOA)	0.66	33	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoropentanoic acid (PFPeA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.288	*U*	0.275	*U*	0.274	*U*	1.42	*U*	0.288	*U*

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-16 5-10		2SB-16 15		2SB-17 5		2SB-17 15		2SB-18 3	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		5	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
N-EtFOSAA	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
N-MeFOSAA	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.782		0.272	U	0.296	U	0.277	U	1.85	D
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	2.49	D
Perfluorononanoic acid (PFNA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.28	U	0.272	U	0.296	U	0.277	U	1.48	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-18 10		2SB-19 3		2SB-19 15		2SB-20 10		2SB-21 0-2	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
N-EtFOSAA	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
N-MeFOSAA	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorodecanoic acid (PFDA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorododecanoic acid (PFDoA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorohexanoic acid (PFHxA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorononanoic acid (PFNA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorooctanoic acid (PFOA)	0.66	33	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoropentanoic acid (PFPeA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.297	*U*	0.269	*U*	0.27	*U*	0.285	*U*	0.285	*U*

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	DUP20220524		2SB-21 2-5		2SB-21 10		2SB-22 5		2SB-22 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
N-EtFOSAA	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
N-MeFOSAA	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorononanoic acid (PFNA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.255	U	0.275	U	0.283	U	0.287	U	0.291	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

		Sample ID	2SB-23 0-5		2SB-23 10		2SB-24 0-5		2SB-24 10		2SB-25 0-5	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
N-EtFOSAA	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
N-MeFOSAA	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorononanoic acid (PFNA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.273	U	0.294	U	0.274	U	0.274	U	0.274	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-25 0-5		2SB-26 0-5		2SB-26 10		2SB-27 0-5		2SB-27 10	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-24		2022-05-24	
Data in µg/Kg (ppb)		Dilution	1		1		1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
N-EtFOSAA	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
N-MeFOSAA	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorodecanoic acid (PFDA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorododecanoic acid (PFDoA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorohexanoic acid (PFHxA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorononanoic acid (PFNA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorooctanoic acid (PFOA)	0.66	33	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoropentanoic acid (PFPeA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.28	U	0.275	U	0.261	U	0.295	U	0.295	U

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 5: PFAS in Soil
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

		Sample ID	2SB-28 0-5		2SB-28 10		2SB-29 5-9	
U= Not Detected ≥ value		Sample Date	2022-05-24		2022-05-24		2022-05-24	
Data in µg/Kg (ppb)		Dilution	1		1		1	
PFAS	**UU**	**RRU**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
N-EtFOSAA	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
N-MeFOSAA	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoro-1-decanesulfonic acid (PFDS)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoro-1-octanesulfonamide (FOSA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorobutanesulfonic acid (PFBS)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorodecanoic acid (PFDA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorododecanoic acid (PFDoA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoroheptanoic acid (PFHpA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorohexanesulfonic acid (PFHxS)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorohexanoic acid (PFHxA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoro-n-butanoic acid (PFBA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorononanoic acid (PFNA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorooctanesulfonic acid (PFOS)	0.88	44	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorooctanoic acid (PFOA)	0.66	33	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoropentanoic acid (PFPeA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorotetradecanoic acid (PFTA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluorotridecanoic acid (PFTrDA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*
Perfluoroundecanoic acid (PFUnA)	NA	NA	0.273	*U*	0.271	*U*	0.258	*U*

Analyte Detected
Analyte Above UU Guidance Value

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51   NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 6: VOCs in Groundwater

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb) / *U= Not Detected ≥ value* / *Data above AWQS shown in* **Bold**	Sample ID	MW-01		MW-03		MW-04		MW-05		MW-06	
	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
	Dilution	50		1		10		1		1	
VOCs, 8260	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-tetrachloroethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,1,1-trichloroethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,1,2,2-tetrachloroethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,1,2-trichloro-1,2,2-trifluoroethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,1,2-trichloroethane	1	2	*U*	0.2	*U*	**32.3**	*D*	0.2	*U*	0.2	*U*
1,1-dichloroethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,1-dichloroethylene (1,1-DCE)	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2,3-trichlorobenzene	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2,3-trichloropropane	0.04	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2,4-trichlorobenzene	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2,4-trimethylbenzene	5	**1,440**	*D*	2.22		**252**	*D*	0.2	*U*	0.2	*U*
1,2-dibromo-3-chloropropane	0.04	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2-dibromoethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2-dichlorobenzene	3	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2-dichloroethane	0.6	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,2-dichloropropane	1	**2.3**	*JD*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,3,5-trimethylbenzene	5	**352**	*D*	0.58		**79.1**	*D*	0.2	*U*	0.2	*U*
1,3-dichlorobenzene	3	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,4-dichlorobenzene	3	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
1,4-dioxane	NA	400	*U*	40	*U*	400	*U*	40	*U*	40	*U*
2-butanone (MEK)	50	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
2-hexanone (MBK)	50	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
4-methyl-2-pentanone	NA	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
acetone	50	10	*U*	2.38		10	*U*	1.21	*J*	1.16	*J*
acrolein	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
acrylonitrile	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
benzene	1	**2**	*JD*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
bromochloromethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
bromodichloromethane	50	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
bromoform	50	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
bromomethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
carbon disulfide	NA	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
carbon tetrachloride	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
chlorobenzene	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
chloroethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
chloroform	7	4.6	*JD*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
chloromethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
cis-1,2-dichloroethylene (cis-DCE)	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
cis-1,3-dichloropropylene	0.4	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
cyclohexane	NA	47.2	*D*	0.2	*U*	28.3	*D*	0.2	*U*	0.2	*U*
dibromochloromethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
dibromomethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
dichlorodifluoromethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
ethyl benzene	5	**1,280**	*D*	0.46	*J*	**17.1**	*D*	0.2	*U*	0.2	*U*
hexachlorobutadiene	0.5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
isopropylbenzene	5	**47.2**	*D*	0.2	*U*	**10.4**	*D*	0.2	*U*	0.2	*U*
methyl acetate	NA	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
methyl tert-butyl ether (MTBE)	10	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
methylcyclohexane	NA	81.4	*D*	0.2	*U*	112	*D*	0.2	*U*	0.2	*U*
methylene chloride	5	10	*U*	1	*U*	10	*U*	1	*U*	1.25	*J*
n-butylbenzene	5	**25.9**	*D*	0.2	*U*	**23.4**	*D*	0.2	*U*	0.2	*U*
n-propylbenzene	5	**146**	*D*	0.27	*J*	**39.9**	*D*	0.2	*U*	0.2	*U*
o-xylene (included in total xylenes)	5	**1,130**	*D*	0.2	*U*	3.6	*JD*	0.2	*U*	0.2	*U*
p- & m- xylenes (included in total xylenes)	5	**65.5**	*D*	1.12		**71.8**	*D*	0.5	*U*	0.5	*U*
p-isopropyltoluene	5	3.5	*JD*	0.2	*U*	**5.3**	*D*	0.2	*U*	0.2	*U*
sec-butylbenzene	5	**7.4**	*D*	0.2	*U*	**6.3**	*D*	0.2	*U*	0.2	*U*
styrene	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
tert-butyl alcohol (TBA)	NA	5	*U*	0.5	*U*	5	*U*	0.5	*U*	0.5	*U*
tert-butylbenzene	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
tetrachloroethylene (PCE)	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
toluene	5	**707**	*D*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
trans-1,2-dichloroethylene (trans-DCE)	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
trans-1,3-dichloropropylene	0.4	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
trichloroethylene (TCE)	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
trichlorofluoromethane	5	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
vinyl chloride (VC)	2	2	*U*	0.2	*U*	2	*U*	0.2	*U*	0.2	*U*
xylenes, total	5	**1,196**	*JD*	1.12	*J*	**75.4**	*D*	0.6	*U*	0.6	*U*
	TOTAL VOCs	5,342		7.03		682		1.21		2.41	
	TOTAL VOC TICs	299		1		737		Not Detected		Not Detected	

Detected concentrations

Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 6: VOCs in Groundwater

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb)	**Sample ID**	**MW-07**		**MW-08**		**MW-09**		**MW-10**		**MW-11**	
U= Not Detected ≥ value	Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24	
Data above AWQS shown in **Bold**	Dilution	1		1		1		1		1	
VOCs, 8260	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-tetrachloroethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,1,1-trichloroethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,1,2,2-tetrachloroethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,1,2-trichloro-1,2,2-trifluoroethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,1,2-trichloroethane	1	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,1-dichloroethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,1-dichloroethylene (1,1-DCE)	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2,3-trichlorobenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2,3-trichloropropane	0.04	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2,4-trichlorobenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2,4-trimethylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2-dibromo-3-chloropropane	0.04	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2-dibromoethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2-dichlorobenzene	3	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2-dichloroethane	0.6	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,2-dichloropropane	1	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,3,5-trimethylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,3-dichlorobenzene	3	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,4-dichlorobenzene	3	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
1,4-dioxane	NA	40	*U*	40	*U*	40	*U*	40	*U*	40	*U*
2-butanone (MEK)	50	0.2	*U*	1.75		0.2	*U*	0.2	*U*	0.2	*U*
2-hexanone (MBK)	50	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
4-methyl-2-pentanone	NA	0.2	*U*	0.25	*J*	0.2	*U*	0.2	*U*	0.2	*U*
acetone	50	2.62		12		3.29		3.08		9.4	
acrolein	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
acrylonitrile	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
benzene	1	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
bromochloromethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
bromodichloromethane	50	0.2	*U*	0.7		0.2	*U*	0.2	*U*	0.2	*U*
bromoform	50	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
bromomethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
carbon disulfide	NA	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
carbon tetrachloride	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
chlorobenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
chloroethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
chloroform	7	0.2	*U*	1.51		0.2	*U*	0.2	*U*	0.2	*U*
chloromethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
cis-1,2-dichloroethylene (cis-DCE)	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
cis-1,3-dichloropropylene	0.4	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
cyclohexane	NA	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
dibromochloromethane	5	0.2	*U*	0.29	*J*	0.2	*U*	0.2	*U*	0.2	*U*
dibromomethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
dichlorodifluoromethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
ethyl benzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
hexachlorobutadiene	0.5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
isopropylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
methyl acetate	NA	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
methyl tert-butyl ether (MTBE)	10	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
methylcyclohexane	NA	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
methylene chloride	5	1	*U*	1	*U*	1	*U*	1	*U*	1	*U*
n-butylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
n-propylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
o-xylene (included in total xylenes)	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
p- & m- xylenes (included in total xylenes)	5	0.5	*U*	0.5	*U*	0.5	*U*	0.5	*U*	0.5	*U*
p-isopropyltoluene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.25	*J*
sec-butylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
styrene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
tert-butyl alcohol (TBA)	NA	0.5	*U*	0.5	*U*	0.5	*U*	0.5	*U*	0.5	*U*
tert-butylbenzene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
tetrachloroethylene (PCE)	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
toluene	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
trans-1,2-dichloroethylene (trans-DCE)	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
trans-1,3-dichloropropylene	0.4	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
trichloroethylene (TCE)	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
trichlorofluoromethane	5	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
vinyl chloride (VC)	2	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
xylenes, total	5	0.6	*U*	0.6	*U*	0.6	*U*	0.6	*U*	0.6	*U*
	TOTAL VOCs	2.62		16.5		3.29		3.08		9.65	
	TOTAL VOC TICs	Not Detected		Not Detected		Not Detected		Not Detected		Not Detected	

Detected concentrations

Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 7: SVOCs in Groundwater

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb)	**Sample ID**	**MW-01**		**MW-03**		**MW-04**		**MW-05**		**MW-06**	
U= Not Detected ≥ value	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data above AWQS shown in **Bold**	Dilution	50		1		5		1		1	
SVOCs, 8270 SIM	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Acenaphthene	20	0.07		0.0706		0.2		0.0606	*U*	0.05	*U*
Acenaphthylene	NA	0.05	*U*	0.0706		0.178		0.0606	*U*	0.05	*U*
Anthracene	50	0.05	*U*	0.0588	*U*	0.0667		0.0606	*U*	0.05	*U*
Atrazine	NA	0.5	*U*	0.588	*U*	0.556	*U*	0.606	*U*	0.5	*U*
Benzo(a)anthracene	0.002	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Benzo(a)pyrene	0.002	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Benzo(b)fluoranthene	0.002	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Benzo(g,h,i)perylene	~	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Benzo(k)fluoranthene	0.002	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Bis(2-ethylhexyl)phthalate	5	0.57	*B*	0.976	*B*	0.922	*B*	0.752	*B*	1.78	*B*
Chrysene	0.002	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Dibenzo(a,h)anthracene	NA	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Fluoranthene	50	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Fluorene	50	0.13		0.0824		0.411		0.327		0.3	
Hexachlorobenzene	0.04	0.02	*U*	0.0235	*U*	0.0222	*U*	0.0242	*U*	0.02	*U*
Hexachlorobutadiene	0.5	0.5	*U*	0.588	*U*	0.556	*U*	0.606	*U*	0.5	*U*
Hexachloroethane	5	0.5	*U*	0.588	*U*	0.556	*U*	0.606	*U*	0.5	*U*
Indeno(1,2,3-cd)pyrene	0.002	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0606	*U*	0.05	*U*
Naphthalene	10	**179**	*D*	0.671		**14.2**	*D*	0.0606	*U*	0.05	*U*
Nitrobenzene	0.4	0.25	*U*	0.294	*U*	0.278	*U*	0.303	*U*	0.25	*U*
N-Nitrosodimethylamine	NA	0.5	*U*	0.588	*U*	0.556	*U*	0.606	*U*	0.5	*U*
Pentachlorophenol	1	0.25	*U*	0.294	*U*	0.278	*U*	0.303	*U*	0.25	*U*
Phenanthrene	50	0.05	*U*	0.0706		0.244		0.0606	*U*	0.05	*U*
Pyrene	50	0.05	*U*	0.0588	*U*	0.0556	*U*	0.0848		0.08	
SVOCs, 8270	Dilution	1		1		1		1		1	
1,1-Biphenyl	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
1,2,4,5-Tetrachlorobenzene	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
1,2,4-Trichlorobenzene	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
1,2-Dichlorobenzene	3	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
1,2-Diphenylhydrazine (as Azobenzene)	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
1,3-Dichlorobenzene	3	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
1,4-Dichlorobenzene	3	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,3,4,6-Tetrachlorophenol	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,4,5-Trichlorophenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,4,6-Trichlorophenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,4-Dichlorophenol	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,4-Dimethylphenol	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,4-Dinitrophenol	10	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,4-Dinitrotoluene	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2,6-Dinitrotoluene	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2-Chloronaphthalene	10	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2-Chlorophenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2-Methylnaphthalene	NA	26.1		2.94	*U*	16.4		3.03	*U*	2.5	*U*
2-Methylphenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2-Nitroaniline	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
2-Nitrophenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
3- & 4-Methylphenols	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
3,3-Dichlorobenzidine	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
3-Nitroaniline	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4,6-Dinitro-2-methylphenol	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4-Bromophenyl phenyl ether	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4-Chloro-3-methylphenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4-Chloroaniline	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4-Chlorophenyl phenyl ether	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4-Nitroaniline	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
4-Nitrophenol	1	5	*U*	5.88	*U*	5	*U*	6.06	*U*	5	*U*
Acetophenone	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Aniline	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Benzaldehyde	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Benzidine	NA	5	*U*	5.88	*U*	5	*U*	6.06	*U*	5	*U*
Benzoic acid	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Benzyl alcohol	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Benzyl butyl phthalate	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Bis(2-chloroethoxy)methane	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Bis(2-chloroethyl)ether	1	1	*U*	1.18	*U*	1	*U*	1.21	*U*	1	*U*
Bis(2-chloroisopropyl)ether	5	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Caprolactam	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Carbazole	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Dibenzofuran	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Diethyl phthalate	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Dimethyl phthalate	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Di-n-butyl phthalate	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Di-n-octyl phthalate	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Hexachlorocyclopentadiene	5	5	*U*	5.88	*U*	5	*U*	6.06	*U*	5	*U*
Isophorone	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
N-nitroso-di-n-propylamine	NA	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
N-Nitrosodiphenylamine	50	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
Phenol	1	2.5	*U*	2.94	*U*	2.5	*U*	3.03	*U*	2.5	*U*
	Total SVOCs	206		1.94		32.6		1.16		2.16	
	Total SVOC TICs	5,978		ND		1,079		ND		ND	

Detected concentrations

Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 7: SVOCs in Groundwater
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

All data in µg/L (ppb) / *U= Not Detected ≥ value* / *Data above AWQS shown in* **Bold**	Sample ID / Sample Date / Dilution	**MW-07**		**MW-08**		**MW-09**		**MW-10**		**MW-11**	
	Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24	
	Dilution	1		1		1		1		1	
SVOCs, 8270 SIM	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Acenaphthene	20	3.03	U	3.33	U	2.78	U	0.09		2.78	U
Acenaphthylene	NA	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Anthracene	50	3.03	U	3.33	U	2.78	U	0.18		2.78	U
Atrazine	NA	3.03	U	3.33	U	2.78	U	0.5	U	2.78	U
Benzo(a)anthracene	0.002	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Benzo(a)pyrene	0.002	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Benzo(b)fluoranthene	0.002	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Benzo(g,h,i)perylene	~	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Benzo(k)fluoranthene	0.002	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Bis(2-ethylhexyl)phthalate	5	3.03	U	3.33	U	2.78	U	1.11	B	2.78	U
Chrysene	0.002	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Dibenzo(a,h)anthracene	NA	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Fluoranthene	50	3.03	U	3.33	U	2.78	U	0.17		2.78	U
Fluorene	50	3.03	U	3.33	U	2.78	U	0.08		2.78	U
Hexachlorobenzene	0.04	3.03	U	3.33	U	2.78	U	0.02	U	2.78	U
Hexachlorobutadiene	0.5	3.03	U	3.33	U	2.78	U	0.5	U	2.78	U
Hexachloroethane	5	3.03	U	3.33	U	2.78	U	0.5	U	2.78	U
Indeno(1,2,3-cd)pyrene	0.002	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Naphthalene	10	3.03	U	3.33	U	2.78	U	0.05	U	2.78	U
Nitrobenzene	0.4	3.03	U	3.33	U	2.78	U	0.25	U	2.78	U
N-Nitrosodimethylamine	NA	3.03	U	3.33	U	2.78	U	0.5	U	2.78	U
Pentachlorophenol	1	3.03	U	3.33	U	2.78	U	0.25	U	2.78	U
Phenanthrene	50	3.03	U	3.33	U	2.78	U	0.18		2.78	U
Pyrene	50	3.03	U	3.33	U	2.78	U	0.11		2.78	U
SVOCs, 8270	Dilution	1		1		1		1		1	
1,1-Biphenyl	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
1,2,4,5-Tetrachlorobenzene	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
1,2,4-Trichlorobenzene	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
1,2-Dichlorobenzene	3	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
1,2-Diphenylhydrazine (as Azobenzene)	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
1,3-Dichlorobenzene	3	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
1,4-Dichlorobenzene	3	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
2,3,4,6-Tetrachlorophenol	NA	6.06	U	6.67	U	5.56	U	2.5	U	5.56	U
2,4,5-Trichlorophenol	1	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	
2,4,6-Trichlorophenol	1	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
2,4-Dichlorophenol	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
2,4-Dimethylphenol	50	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
2,4-Dinitrophenol	10	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
2,4-Dinitrotoluene	5	0.606	U	0.667	U	0.556	U	2.5	U	0.556	U
2,6-Dinitrotoluene	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
2-Chloronaphthalene	10	6.06	U	6.67	U	5.56	U	2.5	U	5.56	U
2-Chlorophenol	1	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
2-Methylnaphthalene	NA	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
2-Methylphenol	1	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
2-Nitroaniline	5	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
2-Nitrophenol	1	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
3- & 4-Methylphenols	1	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
3,3-Dichlorobenzidine	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
3-Nitroaniline	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
4,6-Dinitro-2-methylphenol	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
4-Bromophenyl phenyl ether	NA	1.21	U	1.33	U	1.11	U	2.5	U	1.11	U
4-Chloro-3-methylphenol	1	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
4-Chloroaniline	5	3.09		0.907		0.767		2.5	U	2.19	
4-Chlorophenyl phenyl ether	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
4-Nitroaniline	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
4-Nitrophenol	1	0.0606	U	0.0667	U	0.0556	U	5	U	0.0556	U
Acetophenone	NA	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
Aniline	5	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
Benzaldehyde	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
Benzidine	NA	3.03	U	3.33	U	2.78	U	5	U	2.78	U
Benzoic acid	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
Benzyl alcohol	NA	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
Benzyl butyl phthalate	50	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
Bis(2-chloroethoxy)methane	5	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
Bis(2-chloroethyl)ether	1	0.0242	U	0.0267	U	0.0222	U	1	U	0.0222	U
Bis(2-chloroisopropyl)ether	5	0.606	U	0.667	U	0.556	U	2.5	U	0.556	U
Caprolactam	NA	6.06	U	6.67	U	5.56	U	2.5	U	5.56	U
Carbazole	NA	0.606	U	0.667	U	0.556	U	2.5	U	0.556	U
Dibenzofuran	NA	0.606	U	0.667	U	0.0556	U	2.5	U	0.0556	U
Diethyl phthalate	50	0.0606	U	0.0667	U	2.78	U	2.5	U	2.78	U
Dimethyl phthalate	50	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
Di-n-butyl phthalate	50	0.303	U	0.333	U	0.278	U	2.5	U	0.278	U
Di-n-octyl phthalate	50	0.606	U	0.667	U	0.556	U	2.5	U	0.556	U
Hexachlorocyclopentadiene	5	3.03	U	3.33	U	2.78	U	5	U	2.78	U
Isophorone	50	0.303	U	0.333	U	0.278	U	2.5	U	0.278	U
N-nitroso-di-n-propylamine	NA	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
N-Nitrosodiphenylamine	50	3.03	U	3.33	U	2.78	U	2.5	U	2.78	U
Phenol	1	0.0606	U	0.0667	U	0.0556	U	2.5	U	0.0556	U
	Total SVOCs	3.09		0.907		0.767		1.92		2.25	
	Total SVOC TICs	ND		ND		ND		ND		ND	

Detected concentrations

Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 8: TAL Metals (Total) in Groundwater

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb)	**Sample ID**	**MW-01**		**MW-03**		**MW-04**		**MW-05**		**MW-06**	
U= Not Detected ≥ value	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data above AWQS shown in **Bold**	Dilution										
Metals, 6010 and 7473	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
aluminum	NA	772		269		450		85		55.6	*U*
antimony	3	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
arsenic	25	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
barium	1,000	91.3		32.4		73.8		27.8	*U*	159	
beryllium	3	0.333	*U*	0.333	*U*	0.333	*U*	0.333	*U*	0.333	*U*
cadmium	5	0.556	*U*	0.556	*U*	0.556	*U*	0.556	*U*	0.556	*U*
calcium	NA	120,000	*B*	81,400	*B*	103,000	*B*	46,700	*B*	84,000	*B*
chromium	50	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
chromium (hexavalent)	50	10	*U*	10	*U*	10	*U*	10	*U*	10	*U*
cobalt	5	**7.91**		4.44	*U*	4.44	*U*	4.44	*U*	4.44	*U*
copper	200	22.2	*U*	22.2	*U*	22.2	*U*	22.2	*U*	22.2	*U*
iron**	300	**5,980**		**516**		**4,400**		278	*U*	**17,500**	
lead	25	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
magnesium	35,000	9,820		13,800		6,000		10,300		6,090	
manganese**	300	**3,030**		218		**1,030**		5.56	*U*	**1,660**	
mercury	0.7	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
nickel	100	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*
potassium	NA	12,800	*B*	1,510	*B*	4,460	*B*	1,370	*B*	2,940	*B*
selenium	10	3.83		1.42		3.82		1.11	*U*	1.11	*U*
silver	50	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
sodium	20,000	**398,000**		**88,100**		**48,300**		17,600		15,700	
thallium	0.5	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
vanadium	14	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*
zinc	2,000	35.1		27.8	*U*	39.9		27.8	*U*	27.8	*U*
cyanide	200	10	*U*	10	*U*	10	*U*	10	*U*	10	*U*

** combined iron and manganese = 500

Detected concentrations

Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 8: TAL Metals (Total) in Groundwater

NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb)	**Sample ID**	**MW-07**		**MW-08**		**MW-09**		**MW-10**		**MW-11**	
U= Not Detected ≥ value	Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24	
Data above AWQS shown in **Bold**	Dilution	1		1		1				1	
Metals, 6010 and 7473	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
aluminum	NA	1,180		481		494		606		153	
antimony	3	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
arsenic	25	1.11	*U*	1.11	*U*	1.72		2.46		1.11	*U*
barium	1,000	62.1		48.4		87.1		95.7		100	
beryllium	3	0.333	*U*	0.333	*U*	0.333	*U*	0.333	*U*	0.333	*U*
cadmium	5	0.556	*U*	0.556	*U*	0.556	*U*	0.556	*U*	0.556	*U*
calcium	NA	62,900		73,000		120,000		67,200	*B*	44,100	
chromium	50	5.56	*U*	5.97		6.36		5.69		5.56	*U*
chromium (hexavalent)	50	10	*U*	10	*U*	10	*U*	10	*U*	10	*U*
cobalt	5	4.44	*U*	4.44	*U*	4.44	*U*	4.44	*U*	4.44	*U*
copper	200	22.2	*U*	22.2	*U*	22.2	*U*	22.2	*U*	22.2	*U*
iron**	300	**2,360**		**3,870**		**2,630**		**21,400**		**28,900**	
lead	25	5.56	*U*	5.56	*U*	6.95		14.1		5.56	*U*
magnesium	35,000	7,580		11,600		8,310		5,460		4,990	
manganese**	300	209		**1,430**		**1,440**		**744**		**712**	
mercury	0.7	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
nickel	100	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*
potassium	NA	4,220	*B*	5,660	*B*	2,880	*B*	2,910	*B*	3,630	*B*
selenium	10	1.11	*U*	1.11	*U*	1.11	*U*	4.3	*B*	1.11	*U*
silver	50	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
sodium	20,000	**38,700**		**20,300**		**65,000**		**29,300**		**22,800**	
thallium	0.5	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
vanadium	14	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*
zinc	2,000	27.8	*U*	27.8	*U*	28.1		27.8	*U*	27.8	*U*
cyanide	200	10	*U*	10	*U*	10	*U*	10	*U*	10	*U*

** combined iron and manganese = 500

Detected concentrations
Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 9: TAL Metals (Dissolved) in Groundwater
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb) / *U= Not Detected ≥ value* / *Data above AWQS shown in* **Bold**	**Sample ID** / Sample Date / Dilution	**MW-01** 2022-05-25		**MW-03** 2022-05-24		**MW-04** 2022-05-24		**MW-05** 2022-05-24		**MW-06** 2022-05-24	
Metals, 6010 and 7473	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
aluminum	NA	316		55.6	*U*	55.6	*U*	55.6	*U*	55.6	*U*
antimony	3	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
arsenic	25	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
barium	1,000	83.3		29.7		64.7		27.8	*U*	122	
beryllium	3	0.333	*U*	0.333	*U*	0.333	*U*	0.333	*U*	0.333	*U*
cadmium	5	0.556	*U*	0.556	*U*	0.556	*U*	0.556	*U*	0.556	*U*
calcium	NA	128,000		81,400		102,000		45,700		81,900	
chromium	50	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
cobalt	5	**7.6**		4.44	*U*	4.44	*U*	4.44	*U*	4.44	*U*
copper	200	22.2	*U*	22.2	*U*	22.2	*U*	22.2	*U*	22.2	*U*
iron**	300	**329**		278	*U*	278	*U*	278	*U*	278	*U*
lead	25	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
magnesium	35,000	10,800		13,900		6,280		9,880		6,240	
manganese**	300	**3,030**		219		**1,010**		5.56	*U*	**1,640**	
mercury	0.7	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*	0.2	*U*
nickel	100	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*
potassium	NA	13,700	*B*	1,400	*B*	4,260	*B*	1,320	*B*	2,830	*B*
selenium	10	1.11	*U*	1.11	*U*	1.28		1.27		2.6	
silver	50	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*	5.56	*U*
sodium	20,000	**426,000**		**89,000**		**48,100**		17,500		15,600	
thallium	0.5	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*	1.11	*U*
vanadium	14	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*	11.1	*U*
zinc	2,000	27.8	*U*	27.8	*U*	28.5		37		27.8	*U*

** combined iron and manganese = 500

Detected concentrations
Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 9: TAL Metals (Dissolved) in Groundwater
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb)	**Sample ID**	**MW-07**		**MW-08**		**MW-09**		**MW-10**		**MW-11**	
U= Not Detected ≥ value	Sample Date	2022-05-24		2022-05-24		2022-05-24		2025-05-24		2022-05-24	
Data above AWQS shown in **Bold**	Dilution	1		1		1		1		1	
Metals, 6010 and 7473	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
aluminum	NA	55.6	U	55.6	U	55.6	U	55.6	U	55.6	U
antimony	3	1.11	U	1.11	U	1.11	U	1.11	U	1.11	U
arsenic	25	1.11	U	1.11	U	1.11	U	1.11	U	1.11	U
barium	1,000	51.5		40.2		75.3		62.5		88.8	
beryllium	3	0.333	U	0.333	U	0.333	U	0.333	U	0.333	U
cadmium	5	0.556	U	0.556	U	0.556	U	0.556	U	0.556	U
calcium	NA	58,900		69,200		115,000		64,600		41,300	
chromium	50	5.56	U	5.56	U	5.56	U	5.56	U	5.56	U
cobalt	5	4.44	U	4.44	U	4.44	U	4.44	U	4.44	U
copper	200	22.2	U	22.2	U	29.6		22.2	U	22.2	U
iron**	300	278	U	282		278	U	278	U	**823**	
lead	25	5.56	U	5.56	U	5.56	U	5.56	U	5.56	U
magnesium	35,000	6,840		11,200		7,900		5,360		4,720	
manganese**	300	82		**1,320**		**1,300**		**666**		**712**	
mercury	0.7	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
nickel	100	11.1	U	11.1	U	11.1	U	11.1	U	11.1	
potassium	NA	3,520	B	5,090	B	2,340	B	2,800	B	3,140	
selenium	10	1.11	U	1.11	U	1.11	U	1.11	U	1.11	U
silver	50	5.56	U	5.56	U	5.56	U	5.56	U	5.56	
sodium	20,000	**35,700**		18,700		18,400		**29,100**		**21,300**	
thallium	0.5	1.11	U	1.11	U	1.11	U	1.11	U	1.11	U
vanadium	14	11.1	U	11.1	U	11.1	U	11.1	U	11.1	
zinc	2,000	27.8	U	27.8	U	27.8	U	27.8	U	27.8	

** combined iron and manganese = 500

Detected concentrations
Concentrations above AWQS

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 10: Pesticides, PCBs, and Herbicides in Groundwater
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

All data in µg/L (ppb)	**Sample ID**	**MW-01**		**MW-03**		**MW-04**		**MW-05**		**MW-06**	
U= Not Detected ≥ value	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
Data above AWQS shown in **Bold**	Dilution	1		1		1		1		1	
Pesticides, 8081	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.3	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
4,4'-DDE	0.2	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
4,4'-DDT	0.2	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
aldrin	NE	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
alpha-BHC	0.01	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
alpha-chlordane	0.05	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
beta-BHC	0.04	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
chlordane, total	0.05	0.235	*U*	0.222	*U*	0.308	*U*	0.222	*U*	0.2	*U*
delta-BHC	0.04	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
dieldrin	0.004	0.00235	*U*	0.00222	*U*	0.00308	*U*	0.00222	*U*	0.002	*U*
endosulfan I	NA	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
endosulfan II	NA	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
endosulfan sulfate	NA	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
endrin	NA	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
endrin aldehyde	5	0.0118	*U*	0.0111	*U*	0.0154	*U*	0.0111	*U*	0.01	*U*
endrin ketone	5	0.0118	*U*	0.0111	*U*	0.0154	*U*	0.0111	*U*	0.01	*U*
gamma-BHC (lindane)	0.05	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
gamma-chlordane	0.05	0.0118	*U*	0.0111	*U*	0.0154	*U*	0.0111	*U*	0.01	*U*
heptachlor	0.04	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
heptachlor epoxide	0.03	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
methoxychlor	35	0.00471	*U*	0.00444	*U*	0.00615	*U*	0.00444	*U*	0.004	*U*
toxaphene	0.06	0.118	*U*	0.111	*U*	0.154	*U*	0.111	*U*	0.1	*U*

	Sample ID	**MW-01**		**MW-03**		**MW-04**		**MW-05**		**MW-06**	
	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
	Dilution	1		1		1		1		1	
PCBs, 8082	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor 1221	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor 1232	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor 1242	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor 1248	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor 1254	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor 1260	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*
Aroclor, Total	0.09	0.0588	*U*	0.0556	*U*	0.0769	*U*	0.0556	*U*	0.0606	*U*

	Sample ID	**MW-01**		**MW-03**		**MW-04**		**MW-05**		**MW-06**	
	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
	Dilution	1		1		1		1		1	
Herbicides, 8151	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	35	5	*U*	5	*U*	5	*U*	5	*U*	5	*U*
2,4,5-TP (Silvex)	0.26	5	*U*	5	*U*	5	*U*	5	*U*	5	*U*
2,4-D	50	5	*U*	5	*U*	5	*U*	5	*U*	5	*U*

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 10: Pesticides, PCBs, and Herbicides in Groundwater
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

All data in µg/L (ppb)	Sample ID	MW-07		MW-08		MW-09		MW-10		MW-11	
U= Not Detected ≥ value	Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24	
Data above AWQS shown in **Bold**	Dilution	1		1		1				1	
Pesticides, 8081	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
4,4'-DDD	0.3	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
4,4'-DDE	0.2	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
4,4'-DDT	0.2	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
aldrin	NE	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
alpha-BHC	0.01	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
alpha-chlordane	0.05	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
beta-BHC	0.04	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
chlordane, total	0.05	0.267	*U*	0.25	*U*	0.235	*U*	0.205	*U*	0.235	*U*
delta-BHC	0.04	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
dieldrin	0.004	0.00267	*U*	0.0025	*U*	0.00235	*U*	0.00205	*U*	0.00235	*U*
endosulfan I	NA	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
endosulfan II	NA	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
endosulfan sulfate	NA	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
endrin	NA	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
endrin aldehyde	5	0.0133	*U*	0.0125	*U*	0.0118	*U*	0.0103	*U*	0.0118	*U*
endrin ketone	5	0.0133	*U*	0.0125	*U*	0.0118	*U*	0.0103	*U*	0.0118	*U*
gamma-BHC (lindane)	0.05	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
gamma-chlordane	0.05	0.0133	*U*	0.0125	*U*	0.0118	*U*	0.0103	*U*	0.0118	*U*
heptachlor	0.04	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
heptachlor epoxide	0.03	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
methoxychlor	35	0.00533	*U*	0.005	*U*	0.00471	*U*	0.0041	*U*	0.00471	*U*
toxaphene	0.06	0.133	*U*	0.125	*U*	0.118	*U*	0.103	*U*	0.118	*U*
	Sample ID	MW-07		MW-08		MW-09		MW-10		MW-11	
	Sample Date	2022-05-24		2022-05-24		2022-05-24		2022-05-25		2022-05-24	
	Dilution	1		1		1				1	
PCBs, 8082	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Aroclor 1016	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor 1221	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor 1232	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor 1242	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor 1248	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor 1254	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor 1260	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
Aroclor, Total	0.09	0.0667	*U*	0.0625	*U*	0.0588	*U*	0.0513	*U*	0.0588	*U*
	Sample ID	MW-07		MW-08		MW-09		MW-10		MW-11	
	Sample Date	5/24/2022		5/24/2022		5/24/2022		2022-05-25		5/24/2022	
	Dilution	1		1		1				1	
Herbicides, 8151	**AWQS**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
2,4,5-T	35	5	*U*	5	*U*	5	*U*	5	*U*	5	*U*
2,4,5-TP (Silvex)	0.26	5	*U*	5	*U*	5	*U*	5	*U*	5	*U*
2,4-D	50	5	*U*	5	*U*	5	*U*	5	*U*	5	*U*

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 11: PFAS in Groundwater
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

	Sample ID	**MW-01**		**MW-03**		**MW-04**		**MW-05**		**MW-06**	
Data in ng/l (ppt)	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
U= Not Detected ≥ value	Dilution	1		1		1		1		1	
PFAS	**Guidance**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	5.79	*U*	5.68	*U*	5.43	*U*	5.58	*U*	5.58	*U*
N-EtFOSAA	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
N-MeFOSAA	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluoro-1-decanesulfonic acid (PFDS)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluoro-1-octanesulfonamide (FOSA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorobutanesulfonic acid (PFBS)	NA	2.31	*U*	2.27	*U*	2.17	*U*	3.45		2.23	*U*
Perfluorodecanoic acid (PFDA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorododecanoic acid (PFDoA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluoroheptanoic acid (PFHpA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorohexanesulfonic acid (PFHxS)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorohexanoic acid (PFHxA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluoro-n-butanoic acid (PFBA)	NA	5.47		2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorononanoic acid (PFNA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorooctanesulfonic acid (PFOS)	10	2.31	*U*	2.27	*U*	4.06		2.23	*U*	2.23	*U*
Perfluorooctanoic acid (PFOA)	10	2.31	*U*	2.27	*U*	3.3		2.23	*U*	2.23	*U*
Perfluoropentanoic acid (PFPeA)	NA	3.48		2.27	*U*	2.92		2.23	*U*	2.23	*U*
Perfluorotetradecanoic acid (PFTA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluorotridecanoic acid (PFTrDA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
Perfluoroundecanoic acid (PFUnA)	NA	2.31	*U*	2.27	*U*	2.17	*U*	2.23	*U*	2.23	*U*
TOTAL PFAS		8.95		ND		10.28		3.45		ND	

Analyte Detected

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 11: PFAS in Groundwater

NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

	Sample ID	MW-07		MW-08		MW-09		MW-10		MW-11	
Data in ng/l (ppt)	Sample Date	2022-05-25		2022-05-25		2022-05-25		2022-05-25		2022-05-25	
U= Not Detected ≥ value	Dilution	1		1		1		1		1	
PFAS	**Guidance**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
1H,1H,2H,2H-Perfluorooctanesulfonic acid (6:2 FTS)	NA	5.21	U	6.94	U	4.81	U	4.81	U	4.46	U
N-EtFOSAA	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
N-MeFOSAA	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoro-1-decanesulfonic acid (PFDS)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoro-1-heptanesulfonic acid (PFHpS)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoro-1-octanesulfonamide (FOSA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorobutanesulfonic acid (PFBS)	NA	2.08	U	2.78	U	4.01		1.92	U	1.79	U
Perfluorodecanoic acid (PFDA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorododecanoic acid (PFDoA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoroheptanoic acid (PFHpA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorohexanesulfonic acid (PFHxS)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorohexanoic acid (PFHxA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoro-n-butanoic acid (PFBA)	NA	2.08	U	2.78	U	9.28		1.92	U	5.95	
Perfluorononanoic acid (PFNA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorooctanesulfonic acid (PFOS)	10	2.08	U	2.78	U	2.02		1.92	U	1.79	U
Perfluorooctanoic acid (PFOA)	10	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoropentanoic acid (PFPeA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorotetradecanoic acid (PFTA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluorotridecanoic acid (PFTrDA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
Perfluoroundecanoic acid (PFUnA)	NA	2.08	U	2.78	U	1.92	U	1.92	U	1.79	U
TOTAL PFAS		ND		ND		15.31		ND		5.95	

Analyte Detected

Notes: AWQS based on NYSDEC TOGS 1.1.1 (Class GA) NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 12: VOCs in Soil Vapor

NYSDEC BCP Site: C517015

GBTS Project: 21003-0066

Sample ID	SV-01		SV-02		SV-03		SV-04		2SV-01		2SV-02	
All data in $\mu g/m^3$ Sample Date	(2021-07-01)		(2021-07-01)		(2021-07-01)		(2021-07-01)		(2022-05-23)		(2022-05-23)	
U= Not Detected ≥ value Dilution Factor									17.1		18.3	
VOCs, TO-15	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	NT		NT		NT		NT		12	U	13	U
1,1,1-Trichloroethane	1.09	U	1.09	U	1.09	U	1.09	U	9.3	U	10	U
1,1,2,2-Tetrachloroethane	1.37	U	1.37	U	1.37	U	1.37	U	12	U	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.53	U	1.53	U	1.53	U	1.53	U	13	U	14	U
1,1,2-Trichloroethane	1.09	U	1.09	U	1.09	U	1.09	U	9.3	U	10	U
1,1-Dichloroethane	0.809	U	0.809	U	0.809	U	0.809	U	6.9	U	7.4	U
1,1-Dichloroethene	0.793	U	0.793	U	0.793	U	0.793	U	6.8	U	7.3	U
1,2,4-Trichlorobenzene	1.48	U	1.48	U	1.48	U	1.48	U	13	U	14	U
1,2,4-Trimethylbenzene	32.7		30.5		33.2		29.1		8.4	U	9	U
1,2-Dibromoethane	1.54	U	1.54	U	1.54	U	1.54	U	13	U	14	U
1,2-Dichlorobenzene	8.9		9.56		8.72		8.06		10	U	11	U
1,2-Dichloroethane	0.809	U	0.809	U	0.809	U	0.809	U	6.9	U	7.4	U
1,2-Dichloropropane	0.924	U	0.924	U	0.924	U	0.924	U	7.9	U	8.5	U
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	U	1.4	U	1.4	U	12	U	13	U
1,3,5-Trimethylbenzene	7.28		6.64		7.52		6.69		8.4	U	9	U
1,3-Butadiene	2.65		8.83		2.07		25.7		11	U	12	U
1,3-Dichlorobenzene	1.2	U	1.2	U	1.2	U	1.2	U	10	U	11	U
1,3-Dichloropropane	NT		NT		NT		NT		7.9	U	8.5	U
1,4-Dichlorobenzene	8.18		8.78		8.3		7.64		10	U	11	U
1,4-Dioxane	0.721	U	0.721	U	0.721	U	0.721	U	12	U	13	U
2,2,4-Trimethylpentane	6.91		6.35		7.99		10.1		NT		NT	
2-Butanone (MEK)	13.1		13.2		16.9		41.9		1,400	D	1,600	D
2-Hexanone	0.82	U	0.82	U	0.82	U	0.82	U	140	D	150	D
3-Chloropropene	0.626	U	0.626	U	0.626	U	0.626	U	27	U	29	U
4-Methyl-2-pentanone	2.05	U	2.05	U	2.05	U	2.05	U	7	U	7.5	U
Acetone	24		27.1		39.9		125		420	D	530	D
Acrylonitrile	NT		NT		NT		NT		3.7	U	4	U
Benzene	12.2		9.68		12.8		19.5		45	D	6.4	D
Benzyl chloride	1.04	U	1.04	U	1.04	U	1.04	U	8.9	U	9.5	U
Bromodichloromethane	1.34	U	1.34	U	1.34	U	1.34	U	11	U	12	U
Bromoform	2.07	U	2.07	U	2.07	U	2.07	U	18	U	19	U
Bromomethane	0.777	U	0.777	U	0.777	U	0.777	U	6.6	U	7.1	U
Carbon disulfide	3.04		8.59		0.987		57		15	D	5.7	D
Carbon tetrachloride	1.26	U	1.26	U	1.26	U	1.26	U	2.7	U	2.9	U
Chlorobenzene	15.3		14.9		15.8		24.6		7.9	U	8.4	U
Chloroethane	0.528	U	0.528	U	0.528	U	0.528	U	4.5	U	4.8	U
Chloroform	9.77		1.52		6.79		5.76		8.3	U	8.9	U
Chloromethane	0.413	U	0.413	U	0.413	U	0.56		3.5	U	3.8	U
cis-1,2-Dichloroethene	0.793	U	0.793	U	0.793	U	0.793	U	6.8	U	7.3	U
cis-1,3-Dichloropropene	0.908	U	0.908	U	0.908	U	0.908	U	7.8	U	8.3	U
Cyclohexane	124		115		114		136		8.8	D	14	D
Dibromochloromethane	1.7	U	1.7	U	1.7	U	1.7	U	15	U	16	U
Dichlorodifluoromethane	2.21		1.99		2.02		1.85		8.5	U	9	U
Ethanol	290		209		239		237		NT		NT	
Ethyl Acetate	1.8	U	1.8	U	1.8	U	1.8	U	12	U	13	U
Ethylbenzene	36.4		26.1		37.3		49.1		8.2	D	10	D
Hexachlorobutadiene	2.13	U	2.13	U	2.13	U	2.13	U	18	U	20	U
Isopropanol	6.02		5.19		7.67		17.8		8.4	U	9	U
Methyl Methacrylate	NT		NT		NT		NT		7	U	7.5	U
Methyl tert butyl ether	0.721	U	0.721	U	0.721	U	0.721	U	6.2	U	6.6	U
Methylene chloride	1.96		1.74	U	3.75		1.74	U	12	U	65	D
Naphthalene	NT		NT		NT		NT		90	U	96	U
n-Heptane	7.13		6.43		5.78		11.3		26	D	23	D
n-Hexane	8.74		7.58		7.65		14.2		61	D	33	D
o-Xylene	33.7		25.7		33.9		41.5		7.4	U	9.5	D
p/m-Xylene	99.5		73.8		103		129		16	D	25	D
p-Ethyltoluene	10.7		11.7		11.6		10.1		8.4	U	9	U
Propylene	NT		NT		NT		NT		170	D	150	D
Styrene	1.82		1.79		2.23		1.94		7.3	U	7.8	U
Tertiary butyl Alcohol	3.94		9.16		8.43		7.58		NT		NT	
Tetrachloroethene	1.36	U	1.36	U	1.36	U	1.36	U	30	D	3.7	D
Tetrahydrofuran	12.4		8.08		13		11		10	U	11	U
Toluene	74.2		58		82.2		89.3		120	D	94	D
trans-1,2-Dichloroethene	0.793	U	0.793	U	0.793	U	0.793	U	6.8	U	7.3	U
trans-1,3-Dichloropropene	0.908	U	0.908	U	0.908	U	0.908	U	7.8	U	8.3	U
Trichloroethene	1.07	U	1.07	U	1.07	U	1.07	U	2.3	U	2.5	U
Trichlorofluoromethane	1.34		1.12	U	1.14		1.12	U	9.6	U	10	U
Vinyl acetate	NT		NT		NT		NT		6	U	6.4	U
Vinyl bromide	0.874	U	0.874	U	0.874	U	0.874	U	7.5	U	8	U
Vinyl chloride	0.511	U	0.511	U	0.511	U	0.511	U	4.4	U	4.7	U

Detected concentrations

VOCs ≥ 1,000 $\mu g/m^3$

Notes: NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank

Table 12: VOCs in Soil Vapor
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

Sample ID	2SV-03		2SV-04		2SV-05		2SV-06		2SV-07		2SV-08	
All data in µg/m³ Sample Date	(2022-05-23)		(2022-05-23)		(2022-05-23)		(2022-05-23)		(2022-05-23)		(2022-05-23)	
U= Not Detected ≥ value Dilution Factor	3.808		1.98		39.7		100076		20.48		20.6	
VOCs, TO-15	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	2.6	U	1.4	U	14	U	1,300	U	14	U	14	U
1,1,1-Trichloroethane	2.1	U	1.1	U	11	U	1,100	U	11	U	11	U
1,1,2,2-Tetrachloroethane	2.6	U	1.4	U	14	U	1,300	U	14	U	14	U
1,1,2-Trichloro-1,2,2-trifluoroethane	2.9	U	1.5	U	15	U	1,500	U	16	U	16	U
1,1,2-Trichloroethane	2.1	U	1.1	U	11	U	1,100	U	11	U	11	U
1,1-Dichloroethane	1.5	U	0.8	U	8	U	790	U	8.3	U	8.3	U
1,1-Dichloroethene	1.5	U	0.79	U	7.9	U	770	U	8.1	U	8.2	U
1,2,4-Trichlorobenzene	2.8	U	1.5	U	15	U	1,400	U	15	U	15	U
1,2,4-Trimethylbenzene	4.3	D	5	D	9.8	U	960	U	10	U	10	U
1,2-Dibromoethane	2.9	U	1.5	U	15	U	1,500	U	16	U	16	U
1,2-Dichlorobenzene	2.3	U	1.2	U	12	U	1,200	U	12	U	12	U
1,2-Dichloroethane	1.5	U	0.8	U	8	U	790	U	8.3	U	8.3	U
1,2-Dichloropropane	1.8	U	0.91	U	9.2	U	900	U	9.5	U	9.5	U
1,2-Dichlorotetrafluoroethane	2.7	U	1.4	U	14	U	1,400	U	14	U	14	U
1,3,5-Trimethylbenzene	1.9	U	0.97	U	9.8	U	960	U	10	U	10	U
1,3-Butadiene	2.5	U	1.3	U	20	D	1,300	U	14	U	14	U
1,3-Dichlorobenzene	2.3	U	1.2	U	12	U	1,200	U	12	U	12	U
1,3-Dichloropropane	1.8	U	0.92	U	9.2	U	900	U	9.5	U	9.5	U
1,4-Dichlorobenzene	2.3	U	1.2	U	12	U	1,200	U	12	U	12	U
1,4-Dioxane	2.7	U	1.4	U	14	U	1,400	U	15	U	15	U
2,2,4-Trimethylpentane	NT		NT		NT		NT		NT		NT	
2-Butanone (MEK)	11	D	2.3	D	3,400	D	570	U	2,400	D	1,900	D
2-Hexanone	3.1	U	1.6	U	200	D	1,600	U	210	D	120	D
3-Chloropropene	6	U	3.1	U	31	U	3,000	U	32	U	32	U
4-Methyl-2-pentanone	1.6	U	5.6	D	8.1	U	800	U	8.4	U	8.4	U
Acetone	340	D	16	D	960	D	930	U	740	D	630	D
Acrylonitrile	0.83	U	0.43	U	4.3	U	420	U	4.4	U	4.5	U
Benzene	1.2	U	0.63	U	20	D	620	U	6.5	U	6.6	U
Benzyl chloride	2	U	1	U	10	U	1,000	U	11	U	11	U
Bromodichloromethane	2.6	U	1.3	U	13	U	1,300	U	14	U	14	U
Bromoform	3.9	U	2	U	21	U	2,000	U	21	U	21	U
Bromomethane	1.5	U	0.77	U	7.7	U	760	U	8	U	8	U
Carbon disulfide	1.2	U	0.62	U	8.7	D	610	U	17	D	6.4	U
Carbon tetrachloride	0.6	U	0.31	U	3.1	U	310	U	3.2	U	3.2	U
Chlorobenzene	1.8	U	0.91	U	9.1	U	900	U	9.4	U	9.5	U
Chloroethane	1	U	0.52	U	5.2	U	510	U	5.4	U	5.4	U
Chloroform	1.9	U	0.97	U	9.7	U	950	U	10	U	14	D
Chloromethane	0.79	U	0.41	U	4.1	U	400	U	4.2	U	4.3	U
cis-1,2-Dichloroethene	1.5	U	0.79	U	7.9	U	770	U	8.1	U	8.2	U
cis-1,3-Dichloropropene	1.7	U	0.9	U	9	U	880	U	9.3	U	9.3	U
Cyclohexane	1.3	U	0.68	U	26	D	1,700,000	D	230	D	30	D
Dibromochloromethane	3.2	U	1.7	U	17	U	1,700	U	17	U	18	U
Dichlorodifluoromethane	2.6	D	2.6	D	9.8	U	960	U	10	U	10	U
Ethanol	NT		NT		NT		NT		NT		NT	
Ethyl Acetate	2.7	U	1.4	U	14	U	1,400	U	15	U	15	U
Ethylbenzene	3.6	D	1	D	8.6	U	42,000	D	52	D	20	D
Hexachlorobutadiene	4.1	U	2.1	U	21	U	2,100	U	22	U	22	U
Isopropanol	8.1	D	19	D	9.8	U	960	U	10	U	10	U
Methyl Methacrylate	1.6	U	0.81	U	8.1	U	800	U	8.4	U	8.4	U
Methyl tert butyl ether	1.4	U	0.71	U	7.2	U	700	U	7.4	U	7.4	U
Methylene chloride	2.6	U	1.4	U	16	D	1,400	U	73	D	42	D
Naphthalene	20	U	10	U	100	U	10,000	U	110	U	110	U
n-Heptane	1.6	U	0.97	D	46	D	4,300,000	D	460	D	60	D
n-Hexane	1.7	D	0.91	D	190	D	7,700,000	D	750	D	90	D
o-Xylene	1.7	U	1.1	D	8.6	U	1,100	D	8.9	U	8.9	U
p/m-Xylene	3.3	U	3	D	17	U	95,000	D	140	D	30	D
p-Ethyltoluene	4.5	D	4.8	D	9.8	U	1,800	D	12	D	10	U
Propylene	0.66	U	0.44	D	470	D	340	U	480	D	150	D
Styrene	1.6	U	2	D	8.5	U	830	U	8.7	U	8.8	U
Tertiary butyl Alcohol	NT		NT		NT		NT		NT		NT	
Tetrachloroethene	23	D	8.2	D	3.4	U	330	U	3.5	U	4.2	D
Tetrahydrofuran	2.2	U	1.2	U	12	U	1,100	U	12	U	12	U
Toluene	2.3	D	2.7	D	52	D	3,400	D	11	D	18	D
trans-1,2-Dichloroethene	1.5	U	0.79	U	7.9	U	770	U	8.1	U	8.2	U
trans-1,3-Dichloropropene	1.7	U	0.9	U	9	U	880	U	9.3	U	9.3	U
Trichloroethene	0.51	U	0.27	U	2.7	U	260	U	2.8	U	2.8	U
Trichlorofluoromethane	3.4	D	3.7	D	11	U	1,100	U	12	U	12	U
Vinyl acetate	1.3	U	0.84	D	7	U	690	U	7.2	U	7.3	U
Vinyl bromide	1.7	U	0.87	U	8.7	U	850	U	9	U	9	U
Vinyl chloride	0.97	U	0.51	U	5.1	U	500	U	5.2	U	5.3	U

Detected concentrations

VOCs ≥ 1,000 µg/m³

Notes: NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank

Table 12: VOCs in Soil Vapor
NYSDEC BCP Site: C517015
GBTS Project: 21003-0066

GALLAGHER BASSETT | TECHNICAL SERVICES

Sample ID	2SV-09		2SV-11		2SV-12		2SV-13	
All data in µg/m^3 Sample Date	(2022-05-23)		(2022-05-23)		(2022-05-23)		(2022-05-23)	
U= Not Detected ≥ value Dilution Factor	21.2		17.84		18.1		18.66	
VOCs, TO-15	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
1,1,1,2-Tetrachloroethane	15	U	12	U	12	U	13	U
1,1,1-Trichloroethane	12	U	9.7	U	9.9	U	10	U
1,1,2,2-Tetrachloroethane	15	U	12	U	12	U	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	16	U	14	U	14	U	14	U
1,1,2-Trichloroethane	12	U	9.7	U	9.9	U	10	U
1,1-Dichloroethane	8.6	U	7.2	U	7.3	U	7.6	U
1,1-Dichloroethene	8.4	U	7.1	U	7.2	U	7.4	U
1,2,4-Trichlorobenzene	16	U	13	U	13	U	14	U
1,2,4-Trimethylbenzene	10	U	8.8	U	8.9	U	9.2	U
1,2-Dibromoethane	16	U	14	U	14	U	14	U
1,2-Dichlorobenzene	13	U	11	U	11	U	11	U
1,2-Dichloroethane	8.6	U	7.2	U	7.3	U	7.6	U
1,2-Dichloropropane	9.8	U	8.2	U	8.4	U	8.6	U
1,2-Dichlorotetrafluoroethane	15	U	12	U	13	U	13	U
1,3,5-Trimethylbenzene	10	U	8.8	U	8.9	U	9.2	U
1,3-Butadiene	14	U	12	U	12	U	12	U
1,3-Dichlorobenzene	13	U	11	U	11	U	11	U
1,3-Dichloropropane	9.8	U	8.2	U	8.4	U	8.6	U
1,4-Dichlorobenzene	13	U	11	U	11	U	11	U
1,4-Dioxane	15	U	13	U	13	U	13	U
2,2,4-Trimethylpentane	NT		NT		NT		NT	
2-Butanone (MEK)	2,900	D	1,500	D	2,400	D	2,300	D
2-Hexanone	190	D	96	D	150	D	160	D
3-Chloropropene	33	U	28	U	28	U	29	U
4-Methyl-2-pentanone	8.7	U	7.3	U	7.4	U	7.6	U
Acetone	1,000	D	490	D	850	D	720	D
Acrylonitrile	4.6	U	3.9	U	3.9	U	4	U
Benzene	6.8	U	5.7	U	5.8	D	6	U
Benzyl chloride	11	U	9.2	U	9.4	U	9.7	U
Bromodichloromethane	14	U	12	U	12	U	13	U
Bromoform	22	U	18	U	19	U	19	U
Bromomethane	8.2	U	6.9	U	7	U	7.2	U
Carbon disulfide	6.6	U	5.6	U	15	D	5.8	U
Carbon tetrachloride	3.3	U	2.8	U	2.8	U	2.9	U
Chlorobenzene	9.8	U	8.2	U	8.3	U	8.6	U
Chloroethane	5.6	U	4.7	U	4.8	U	4.9	U
Chloroform	10	U	10	D	8.8	U	9.1	U
Chloromethane	4.4	U	3.7	U	3.7	U	3.9	U
cis-1,2-Dichloroethene	8.4	U	7.1	U	7.2	U	7.4	U
cis-1,3-Dichloropropene	9.6	U	8.1	U	8.2	U	8.5	U
Cyclohexane	20	D	10	D	8.7	D	6.4	U
Dibromochloromethane	18	U	15	U	15	U	16	U
Dichlorodifluoromethane	10	U	8.8	U	9	U	9.2	U
Ethanol	NT		NT		NT		NT	
Ethyl Acetate	15	U	13	U	13	U	13	U
Ethylbenzene	9.2	U	46	D	17	D	11	D
Hexachlorobutadiene	23	U	19	U	19	U	20	U
Isopropanol	10	U	8.8	U	8.9	U	9.2	U
Methyl Methacrylate	8.7	U	7.3	U	7.4	U	7.6	U
Methyl tert butyl ether	7.6	U	6.4	U	6.5	U	6.7	U
Methylene chloride	15	U	12	U	13	U	13	U
Naphthalene	110	U	94	U	95	U	98	U
n-Heptane	29	D	23	D	14	D	7.6	U
n-Hexane	52	D	36	D	20	D	9.9	D
o-Xylene	9.2	U	19	D	17	D	12	D
p/m-Xylene	18	U	49	D	49	D	30	D
p-Ethyltoluene	10	U	8.8	U	9.8	D	9.2	U
Propylene	270	D	160	D	230	D	160	D
Styrene	9	U	7.6	U	7.7	U	7.9	U
Tertiary butyl Alcohol	NT		NT		NT		NT	
Tetrachloroethene	3.6	U	3	U	7.4	D	3.2	U
Tetrahydrofuran	13	U	11	U	11	U	11	U
Toluene	27	D	140	D	53	D	54	D
trans-1,2-Dichloroethene	8.4	U	7.1	U	7.2	U	7.4	U
trans-1,3-Dichloropropene	9.6	U	8.1	U	8.2	U	8.5	U
Trichloroethene	2.8	U	2.4	U	2.4	U	2.5	U
Trichlorofluoromethane	12	U	10	U	10	U	10	U
Vinyl acetate	7.5	U	6.3	U	6.4	U	6.6	U
Vinyl bromide	9.3	U	7.8	U	7.9	U	8.2	U
Vinyl chloride	5.4	U	4.6	U	4.6	U	4.8	U

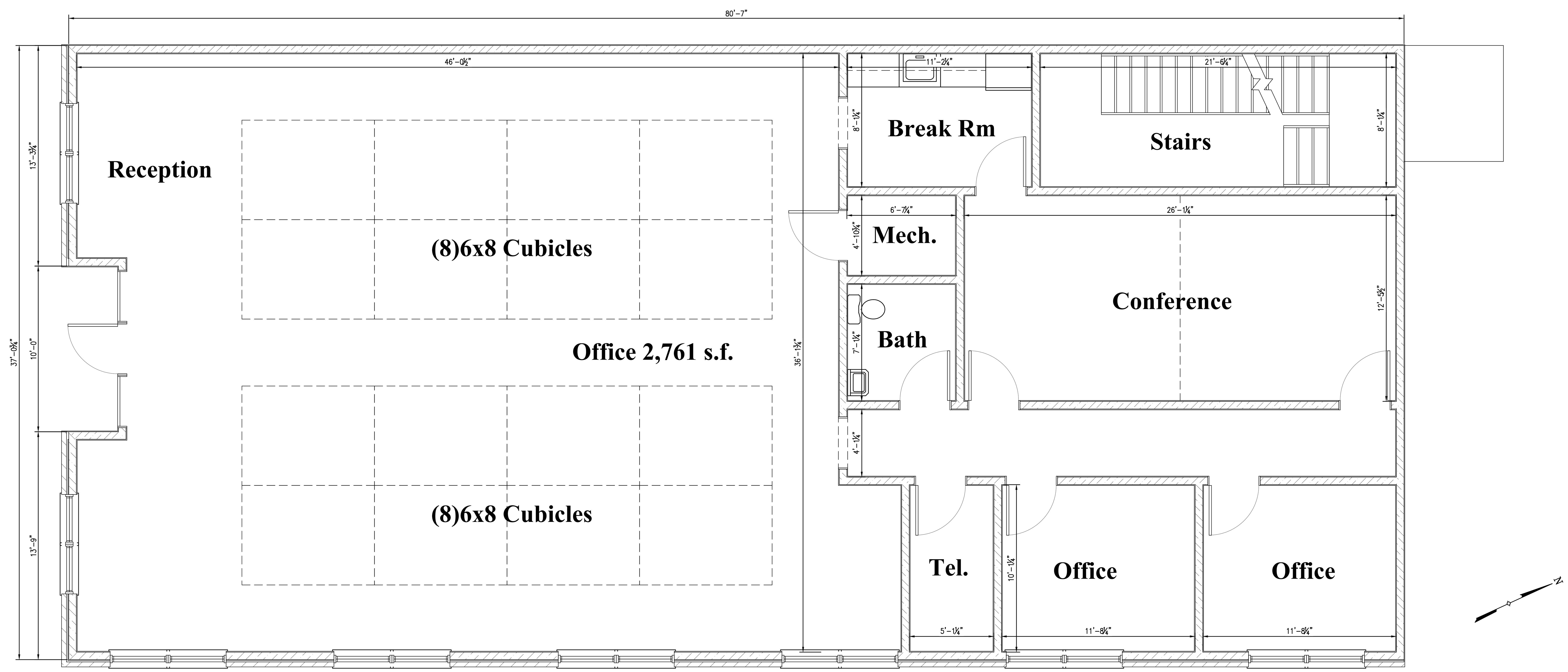
Detected concentrations
VOCs ≥ 1,000 µg/m^3

Notes: NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank

APPENDIX A - Proposed Development Plans

Saranac Lofts - Unit and Area Breakdown				
Building #	Floor #	1 Br Apartment	2 Br Apartment	Totals
		739 s.f. int	964 s.f. int	
1	**0**	1	0	1
	2	2	1	3
	3	2	1	3
2	**1**	11	4	15
	2	12	4	16
	3	12	4	16
	4	11	5	16
TOTALS				
		51	19	70
Total Int Area		37689	18316	56,005

(63) units are visitable and adaptable.
(7) units will be Mobility Adapted
(3) units will be A/V Adapted



2,957 s.f.

Building #1
1 / A1 First Floor Plan
Scale: 1/4" = 1'-0"

COPPOLA ASSOCIATES

°Design, Architecture & Planning°
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

License Number: 018849

° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

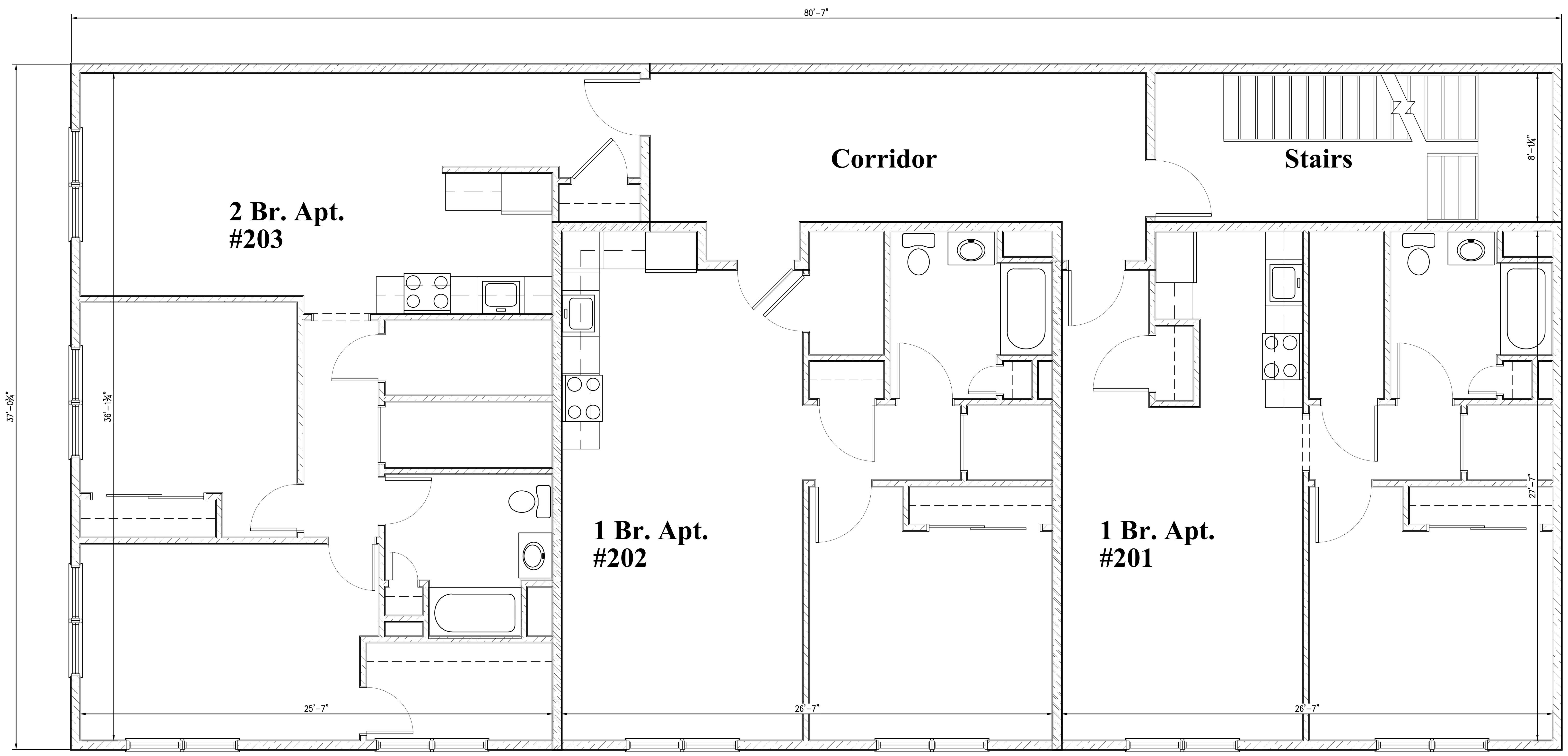
Building #1
First Floor Plan

Revisions

Date
7/1/21

Project Number
20-18

Sheet Number
A1



2,987 s.f.

Building #1
Second & Third Floor Plan

1
A2
Scale: 1/4" = 1'-0"

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° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

Building #1 Second & Third Floor Plan

REVISIONS

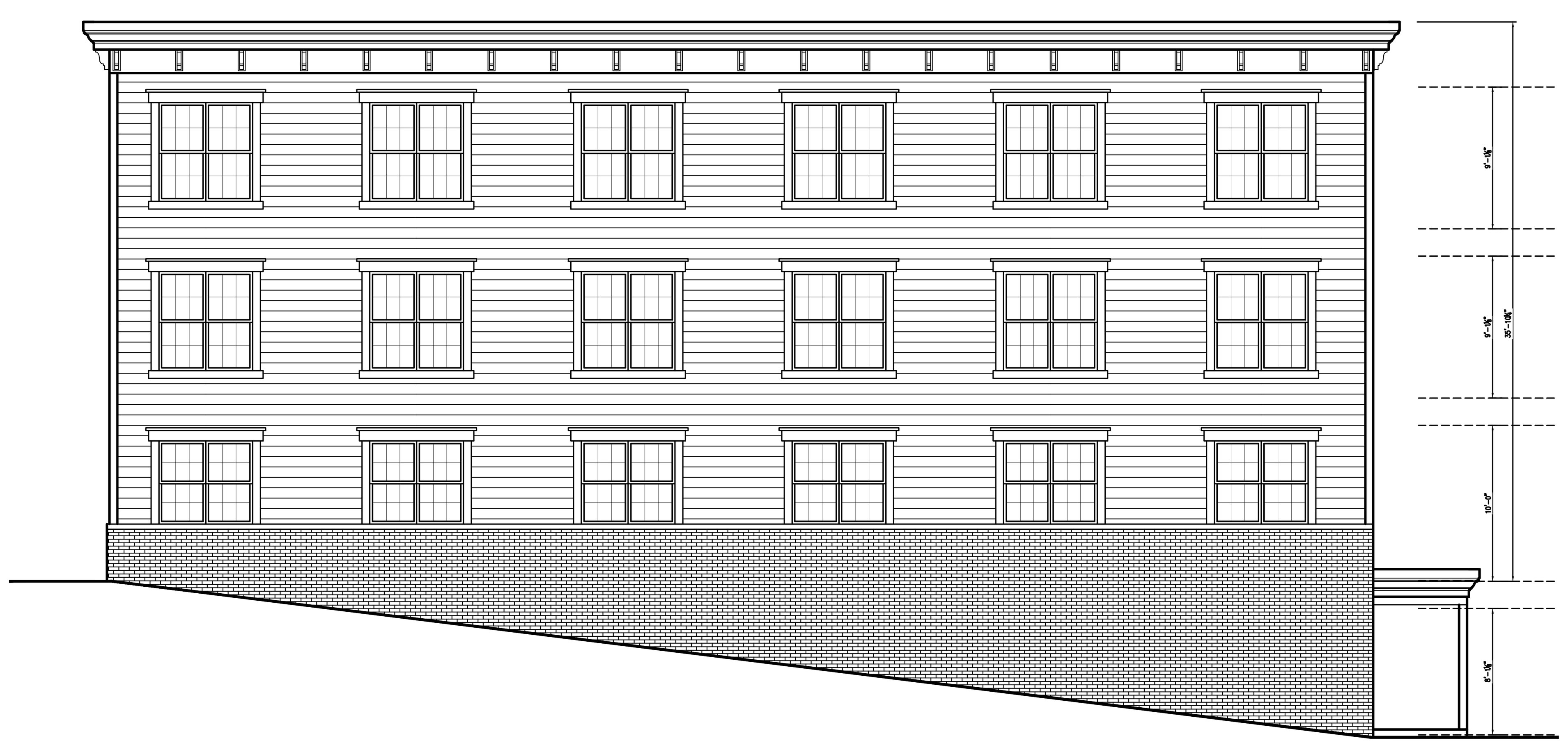
DATE
7/1/21

PROJECT NUMBER
20-18

SHEET NUMBER
A2

Materials & Colors:

4" Brick- Glen Gery, Sunset Flashed (Dark Red)
Mortar- Gray
Fibercement Siding- Hardie Iron Gray
Fibercement Trims- White
Fibercement Window Surrounds- White
Window Frames- Harvey Windows, Black
Cornice/Fascia- White



1
A3
Building #1
East Elevation
Scale: 1/8" = 1'-0"

2
A3
Building #1
South Elevation (on Broadway)
Scale: 1/8" = 1'-0"

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° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

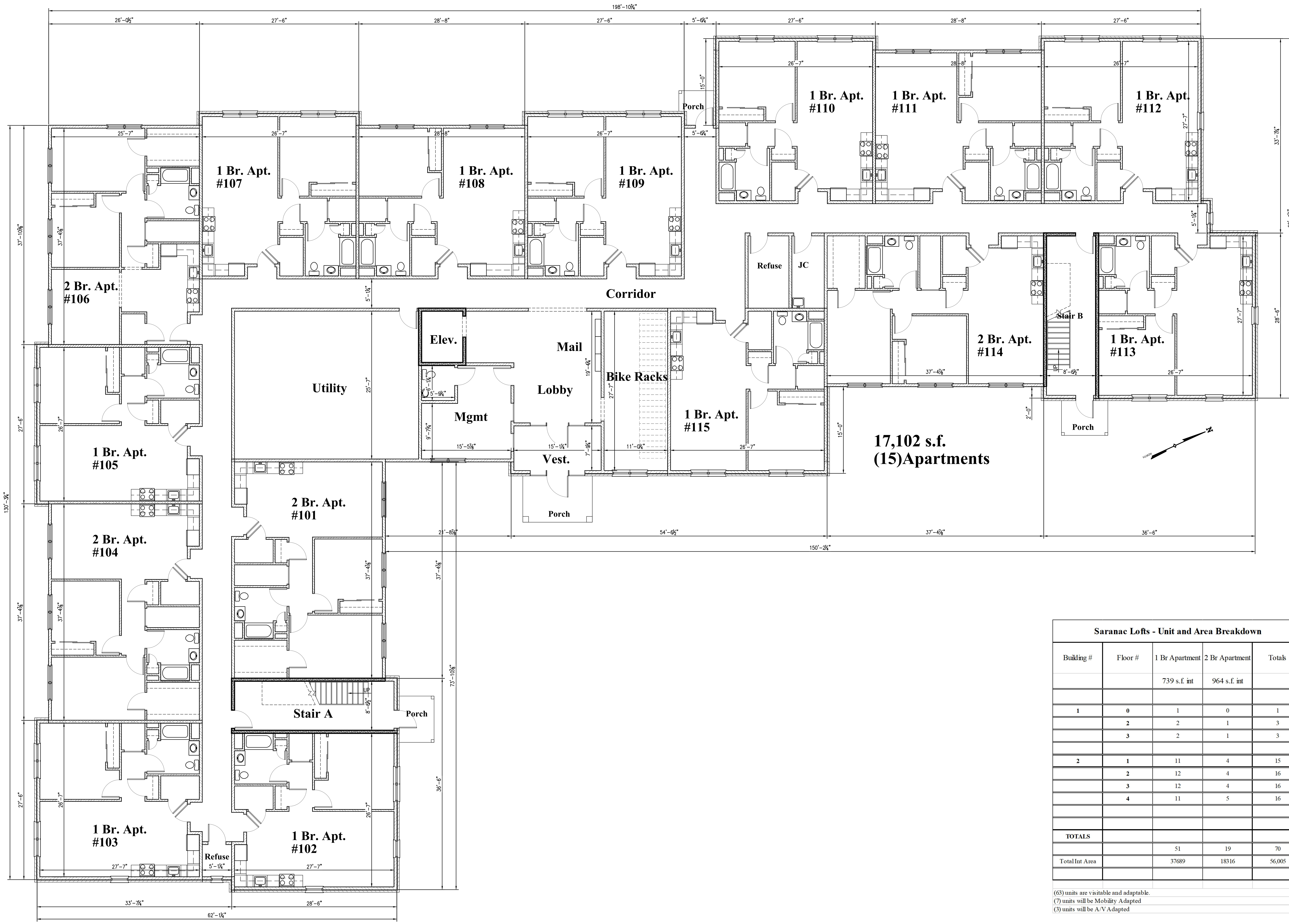
Building #1 Elevations

REVISIONS	

DATE
7/1/21

PROJECT NUMBER
20-18

SHEET NUMBER
A3



Saranac Lofts - Unit and Area Breakdown				
Building #	Floor #	1 Br Apartment	2 Br Apartment	Totals
		739 s.f. int	964 s.f. int	
1	**0**	1	0	1
	2	2	1	3
	3	2	1	3
2	**1**	11	4	15
	2	12	4	16
	3	12	4	16
	4	11	5	16
TOTALS				
		51	19	70
Total Int Area		37689	18316	56,005

(63) units are visitable and adaptable.
(7) units will be Mobility Adapted
(3) units will be A/V Adapted

Building #2
1 / A1 First Floor Plan
Scale: 1/8" = 1'-0"

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° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

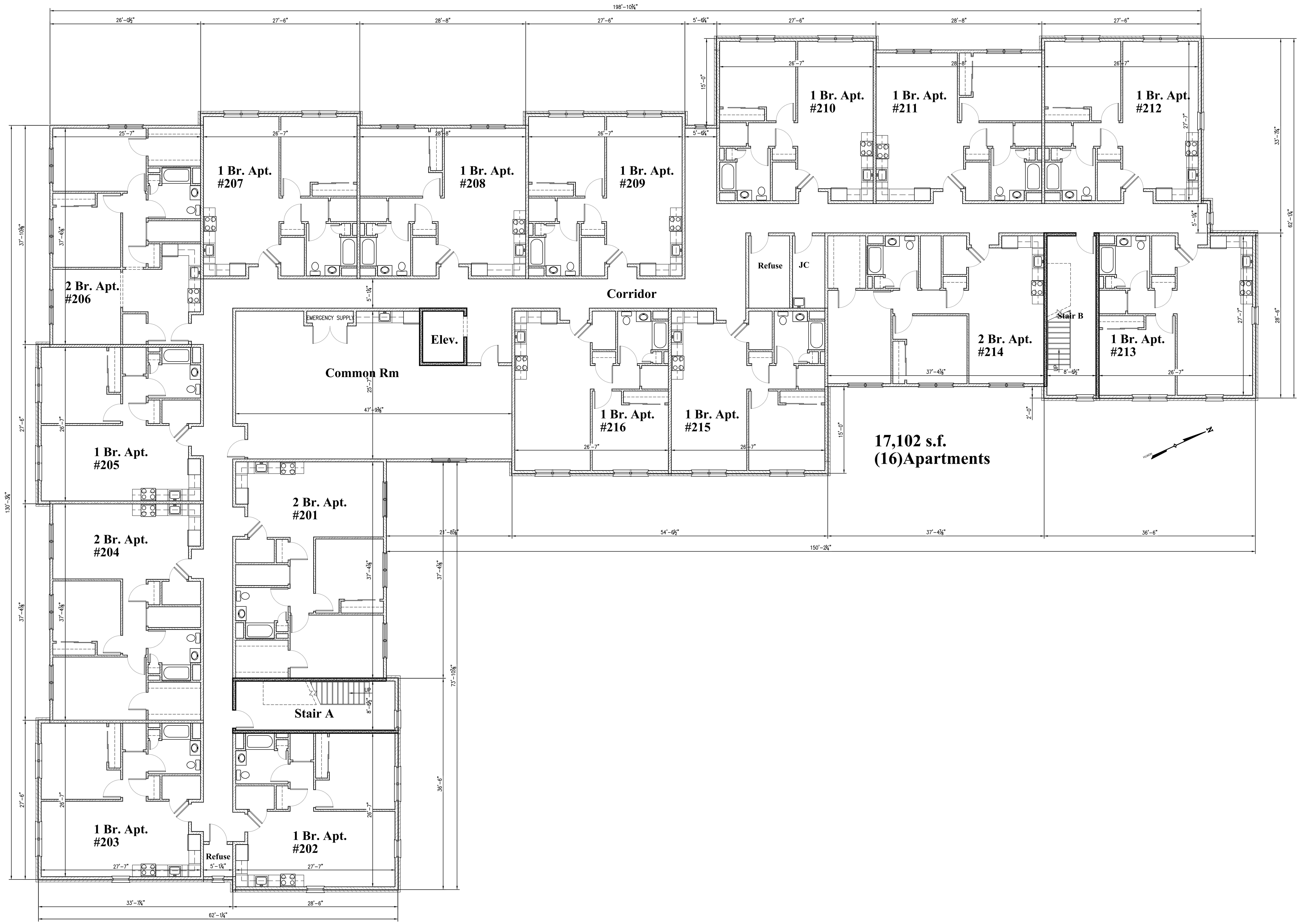
Building #2
First Floor Plan

Revisions

Date
7/1/21

Project Number
20-18

Sheet Number
A1



Building #2
1 A2 Second Floor Plan
Scale: 1/8" = 1'-0"

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° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

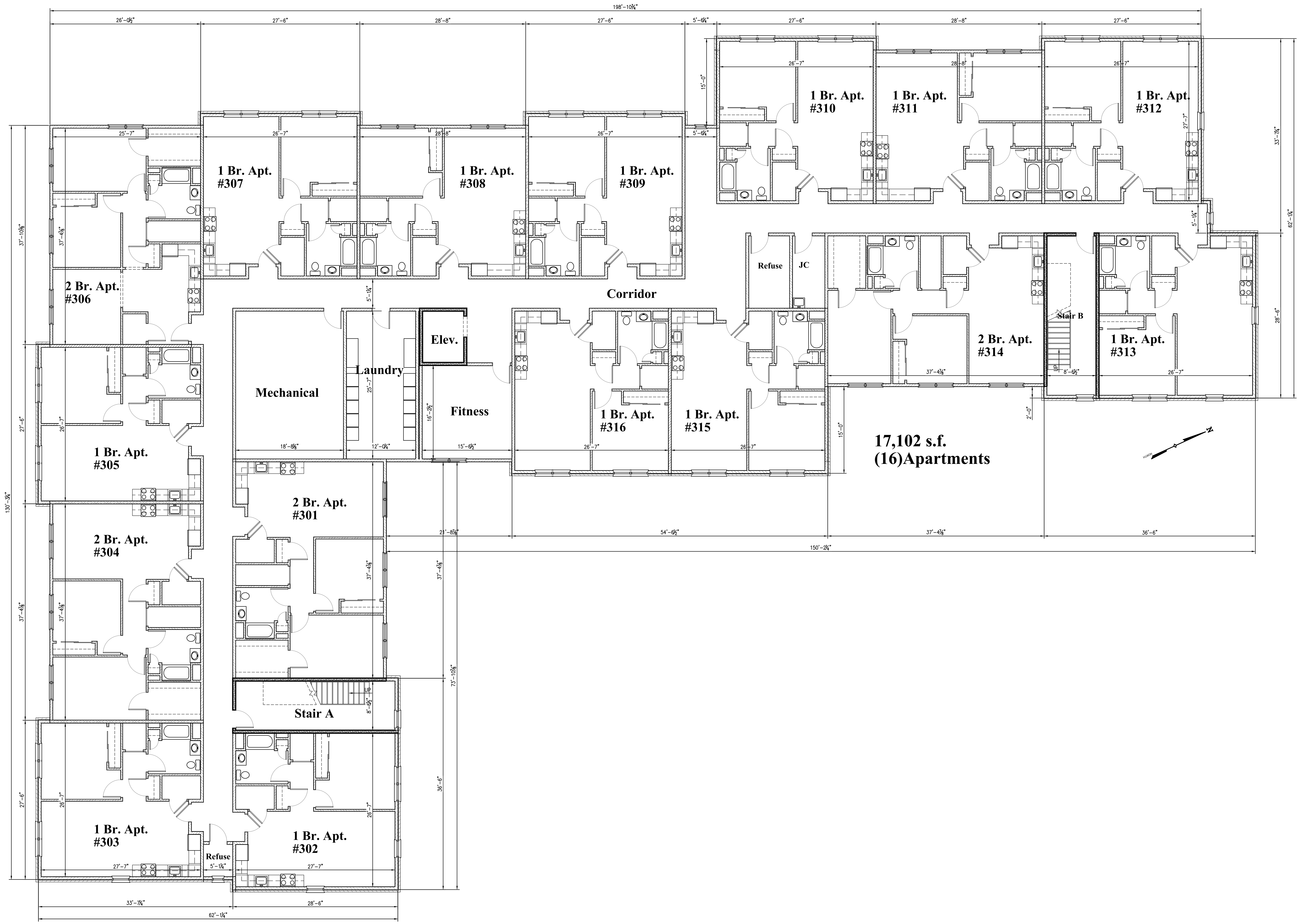
Building #2 Second Floor Plan

REVISIONS

DATE
7/1/21

PROJECT NUMBER
20-18

SHEET NUMBER
A2



Building #2
1 Third Floor Plan
A3 Scale: 1/8" = 1'-0"

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Suite 101
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LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

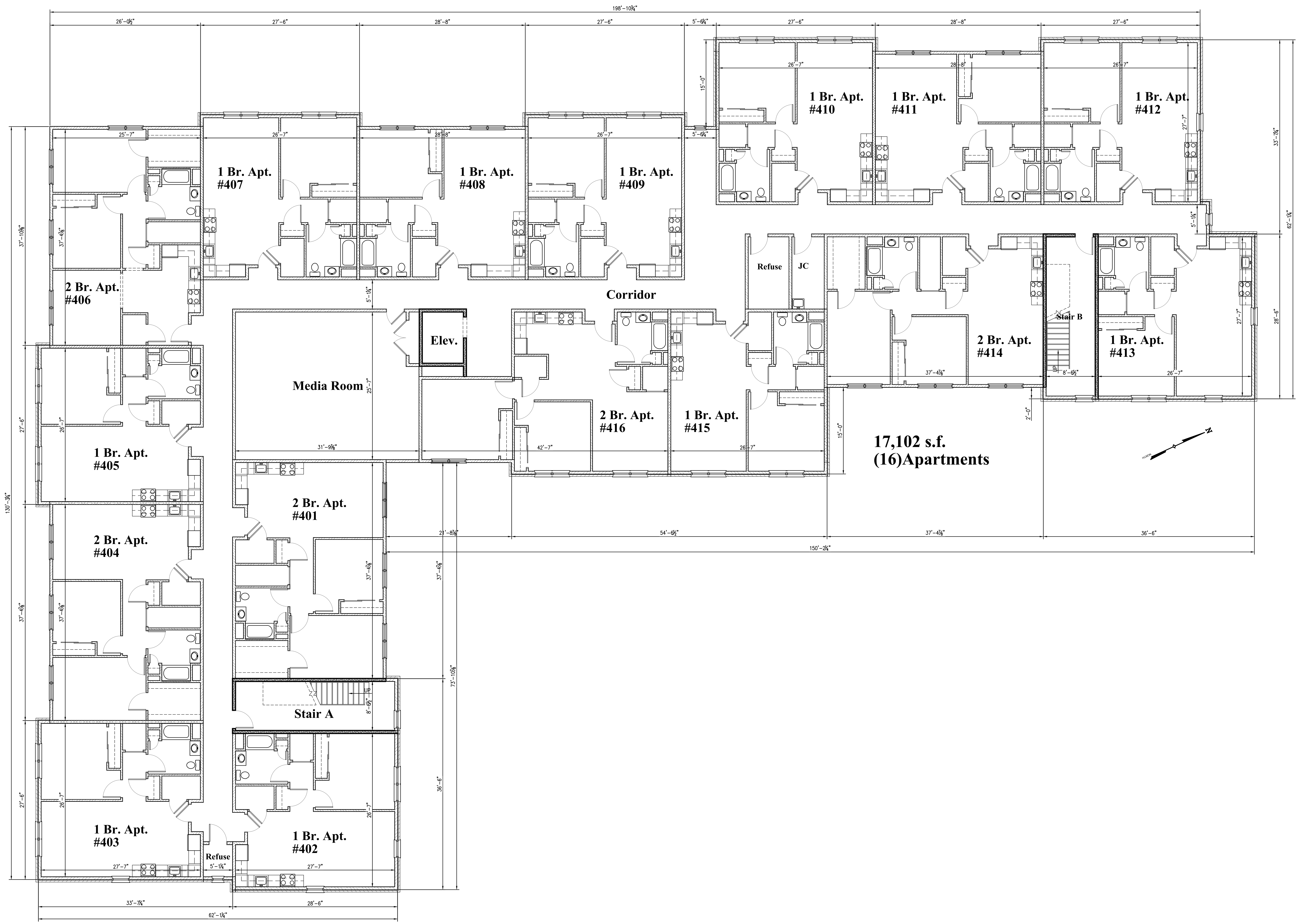
Building #2 Third Floor Plan

REVISIONS

DATE
7/1/21

PROJECT NUMBER
20-18

SHEET NUMBER
A3



Building #2
Fourth Floor Plan

1
A4

Scale: 1/8" = 1'-0"

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License Number: 018849

° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

Building #2
Fourth Floor Plan

Revisions

Date
7/1/21

Project Number
20-18

Sheet Number
A4

Materials & Colors:

4" Brick- Glen Gery, Sunset Flashed (Dark Red)
Mortar- Gray
Precast Base Block, Sills, Lintels- Brownstone color
Fibercement Siding- Hardie Iron Gray
Fibercement Trims- White
Fibercement Window Surrounds- White
Window Frames- Harvey Windows, Black
Cornice/Fascia- White
Aluminum Roofing- Hardie Iron Gray (color match)

1 / A5 **Building #2 East Elevation**
Scale: 1/8" = 1'-0"

2 / A5 **Building #2 South Elevation (Towards Broadway)**
Scale: 1/8" = 1'-0"

COPPOLA ASSOCIATES

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Suite 101
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LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

Building #2 Elevations

REVISIONS

DATE
7/1/21

PROJECT NUMBER
20-18

SHEET NUMBER
A5

Materials & Colors:

4" Brick- Glen Gery, Sunset Flashed (Dark Red)
Mortar- Gray
Precast Base Block, Sills, Lintels- Brownstone color
Fibercement Siding- Hardie Iron Gray
Fibercement Trims- White
Fibercement Window Surrounds- White
Window Frames- Harvey Windows, Black
Cornice/Fascia- White
Aluminum Roofing- Hardie Iron Gray (color match)

1 / A6 Building #2 West Elevation
Scale: 1/8" = 1'-0"

2 / A6 Building #2 North Elevation
Scale: 1/8" = 1'-0"

COPPOLA ASSOCIATES
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ajcoppola@coppola-associates.com

License Number: 018849

° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

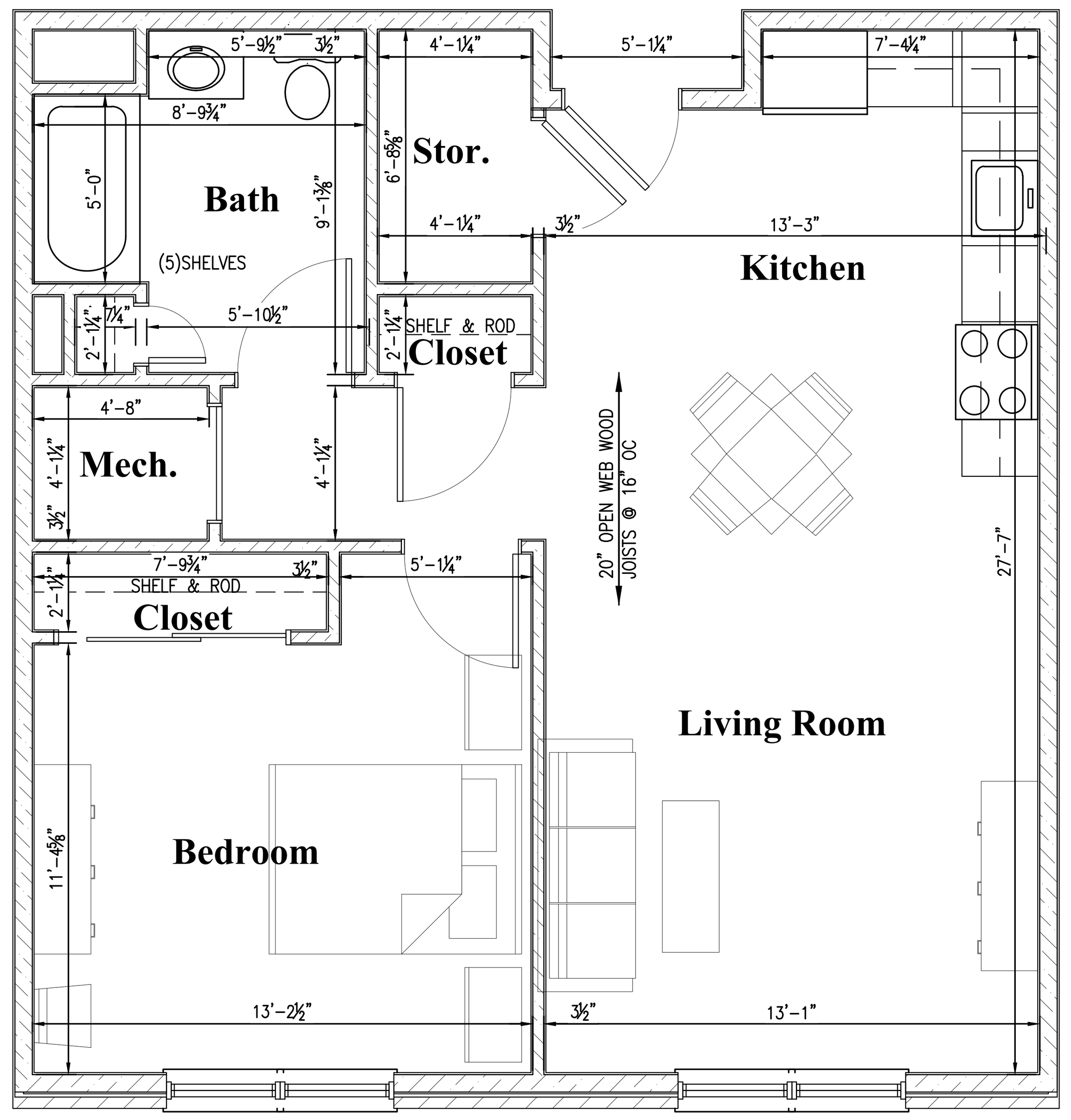
Building #2 Elevations

Revisions

Date
7/1/21

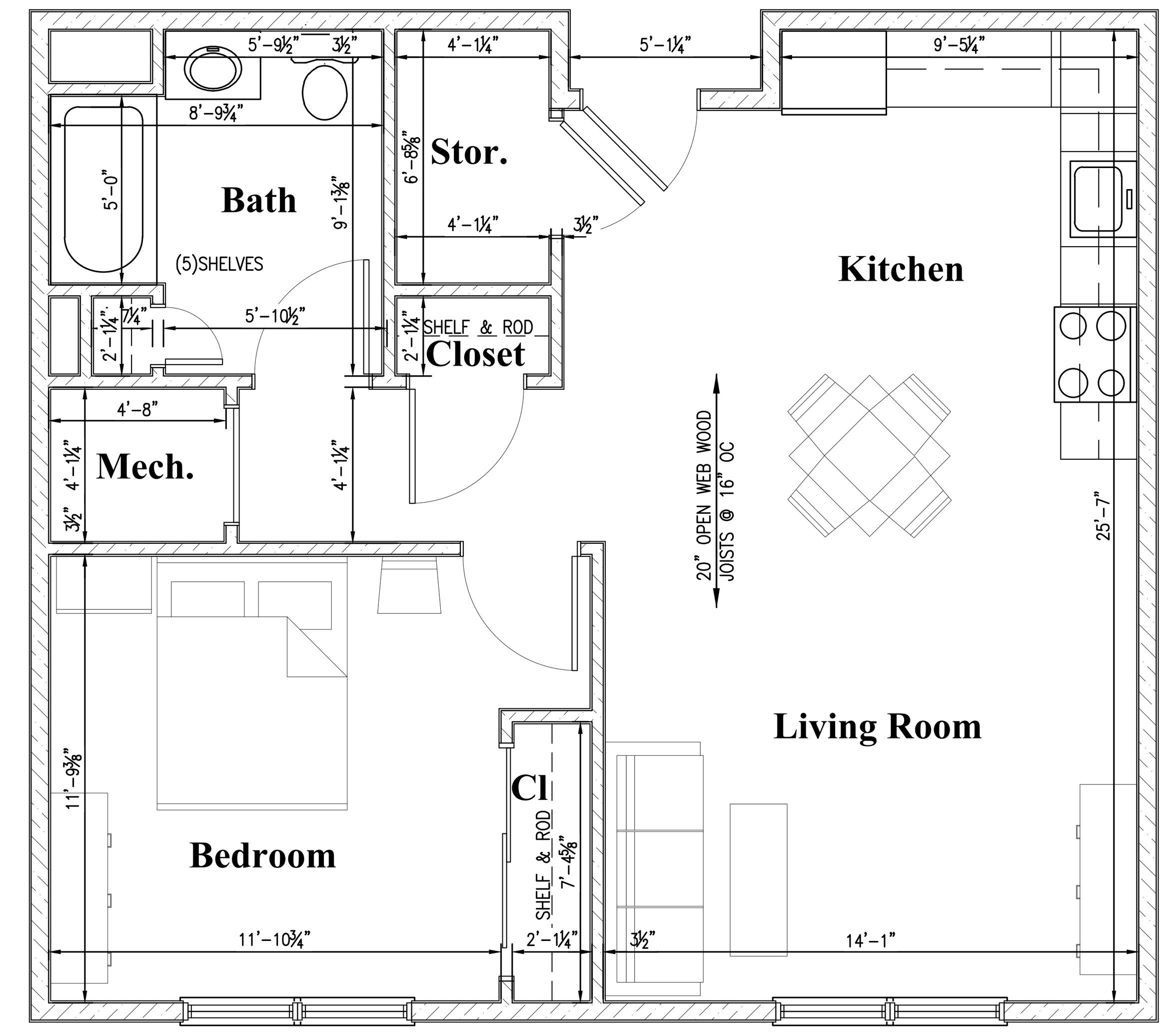
Project Number
20-18

Sheet Number
A6



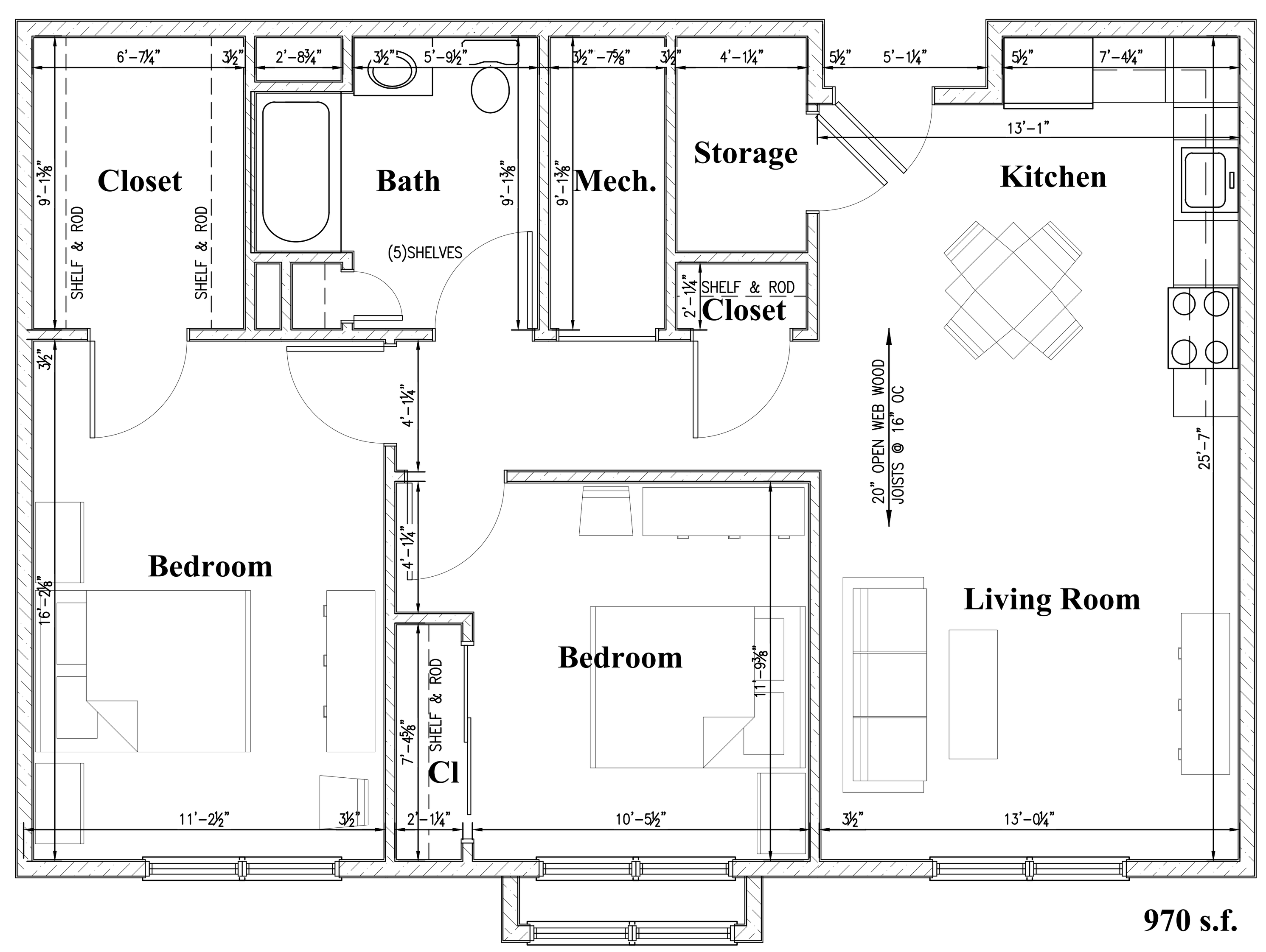
739 s.f.

1 / A7 **1 Bedroom Apartment Type 1a**
Scale: 1/4" = 1'-0"



739 s.f.

2 / A7 **1 Bedroom Apartment Type 1b**
Scale: 1/4" = 1'-0"



970 s.f.

3 / A7 **Typical 2 Bedroom Apartment**
Scale: 1/4" = 1'-0"

COPPOLA ASSOCIATES

°Design, Architecture & Planning°
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

License Number: 018849

° PROPOSED MULTIFAMILY DWELLING FOR PARKVIEW DEVELOPMENT AT °

Saranac Lofts

Broadway
Saranac Lake, NY

Typical Apartment Plans

Revisions

Date
7/1/21

Project Number
20-18

Sheet Number
A7

APPENDIX B - Cost Estimates

APPENDIX C - Public Participation Plan

NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

Brownfield Cleanup Program

Public Participation Plan

for

Saranac Lofts

NYSDEC BCP Site: C517015

January 2022

NYSDEC BCP Site: C517015

120 Broadway, Village of Saranac Lake

Franklin County, New York 10018

Contents

* * * * *

Note: The information presented in this Public Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation.Portions of this Public Participation Plan may be revised during the site's investigationand cleanup process.

Applicant: **Parkview Development & Construction, LLC ("Applicant")**
Site Name: **Saranac Lofts ("Site")**
Site Address: **120 Broadway, Village of Saranac Lake**
Site County: **Franklin**
Site Number: **C517015**

1. What is New York's Brownfield Cleanup Program?

New York's Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as "brownfields" so that can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants who conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met,the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at:

http://www.dec.ny.gov/chemical/8450.html

2. Public Participation Activities

Why NYSDEC Involves the Public and Why It Is Important

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision-makers form or adopt final positions.

Involving citizens affected and interested in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment;
- Improving public access to, and understanding of, issues and information related toa particular site and that site's investigation and cleanup process;

- Providing citizens with early and continuing opportunities to participate in NYSDEC'ssite investigation and cleanup process;
- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefitfrom input that reflects the interests and perspectives found within the affected community; and
- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and communityissues and concerns, and improves decision-making.

This Public Participation (PP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above.

The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Project Contacts

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this PP Plan and the PP program for the site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Locations of Reports and Information

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web-site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

Site Contact List

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.

The site contact list includes, at a minimum:

- Chief executive officer and planning board chairperson of each county, city, town and village in which the site is located;
- Residents, owners, and occupants of the site and properties adjacent to the site;
- The public water supplier which services the area in which the site is located;
- Any person who has requested to be placed on the site contact list;

- The administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility; and
- Location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

Note: The first site fact sheet (usually related to the draft Remedial Investigation Work Plan) is distributed both by paper mailing through the postal service and through DEC Delivers, its email listserv service. The fact sheet includes instructions for signing up with the appropriate county listserv to receive future notifications about the site.

See http://www.dec.ny.gov/chemical/61092.html.

Subsequent fact sheets about the site will be distributed exclusively through the listserv, except for households without internet access that have indicated the need to continue to receive site information in paper form. Please advise the NYSDEC site project manager identified in Appendix A if that is the case. Paper mailings may continue duringthe investigation and cleanup process for some sites, based on public interest and need.

PP Activities

The table at the end of this section identifies the PP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The flowchart in Appendix D shows how these PP activities integrate with the site investigation and cleanup process. The public is informed about these PP activities through fact sheets and notices distributed at significant points during the program.

Elements of the investigation and cleanup process that match up with the PP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site.
- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives thathave potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This PP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned public participation activities.

Technical Assistance Grant

NYSDEC must determine if the site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development and implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

As of the date the declaration (page 2) was signed by the NYSDEC project manager, the significant threat determination for the site had not yet been made. To verify the significant threat status of the site, the interested public may contact the NYSDEC project manager identified in Appendix A.

For more information about TAGs, go online at

http://www.dec.ny.gov/regulations/2590.html

Note: The table identifying the public participation activities related to the site's investigation and cleanup program follows on the next page.

Public Participation Activities	Timing of PP Activity(ies)
Application Process:	
• Prepare site contact list • Establish document repository(ies)	At time of preparation of application to participate in the BCP.
• Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period • Publish above ENB content in local newspaper • Mail above ENB content to site contact list • Conduct 30-day public comment period	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement (BCA):	
• Prepare Public Participation (PP) Plan	Before start of Remedial Investigation **Note:** Applicant must submit PP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.
Before NYSDEC Approves Remedial Investigation (RI) Work Plan:	
• Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan • Conduct 30-day public comment period	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
After Applicant Completes Remedial Investigation:	
• Distribute fact sheet to site contact list that describes RI results	Before NYSDEC approves RI Report
Before NYSDEC Approves Remedial Work Plan (RWP):	
• Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager) • Conduct 45-day public comment period	Before NYSDEC approves RWP. 45-day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
Before Applicant Starts Cleanup Action:	
• Distribute fact sheet to site contact list that describes upcoming cleanup action	Before the start of cleanup action.
After Applicant Completes Cleanup Action:	
• Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report • Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC)	At the time the cleanup action has been completed. **Note:** The two fact sheets are combined when possible if there is not a delay in issuing the COC.

3. Major Issues of Public Concern

This section of the PP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

The primary contaminants of concern at the Site are elevated concentrations of volatile organic compounds (VOCs) in soil, associated with a gross release of petroleum (likely to be gasoline from storage tanks at a former on-site filling station), metals and semi-volatile organic compounds (SVOCs) in soil (potentially from poor-quality fill and/or former commercial uses), and low-level contamination by VOCs present in soil vapor, primarily compounds associated with gasoline. Based on the commercial use of the Site (tire shop with rear parking/vacant lot), and investigation data, which indicate that most contamination is present in deep soils, and that there are only low levels of volatile chemicals in soil vapor, there appears to be no significant public health concerns from exposures to on-site contaminants at this time. Site contamination is not affecting community activities and there are no known on-site uses of groundwater at or near the Site (the surrounding village area utilizes public water). During the cleanup of the Site, there may be issues such as odor, noise or truck-related traffic.

4. Site Information

Appendix C contains a map identifying the location of the site.

Site Description

The Site is an irregularly-shaped 1.11-acre mixed-use (small commercial and vacant) parcel located on the northern side of Broadway. A two-story tire shop (a former filling station) and rear gravel parking area are located at the southern portion (Lot 12) along the roadway. The remainder of the Site to the north (Lot 11) is a maintained yard. The development plans include construction of affordable housing on Lot 11, and mixed use (commercial and affordable housing) on Lot 12. New construction will require soil excavation. The Site is located in a village setting, with most properties developed for residential and commercial purposes. Uses at adjoining properties include former railroad tracks to the north, the Saranac Lake Volunteer Rescue Squad to the east, multi-family residential developments to the west of Lot 12 and south of Lot 11, a bookstore to the south, and a propane storage facility (Hyde Fuel) to the west.

History of Site Use, Investigation, and Cleanup

Lot 12 contained a hotel as early as 1895 and was developed for use as a filling station and automotive maintenance facility sometime between 1916 and 1924 (one or more storage tanks may still be at the Site). This portion of the property contains a small structure that has been used as a tire shop since circa 1969. The northern portion of the property (Lot 11) contained a woodworking factory from at least 1916 through 1965.

Previous subsurface investigations revealed gross petroleum contamination in soil at the front and to the rear of the Site building, and a spill event (#2103108) was reported to the NYSDEC in July 2021. The released material is likely to have been gasoline, which may have impacted groundwater. VOCs, metals and SVOCs in soil are above NYSDEC Soil Cleanup Objectives (SCOs) for both Unrestricted and Restricted-Residential Use. Soil vapor impacts are limited to low but relatively elevated levels of VOCs related to gasoline, and low-grade levels of other VOCs typically encountered in urban environments (vapor impacts may be related to groundwater contamination).

Site cleanup actions are expected to involve removal and/or treatment of petroleum-contaminated media, and removal of poor-quality fill soil, resulting in a final remediation that is protective of human health and the environment.

5. Investigation and Cleanup Process

Application

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program **as Volunteer**. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicant in its Application proposes that the site will be used for residential purposes, and will meet (at a minimum) the criteria for a Restricted-Residential Use cleanup (dependent on the final remediation plan, an Unrestricted Use cleanup may be pursued). To achieve this goal, the Applicant will conduct investigation and cleanupactivities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities ofeach party in conducting these activities at the site.

Investigation

The Applicant will conduct an investigation of the site officially called a "remedial investigation" (RI). This investigation will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation work plan, which is subject to public comment. The site investigation has several goals:

1) Define the nature and extent of contamination in soil, surface water, groundwater and any other parts of the environment that may be affected;
2) Identify the source(s) of the contamination;
3) Assess the impact of the contamination on public health and the environment; and
4) Provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

The Applicant submits a draft "Remedial Investigation Work Plan" to NYSDEC for review and approval. NYSDEC makes the draft plan available to the public review during a 30-day public comment period.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.

NYSDEC will use the information in the investigation report to determine if the site poses a significant threat to public health or the environment. If the site is a “significant threat,” it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

Interim Remedial Measures

An Interim Remedial Measure (IRM) is an action that can be undertaken at a site when a source of contamination or exposure pathway can be effectively addressed before the site investigation and analysis of alternatives are completed. If an IRM is likely to represent all or a significant part of the final remedy, NYSDEC will require a 30-day public comment period.

Remedy Selection

When the investigation of the site has been determined to be complete, the project likely would proceed in one of two directions:

1) The Applicant may recommend in its investigation report that no action is necessaryat the site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a “Certificate of Completion” (described below) to the Applicant.

or

2) The Applicant may recommend in its investigation report that action needs to be taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a “Remedial Work Plan”. The Remedial Work Plan describes the Applicant’s proposed remedy for addressing contamination related to the site. When the Applicant submits a draft Remedial Work Plan for approval, NYSDEC would announce the availability of the draft plan for public review during a 45-day public comment period.

Cleanup Action

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The selected remedy is formalized in the site Decision Document.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a Final Engineering Report (FER) that certifies that cleanup requirements have been achieved or will be achieved within aspecific time frame. NYSDEC will review the report to be certain that the cleanup isprotective of public health and the environment for the intended use of the site.

Certificate of Completion

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the FER. NYSDEC then will issue a Certificate of Completion (COC) to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the site afterit receives a COC.

Site Management

The purpose of site management is to ensure the safe reuse of the property if contamination will remain in place. Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An institutional control is a non-physical restriction on use of the site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the site suitable for some, but not all uses.

An engineering control is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that pumps and treats groundwater. Site management continues until NYSDEC determines that it is no longer needed.

Appendix A - Project Contacts and Locations of Reports and Information

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Kaleigh Zappia, Project Manager, NYSDEC
1115 NYS Rt. 86
P.O. Box 296
Ray Brook, NY 12977-0296
kaleigh.zappia@dec.ny.gov

Erin Hanczyk, Public Participation Specialist
1115 NYS Rt. 86
P.O. Box 296
Ray Brook, NY 12977-0296
Erin.Hanczyk@dec.ny.gov

New York State Department of Health (NYSDOH):

Stephen Lawrence, Project Manager, NYSDOH
Empire State Plaza – Corning Tower, Rm 1787
Albany, NY 12237
(518) 402-0450
beei@health.ny.gov

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents:

Saranac Lake Free Library
109 Main Street
Saranac Lake, NY 12983
Attn: Peter Benson
(518) 891-4190
saranaclakefreelibrary@gmail.com
Hours: Mon – Sat 10:30 AM – 5:30 PM

NYSDEC Region 5
1115 NYS Rt. 86, P.O. Box 296
Ray Brook, NY 12977
(518) 897-1200
Info.R5@dec.ny.gov
Hours: (call for appointment)

Appendix B - Site Contact List

Public Officials:

John M. Sweeney, Village Manager
39 Main Street, Suite 9
Saranac Lake, NY 12983
(518) 891-4150
manager@saranaclakeny.gov

Karen Tyler, Village Clerk
39 Main Street, Suite 9
Saranac Lake, NY 12983
(518) 891-415 x 202
clerk@saranaclakeny.gov

Paul Blaine, Planning & Zoning
39 Main Street, Suite 9
Saranac Lake, NY 12983
(518) 891-4150 x 236
planning@saranaclakeny.gov

Elizabeth Benson, Village Treasurer
39 Main Street, Suite 9
Saranac Lake, NY 12983
(518) 891-4150 X 231
treasurer@saranaclakeny.gov

Local Schools and Daycare Centers

Saranac Lake Central School District
141 Petrova Avenue
Saranac Lake, NY 12983
(518) 891-5460

Northern Lights School
57 Church Street
Saranac Lake, NY 12983
(518) 891-3206
info@northernlightsschool.org

St. Bernard's School
63 River Street
Saranac Lake, NY 12983
(518) 891-2830

The Lil' School of the Adirondacks
63 River Street
Saranac Lake, NY 12983
(518) 524-1421

Media

Adirondack Daily Enterprise
PO Box 318
Saranac Lake, NY 12983
(518) 891-2600
news@adirondackdailyenterprise.com

Public Water Supplier

Village of Saranac Lake
Dave Lewis, Chief Water/Wastewater Operator
39 Main Street, Suite 9
Saranac Lake, NY 12983
(518) 891-3037
wwtp@saranaclakeny.gov

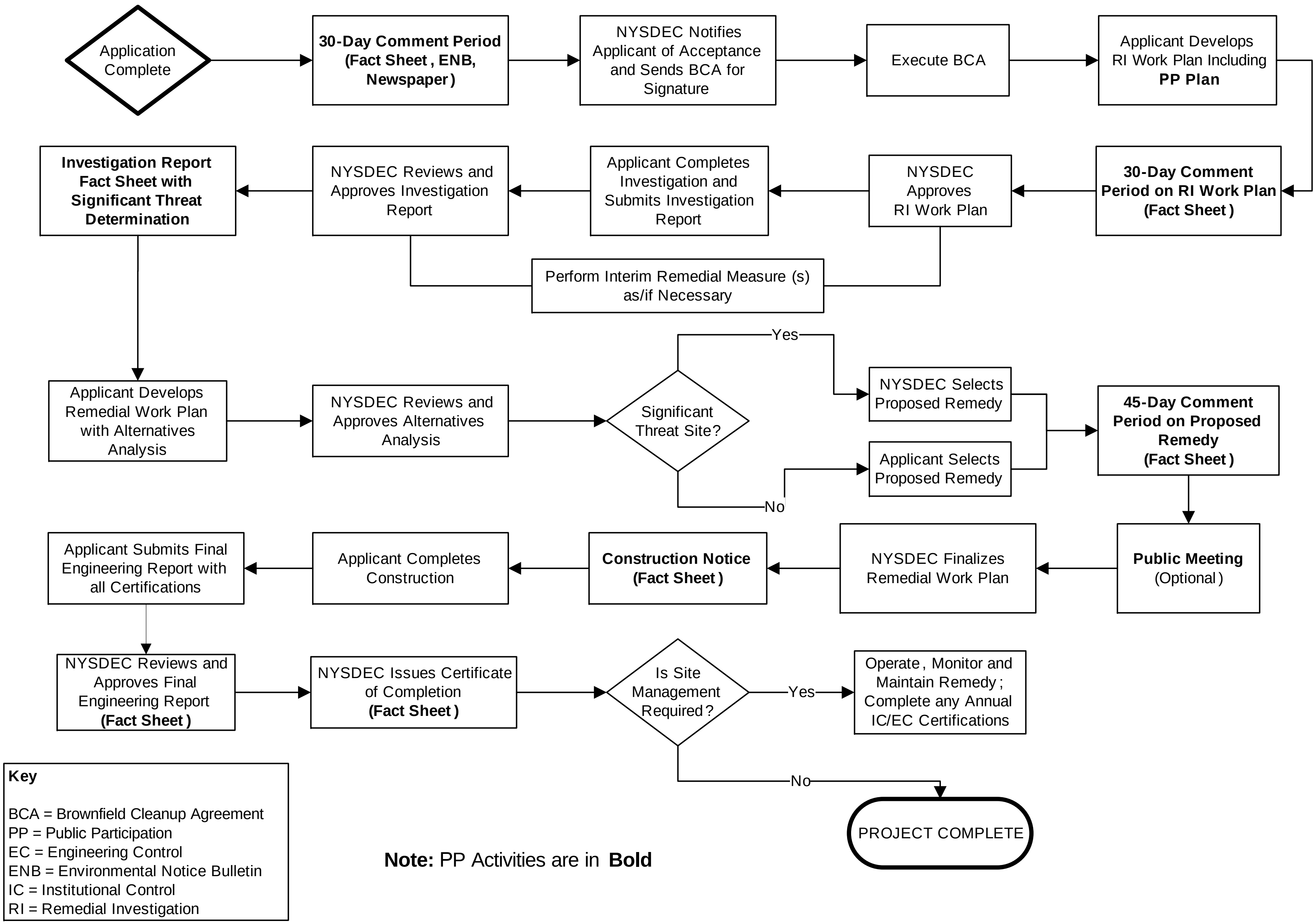
Adjacent Properties

Address and Tax ID (section – block – lot)	**Owner Name and Address**	**Current Use**
110 Broadway 447.69 - 1 - 2	Saranac Lake Volunteer Squad P.O Box 431, Saranac Lake, NY 12983	Commercial
114 Broadway 447.69 - 1 - 1	William Cantwell 69 Blackberry Way, Saranac Lake, NY 12983	Commercial
122 Broadway 446.68 - 6 - 14	Charles Nicastro 185 Park Avenue, Saranac Lake, NY 12983	Commercial
126 Broadway 446.68 - 6 - 15	OBT 126-130 BDWY LLC 87 River Street, Saranac Lake, NY 12983	Commercial
130 Broadway 446.68 - 6 - 16	OBT 126-130 BDWY LLC 87 River Street, Saranac Lake, NY 12983	Commercial
136 Broadway 446.68 - 6 - 17	Saranac Lake Adult Center Inc. P.O. Box 864, Saranac Lake, NY 12983	Community Services
148 Broadway 446.68 - 6 - 8	Hyde P J Inc. P.O. Box 349, Saranac Lake, NY 12983	Vacant Commercial
Broadway 446.68 - 6 - 9	P. J. Hyde & Son Inc. P.O. Box 349, Saranac Lake, NY 12983	Vacant commercial
Broadway 446.68 - 8 - 1	State of New York. Albany, NY 12207	Community Services
Broadway 446.68 - 7 - 5.200	135 Broadway Apartments LLC 1427 Sturl Avenue, Hewlett NY 11557	Vacant Commercial
Broadway 446.76 - 7 - 9	135 Broadway Apartments LLC 1427 Sturl Avenue, Hewlett NY 11557	Vacant Commercial
117 Broadway 446.76 - 7 - 10	Wendy Foley 117 Broadway, Saranac Lake NY 12983	Commercial

Appendix C - Site Location Map

Appendix C- Site Map

Appendix D– Brownfield Cleanup Program Process



APPENDIX D - Construction Health and Safety Plan

CONSTRUCTION
HEALTH AND SAFETY PLAN

Saranac Lofts

120 Broadway
Village of Saranac Lake
Franklin County, New York
NYSDEC BCP Site: C517015

December 2022 DRAFT

GBTS Project: 21003-0066

Technical Services Division

22 IBM Road, Suite 101., Poughkeepsie, NY 12601 T: 845-452-1658 F: 845-485-7083
www.gallagherbassett.com

CONSTRUCTION
HEALTH AND SAFETY PLAN

December 2022

GBTS Project: 21003-0066

Prepared By:

Gallagher Bassett Technical Services
22 IBM Road, Suite 101
Poughkeepsie, New York 12601

Prepared For:

Parkview Development & Construction, LLC
57 Route 6, Suite 207
Baldwin Place, NY 10505

The undersigned have reviewed this Construction Health And Safety Plan and certify to Parkview Development & Construction, LLC and to the New York State Department of Environmental Conservation that the information provided in this document is accurate as of the date of issuance by this office.

Scott Spitzer
Gallagher Bassett Technical Services
Technical Director – Environmental Consulting

Richard Hooker
Gallagher Bassett Technical Services
Manager – Environmental Consulting

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Construction Health and Safety Plan (CHASP) has been developed to provide the requirements and general procedures to be followed by Gallagher Bassett Technical Services (GBTS) and on-Site subcontractors while performing remediation services at the Saranac Lofts BCP Site (ID: C517015) located in the Village of Saranac Lake, Franklin County, New York.

This CHASP incorporates policies, guidelines and procedures intended to protect the public health of the community during fieldwork activities, and therefore serves as a Community Health and Safety Plan. The objectives of the CHASP are met by establishing guidelines to minimize potential exposures during fieldwork, and by planning for and responding to emergencies affecting the public adjacent to the site.

This CHASP describes the responsibilities, training requirements, protective equipment and standard operating procedures to be utilized by all personnel while on the Site. All on-site personnel and visitors shall follow the guidelines, rules, and procedures contained in this CHASP. The Project Manager or Site Health and Safety Officer (SHSO) may impose any other procedures or prohibitions necessary for safe operations. This CHASP incorporates by reference applicable Occupational Safety and Health Administration (OSHA) requirements in 29 CFR 1910 and 1926.

The requirements and guidelines in this CHASP are based on a review of available information and evaluation of potential on-site hazards. This CHASP will be discussed with Site personnel and will be available on-site for review while work is underway. On-site personnel will report to the SHSO in matters of health and safety. The on-site project supervisor(s) are responsible for the enforcement and implementation of this CHASP, which is applicable to all on-site field personnel, including contractors and subcontractors.

This CHASP is specifically intended for the conduct of activities within the defined scope of work in specified areas of the Site. Changes in conditions or future actions that may be conducted at the Site may necessitate the modification of the requirements of the CHASP. Although this CHASP can be made available to interested persons for informational purposes, GBTS cannot be held accountable for the interpretations or activities of any other persons or entities other than the employees of GBTS or its subcontractors.

1.2 Site Location and Description

The Site is defined as the property located at 120 Broadway, Village of Saranac Lake, Franklin County, New York. A figure illustrating the Site configuration and areas of proposed remediation activities is included as an Attachment to this CHASP.

1.3 Work Activities

Environmental remediation activities are detailed in the NYSDEC-approved Remedial Action Work Plan (RAWP) dated December 2022. The specific tasks detailed in the RAWP are wholly incorporated by reference into this CHASP. The RAWP describes the tasks required to remediate environmental contamination at the Site.

The Remedial Investigation Report (RIR) prepared for the Site documented the presence of petroleum-impacted soil, water and soil vapor at the southern portion of the Site (Lot 12), and metal contamination in upper soils and soil vapor impacts throughout the Site (no significant source areas for metals and non-petroleum volatile organic compounds [VOCs] have been identified in either soil or groundwater).

2.0 HEALTH AND SAFETY HAZARDS

2.1 Hazard Overview for On-Site Personnel

Elevated concentrations of VOCs, semi-volatile organic compounds (SVOCs), and metals are present in Site soil and groundwater, and elevated VOCs are present in soil vapor. The possibility exists for on-site personnel to have contact with contaminated soils, groundwater and/or vapor during investigative activities. Contact with contaminated substances may present a skin contact, inhalation and/or ingestion hazard. These potential hazards are addressed in Sections 3.0 through 11.0, below.

2.2 Potential Hazards to the Public from Fieldwork Activities

The potential exists for the public to be exposed to contaminated soils, groundwater and/or vapor, which may present a skin contact, inhalation and/or ingestion hazard. Additional potential hazards to the public that are associated with fieldwork activities include mechanical/physical hazards, traffic hazards from fieldwork vehicles, and noise impacts associated with operation of mechanical equipment.

Impacts to public health and safety are expected to be limited to hazards that could directly affect on-Site visitors and/or trespassers. These effects will be mitigated through site access and control measures (see Section 6.0, below). Specific actions taken to protect the public health (presented in Sections 3.0 through 11, below) are anticipated to minimize any potential off-site impacts from contaminant migration, noise and traffic hazards.

3.0 PERSONAL PROTECTIVE EQUIPMENT

The levels of protection identified for the services specified in the RAWP represent a best estimate of exposure potential and protective equipment needed for that exposure. Determination of levels was based on data provided by previous studies of the Site and information reviewed on current and past Site usage.

The SHSO may recommend revisions to these levels based on an assessment of actual exposures and may at any time require Site workers, supervisors and/or visitors to use specific safety equipment.

The level of protective clothing and equipment selected for this project is Level D. Level D PPE provides minimal skin protection and no respiratory protection, and is used when the atmosphere contains no known hazard, oxygen concentrations are not less than 19.5%, and work activities exclude splashes, immersion or the potential for unexpected inhalation or contact with hazardous levels of chemicals. Workers will wear Level D protective clothing including, but not limited to, a hard hat, steel-toed boots, nitrile gloves (when handling soils and/or groundwater), hearing protection (foam ear plugs or ear muffs, as required), and safety goggles (in areas of exposed groundwater and when decontaminating equipment). Personal protective equipment (PPE) will be worn at all times, as designated by this CHASP.

Disposable gloves will be changed immediately following the handling of contaminated soils, water, or equipment. Tyvek suits will be worn during activities likely to excessively expose work clothing to contaminated dust or soil (chemically-resistant over garments will be required in situations where exposures could lead to penetration of clothing and direct dermal contact by contaminants).

The requirement for the use of PPE by official on-site visitors shall be determined by the SHSO, based on the most restrictive PPE requirement for a particular Work Zones (see Section 6 for Work Zone definitions). All on-site visitors shall, at a minimum, be required to wear an approved hardhat and be provided with appropriate hearing protection as necessary.

The need for an upgrade in PPE will be determined based upon encountered Site conditions, including measurements taken in the breathing zone of the work area using a photo-ionization detector (PID). An upgrade to a higher level of protection (Level C) will begin when specific action levels are reached (see Section 5.0, below), or as otherwise required by the SHSO. Level C PPE includes a full-face or half-mask air-purifying respirator (NIOSH approved for compound[s] of concern), hooded chemical-resistant clothing, outer and inner chemical-resistant gloves, and (as needed) coveralls, outer boots/boot covers, escape mask, and face shield. Level C PPE may be used only when: oxygen concentrations are not less than 19.5%; contaminant contact will not adversely affect exposed skin; types of air contaminants have been identified, concentrations measured, and a cartridge/canister is available that can remove the contaminant; atmospheric contaminant concentrations do not exceed immediately dangerous to life or health (IDLH) levels; and job functions do not require self-contained breathing apparatus (SCBAs). The need for Level B or Level A PPE is not anticipated for the planned remedial activities at this Site.

If any equipment fails and/or any employee experiences a failure or other alteration of their protective equipment that may affect its protective ability, that person will immediately leave the work area. The Project Manager and the SHSO will be notified and, after reviewing the situation, determine the effect of the failure on the continuation of on-going operations. If the failure affects the safety of personnel, the work site, or the surrounding environment, personnel will be evacuated until appropriate corrective actions have been taken.

4.0 CONTAMINANT CONTROL

Precautions will be taken during dry weather (e.g., wetting or covering exposed soils) to avoid generating and breathing dust-generated from soils. A PID (or equivalent equipment) will be used to monitor potential contaminant levels. Response to the monitoring will be in accordance with the action levels provided in Section 5.0.

5.0 MONITORING AND ACTION LEVELS

Concentrations of petroleum compounds in the air are expected to be below the OSHA Permissible Exposure Limits (PELs). Air monitoring will be conducted for VOCs and dust according to the NYSDOH Generic Community Air Monitoring Plan (provided as an Attachment), and in accordance with the special requirements presented below. Monitoring will be conducted at all times that fieldwork activities which are likely to generate emissions are occurring. PID and dust readings consistently in excess of CAMP limits will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure.

PID readings that consistently exceed background in the breathing zone (during any proposed tasks) will necessitate moving away from the source or implementing a higher PPE level.

5.1 Special Requirements for Work within 20 Feet of Potential Receptors

When work areas are within 20 feet of potentially exposed populations or occupied structures, the continuous monitoring locations for VOCs and particulates must reflect the nearest potentially exposed individuals and the location of ventilation system intakes for nearby structures. The use of engineering controls such as vapor/dust barriers, temporary negative pressure enclosures, or special ventilation devices should be considered to prevent exposures related to the work activities and to control dust and odors. Consideration should be given to implementing the planned activities when potentially exposed populations are at a minimum, such as during weekends or evening hours in non-residential settings.

If total VOC concentrations opposite the walls of occupied structures or next to intake vents exceed 1 ppm, monitoring should occur within the occupied structure(s). Depending upon the nature of contamination, chemical-specific colorimetric tubes of sufficient sensitivity may be necessary for comparing the exposure point concentrations with appropriate pre-determined response levels (response actions should also be predetermined). Background readings in the occupied spaces must be taken and discussed with NYSDOH prior to commencement of the work.

If total particulate concentrations opposite the walls of occupied structures or next to intake vents exceed 150 mcg/m^3, work activities should be suspended until controls are implemented and are successful in reducing the total particulate concentration to 150 mcg/m^3 or less at the monitoring point.

Depending upon the nature of contamination and remedial activities, other parameters (e.g., explosivity, oxygen, hydrogen sulfide, and carbon monoxide) may also need to be monitored. Response levels and actions should be pre-determined, as necessary, for each site.

5.2 Special Requirements for Indoor Work

Unless a self-contained, negative-pressure enclosure with proper emission controls will encompass the work area, all individuals not directly involved with the planned work must be absent from the room in which the work will occur. Monitoring requirements shall be as stated above under “Special Requirements for Work within 20 Feet of Potentially Exposed Individuals or Structures” except that in this instance “nearby/occupied structures” would be adjacent occupied rooms. Additionally, the location of all exhaust vents in the room and their discharge points, as well as potential vapor pathways (openings, conduits, etc.) relative to adjoining rooms, should be understood and the monitoring locations established accordingly. In these situations, it is strongly recommended that exhaust fans or other engineering controls be used to create negative air pressure within the work area during remedial activities. Additionally, it is strongly recommended that the planned work be implemented during hours (e.g., weekends or evenings) when building occupancy is at a minimum.

6.0 SITE CONTROL/WORK ZONES

Site control procedures will be established to reduce the possibility of worker/visitor contact with environmental contaminants, to protect the public in the area surrounding the Site and to limit access to the Site to only those persons required to be in the work zone. Notices placed near the Site will warn the public not to enter fieldwork areas and direct visitors to report to the Project Manager or SHSO. Measures will be taken to limit the entry of unauthorized personnel into the specific areas of field activity and to safely direct and control all vehicular traffic in and near the Site (e.g., placement of traffic cones and warning tape).

Work Areas are defined as follows:

Exclusion Zone - The exclusion zone will be that area immediately surrounding the work being performed to accomplish fieldwork activities involving the handling or potential exposures to contaminated media. Only individuals with appropriate PPE and training are allowed into this zone. It is the responsibility of the SHSO to prevent unauthorized personnel from entering the exclusion zone. When necessary (e.g., high traffic areas) the exclusion zone will be delineated with barricade tape, cones and/or barricades.

Dedicated Decontamination Area - A dedicated decontamination area for personnel and equipment (including contamination reduction and support zones) is not anticipated to be required during completion of fieldwork activities, but will be established and utilized, as warranted, based on changes in Site conditions. Care will be taken at all times to remove gloves, excess soil from boots, and soiled clothing (if necessary) before entering the Intermediate Zone.

Intermediate Zone - The intermediate zone, also known as the decontamination zone, is where patient decontamination should take place, if necessary. A degree of contamination still is found in this zone and some PPE is required, although it is usually of a lesser degree than that required for the exclusion zone.

Command Zone - The command zone is located outside the decontamination zone. All exposed individuals and equipment from the exclusion zone and the decontamination zone should be decontaminated before entering the command zone. Access to all zones must be controlled. Keeping onlookers, media, etc. well away from the Site is critical and will be the responsibility of both the SHSO and the Project Manager, and other Site personnel as appropriate.

7.0 NOISE CONTROL

All fieldwork activities will be conducted in a manner designed to reduce unnecessary noise generation, and to minimize the potential for both on-site and off-site harmful noise levels. The Project Manager and SHSO will establish noise reduction procedures (as appropriate to the Site and the work) to meet these requirements.

8.0 PERSONNEL TRAINING

Work zones that will accomplish the general objective stated above will be established by the Project Manager and the SHSO. Site access will be monitored by the SHSO, who will maintain a log-in sheet for personnel that will include, at the minimum, personnel on the Site, their arrival and departure times and their destination on the Site. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). Personnel exiting the work zone(s) will be decontaminated prior to exiting the Site.

Site-specific training will be provided to each employee. Personnel will be briefed by the SHSO as to the potential hazards to be encountered. Topics will include:

- Availability of this CHASP;
- General site hazards and specific hazards in the work areas, including those attributable to known of suspect on-site contaminants;
- Selection, use, testing, and care of the body, eye, hand, and foot protection being worn, with the limitations of each;
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the Site;

- Emergency response procedures and requirements;
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed; and,
- Methods to obtain emergency assistance and medical attention.

9.0 DECONTAMINATION

The SHSO will establish a decontamination system and decontamination procedures (appropriate to the Site and the work) that will prevent potentially hazardous materials from leaving the Site. Vehicles will be brushed to remove materials adhering to surfaces. Sampling equipment will be segregated and, after decontamination, stored separately from PPE. All decontaminated or clean sampling equipment not in use will be protected and stored in a designated, controlled storage area.

10.0 EMERGENCY RESPONSE

10.1 Notification of Site Emergencies

In the event of an emergency, the SHSO will be immediately notified of the nature and extent of the emergency (the names and contact information for key site safety and management personnel, as well as other site safety contact telephone numbers, shall be posted at the Site).

Table 1 in this CHASP contains Emergency Response Telephone Numbers, and immediately following is a map detailing the directions to the nearest hospital emergency room. This information will be maintained at the work Site by the SHSO. The location of the nearest telephone will be determined prior to the initiation of on-site activities. In addition to any permanent phone lines, a cellular phone will be in the possession of the SHSO, or an authorized designee, at all times.

10.2 Responsibilities

Prior to the initiation of on-site work activities, the SHSO will:

- Notify individuals, authorities and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the remedial activities;
- Confirm that first aid supplies and a fire extinguisher are available on-site;
- Have a working knowledge of safety equipment available; and,
- Confirm that a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

The SHSO will be responsible for directing notification, response and follow-up actions and for contacting outside response personnel (ambulance, fire department, or others). In the case of an evacuation, the SHSO will account for personnel. A log of individuals entering and leaving the Site will be kept so that everyone can be accounted for in an emergency.

Upon notification of an exposure incident, the SHSO will contact the appropriate emergency response personnel for recommended medical diagnosis and, if necessary, treatment. The SHSO will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring.

10.3 Accidents and Injuries

In the event of an accident or injury, measures will be taken to assist those who have been injured or exposed and to protect others from hazards. If an individual is transported to a hospital or doctor, a copy of the CHASP will accompany the individual.

The SHSO will be notified and respond according to the severity of the incident. The SHSO will investigate the incident and prepare a signed and dated report documenting the investigation. An exposure-incident report will also be completed by the SHSO and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

10.4 Communication

No special hand signals will be utilized within the work zone. Field personnel will utilize standard hand signals during the operation of heavy equipment.

10.5 Safe Refuge

Vehicles and on-site structures will serve as the immediate place of refuge in the event of an emergency. If evacuation from the area is necessary, project vehicles will be used to transport on-site personnel to safety.

10.6 Site Security and Control

Site security and control during emergencies, accidents and incidents will be monitored by the SHSO. The SHSO is responsible for limiting access to the Site to authorized personnel and for oversight of reaction activities.

10.7 Emergency Evacuation

In case of an emergency, personnel will evacuate to the safe refuge identified by the SHSO, both for their personal safety and to prevent the hampering of response/rescue efforts.

10.8 Resuming Work

A determination that it is safe to return to work will be made by the SHSO and/or any personnel assisting in the emergency, e.g., fire department, police department, utility company, etc. No personnel will be allowed to return to the work areas until a full determination has been made by the above-identified personnel that all field activities can continue unobstructed. Such a determination will depend upon the nature of the emergency (e.g., downed power lines --

removal of all lines from the property; fire -- extinguished fire; injury -- safe transport of the injured party to a medical facility with either assurance of acceptable medical care present or completion of medical care; etc.). Before on-site work is resumed following an emergency, necessary emergency equipment will be recharged, refilled or replaced. Government agencies will be notified as appropriate. An Incident Report Form will be filed.

10.9 Fire Fighting Procedures

A fire extinguisher will be available in the work zone during on-site activities. This extinguisher is intended for small fires. When a fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SHSO will be responsible for directing notification, response and follow-up actions and for contacting ambulance and fire department personnel.

10.10 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Whenever possible, minimum decontamination will consist of washing, rinsing and/or removal of contaminated outer clothing and equipment. If time does not permit decontamination, the person will be given first aid treatment and then wrapped in plastic or a blanket prior to transport.

10.11 Emergency Equipment

The SHSO will maintain a dedicated vehicle containing the following on-site equipment for safety and emergency response: fire extinguisher; first-aid kit; and, extra copy of this CHASP.

11.0 SPECIAL PRECAUTIONS AND PROCEDURES

The activities associated with this remediation may involve potential risks of exposure to both chemical and physical hazards. The potential for chemical exposure to hazardous or regulated substances will be significantly reduced through the use of monitoring, personal protective clothing, engineering controls, and implementation of safe work practices.

11.1 Heat/Cold Stress

Training in prevention of heat/cold stress will be provided as part of the site-specific training. The timing of this project is such that heat/cold stress may pose a threat to the health and safety of personnel. Work/rest regimens will be employed, as necessary, so that personnel do not suffer adverse effects from heat/cold stress. Special clothing and appropriate diet and fluid intake regimens will be recommended to personnel to further reduce this temperature-related hazard. Rest periods will be recommended in the event of high/low temperatures and/or humidity to counter the negative effects of heat/cold stress.

11.2 Heavy Equipment

Working in the vicinity of heavy equipment is the primary safety hazard at the Site. Physical hazards in working near heavy construction equipment include the following: overhead hazards, slips/trip/falls, hand and foot injuries, moving part hazards, improper lifting/back injuries and noise. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). No workers will be permitted within any excavated areas without proper personal protective equipment (PPE), including, as warranted, any necessary Level C equipment (e.g., respirators and protective suits). Air monitoring in excavation areas will be conducted for VOCs in accordance with Section 5.0.

11.3 Additional Safety Practices

The following are important safety precautions to be enforced during the remedial activities.

Medicine and alcohol can aggravate the effect of exposure to certain compounds. Controlled substances and alcoholic beverages will not be consumed during remedial activities. Consumption of prescribed drugs will only be at the discretion of a physician familiar with the person's work.

Eating, drinking, chewing gum or tobacco, smoking, or other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited except in areas designated by the SHSO.

Contact with potentially contaminated surfaces will be avoided whenever possible. Workers will not unnecessarily walk through puddles, mud or other discolored surfaces; kneel on the ground; or lean, sit, or place equipment on drums, containers, vehicles, or the ground.

Personnel and equipment in the work areas will be minimized, consistent with site operations.

Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.

Work areas for various operational activities will be established.

11.4 Daily Log Contents

The SHSO will establish a system appropriate to the Site, the work and the work zones that will record, at a minimum, the following information:

- Personnel on the Site (arrival and departure times) and their destination on the Site;
- Incidents and unusual activities Site such as (but not limited to) accidents, spills, breaches of security, injuries, equipment failures and weather-related problems;
- Changes to the CHASP; and,
- Daily information, such as: changes to work and health and safety plans, work accomplished and the current Site status, and monitoring results.

Daily logs will be provided in periodic reports to NYSDEC and NYSDOH, as specified in the RIWP.

12.0 EMERGENCY INFORMATION

12.1 Emergency Contact Information

The following table indicates emergency contact information. This table should be copied and freely distributed and/or posted at the Site to ensure ready access.

Emergency Contact Information

Emergency Agencies	Phone Numbers
EMERGENCY	**911**
HOSPITAL Adirondack Medical Center - Saranac Lake 2233 State Route 86, Saranac Lake, New York 12983	**(518) 891-4141 or 911**
POLICE Village of Saranac Lake - Police Department 1 Main Street, Saranac Lake, New York 12983	**(518) 891-4428 or 911**
FIRE Village of Saranac Lake - Fire Department 100 Broadway, Saranac Lake, New York 12983	**911** (office 518-891-2333)
Saranac Lake Village Hall	(518) 891-4150
Village of Saranac Lake - Department of Public Works	(518) 891-4160
Site Health and Safety Officer, Scott Spitzer, GBTS	(845) 452-1658 (845) 867-4717

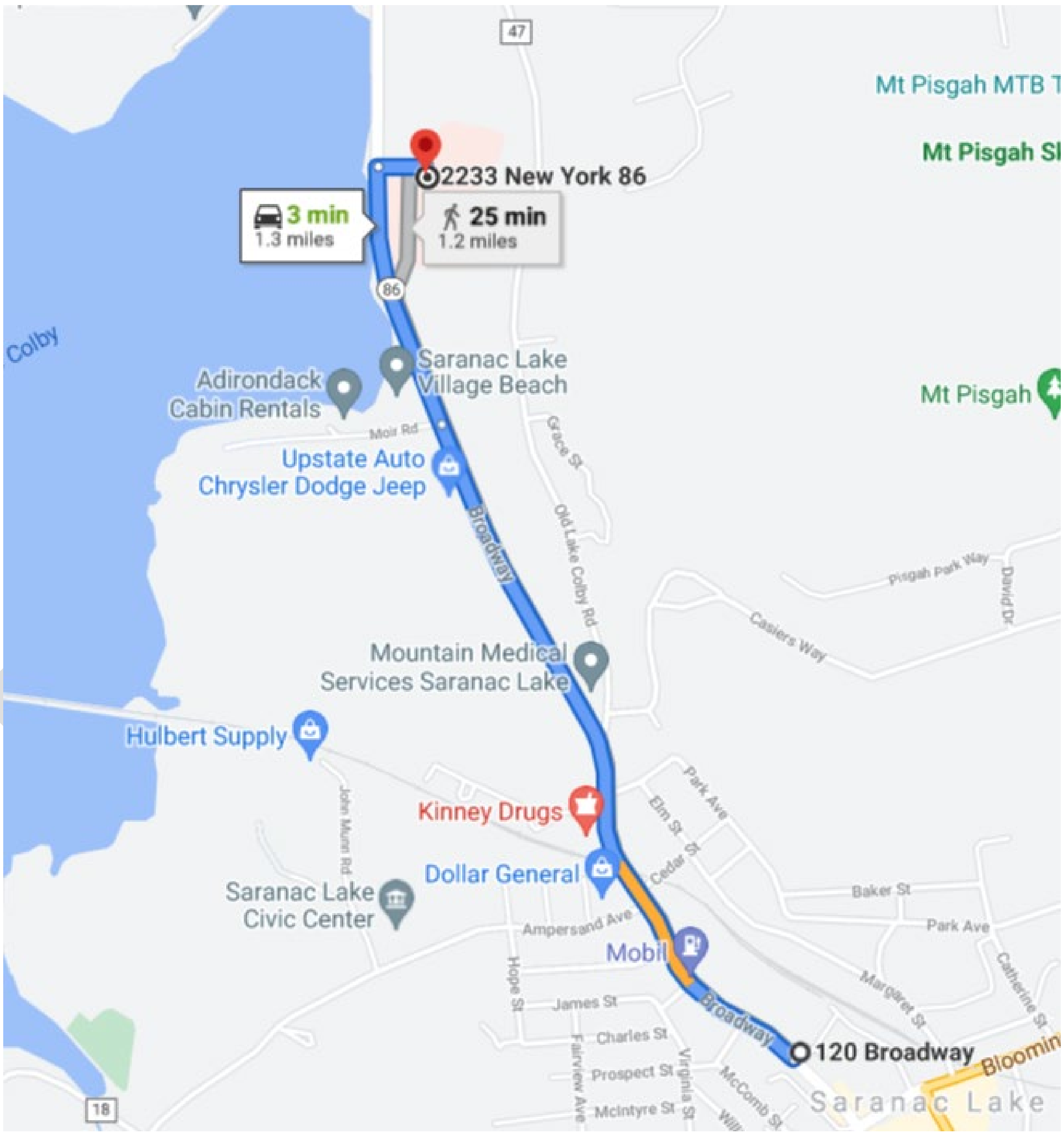
12.2 Directions to Hospital

Approximately 4 minutes travel time – 1.3 miles

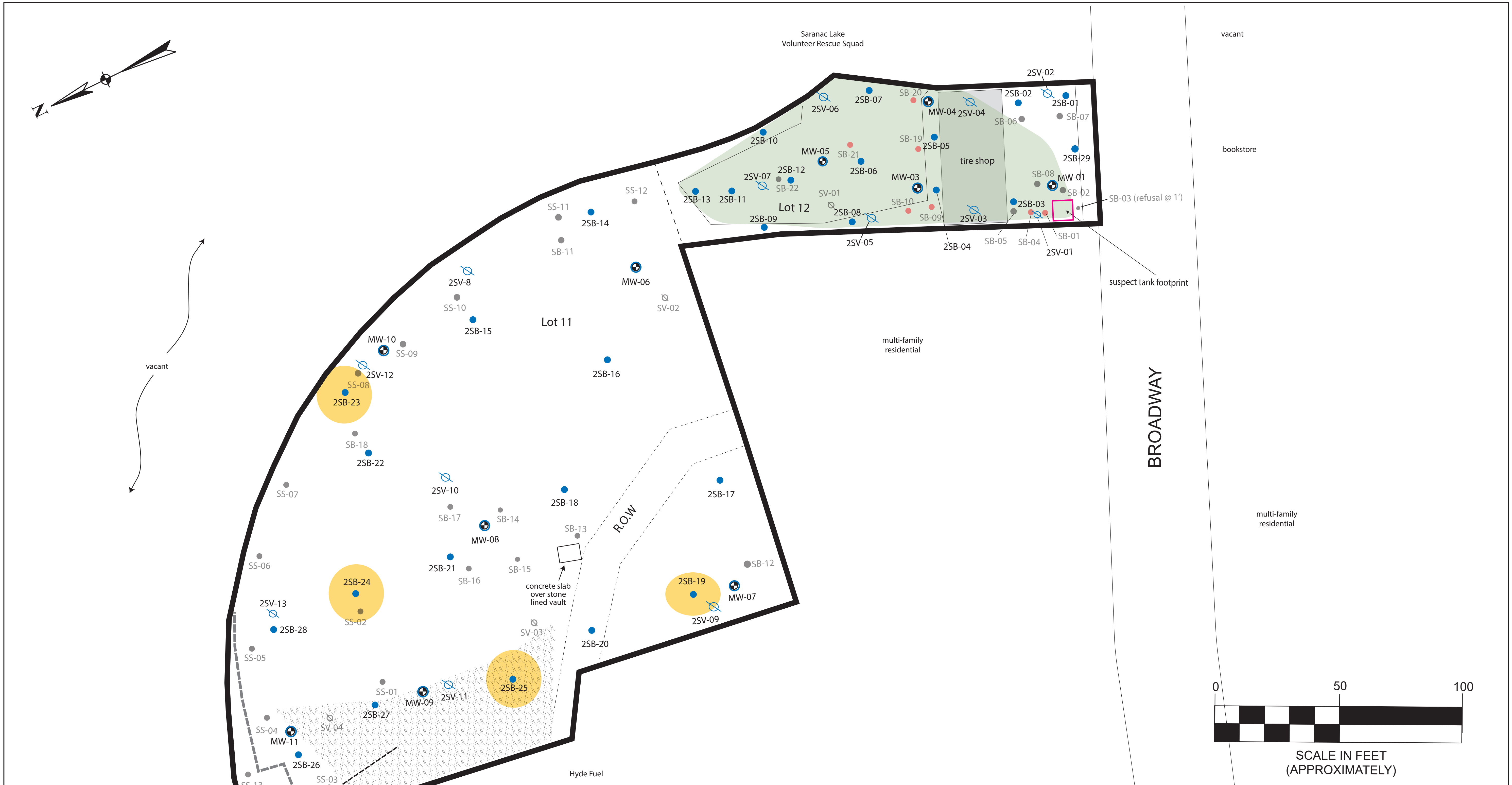
North on Broadway/NY Route 86 (1.3 mile)

Follow signs on Left for Adirondack Health Emergency Room

12.3 Map to Hospital



GALLAGHER BASSETT | TECHNICAL SERVICES



Legend:

BCP site boundary	monitoring well location
lot line	soil vapor location
retaining wall	boring location
area of wet surface soil	Petroleum Spill Area: All grossly impacted soil to be removed (excavation to bedrock as needed)
previous soil sample location	Poor-Quality Fill Soils: Soil to be removed to 5 feet below grade
previous soil boring with evidence of petroleum contamination	
previous soil vapor location	

Figure: Remedial Excavation Plan

Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

File: 21003-0066

Scale as shown

December 2022 | Figures

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Appendix 1A
New York State Department of Health
Generic Community Air Monitoring Plan

Overview

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. “Periodic” monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

APPENDIX E - Quality Assurance Project Plan

SITE REMEDIATION
QUALITY ASSURANCE PROJECT PLAN

Saranac Lofts

120 Broadway
Village of Saranac Lake
Franklin County, New York

NYSDEC BCP Site: C517015

December 2022 DRAFT

GBTS Project: 21003-0066

Gallagher Bassett Technical Services

22 IBM Road, Suite 101, Poughkeepsie, NY 12601 T: 845-452-1658 F: 845-485-7083
www.gallagherbassett.com

SITE REMEDIATION
QUALITY ASSURANCE PROJECT PLAN

December 2022

GBTS Project: 21003-0066

Prepared By:

Gallagher Bassett Technical Services
22 IBM Road, Suite 101
Poughkeepsie, New York 12601

Prepared For:

Parkview Development & Construction, LLC
57 Route 6, Suite 207
Baldwin Place, New York 10505

The undersigned have reviewed this Site Remediation Quality Assurance Project Plan and certify to Parkview Development & Construction, LLC and to the New York State Department of Environmental Conservation that the information provided in this document is accurate as of the date of issuance by this office.

Scott Spitzer
Gallagher Bassett Technical Services
Technical Director – Environmental Consulting

Richard Hooker
Gallagher Bassett Technical Services
Manager – Environmental Consulting

TABLE OF CONTENTS

1.0 PROJECT MANAGEMENT

1.1 Project/Task Organization

Major participants in the project are shown below along with their specific responsibilities and authorities. Resumes for Gallagher Bassett Technical Services (GBTS) personnel and for the Data Validator are provided in Attachment D this Quality Assurance Project Plan (QAPP).

Kaleigh Zappia New York State Department of Environmental Conservation (NYSDEC)

Kaleigh Zappia is the project manager for the NYSDEC, responsible for review and approval of all project submittals.

Victoria Panico Project Manager, GBTS

Victoria Panico, CHMM is the Qualified Environmental Professional (QEP) for the project, responsible for overview of all project activities. Ms. Panico has authority over all GBTS personnel and subcontractors and will be responsible for final review and approval of all project submittals prior to submission to the NYSDEC.

Scott Spitzer Technical Director, Environmental Consulting, GBTS

Scott Spitzer will be the Project Manager, responsible for directing and coordinating all project activities, reviewing all project documents, and ensuring that project plans are followed. Mr. Spitzer has authority to direct the activities of the field team (OSC and subcontractors).

Richard Hooker Quality Assurance Officer, GBTS

Richard Hooker, PhD will be responsible for reviewing all sampling procedures and certifying that the data was collected and analyzed using the appropriate procedures, and will assist in the development of the sampling and analytical portion of a site-specific quality assurance project plan (QAPP).

Erick Salazar On-Site Coordinator (OSC), GBTS

The OSC will be responsible for the completion of all on-site fieldwork, collection of all samples, completion of the field log, and chains of custody. The OSC will have authority over all on-site subcontractors.

Laboratory York Analytical Laboratories

York Analytical Laboratories, will be responsible for analysis of samples, and is New York State Department of Health (NYSDOH) Environmental Laboratory Approved Program (ELAP) certified in the appropriate categories, including PFOA and PFOS in drinking water by EPA Method 537.1 or ISO 25101.

Subcontractors To be determined

Subcontractors will be responsible for the operation of special equipment and providing technical assistance as needed. The laboratory subcontractor will be responsible for analysis of samples and will be New York State Department of Health (NYSDOH) Environmental Laboratory Approved Program (ELAP) certified in the appropriate categories.

1.2 Principal Data Users

The principal users of the generated data in this project are listed below.

1. Residents of the Village of Saranac Lake, especially those residing in the vicinity of the Site
2. Parkview Development & Construction, LLC
3. NYSDEC

1.3 Problem Definition/Background

Site remediation is planned under the NYSDEC Brownfields Cleanup Program (BCP ID: C517015) in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP, December 2022). The requirements, procedures and protocols of the RAWP are wholly incorporated by reference into this QAPP. The RAWP describes the tasks required to remediate on-Site contamination.

The Remedial Investigation Report (RIR) documented: field evidence of petroleum contamination in soil, and petroleum contamination in soil, groundwater, and vapor at Lot 12, due to a historical release from a gasoline underground storage tank; limited impacts by metals in upper fill soils at Lot 11; and, Site-wide low-grade contamination by metals in groundwater and volatile organic compounds in vapor. Other than the petroleum release area, no grossly impacted source areas were identified.

1.4 Project/Task Description

The project will meet its objective through compliance with NYSDEC DER-10 Technical Guidance for Site Investigation.

1.5 Quality Objectives and Criteria

The data collected in this project will be used to document Site environmental conditions. In order to meet the data quality objectives of precision, accuracy, representation, comparability, and completeness the following actions will be taken:

- Confirmatory soil samples, as well as any other required soil, groundwater and/or soil vapor samples, will be collected based on the procedures in the RAWP and this QAPP, to ensure data consistency.
- Data generated from media sampling will be submitted for review by an independent third party (see Section 3.4.1, below).

Prior to field activities, the QEP, Project Manager and the OSC will review the RAWP to ensure that the data quality objectives of precision, accuracy, representation, comparability, and completeness will be met during the field activities. At the completion of field activities, the Project Manager will review field logs and chains of custody to ensure that field activities met the intent of the RAWP. If a problem is identified, Mr. Richard Hooker and the Project Manager will meet to determine corrective measures necessary to meet data quality objectives.

1.6 Documents and Records

Electronic and paper copies of all fieldwork observations and measurements will be retained by GBTS.

2.0 SAMPLING AND ANALYSIS PLAN

Sample collection, handling and laboratory analysis is summarized below. A figure illustrating the Site configuration and areas of proposed remediation activities is provided as Attachment A.

2.1 Sampling Overview

After the completion of the excavation of contaminated soil the following samples will be collected: confirmatory endpoint soil to document attainment of NYSDEC Soil Cleanup Objectives; groundwater; and, sub-slab vapor and indoor air (at new on-Site buildings). Additional contingency media samples (soil, groundwater and/or soil vapor) may be collected based on the conditions encountered during remedial construction.

2.2 Fieldwork and Sampling Methodology

All fieldwork activities, including collection and handling of media samples, will be in accordance with the Standard Operating Procedures (SOPs) provided in Attachment B. Sampling will include per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane, and guidelines for such sampling will be strictly followed by all field and laboratory personnel. Basic SOP components are summarized below.

2.2.1 General Fieldwork

The OSC will be responsible for compliance with the SOPs, including:

- Documentation of all fieldwork activities in logbooks for inclusion in final reports;
- Assessment of media characteristics (soil type, presence or absence of foreign materials, field indications of contamination), and instrument readings using properly calibrated and operated precision instruments;
- Identification of materials requiring special handling (media that may contain elevated concentrations of contaminants or is grossly contaminated, hazardous materials, etc.) and ensuring proper secure on-site storage, pending characterization and disposition;
- Ensuring that unforeseen environmental conditions are managed in accordance with applicable federal and state regulations;
- Sample collection, including procedures to minimize potential cross-contamination; and,
- Implementation of decontamination procedures.

Sample collection and laboratory analysis for PFAS and 1,4-dioxane will comply with NYSDEC *Sampling, Analysis, and Assessment of Per-And Polyfluoroalkyl Substances Under NYSDEC's Part 375 Remedial Programs*, June 2021 (PFAS Guidance), provided in Attachment B (SOPs).

Guidelines for sampling of soil and/or groundwater for PFAS include the following (detailed protocols, including lists of prohibited behaviors and materials, are provided in the SOP):

- Sampling for PFAS will be conducted prior to sampling for other analytes, as practicable, to minimize cross contamination from sample containers utilized for other methods;
- Sampling personnel will comply with specific prohibitions in regards to field equipment, PPE, rain gear, personal clothing and body-care, food, etc.;
- Sample coolers will be held at low temperature using only ice (plastic freezer packs are prohibited);
- Decontamination protocols specific to PFAS will be followed, including use of "PFAS free" water and approved cleaning agents (Liquinox is prohibited); and,
- Compliance with laboratory requirements for sampling containers, field blanks, etc.

2.2.2 Soil and Groundwater Sampling

The number and location of excavation confirmatory endpoint samples will be determined based on the actual field conditions (excavation size, presence of bedrock, etc.), in consultation with NYSDEC. Samples will be collected with hand-held equipment, or may be manually collected directly from exposed soil or the sampling instrument using dedicated disposable latex gloves, from remaining soil at excavation areas. Soil sampling for volatile organic compounds (VOCs) will follow USEPA Method 5035 protocols, using disposable 5-gram plastic syringes to place material into laboratory-supplied glass vials (prepared with stirs bars and appropriate preservatives).

Post-remediation groundwater sampling will be conducted for VOCs in order to document the effectiveness of groundwater treatment (sampling locations and frequency to be determined).

2.2.3 Soil Vapor and Air Sampling

Post-remediation sub-slab vapor and air sampling will be conducted for VOCs at the new buildings in order to document the performance of vapor mitigation control measures. All sampling will be in accordance with applicable NYSDOH guidance, including use of a tracer gas to confirm adequate surface seals. Purge rates will not exceed 0.2 liters per minute. Vapor and air samples will be collected concurrently, over a 24-hour period (rate not exceeding 0.2 liters per minute) into individual laboratory-certified clean Summa canisters equipped with calibrated flow regulators.

2.2.4 Other Materials

Any non-soil solid materials requiring laboratory analysis will be placed into laboratory supplied glassware when possible, or will alternatively be placed into double locking plastic bags and then boxed in order to prevent a tear or other breach in the bags. Liquid samples from excavations, collection pits, or drums/tanks, etc., will be sampled using a dedicated disposal sampling device.

Any required sampling for other media will be in compliance with fieldwork protocols specified in the RAWP

2.3 Sample Handling and Custody

2.3.1 Sample Containers

The following laboratory-supplied containers will be used for sample collection (as applicable):

Media	Analyte Class	Collection Container (subject to laboratory requirements)	Preservation
Soil	PFAS	1, 250-ml HDPE plastic (fill halfway)	4° C
Soil	VOCs	Laboratory 5035 VOA kit, (4, 40-ml glass vials)	Method 5035
Soil	SVOCs, metals, PCBs, pesticides, herbicides, cyanide	1, 8-oz. glass jar	4° C
Soil	PFAS MS/MSD	1, 250-ml HDPE plastic (fill halfway), (may use soil from a sample container)	4° C
Soil	All other MS/MSD	additional 8-oz. glass jar	4° C
Water	PFAS	2, 250-ml HDPE plastic (fill to neck)	4° C
Water	VOCs	4, 40-ml prepared glass vials	4° C, HCl
Water	SVOCs, PCBs, pesticides, herbicides	1-liter amber glass (specified by laboratory)	4° C
Water	Metals - total	1, 500-ml HDPE plastic	4° C
Water	Metals - dissolved	1, 500-ml HDPE plastic	4° C, HNO_3
Water	Cyanide	1, 500-ml HDPE plastic	4° C, NaOH
Water	Trip blank (PFAS)	2, 250-ml HDPE plastic (fill to neck)	4° C
Water	Field blank (PFAS)	1, 250-ml HDPE plastic (fill to neck)	4° C
Water	Trip blank (VOCs)	3, 40-ml prepared glass vials	4° C, HCl
Water	Field blank (other analytes)	As per sample collection requirements	See above
Vapor	VOCs	1, 6-liter Summa canister (or equivalent)	none

2.3.2 Sampling Frequency

Soil samples will be analyzed for NYSDEC Part 375-6.8 parameters, including USEPA Target Compound List (TCL) VOCs and semi-volatile organic compounds (SVOCs) plus 30 tentatively identified compounds (TICs), USEPA Target Analyte List (TAL) metals, Cr^{+6}, polychlorinated biphenyls (PCBs), pesticides, herbicides and cyanide, as well as 1,4-dioxane and PFAS in accordance with the most current NYSDEC guidance. Sample analysis may be modified in consultation with the NYSDEC Project Manager based on previous sampling results. Additional soil analysis may be performed based repository requirements for waste characterization prior to off-site disposal.

Sampling requirements and USEPA Methods are outlined below.

Media /QC Parameter	Number of Samples [a]	Analytes (USEPA Method) [b, c]
Soil, full parameters as required	*To be determined*	PFAS: NYSDEC target list (1633) TCL: VOCs +10 and SVOCs +20 (8260C/8270D) TAL: total metals (6010D and 7473); chromium^{+6} (7196A); cyanide (9010C) Other: pesticides (8081); herbicides (8151A); PCBs (8082)
Groundwater	*To be determined*	VOCs (8260C)
Soil Vapor	*To be determined*	VOCs (TO-15)
Trip Blank (PFAS)	1 per sample cooler (each day of sampling)	PFAS NYSDEC target list (1633)
Trip Blank (VOCs)	1 per sample cooler (each day of sampling)	TCL VOCs +10 (8260)
Field Blank (PFAS)	1 per sample day	PFAS NYSDEC target list (1633)
Equipment Blank (PFAS)	1 per sampling day (non-dedicated)	PFAS NYSDEC target list (1633)
Field Blank (other)	1 for every 20 samples (non-dedicated)	As per sample collection requirements
Duplicates, MS/MSD	1 for every 20 samples (minimum 1/week)	As per sample collection requirements; PFAS soil MS/MSD may be from same container as sample

Notes
- a Equipment blanks (when required) to be collected at a minimum of one per day for each matrix.
- b PFAS will be analyzed by EPA Method 1633; additional laboratory methods may include Synthetic Precipitation Leaching Procedure (SPLP, by 1312) and/or Total Oxidizable Precursor Assay (TOP Assay); 1,4-dioxane by 8270 SIM

2.3.3 Sample Custody

The OSC will handle samples and maintain them at cold temperatures (4 +/- 2 °C), as warranted. Upon the completion of each day of sample collection activities, all samples will be shipped via either courier or overnight delivery (per laboratory requirements) to a NYSDOH ELAP certified laboratory under proper chain of custody. Laboratory personnel will record the cooler temperature upon receipt and analyze the samples prior to the expiration of the hold times as specified in the NYSDEC Analytical Services Protocols (ASP).

2.4 Analytical Methods

Media samples will be analyzed as indicated in Section 2.3.2, above. Analytical methods for the samples will be implemented as follows:

Matrix	Sample Analysis (Holding Time)	USEPA Analytical Method
Soil	PFAS (14 days)	1633 (reporting limit 1 µg/kg)
Soil	TCL VOCs+10 (14 days)	8260C; 8270 for 1,4-dioxane (1,4-dioxane reporting limit 0.1 mg/kg) [a]
Soil	TCL SVOCs+20 (14 days)	8270B
Soil	TAL metals (180 days; mercury 28 days)	6010C/7471B
Soil	cyanide (14 days)	9010C
Soil	pesticides/PCBs/herbicides (14 days [b])	8081A/8082/8151A
Water	PFAS (14 days)	1633 (reporting limit 2 ng/L)
Water	TCL VOCs+10 (14 days)	8260C; 8270 SIM for 1,4-dioxane (1,4-dioxane reporting limit 0.35 µg/L) [a]
Water	TCL SVOCs+20 (7 days [b])	8270B
Water	TAL metals (180 days; mercury 28 days)	6010C/7471B
Water	cyanide (14 days)	9010C
Water	pesticides/PCBs/herbicides (7 days [b])	8081A/8082/8151A
Vapor	VOCs (30 days)	TO-15

a Laboratory will meet required reporting limits running standard USEPA Method 8270
b Days for extraction, 40 days after extraction for laboratory analysis

2.5 Quality Control

Accuracy and precision will be determined by repeated analysis of laboratory standards, and matrix effects and recovery will be determined through use of spiked samples. The laboratory will run standards, blanks, and spiked samples during sample analysis. Duplicate sampling (for all parameters), and matrix spike (MS)/matrix spike duplicate (MSD) analyses, will be performed in accordance with Section 2.3.2. For each day of sampling, a trip blank will be included with each sample cooler and be analyzed for PFAS or VOCs, as applicable.

Samples will be identified using a unique ID number. This ID will be recorded on the sampling log and/or field record and the sampling container (samples for each fieldwork day will be assigned to a Sample Delivery Group [SDG] by the laboratory). In accordance with current best fieldwork practices, permanent marker will not be utilized to label samples planned for analysis for PFAS. Samples for each day of fieldwork will be shipped via courier to the laboratory under proper chain of custody procedures.

2.6 Quality Assurance

2.6.1 Instrument/Equipment, Testing, Inspection, and Maintenance

Field measurements will be conducted using monitoring equipment specialized for each task, including use of a PID during fieldwork to screen for volatile organic vapors. All equipment will be properly stored (within buildings or construction trailers when not in use) and calibrated (as warranted) in accordance with the manufacturer's instructions (malfunctions are normally apparent during calibration). In the event of malfunction, equipment will be cleaned and tested. Equipment testing, inspection and maintenance will be the responsibility of the Project Manager and OSC. Any other equipment selected for field measurements will be similarly managed.

2.6.2 Inspection/Acceptance of Supplies and Consumables

All supplies and consumables will be inspected and tested (if necessary) by the Project Manager or OSC. The following supplies and consumables will be used (as applicable) for each sample:

- Laboratory-supplied sampling containers, as specified in Section 2.3.1
- Laboratory-supplied materials for PFAS sampling, including trip blanks and PFAS-free cooler
- Plastic tubing for groundwater and soil vapor sampling
- PFAS-free water for decontamination
- Disposable gloves (nitrile or equivalent)

2.6.3 Data Management

For the purpose of data management, the data can be divided into field and laboratory data.

Field data will be recorded at the time of measurement on written field logs. Laboratory data will be reviewed upon receipt and summarized in data summary tables. The NYSDEC electronic data deliverable format for the analytical data will be requested from the testing laboratory. NYSDEC ASP Category B Data Deliverables will be requested from the testing laboratory and forwarded to an independent third party data validator for the development of Data Usability Summary Report (DUSR).

3.0 DATA REVIEW, VALIDATION AND USABILITY

3.1 Field Measurements

If field instruments are determined to be functioning correctly through calibration and measurements of standards, and if there are no inconsistencies between written records and data recorded in the meters, the data will be assumed to be valid and will be accepted as an indication of field conditions. If instruments malfunction prior to field measurement, they will be restored to proper function prior to re-use. If malfunctions occur immediately after field measurements are taken, the measurements will be retaken as soon as possible. Inconsistencies between written records and recorded meter data will be resolved by re-testing the material, if possible. If re-testing is not possible, (i.e. the sample has been shipped to the laboratory), the inconsistency will be described in appropriate subsequent reporting and the laboratory analysis will be utilized to classify the material. In addition, all field data will be reviewed by the Project Manager for consistency and plausibility.

3.2 Laboratory Analysis

A NYSDOH ELAP-certified laboratory will provide a NYSDEC ASP Category B data package and NYSDEC Electronic Data Deliverable format for the determinative sample analyses.

3.3 Standards, Criteria and Guidance

The following Standards, Criteria and Guidance (SCGs) are applicable for this Site:

SOIL

Soil results are compared to Soil Cleanup Objectives (SCOs) provided in 6 NYCRR Subpart 375, Table 375-6.8(a) Unrestricted Use SCOs and 6.8(b) Restricted-Residential Use SCOs, NYSDEC PFAS Guidance, and (as needed) Supplemental SCOs and/or Soil Cleanup Levels in NYSDEC CP-51 Soil Cleanup Guidance, Tables 1 to 3. SCOs are provided as Attachment C.

WATER

Water results are compared to NYSDEC Division of Water Ambient Water Quality Standards and Guidance Values (AWQS), provided in Technical and Operational Guidance Series 1.1.1, and the NYSDEC PFAS Guidance.

VAPOR/AIR

The State of New York does not have any SCG for volatile chemicals in subsurface vapors. Vapor results will be evaluated in terms of Site data as a whole, and will include discussion of potential vapor intrusion concerns based on a comparison of sub-slab vapor and indoor air sampling results using applicable NYSDOH Decision Matrices.

3.4 Verification and Validation Methods

3.4.1 Verification Method

Once collected, all data will go to the Project Manager for review and verification. Review will involve determining that data has been collected at the proper locations by the proper persons and that all field and laboratory logs are complete. In addition, a Data Usability Summary Report (DUSR) will be prepared by a third, independent party. A resume outlining the education and data validation experience of the individual preparing the DUSR is provided in Attachment D.

3.4.2 Authority for Verification

Authority for verification, validation, and resolution of data issues will be distributed among the investigators. Authority to resolve issues regarding verification of field measurements will rest with the QEP, Project Manager and Mr. Richard Hooker.

4.0 REPORTING REQUIREMENTS

Following review, validation, and verification, all data will be conveyed to users via a Remedial Investigation Report (RIR) in accordance with the requirements of NYSDEC DER-10 Section 3.1.4.

The RIR will summarize all data collected during implementation of the RIWP (and any additional work), and will include, at a minimum:

- Descriptions of fieldwork activities and observations;
- Summaries of laboratory analytical results from sampling events, described in the report text and provided in data summary tables, as well as DUSRs for all data;
- Characterization of contamination sources (including environmental fate and transport);
- A qualitative human exposure assessment;
- Accounts of any deviations from RIWP procedural requirements; and,
- Conclusions drawn from applicable, available data.

ATTACHMENT A

Figures

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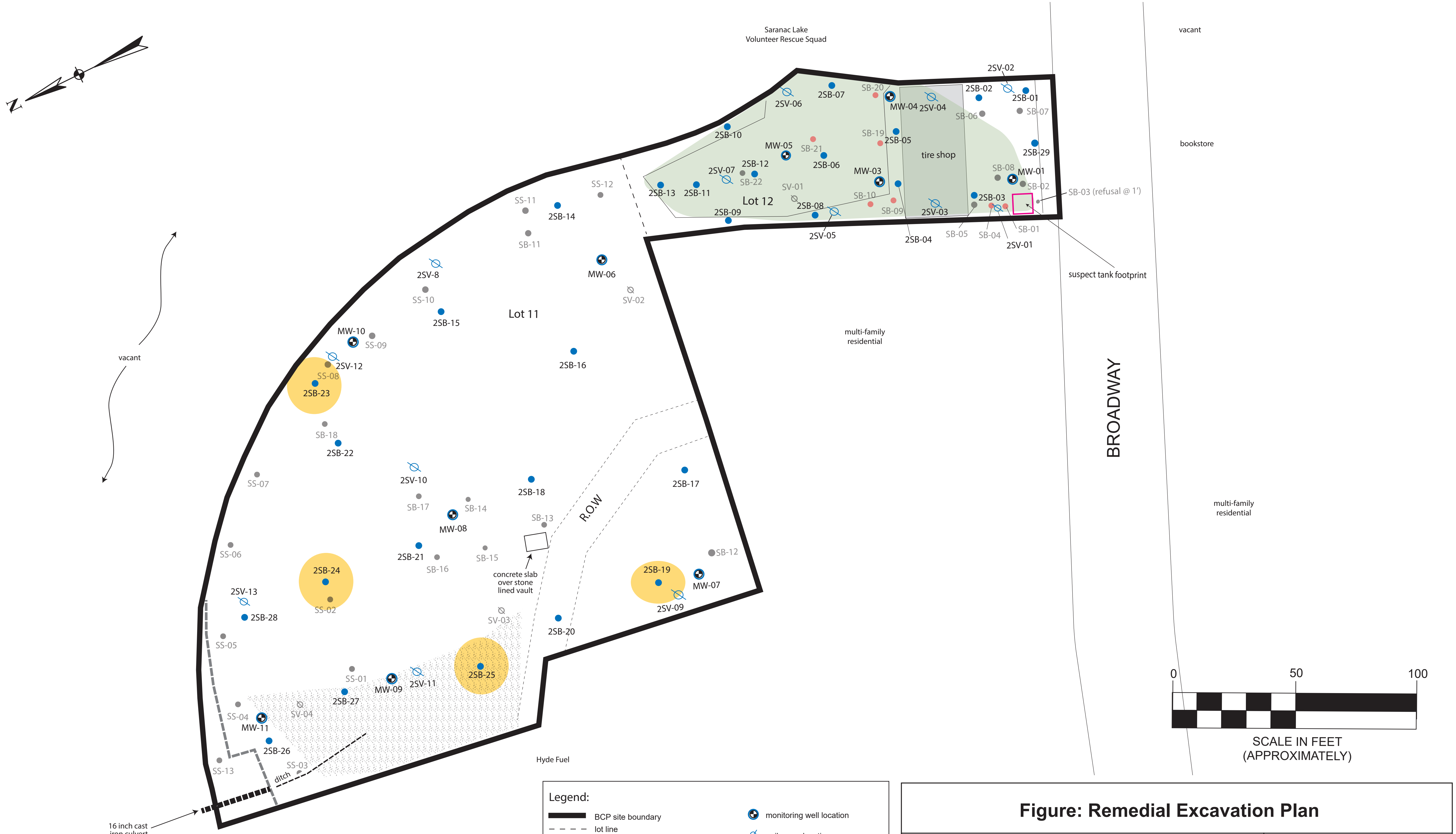

Legend:

	BCP site boundary		monitoring well location
	lot line		soil vapor location
	retaining wall		boring location
	area of wet surface soil		Petroleum Spill Area: All grossly impacted soil to be removed (excavation to bedrock as needed)
	previous soil sample location		
	previous soil boring with evidence of petroleum contamination		Poor-Quality Fill Soils: Soil to be removed to 5 feet below grade
	previous soil vapor location		

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure: Remedial Excavation Plan

Saranac Lofts BCP Site C517015
120 Broadway
Village of Saranac Lake
Franklin County, New York

File: 21003-0066

Scale as shown

December 2022 | Figures

ATTACHMENT B

Standard Operating Procedures

GALLAGHER BASSETT | TECHNICAL SERVICES

STANDARD OPERATING PROCEDURES

Fieldwork Sampling
and
Decontamination

Updated September 2022

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TABLE OF CONTENTS

ATTACHED SUPPLEMENTS

I. INTRODUCTION

This document provides Standard Operating Procedures (SOPs) for use by Gallagher Bassett Technical Services (GBTS) personnel during fieldwork events that require the collection of soil, groundwater, soil vapor and/or air samples. General procedures are presented below; detailed protocols, as available, are provided as supplemental attachments. Equipment checklists, forms and calibration documents are maintained at GBTS offices. All SOPs and supporting documentation are periodically updated.

II. FIELDWORK SAMPLING

Fieldwork sampling procedures are described below. Selection of field equipment will be based on anticipated site conditions (updated check-lists of equipment and supplies required for sampling activities are maintained at the local field office). All equipment operations will be in accordance with applicable operating manuals and specifications, and will be conducted (as needed) by an experienced subcontractor holding applicable permits/licenses. Decontamination procedures will be implemented as warranted during all fieldwork activities. Special requirements for PFAS sampling are noted in Section III.

A. Procedures to be Conducted Prior to Fieldwork

Prior to the initiation of any ground-intrusive fieldwork, a request for a complete utility markout of the fieldwork site will be submitted to an appropriate service, as required by state regulations. Confirmation of underground utility locations will be secured and a field check of the utility markout will be conducted prior to the extension of soil borings[1].

A Fieldwork Map and Work Plan, indicating sampling locations and objectives, will be prepared prior to fieldwork activities, and sampling locations will be confirmed and located prior to starting work.

B. General Fieldwork Methodology

At the start of the wok day, all on-site personnel, including environmental subcontractors and observers, will be briefed on planned activities and the contents of the site-specific Health and Safety Plan (HASP). Independent field logs will be utilized to document relevant information, including arrival and departure times of on-site personnel, safety meetings, basic weather conditions, and detailed notes and drawings documenting all fieldwork activities and/or any other relevant events and conditions.

On-site personnel will be properly dressed for the intended activities[2] and the anticipated weather conditions, including use of personnel protective equipment in accordance with the HASP.

Sampling locations will be determined in the field, measured to the nearest 0.5-foot relative to a fixed on-site marker, and will be recorded in logbooks for inclusion in all final maps.

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[1] Markout requirements apply to any ground intrusive methodologies, including the extension of test pits.

[2] Special care is required when for sampling of PFAS; see Section IV

Media will be collected in accordance with the Quality Assurance Project Plan (QAPP) and in a manner consistent with NYSDEC and/or NYSDOH requirements, including protocols for handling and custody. New, dedicated disposable nitrile gloves will be worn at each sampling location, and will be changed frequently based on field conditions. Fieldwork personnel will assess media characteristics (e.g., soil type, presence of debris, indications of contamination, etc.) and record all observations in log books.

On-site senior personnel will be responsible for: a) identifying any materials that require special handling, such as media that may contain high levels of contaminants or is grossly contaminated or likely to be hazardous; b) ensuring that identified materials are properly securely stored on-site (stockpiled on plastic and covered, or placed in approved containers), pending characterization and proper disposition; and, c) ensuring that unforeseen environmental conditions are managed in accordance with applicable federal and state regulations.

Sample collection from recovered media will be performed without unnecessary delay. Samples will be placed into labeled containers provided by the laboratory, stored in dedicated coolers kept at 4 (+/-2) °C and handled under proper chain of custody. All samples will be shipped to a NYSDOH ELAP certified laboratory via laboratory courier (either upon completion of each day of sample collection activities, or the following day after overnight storage in a dedicated sample refrigerator).

C. Extension of Soil Borings

Soil borings will be extended using either hand-held or mechanized equipment, based on site conditions and Work Plan requirements. Mechanized equipment includes using either direct push technology (DPT) or rotary methods, including hollow stem auger (HSA) and sonic drilling. The small size of DPT rigs allows for sampling in tight spaces and areas that are sensitive to the use of heavy equipment. DPT can be used in overburden soils where the soil texture allows for direct push of sampling equipment. A HSA or sonic rig will be utilized if significant subsurface obstructions (e.g., large cobbles, boulders, concrete, etc) are (or are expected to be) encountered.

Hand borings will be extended (as warranted) using manual DPT equipment (e.g., Geoprobe), which includes a collection barrel lined with disposable acetate sleeves, extension rods and a slide hammer. The barrel will collect samples from discreet intervals of 2 feet. Hand boring methods are generally restricted to shallow soil sampling (0 to 6' below grade) and may be employed/attempted if access by mechanized equipment is not practical.

DPT will typically be utilized during the extension of borings in overburden soils. The DPT rig will be equipped with a macro-core sampling barrel (minimum diameter 4") lined with disposable acetate sleeves. The barrel will collect samples from discreet intervals of either 4 or 5 feet. HSA rigs will use a continuous hollow stem auger with a split-spoon (collection interval of 2 feet) or other collection device. This system drives drill cuttings to the surface as drilling progresses, which will require management. Sonic drill rigs will utilize coring barrels of various lengths lined with plastic tubing.

Bore hole openings will be periodically screened with a photoionization detector (PID).

D. Installation and Development of Monitoring wells

Groundwater monitoring wells will be installed by the drilling subcontractor. Unless otherwise specified, monitoring wells will be constructed of two-inch PVC casing with a ten-foot length of 0.01-inch slotted PVC well screening across the water table. No glue will be used to thread the casing lengths. A minimum of 2 feet of screening will extend above the water table, with approximately 8 feet below the water level (depth to water will be inferred based on saturated soils encountered during installation, or from data from existing groundwater monitoring wells).

The annular space between the well screen and the borehole will be backfilled with clean silica sand to approximately two feet above the screen. A seal consisting of at least 12 inches of hydrated bentonite clay will be placed above the sand pack and the remaining annular space will be grouted with cement.

A locked cap with vent will be installed at the top of the PVC riser (well protection will be in accordance with the Work Plan, including use of secure "drive-over" metal cover or stick-up metal outer casing). A surveyor's transit level will be used to determine the elevation of the top of the PVC well riser, relative to a permanent on-site marker, for use in determining relative groundwater elevations. Well locations and relative elevations will be recorded in field logs and indicated on all fieldwork maps.

The wells will be developed one week following installation. The wells will be developed with a properly decontaminated mechanical pump and dedicated polyethylene tubing in order to clear fine-grained material that may have settled around the well screen and to enhance the natural hydraulic connection between the well screen and the surrounding soils. Well development will begin at the top of the screened interval to prevent clogging of the pump within the well casing. Well development will be discontinued when the discharge water is free of obvious sediment, turbidity is below 50 NTUs and indicator parameters (e.g., dissolved oxygen, temperature, etc.) have stabilized. Upon completion, the pump assembly will be removed from the well while the pump is still running to avoid discharge of purged water back into the well. Development water will be securely stored on-site pending laboratory analysis.

E. Soil Sampling

Recovered sampling equipment will be placed on a clean surface (folding table, plastic sheeting, etc.) and opened (liners will be sliced with a clean razor knife). Recovered soils will be observed for potential contamination through observation and use of properly calibrated field instruments, e.g., PID. Samples will be collected directly from the sampling device. The volume of material collected will be sufficient for the required analyses and for reasonably anticipated potential additional analyses. Soil to be analyzed for volatile organic compounds (VOCs) will be collected following USEPA Method 5035 protocols, using laboratory sampling kits. Samples to be analyzed for parameters other than VOCs will be collected as either grab or composite samples, using disposable plastic trowels or properly decontaminated stainless steel instruments, or directly by the fieldwork technician using dedicated, fresh disposable nitrile gloves.

F. Groundwater Sampling

Groundwater sampling will be conducted using USEPA "Low-Stress" protocols, which are detailed in Supplement A. Sampling will be conducted using the following general procedures:

1. Groundwater sampling will begin at the potentially least contaminated well (as determined from well location and/or previous data) and proceed to the potentially most contaminated well. The field technician will check and record the condition of all monitoring wells for damage or evidence of tampering before initiating sampling. Plastic will be placed around wells to minimize potential contamination of sampling equipment from the ground surface, and all monitoring, purging and sampling equipment will be placed on the sheeting.
2. The protective casing on the well will be unlocked, the air in the well head will be screened with a PID, and static water level (from the top of the casing) will be measured with a decontaminated water-level meter. A peristaltic pump with plastic tubing, or a submersible pump attached to tubing (if required by Site conditions, e.g., well depth) will be used for sampling. The tubing (or pump attached to tubing) will be slowly lowered until reaching two to three feet off of the well bottom to prevent disturbance and re-suspension of any remaining sediment.
3. Depth to water will be measured to nearest 0.01 feet, relative to a reference measuring point on the well casing (if no pre-existing reference point is found, a reference point will be marked on the inner casing and noted in the field logbook). The water level will be measured before the pump is started and at intervals of every three to five minutes. Pumping rates will be reduced (as needed) to the minimum capabilities of the pump to ensure stabilization of the water level (drawdown of 0.3 feet or less).
4. During pumping, field indicator parameters (turbidity, temperature, specific conductance, pH, redox potential, and dissolved oxygen) will be monitored and recorded approximately every five minutes. The well will be considered stabilized when the indicator parameters have stabilized for three consecutive readings (the minimum purge interval will be at least 15 minutes).
5. All groundwater samples will be collected in a manner consistent with the QAPP.
6. The protective cap on the well will be replaced and locked following sampling, and the field sampling crew will move to the next most contaminated well and the process will be repeated.

G. Soil Vapor Sampling

Soil vapor sampling will be conducted consistent with applicable NYSDOH guidance and fieldwork protocols detailed in Supplement B. Sampling will be conducted using the following general procedures:

Soil vapor samples may be collected from beneath building foundations or paved areas, or from exterior areas not otherwise covered by material that trap soil vapor at the surface. Concrete slabs and exterior pavement will generally be breached with rotary equipment, which produce a small-diameter hole. The hole will be extended into underlying soil/sub-base to a depth required by the sampling technology (typically 6 to 12 inches below the base of the overlying materials for temporary installations). Sampling at exterior areas will require extension of a borehole to at least 3 to 4 feet below the surface (greater depths may be specified by the Work Plan).

Construction details for both temporary and permanent soil vapor implants are provided in the Supplement. All soil vapor probes will be installed with a properly sealed surface opening to prevent ambient air from entering the system.

A tracer gas (e.g., helium) will be used at soil vapor sampling locations to verify that adequate sampling techniques are being implemented (i.e. to verify the absence of significant infiltration of outside air), in accordance with applicable NYSDOH guidance. The space around the sampling point will be enclosed and sealed (with a metal hemisphere and clay) in order to introduce a tracer gas (helium) into the area surrounding the probe point. Real-time sampling equipment (Radiodetection Multi-vapor Leak Locator, model MDG 2002, or equivalent) will be utilized to determine when the interior atmosphere in the enclosure reaches a concentration of 80%, and the tubing for the vapor implant will then be sampled for the tracer gas. If helium is detected in vapor at a concentration greater than 10%, the annular seal will be repaired and gas tracing performed again until less than 10% helium is detected.

Vapor in the sampling tubing will be screened with a PID for VOCs prior to purging. For all sampling locations, the exact purge volume will be dependent on the boring depth and subsequent length of tubing. Three borehole and tubing volumes will be purged prior to collection. The purge rate will not exceed 0.2 liters per minute. Following purging of ambient air from the collection device, soil vapor samples will be (at a rate not exceeding 0.2 liters per minute) into individual laboratory-certified clean Summa canisters equipped with flow regulators (sampling period as specified in the Work Plan).

III. GENERAL DECONTAMINATION PROTOCOL

Consistent decontamination methods will be used to reduce or eliminate contamination and cross-contamination of samples by field equipment, other samples or personnel, and to minimize potential exposures caused by the spread of contaminants. Decontamination will occur any time a sampling tool or instrument used in field investigations contacts sampled media or personnel using the equipment. These procedures will be used in conjunction with all non-dedicated (i.e. reusable) equipment used during the handling, sampling or measuring of environmental media, and will be implemented primarily on-site at the point of use or at a designated equipment decontamination station at the project site.

Types of equipment usually requiring decontamination include pumps, gauges, augers and sampling barrels. Drilling equipment, water level meters, submersible pumping equipment, and any other non-dedicated monitoring and sampling equipment will be decontaminated prior to the start of fieldwork, after the collection of each media sample, and between boring intervals and/or sampling locations. Water quality parameter sensors and flow-through cell will be cleaned between sampling locations in accordance with the manufacturer’s recommendations.

Materials and methods for decontamination are provided in Supplement C.

IV. PFAS SAMPLING - SPECIAL REQUIREMENTS

Special requirements apply to all fieldwork procedures during sampling for per- and polyfluoroalkyl substances (PFAS). Because of the potential presence of PFAS in common consumer products and in equipment typically used to collect media and the need for very low reporting limits, special handling and care must be taken when collecting samples for PFAS analysis to avoid sample contamination. There is only limited research regarding how the use of various procedures and materials affect sample results, and this SOP therefore represent a conservative approach. Field personnel should take precautions to avoid items that are likely to contain PFAS at the sampling site as well as avoid specific items during the sampling event, and must frequently check for updates to this SOP. The most recent NYSDEC guidance document (June 2019), as well as a *PFAS Sampling Quick Reference Field Guide* (provided by Michigan Department of Environmental Quality), are provided in Supplement D.

A. EQUIPMENT AND SUPPLIES

Avoid personal protective equipment (PPE, including clothing chemically treated for UV protection) and field supplies that may include PFAS and which could cross-contaminate field samples. Personal body products such as shampoos, moisturizers and cosmetics may contain PFAS and should be used with care the day of sampling. Sunblock and insect repellent ingredients need to be verified to ensure that they do not contain PFAS before use in the field.

Food and food packaging should not enter the sampling zone.

Water resistant, waterproof, stain-treated, clothing recently washed with fabric softeners, and new clothing should be avoided. If sampling in inclement weather a canopy tent may be a good option (note, however, that water resistant/waterproof material likely contains PFAS and disposable gloves should be worn when putting up and/or moving the tent.

Waterproof field books may contain PFAS and should not be used. Documentation of field activities should be on loose paper on an aluminum clipboard or in a waterproof field book that does not use PFAS. Field notes should be taken with a ball point pen (avoid large felt tip markers; fine and ultra-fine point Sharpie® markers are acceptable). Sticky notes, etc., may contain PFAS and should be avoided (pre-printed labels should be verified PFAS-free.

Disposable, powderless, nitrile gloves must be worn during PFAS sampling and handling activities and should be changed frequently during and between sampling activities.

Sealed laboratory-supplied sampling containers may be placed into LDPE resealable storage bags (e.g., Ziploc®) that will not contact the sample media.

Chemical ice packs should not be used unless it is verified that they are PFAS-free. Samples for PFAS analysis should be placed on water ice immediately and should ideally be received by the laboratory at a temperature less than 6º Celsius.

B. GENERAL SAMPLING PROCEDURES

Sampling must be conducted in accordance with the project-specific QAPP, including use of laboratory-supplied sample containers.

If non-dedicated non-disposable equipment is used for sampling, proper decontamination is necessary. Decontamination reagents should be checked to ensure that they do not contain PFAS before use. Similarly, water used for decontamination should be checked (i.e. field equipment blanks) to verify that it does not contain PFAS. It may be necessary to collect samples of decontamination water prior to use to ensure that water being used for decontamination does not contain PFAS.

Soil samples should be collected using stainless steel, acetate, or polypropylene constructed equipment. Liners for soil sampling should not contain PFAS.

If a monitoring well has dedicated tubing that may contain PFAS, the dedicated tubing should be removed, and silicone or HDPE tubing should be used to sample for PFAS following at least one well volume purge prior to sampling for PFAS. The recommended length of time that dedicated tubing should be removed, and the recommended amount of purging conducted prior to sampling where dedicated tubing has been present is variable. If it is anticipated that dedicated tubing may be a source of PFAS cross contamination extra precaution, such as removal of the tubing 14 days prior to sampling or purging of three well volumes, should be considered.

Care should be taken to not cross contaminate PFAS samples if samples for non-PFAS analyses are being collected. For example, if VOCs and PFAS water samples are being collected, the VOCs would be collected using a peristaltic pump with HDPE and silicone tubing, and then a second set of samples would be collected for PFAS after changing gloves and switching sample container sets.

If transfer bottles are necessary for surface water sample collection, they should be PFAS-free and made of the same material as the laboratory provided sample containers.

If a water supply is to be sampled, both a pre- and post-treatment sample may be necessary. Carbon filtration, reverse osmosis, and other filter media may bias laboratory results for PFAS. Water should be allowed to run freely until water quality parameter stabilization has occurred, typically between 3 and 5 minutes. Water flow rate should be reduced for minimal aeration.

Do not filter samples for PFAS analysis.

C. DECONTAMINATION OF PFAS SAMPLING EQUIPMENT

Special requirements apply to decontaminating non-dedicated equipment used for PFAS sampling. Laboratory supplied PFAS-free deionized water is preferred for decontamination (commercially available deionized water in an HDPE container, and municipal drinking water, may be used for decontamination if verified to be PFAS-free. Sampling equipment can be scrubbed using a polyethylene or polyvinyl chloride (PVC) brush to remove particulates. Decontamination procedures should include triple rinsing with PFAS-free water. Note that a QAPP prepared for NYSDEC program sites prohibits use of Liquinox®.

V. INVESTIGATION DERIVED WASTES

Disposal of any waste materials will be in accordance with provisions of the applicable site-specific Work Plan. If not otherwise specified: 1) discarded personal protective equipment and other fieldwork supplies not significantly impacted by free petroleum or other gross contaminants will be disposed as municipal solid waste; and, 2) well development purge water, spent absorbents or other significantly contaminated materials, and/or any recovered free-petroleum, will be properly stored on-site, in properly labeled and secured containers, pending final off-site disposal at a permitted facility.

SUPPLEMENT A

USEPA Groundwater Sampling Methods

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

LOW STRESS (low flow) PURGING AND SAMPLING PROCEDURE FOR THE COLLECTION OF GROUNDWATER SAMPLES FROM MONITORING WELLS

Quality Assurance Unit
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This document contains direction developed solely to provide guidance to U.S. Environmental Protection Agency (EPA) personnel. EPA retains the discretion to adopt approaches that differ from these procedures on a case-by-case basis. The procedures set forth do not create any rights, substantive or procedural, enforceable at law by party to litigation with EPA or the United States.

Prepared by:___________________________________ ____________
(Robert Reinhart, Quality Assurance Unit) Date

Approved by:___________________________________ ____________
(John Smaldone, Quality Assurance Unit) Date

Revision Page

Date	**Rev #**	**Summary of changes**	**Sections**
7/30/96	1	Finalized	
01/19/10	2	Updated	All sections
3/23/17	3	Updated	All sections
9/20/17	4	Updated	Section 7.0

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1.0 USE OF TERMS

Equipment blank: The equipment blank shall include the pump and the pump's tubing. If tubing is dedicated to the well, the equipment blank needs only to include the pump in subsequent sampling rounds. If the pump and tubing are dedicated to the well, the equipment blank is collected prior to its placement in the well. If the pump and tubing will be used to sample multiple wells, the equipment blank is normally collected after sampling from contaminated wells and not after background wells.

Field duplicates: Field duplicates are collected to determine precision of the sampling procedure. For this procedure, collect duplicate for each analyte group in consecutive order (VOC original, VOC duplicate, SVOC original, SVOC duplicate, etc.).

Indicator field parameters: This SOP uses field measurements of turbidity, dissolved oxygen, specific conductance, temperature, pH, and oxidation/reduction potential (ORP) as indicators of when purging operations are sufficient and sample collection may begin.

Matrix Spike/Matrix Spike Duplicates: Used by the laboratory in its quality assurance program. Consult the laboratory for the sample volume to be collected.

Potentiometric Surface: The level to which water rises in a tightly cased well constructed in a confined aquifer. In an unconfined aquifer, the potentiometric surface is the water table.

QAPP: Quality Assurance Project Plan

SAP: Sampling and Analysis Plan

SOP: Standard operating procedure

Stabilization: A condition that is achieved when all indicator field parameter measurements are sufficiently stable (as described in the "Monitoring Indicator Field Parameters" section) to allow sample collection to begin.

Temperature blank: A temperature blank is added to each sample cooler. The blank is measured upon receipt at the laboratory to assess whether the samples were properly cooled during transit.

Trip blank (VOCs): Trip blank is a sample of analyte-free water taken to the sampling site and returned to the laboratory. The trip blanks (one pair) are added to each sample cooler that contains VOC samples.

2.0 SCOPE & APPLICATION

The goal of this groundwater sampling procedure is to collect water samples that reflect the total mobile organic and inorganic loads (dissolved and colloidal sized fractions) transported through the subsurface under ambient flow conditions, with minimal physical and chemical alterations from sampling operations. This standard operating procedure (SOP) for collecting groundwater samples will help ensure that the project's data quality objectives (DQOs) are met under certain low-flow conditions.

The SOP emphasizes the need to minimize hydraulic stress at the well-aquifer interface by maintaining low water-level drawdowns, and by using low pumping rates during purging and sampling operations. Indicator field parameters (e.g., dissolved oxygen, pH, etc.) are monitored during purging in order to determine when sample collection may begin. Samples properly collected using this SOP are suitable for analysis of groundwater contaminants (volatile and semi-volatile organic analytes, dissolved gases, pesticides, PCBs, metals and other inorganics), or naturally occurring analytes. This SOP is based on Puls, and Barcelona (1996).

This procedure is designed for monitoring wells with an inside diameter (1.5-inches or greater) that can accommodate a positive lift pump with a screen length or open interval ten feet or less and with a water level above the top of the screen or open interval (Hereafter, the "screen or open interval" will be referred to only as "screen interval"). This SOP is not applicable to other well-sampling conditions.

While the use of dedicated sampling equipment is not mandatory, dedicated pumps and tubing can reduce sampling costs significantly by streamlining sampling activities and thereby reducing the overall field costs.

The goal of this procedure is to emphasize the need for consistency in deploying and operating equipment while purging and sampling monitoring wells during each sampling event. This will help to minimize sampling variability.

This procedure describes a general framework for groundwater sampling. Other site specific information (hydrogeological context, conceptual site model (CSM), DQOs, etc.) coupled with systematic planning must be added to the procedure in order to develop an appropriate site specific SAP/QAPP. In addition, the site specific SAP/QAPP must identify the specific equipment that will be used to collect the groundwater samples.

This procedure does not address the collection of water or free product samples from wells containing free phase LNAPLs and/or DNAPLs (light or dense non-aqueous phase liquids). For this type of situation, the reader may wish to check: Cohen, and Mercer (1993) or other pertinent documents.

This SOP is to be used when collecting groundwater samples from monitoring wells at all Superfund, Federal Facility and RCRA sites in Region 1 under the conditions described herein. Request for modification of this SOP, in order to better address specific situations at individual wells, must include adequate technical justification for proposed changes. All changes and modifications must be approved and included in a revised SAP/QAPP before implementation in field.

3.0 BACKGROUND FOR IMPLEMENTATION

It is expected that the monitoring well screen has been properly located (both laterally and vertically) to intercept existing contaminant plume(s) or along flow paths of potential contaminant migration. Problems with inappropriate monitoring well placement or faulty/improper well installation cannot be overcome by even the best water sampling procedures. This SOP presumes that the analytes of interest are moving (or will potentially move) primarily through the more permeable zones intercepted by the screen interval.

Proper well construction, development, and operation and maintenance cannot be overemphasized. The use of installation techniques that are appropriate to the hydrogeologic setting of the site often prevent "problem well" situations from occurring. During well development, or redevelopment, tests should be conducted to determine the hydraulic characteristics of the monitoring well. The data can then be used to set the purging/sampling rate, and provide a baseline for evaluating changes in well performance and the potential need for well rehabilitation. Note: if this installation data or well history (construction and sampling) is not available or discoverable, for all wells to be sampled, efforts to build a sampling history should commence with the next sampling event.

The pump intake should be located within the screen interval and at a depth that will remain under water at all times. It is recommended that the intake depth and pumping rate remain the same for all sampling events. The mid-point or the lowest historical midpoint of the saturated screen length is often used as the location of the pump intake. For new wells, or for wells without pump intake depth information, the site's SAP/QAPP must provide clear reasons and instructions on how the pump intake depth(s) will be selected, and reason(s) for the depth(s) selected. If the depths to top and bottom of the well screen are not known, the SAP/QAPP will need to describe how the sampling depth will be determined and how the data can be used.

Stabilization of indicator field parameters is used to indicate that conditions are suitable for sampling to begin. Achievement of turbidity levels of less than 5 NTU, and stable drawdowns of less than 0.3 feet, while desirable, are not mandatory. Sample collection may still take place provided the indicator field parameter criteria in this procedure are met. If after 2 hours of purging indicator field parameters have not stabilized, one of three optional courses of action may be taken: a) continue purging until stabilization is achieved, b) discontinue purging, do not collect any samples, and record in log book that stabilization could not be achieved (documentation must describe attempts to achieve stabilization), c) discontinue purging, collect samples and provide full explanation of attempts to achieve stabilization (note: there is a risk that the analytical data obtained, especially metals and strongly hydrophobic organic analytes, may reflect a sampling bias and therefore, the data may not meet the data quality objectives of the sampling event).

It is recommended that low-flow sampling be conducted when the air temperature is above 32°F (0°C). If the procedure is used below 32°F, special precautions will need to be taken to prevent the groundwater from freezing in the equipment. Because sampling during freezing temperatures may adversely impact the data quality objectives, the need for water sample collection during months when these conditions are likely to occur should be evaluated during site planning and special sampling measures may need to be developed. Ice formation in the flow-through-cell will cause the monitoring probes to act erratically. A transparent flow-through-cell needs to be used to observe if ice is forming in the cell. If ice starts to form on the other pieces of the sampling equipment, additional problems may occur.

4.0 HEALTH & SAFETY

When working on-site, comply with all applicable OSHA requirements and the site's health/safety procedures. All proper personal protection clothing and equipment are to be worn. Some samples may contain biological and chemical hazards. These samples should be handled with suitable protection to skin, eyes, etc.

5.0 CAUTIONS

The following cautions need to be considered when planning to collect groundwater samples when the below conditions occur.

If the groundwater degasses during purging of the monitoring well, dissolved gases and VOCs will be lost. When this happens, the groundwater data for dissolved gases (e.g., methane, ethene, ethane, dissolved oxygen, etc.) and VOCs will need to be qualified. Some conditions that can promote degassing are the use of a vacuum pump (e.g., peristaltic pumps), changes in aperture along the sampling tubing, and squeezing/pinching the pump's tubing which results in a pressure change.

When collecting the samples for dissolved gases and VOCs analyses, avoid aerating the groundwater in the pump's tubing. This can cause loss of the dissolved gases and VOCs in the groundwater. Having the pump's tubing completely filled prior to sampling will avoid this problem when using a centrifugal pump or peristaltic pump.

Direct sun light and hot ambient air temperatures may cause the groundwater in the tubing and flow-through-cell to heat up. This may cause the groundwater to degas which will result in loss of VOCs and dissolved gases. When sampling under these conditions, the sampler will need to shade the equipment from the sunlight (e.g., umbrella, tent, etc.). If possible, sampling on hot days, or during the hottest time of the day, should be avoided. The tubing exiting the monitoring well should be kept as short as possible to avoid the sun light or ambient air from heating up the groundwater.

Thermal currents in the monitoring well may cause vertical mixing of water in the well bore. When the air temperature is colder than the groundwater temperature, it can cool the top of the water column. Colder water which is denser than warm water sinks to the bottom of the well and the warmer water at the bottom of the well rises, setting up a convection cell. "During low-flow sampling, the pumped water may be a mixture of convecting water from within the well casing and aquifer water moving inward through the screen. This mixing of water during low-flow sampling can substantially increase equilibration times, can cause false stabilization of indicator parameters, can give false indication of redox state, and can provide biological data that are not representative of the aquifer conditions" (Vroblesky 2007).

Failure to calibrate or perform proper maintenance on the sampling equipment and measurement instruments (e.g., dissolved oxygen meter, etc.) can result in faulty data being collected.

Interferences may result from using contaminated equipment, cleaning materials, sample containers, or uncontrolled ambient/surrounding air conditions (e.g., truck/vehicle exhaust nearby).

Cross contamination problems can be eliminated or minimized through the use of dedicated sampling equipment and/or proper planning to avoid ambient air interferences. Note that the use of dedicated sampling equipment can also significantly reduce the time needed to complete each sampling event, will promote consistency in the sampling, and may reduce sampling bias by having the pump's intake at a constant depth.

Clean and decontaminate all sampling equipment prior to use. All sampling equipment needs to be routinely checked to be free from contaminants and equipment blanks collected to ensure that the equipment is free of contaminants. Check the previous equipment blank data for the site (if they exist) to determine if the previous cleaning procedure removed the contaminants. If contaminants were detected and they are a concern, then a more vigorous cleaning procedure will be needed.

6.0 PERSONNEL QUALIFICATIONS

All field samplers working at sites containing hazardous waste must meet the requirements of the OSHA regulations. OSHA regulations may require the sampler to take the 40 hour OSHA health and safety training course and a refresher course prior to engaging in any field activities, depending upon the site and field conditions.

The field samplers must be trained prior to the use of the sampling equipment, field instruments, and procedures. Training is to be conducted by an experienced sampler before initiating any sampling procedure.

The entire sampling team needs to read, and be familiar with, the site Health and Safety Plan, all relevant SOPs, and SAP/QAPP (and the most recent amendments) before going onsite for the sampling event. It is recommended that the field sampling leader attest to the understanding of these site documents and that it is recorded.

7.0 EQUIPMENT AND SUPPLIES

A. Informational materials for sampling event

A copy of the current Health and Safety Plan, SAP/QAPP, monitoring well construction data, location map(s), field data from last sampling event, manuals for sampling, and the monitoring instruments' operation, maintenance, and calibration manuals should be brought to the site.

B. Well keys.

C. Extraction device

Adjustable rate, submersible pumps (e.g., centrifugal, bladder, etc.) which are constructed of stainless steel or polytetrafluoroethylene (PTFE, i.e. Teflon®) are preferred. PTFE, however, should not be used when sampling for per- and polyfluoroalkyl substances (PFAS) as it is likely to contain these substances.

Note: If extraction devices constructed of other materials are to be used, adequate information must be provided to show that the substituted materials do not leach contaminants nor cause interferences to the analytical procedures to be used. Acceptance of these materials must be obtained before the sampling event.

If bladder pumps are selected for the collection of VOCs and dissolved gases, the pump setting should be set so that one pulse will deliver a water volume that is sufficient to fill a 40 mL VOC vial. This is not mandatory, but is considered a "best practice". For the proper operation, the bladder pump will need a minimum amount of water above the pump; consult the manufacturer for the recommended submergence. The pump's recommended submergence value should be determined during the planning stage, since it may influence well construction and placement of dedicated pumps where water-level fluctuations are significant.

Adjustable rate, peristaltic pumps (suction) are to be used with caution when collecting samples for VOCs and dissolved gases (e.g., methane, carbon dioxide, etc.) analyses. Additional information on the use of peristaltic pumps can be found in Appendix A. If peristaltic pumps are used, the inside diameter of the rotor head tubing needs to match the inside diameter of the tubing installed in the monitoring well.

Inertial pumping devices (motor driven or manual) are not recommended. These devices frequently cause greater disturbance during purging and sampling, and are less easily controlled than submersible pumps (potentially increasing turbidity and sampling variability, etc.). This can lead to sampling results that are adversely affected by purging and sampling operations, and a higher degree of data variability.

D. Tubing

PTFE (Teflon®) or PTFE-lined polyethylene tubing are preferred when sampling is to include VOCs, SVOCs, pesticides, PCBs and inorganics. As discussed in the previous section, PTFE tubing should not be used when sampling for PFAS. In this case, a suitable alternative such as high-density polyethylene tubing should be used.

PVC, polypropylene or polyethylene tubing may be used when collecting samples for metal and other inorganics analyses.

Note: If tubing constructed of other materials is to be used, adequate information must be provided to show that the substituted materials do not leach contaminants nor cause interferences to the analytical procedures to be used. Acceptance of these materials must be obtained before the sampling event.

The use of 1/4 inch or 3/8 inch (inside diameter) tubing is recommended. This will help ensure that the tubing remains liquid filled when operating at very low pumping rates when using centrifugal and peristaltic pumps.

Silastic tubing should be used for the section around the rotor head of a peristaltic pump. It should be less than a foot in length. The inside diameter of the tubing used at the pump rotor head must be the same as the inside diameter of tubing placed in the well. A tubing connector is used to connect the pump rotor head tubing to the well tubing. Alternatively, the two pieces of tubing can be connected to each other by placing the one end of the tubing inside the end of the other tubing. The tubing must not be reused.

E. The water level measuring device

Electronic ”tape”, pressure transducer, water level sounder/level indicator, etc. should be capable of measuring to 0.01 foot accuracy. Recording pressure transducers, mounted above the pump, are especially helpful in tracking water levels during pumping operations, but their use must include check measurements with a water level “tape” at the start and end of each sampling event.

F. Flow measurement supplies

Graduated cylinder (size according to flow rate) and stopwatch usually will suffice.

Large graduated bucket used to record total water purged from the well.

G. Interface probe

To be used to check on the presence of free phase liquids (LNAPL, or DNAPL) before purging begins (as needed).

H. Power source (generator, nitrogen tank, battery, etc.)

When a gasoline generator is used, locate it downwind and at least 30 feet from the well so that the exhaust fumes do not contaminate samples.

I. Indicator field parameter monitoring instruments

Use of a multi-parameter instrument capable of measuring pH, oxidation/reduction potential (ORP), dissolved oxygen (DO), specific conductance, temperature, and coupled with a flow-through-cell is required when measuring all indicator field parameters, except turbidity. Turbidity is collected using a separate instrument. Record equipment/instrument identification (manufacturer, and model number).

Transparent, small volume flow-through-cells (e.g., 250 mLs or less) are preferred. This allows observation of air bubbles and sediment buildup in the cell, which can interfere with the operation of the monitoring instrument probes, to be easily detected. A small volume cell facilitates rapid turnover of water in the cell between measurements of the indicator field parameters.

It is recommended to use a flow-through-cell and monitoring probes from the same manufacturer and model to avoid incompatibility between the probes and flow-through-cell.

Turbidity samples are collected before the flow-through-cell. A "T" connector coupled with a valve is connected between the pump's tubing and flow-through-cell. When a turbidity measurement is required, the valve is opened to allow the groundwater to flow into a container. The valve is closed and the container sample is then placed in the turbidimeter.

Standards are necessary to perform field calibration of instruments. A minimum of two standards are needed to bracket the instrument measurement range for all parameters except ORP which use a Zobell solution as a standard. For dissolved oxygen, a wet sponge used for the 100% saturation and a zero dissolved oxygen solution are used for the calibration.

Barometer (used in the calibration of the Dissolved Oxygen probe) and the conversion formula to convert the barometric pressure into the units of measure used by the Dissolved Oxygen meter are needed.

J. Decontamination supplies

Includes (for example) non-phosphate detergent, distilled/deionized water, isopropyl alcohol, etc.

K. Record keeping supplies

Logbook(s), well purging forms, chain-of-custody forms, field instrument calibration forms, etc.

L. Sample bottles

M. Sample preservation supplies (as required by the analytical methods)

N. Sample tags or labels

O. PID or FID instrument

If appropriate, to detect VOCs for health and safety purposes, and provide qualitative field evaluations.

P. Miscellaneous Equipment

Equipment to keep the sampling apparatus shaded in the summer (e.g., umbrella) and from freezing in the winter. If the pump's tubing is allowed to heat up in the warm weather, the cold groundwater may degas as it is warmed in the tubing.

8.0 EQUIPMENT/INSTRUMENT CALIBRATION

Prior to the sampling event, perform maintenance checks on the equipment and instruments according to the manufacturer's manual and/or applicable SOP. This will ensure that the equipment/instruments are working properly before they are used in the field.

Prior to sampling, the monitoring instruments must be calibrated and the calibration documented. The instruments are calibrated using U.S Environmental Protection Agency Region 1 *Calibration of Field Instruments (temperature, pH, dissolved oxygen, conductivity/specific conductance, oxidation/reduction [ORP], and turbidity),* March 23, 2017, or latest version or from one of the methods listed in 40CFR136, 40CFR141 and SW-846.

The instruments shall be calibrated at the beginning of each day. If the field measurement falls outside the calibration range, the instrument must be re-calibrated so that all measurements fall within the calibration range. At the end of each day, a calibration check is performed to verify that instruments remained in calibration throughout the day. This check is performed while the instrument is in measurement mode, not calibration mode. If the field instruments are being used to monitor the natural attenuation parameters, then a calibration check at mid-day is highly recommended to ensure that the instruments did not drift out of calibration. Note: during the day if the instrument reads zero or a negative number for dissolved oxygen, pH, specific conductance, or turbidity (negative value only), this indicates that the instrument drifted out of calibration or the instrument is malfunctioning. If this situation occurs the data from this instrument will need to be qualified or rejected.

9.0 PRELIMINARY SITE ACTIVITIES (as applicable)

Check the well for security (damage, evidence of tampering, missing lock, etc.) and record pertinent observations (include photograph as warranted).

If needed, lay out a sheet of clean polyethylene for monitoring and sampling equipment, unless equipment is elevated above the ground (e.g., on a table, etc.).

Remove well cap and if appropriate measure VOCs at the rim of the well with a PID or FID instrument and record reading in field logbook or on the well purge form.

If the well casing does not have an established reference point (usually a V-cut or indelible mark in the well casing), make one. Describe its location and record the date of the mark in the logbook (consider a photographic record as well). All water level measurements must be recorded relative to this reference point (and the altitude of this point should be determined using techniques that are appropriate to site's DQOs.

If water-table or potentiometric surface map(s) are to be constructed for the sampling event, perform synoptic water level measurement round (in the shortest possible time) before any purging and sampling activities begin. If possible, measure water level depth (to 0.01 ft.) and total well depth (to 0.1 ft.) the day before sampling begins, in order to allow for re-settlement of any particulates in the water column. This is especially important for those wells that have not been recently sampled because sediment buildup in the well may require the well to be redeveloped. If measurement of total well depth is not made the day before, it should be measured after sampling of the well is complete. All measurements must be taken from the established referenced point. Care should be taken to minimize water column disturbance.

Check newly constructed wells for the presence of LNAPLs or DNAPLs before the initial sampling round. If none are encountered, subsequent check measurements with an interface probe may not be necessary unless analytical data or field analysis signal a worsening situation. This SOP cannot be used in the presence of LNAPLs or DNAPLs. If NAPLs are present, the project team must decide upon an alternate sampling method. All project modifications must be approved and documented prior to implementation.

If available check intake depth and drawdown information from previous sampling event(s) for each well. Duplicate, to the extent practicable, the intake depth and extraction rate (use final pump dial setting information) from previous event(s). If changes are made in the intake depth or extraction rate(s) used during previous sampling event(s), for either portable or dedicated extraction devices, record new values, and explain reasons for the changes in the field logbook.

10.0 PURGING AND SAMPLING PROCEDURE

Purging and sampling wells in order of increasing chemical concentrations (known or anticipated) are preferred.

The use of dedicated pumps is recommended to minimize artificial mobilization and entrainment of particulates each time the well is sampled. Note that the use of dedicated sampling equipment can also significantly reduce the time needed to complete each sampling event, will promote consistency in the sampling, and may reduce sampling bias by having the pump's intake at a constant depth.

A. Initial Water Level

Measure the water level in the well before installing the pump if a non-dedicated pump is being used. The initial water level is recorded on the purge form or in the field logbook.

B. Install Pump

Lower pump, safety cable, tubing and electrical lines slowly (to minimize disturbance) into the well to the appropriate depth (may not be the mid-point of the screen/open interval). The Sampling and Analysis Plan/Quality Assurance Project Plan should specify the sampling depth (used previously), or provide criteria for selection of intake depth for each new well. If possible keep the pump intake at least two feet above the bottom of the well, to minimize mobilization of particulates present in the bottom of the well.

Pump tubing lengths, above the top of well casing should be kept as short as possible to minimize heating the groundwater in the tubing by exposure to sun light and ambient air temperatures. Heating may cause the groundwater to degas, which is unacceptable for the collection of samples for VOC and dissolved gases analyses.

C. Measure Water Level

Before starting pump, measure water level. Install recording pressure transducer, if used to track drawdowns, to initialize starting condition.

D. Purge Well

From the time the pump starts purging and until the time the samples are collected, the purged water is discharged into a graduated bucket to determine the total volume of groundwater purged. This information is recorded on the purge form or in the field logbook.

Start the pump at low speed and slowly increase the speed until discharge occurs. Check water level. Check equipment for water leaks and if present fix or replace the affected equipment. Try to match pumping rate used during previous sampling event(s). Otherwise, adjust pump speed until there is little or no water level drawdown. If the minimal drawdown that can be achieved exceeds 0.3 feet, but remains stable, continue purging.

Monitor and record the water level and pumping rate every five minutes (or as appropriate) during purging. Record any pumping rate adjustments (both time and flow rate). Pumping rates should, as needed, be reduced to the minimum capabilities of the pump to ensure stabilization of the water level. Adjustments are best made in the first fifteen minutes of pumping in order to help minimize purging time. During pump start-up, drawdown may exceed the 0.3 feet target and then "recover" somewhat as pump flow adjustments are made. Purge volume calculations should utilize stabilized drawdown value, not the initial drawdown. If the initial water level is above the top of the screen do not allow the water level to fall into the well screen. The final purge volume must be greater than the stabilized drawdown volume plus the pump's tubing volume. If the drawdown has exceeded 0.3 feet and stabilizes, calculate the volume of water between the initial water level and the stabilized water level. Add the volume of the water which occupies the pump's tubing to this calculation. This combined volume of water needs to be purged from the well after the water level has stabilized before samples are collected.

Avoid the use of constriction devices on the tubing to decrease the flow rate because the constrictor will cause a pressure difference in the water column. This will cause the groundwater to degas and result in a loss of VOCs and dissolved gasses in the groundwater samples.

Note: the flow rate used to achieve a stable pumping level should remain constant while monitoring the indicator parameters for stabilization and while collecting the samples.

Wells with low recharge rates may require the use of special pumps capable of attaining very low pumping rates (e.g., bladder, peristaltic), and/or the use of dedicated equipment. For new monitoring wells, or wells where the following situation has not occurred before, if the recovery rate to the well is less than 50 mL/min., or the well is being essentially dewatered during purging, the well should be sampled as soon as the water level has recovered sufficiently to collect the volume needed for all anticipated samples. The project manager or field team leader will need to make the decision when samples should be collected, how the sample is to be collected, and the reasons recorded on the purge form or in the field logbook. A water level measurement needs to be performed and recorded before samples are collected. If the project manager decides to collect the samples using the pump, it is best during this recovery period that the pump intake tubing not be removed, since this will aggravate any turbidity problems. Samples in this specific situation may be collected without stabilization of indicator field parameters. Note that field conditions and efforts to overcome problematic situations must be recorded in order to support field decisions to deviate from normal procedures described in this SOP. If this type of problematic situation persists in a well, then water sample collection should be changed to a passive or no-purge method, if consistent with the site's DQOs, or have a new well installed.

E. Monitor Indicator Field Parameters

After the water level has stabilized, connect the "T" connector with a valve and the flow-through-cell to monitor the indicator field parameters. If excessive turbidity is anticipated or encountered with the pump startup, the well may be purged for a while without connecting up the flow-through-cell, in order to minimize particulate buildup in the cell (This is a judgment call made by the sampler). Water level drawdown measurements should be made as usual. If possible, the pump may be installed the day before purging to allow particulates that were disturbed during pump insertion to settle.

During well purging, monitor indicator field parameters (turbidity, temperature, specific conductance, pH, ORP, DO) at a frequency of five minute intervals or greater. The pump's flow rate must be able to "turn over" at least one flow-through-cell volume between measurements (for a 250 mL flow-through-cell with a flow rate of 50 mLs/min., the monitoring frequency would be every five minutes; for a 500 mL flow-through-cell it would be every ten minutes). If the cell volume cannot be replaced in the five minute interval, then the time between measurements must be increased accordingly. Note: during the early phase of purging, emphasis should be put on minimizing and stabilizing pumping stress, and recording those adjustments followed by stabilization of indicator parameters. Purging is considered complete and sampling may begin when all the above indicator field parameters have stabilized. Stabilization is considered to be achieved when three consecutive readings are within the following limits:

Turbidity (10% for values greater than 5 NTU; if three Turbidity values are less than 5 NTU, consider the values as stabilized),
Dissolved Oxygen (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),
Specific Conductance (3%),
Temperature (3%),
pH (± 0.1 unit),
Oxidation/Reduction Potential (±10 millivolts).

All measurements, except turbidity, must be obtained using a flow-through-cell. Samples for turbidity measurements are obtained before water enters the flow-through-cell. Transparent flow-through-cells are preferred, because they allow field personnel to watch for particulate build-up within the cell. This build-up may affect indicator field parameter values measured within the cell. If the cell needs to be cleaned during purging operations, continue pumping and disconnect cell for cleaning, then reconnect after cleaning and continue monitoring activities. Record start and stop times and give a brief description of cleaning activities.

The flow-through-cell must be designed in a way that prevents gas bubble entrapment in the cell. Placing the flow-through-cell at a 45 degree angle with the port facing upward can help remove bubbles from the flow-through-cell (see Appendix B Low-Flow Setup Diagram). Throughout the measurement process, the flow-through-cell must remain free of any gas bubbles. Otherwise, the monitoring probes may act erratically. When the pump is turned off or cycling on/off (when using a bladder pump), water in the cell must not drain out. Monitoring probes must remain submerged in water at all times.

F. Collect Water Samples

When samples are collected for laboratory analyses, the pump's tubing is disconnected from the "T" connector with a valve and the flow-through-cell. The samples are collected directly from the pump's tubing. Samples must not be collected from the flow-through-cell or from the "T" connector with a valve.

VOC samples are normally collected first and directly into pre-preserved sample containers. However, this may not be the case for all sampling locations; the SAP/QAPP should list the order in which the samples are to be collected based on the project's objective(s). Fill all sample containers by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence.

If the pump's flow rate is too high to collect the VOC/dissolved gases samples, collect the other samples first. Lower the pump's flow rate to a reasonable rate and collect the VOC/dissolved gases samples and record the new flow rate.

During purging and sampling, the centrifugal/peristaltic pump tubing must remain filled with water to avoid aeration of the groundwater. It is recommended that 1/4 inch or 3/8 inch (inside diameter) tubing be used to help ensure that the sample tubing remains water filled. If the pump tubing is not completely filled to the sampling point, use the following procedure to collect samples: collect non-VOC/dissolved gases samples first, then increase flow rate slightly until the water completely fills the tubing, collect the VOC/dissolved gases samples, and record new drawdown depth and flow rate.

For bladder pumps that will be used to collect VOC or dissolved gas samples, it is recommended that the pump be set to deliver long pulses of water so that one pulse will fill a 40 mL VOC vial.

Use pre-preserved sample containers or add preservative, as required by analytical methods, to the samples immediately after they are collected. Check the analytical methods (e.g. EPA SW-846, 40 CFR 136, water supply, etc.) for additional information on preservation.

If determination of filtered metal concentrations is a sampling objective, collect filtered water samples using the same low flow procedures. The use of an in-line filter (transparent housing preferred) is required, and the filter size (0.45 µm is commonly used) should be based on the sampling objective. Pre-rinse the filter with groundwater prior to sample collection. Make sure the filter is free of air bubbles before samples are collected. Preserve the filtered water sample immediately. Note: filtered water samples are not an acceptable substitute for unfiltered samples when the monitoring objective is to obtain chemical concentrations of total mobile contaminants in groundwater for human health or ecological risk calculations.

Label each sample as collected. Samples requiring cooling will be placed into a cooler with ice or refrigerant for delivery to the laboratory. Metal samples after acidification to a pH less than 2 do not need to be cooled.

G. Post Sampling Activities

If a recording pressure transducer is used to track drawdown, re-measure water level with tape.

After collection of samples, the pump tubing may be dedicated to the well for re-sampling (by hanging the tubing inside the well), decontaminated, or properly discarded.

Before securing the well, measure and record the well depth (to 0.1 ft.), if not measured the day before purging began. Note: measurement of total well depth annually is usually sufficient after the initial low stress sampling event. However, a greater frequency may be needed if the well has a “silting” problem or if confirmation of well identity is needed.

Secure the well.

11.0 DECONTAMINATION

Decontaminate sampling equipment prior to use in the first well, and then following sampling of each subsequent well. Pumps should not be removed between purging and sampling operations. The pump, tubing, support cable and electrical wires which were in contact with the well should be decontaminated by one of the procedures listed below.

The use of dedicated pumps and tubing will reduce the amount of time spent on decontamination of the equipment. If dedicated pumps and tubing are used, only the initial sampling event will require decontamination of the pump and tubing.

Note if the previous equipment blank data showed that contaminant(s) were present after using the below procedure or the one described in the SAP/QAPP, a more vigorous procedure may be needed.

Procedure 1

Decontaminating solutions can be pumped from either buckets or short PVC casing sections through the pump and tubing. The pump may be disassembled and flushed with the decontaminating solutions. It is recommended that detergent and alcohol be used sparingly in the decontamination process and water flushing steps be extended to ensure that any sediment trapped in the pump is removed. The pump exterior and electrical wires must be rinsed with the decontaminating solutions, as well. The procedure is as follows:

Flush the equipment/pump with potable water.

Flush with non-phosphate detergent solution. If the solution is recycled, the solution must be changed periodically.

Flush with potable or distilled/deionized water to remove all of the detergent solution. If the water is recycled, the water must be changed periodically.

Optional - flush with isopropyl alcohol (pesticide grade; must be free of ketones {e.g., acetone}) or with methanol. This step may be required if the well is highly contaminated or if the equipment blank data from the previous sampling event show that the level of contaminants is significant.

Flush with distilled/deionized water. This step must remove all traces of alcohol (if used) from the equipment. The final water rinse must not be recycled.

Procedure 2

Steam clean the outside of the submersible pump.

Pump hot potable water from the steam cleaner through the inside of the pump. This can be accomplished by placing the pump inside a three or four inch diameter PVC pipe with end cap. Hot water from the steam cleaner jet will be directed inside the PVC pipe and the pump exterior will be cleaned. The hot water from the steam cleaner will then be pumped from the PVC pipe through the pump and collected into another container. Note: additives or solutions should not be added to the steam cleaner.

Pump non-phosphate detergent solution through the inside of the pump. If the solution is recycled, the solution must be changed periodically.

Pump potable water through the inside of the pump to remove all of the detergent solution. If the solution is recycled, the solution must be changed periodically.

Pump distilled/deionized water through the pump. The final water rinse must not be recycled.

12.0 FIELD QUALITY CONTROL

Quality control samples are required to verify that the sample collection and handling process has not compromised the quality of the groundwater samples. All field quality control samples must be prepared the same as regular investigation samples with regard to sample volume, containers, and preservation. Quality control samples include field duplicates, equipment blanks, matrix spike/matrix spike duplicates, trip blanks (VOCs), and temperature blanks.

13.0 FIELD LOGBOOK

A field log shall be kept to document all groundwater field monitoring activities (see Appendix C, example table), and record the following for each well:

Site name, municipality, state.

Well identifier, latitude-longitude or state grid coordinates.

Measuring point description (e.g., north side of PVC pipe).

Well depth, and measurement technique.

Well screen length.

Pump depth.

Static water level depth, date, time and measurement technique.

Presence and thickness of immiscible liquid (NAPL) layers and detection method.

Pumping rate, drawdown, indicator parameters values, calculated or measured total volume pumped, and clock time of each set of measurements.

Type of tubing used and its length.

Type of pump used.

Clock time of start and end of purging and sampling activity.

Types of sample bottles used and sample identification numbers.

Preservatives used.

Parameters requested for analyses.

Field observations during sampling event.

Name of sample collector(s).

Weather conditions, including approximate ambient air temperature.

QA/QC data for field instruments.

Any problems encountered should be highlighted.

Description of all sampling/monitoring equipment used, including trade names, model number, instrument identification number, diameters, material composition, etc.

14.0 DATA REPORT

Data reports are to include laboratory analytical results, QA/QC information, field indicator parameters measured during purging, field instrument calibration information, and whatever other field logbook information is needed to allow for a full evaluation of data usability.

Note: the use of trade, product, or firm names in this sampling procedure is for descriptive purposes only and does not constitute endorsement by the U.S. EPA.

15.0 REFERENCES

Cohen, R.M. and J.W. Mercer, 1993, *DNAPL Site Evaluation*; C.K. Smoley (CRC Press), Boca Raton, Florida.

Robert W. Puls and Michael J. Barcelona, *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, April 1996 (EPA/540/S-95/504).

U.S. Environmental Protection Agency, 1992, *RCRA Ground-Water Monitoring: Draft Technical Guidance*; Washington, DC (EPA/530-R-93-001).

U.S. Environmental Protection Agency, 1987, *A Compendium of Superfund Field Operations Methods*; Washington, DC (EPA/540/P-87/001).

U.S Environmental Protection Agency, Region 1, *Calibration of Field Instruments (temperature, pH, dissolved oxygen, conductivity/specific conductance, oxidation/reduction [ORP], and turbidity),* March 23, 2017 or latest version.

U.S Environmental Protection Agency, EPA SW-846.

U.S Environmental Protection Agency, 40 CFR 136.

U.S Environmental Protection Agency, 40 CFR 141.

Vroblesky, Don A., Clifton C. Casey, and Mark A. Lowery, Summer 2007, Influence of Dissolved Oxygen Convection on Well Sampling, *Ground Water Monitoring & Remediation* 27, no. 3: 49-58.

APPENDIX A

PERISTALTIC PUMPS

Before selecting a peristaltic pump to collect groundwater samples for VOCs and/or dissolved gases, (e.g., methane, carbon dioxide, etc.) consideration should be given to the following:

- The decision of whether or not to use a peristaltic pump is dependent on the intended use of the data.
- If the additional sampling error that may be introduced by this device is NOT of concern for the VOC/dissolved gases data's intended use, then this device may be acceptable.
- If minor differences in the groundwater concentrations could affect the decision, such as to continue or terminate groundwater cleanup or whether the cleanup goals have been reached, then this device should NOT be used for VOC/dissolved gases sampling. In these cases, centrifugal or bladder pumps are a better choice for more accurate results.

EPA and USGS have documented their concerns with the use of the peristaltic pumps to collect water sample in the below documents.

- "Suction Pumps are not recommended because they may cause degassing, pH modification, and loss of volatile compounds" *A Compendium of Superfund Field Operations Methods*, EPA/540/P-87/001, December 1987.
- "The agency does not recommend the use of peristaltic pumps to sample ground water particularly for volatile organic analytes" *RCRA Ground-Water Monitoring Draft Technical Guidance*, EPA Office of Solid Waste, November 1992.
- "The peristaltic pump is limited to shallow applications and can cause degassing resulting in alteration of pH, alkalinity, and volatiles loss", *Low-flow (Minimal drawdown) Ground-Water Sampling Procedures*, by Robert Puls & Michael Barcelona, April 1996, EPA/540/S-95/504.
- "Suction-lift pumps, such as peristaltic pumps, can operate at a very low pumping rate; however, using negative pressure to lift the sample can result in the loss of volatile analytes", USGS Book 9 Techniques of Water-Resources Investigation, Chapter A4. (Version 2.0, 9/2006).

APPENDIX B

SUMMARY OF SAMPLING INSTRUCTIONS

These instructions are for using an adjustable rate, submersible pump or a peristaltic pump with the pump's intake placed at the midpoint of a 10 foot or less well screen or an open interval. The water level in the monitoring well is above the top of the well screen or open interval, the ambient temperature is above 32°F, and the equipment is not dedicated. Field instruments are already calibrated. The equipment is setup according to the diagram at the end of these instructions.

1. Review well installation information. Record well depth, length of screen or open interval, and depth to top of the well screen. Determine the pump's intake depth (e.g., mid-point of screen/open interval).

2. On the day of sampling, check security of the well casing, perform any safety checks needed for the site, lay out a sheet of polyethylene around the well (if necessary), and setup the equipment. If necessary a canopy or an equivalent item can be setup to shade the pump's tubing and flow-through-cell from the sun light to prevent the sun light from heating the groundwater.

3. Check well casing for a reference mark. If missing, make a reference mark. Measure the water level (initial) to 0.01 ft. and record this information.

4. Install the pump's intake to the appropriate depth (e.g., midpoint) of the well screen or open interval. Do not turn-on the pump at this time.

5. Measure water level and record this information.

6. Turn-on the pump and discharge the groundwater into a graduated waste bucket. Slowly increase the flow rate until the water level starts to drop. Reduce the flow rate slightly so the water level stabilizes. Record the pump's settings. Calculate the flow rate using a graduated container and a stop watch. Record the flow rate. Do not let the water level drop below the top of the well screen.

If the groundwater is highly turbid or discolored, continue to discharge the water into the bucket until the water clears (visual observation); this usually takes a few minutes. The turbid or discolored water is usually from the well-being disturbed during the pump installation. If the water does not clear, then you need to make a choice whether to continue purging the well (hoping that it will clear after a reasonable time) or continue to the next step. Note, it is sometimes helpful to install the pump the day before the sampling event so that the disturbed materials in the well can settle out.

If the water level drops to the top of the well screen during the purging of the well, stop purging the well, and do the following:

> Wait for the well to recharge to a sufficient volume so samples can be collected. This may take a while (pump may be removed from well, if turbidity is not a problem). The project manager will need to make the decision when samples should be collected and the reasons recorded in the site's log book. A water level measurement needs to be performed and recorded before samples are collected. When samples are being collected, the water level must not drop below the top of the screen or open interval. Collect the samples from the pump's tubing. Always collect the VOCs and dissolved gases samples first. Normally, the samples requiring a small volume are collected before the large volume samples are collected just in case there is not sufficient water in the well to fill all the sample containers. All samples must be collected, preserved, and stored according to the analytical method. Remove the pump from the well and decontaminate the sampling equipment.

If the water level has dropped 0.3 feet or less from the initial water level (water level measure before the pump was installed); proceed to Step 7. If the water level has dropped more than 0.3 feet, calculate the volume of water between the initial water level and the stabilized water level. Add the volume of the water which occupies the pump's tubing to this calculation. This combined volume of water needs to be purged from the well after the water level has stabilized before samples are be collected.

7. Attach the pump's tubing to the "T" connector with a valve (or a three-way stop cock). The pump's tubing from the well casing to the "T" connector must be as short as possible to prevent the groundwater in the tubing from heating up from the sun light or from the ambient air. Attach a short piece of tubing to the other end of the end of the "T" connector to serve as a sampling port for the turbidity samples. Attach the remaining end of the "T" connector to a short piece of tubing and connect the tubing to the flow-through-cell bottom port. To the top port, attach a small piece of tubing to direct the water into a calibrated waste bucket. Fill the cell with the groundwater and remove all gas bubbles from the cell. Position the flow-through-cell in such a way that if gas bubbles enter the cell they can easily exit the cell. If the ports are on the same side of the cell and the cell is cylindrical shape, the cell can be placed at a 45-degree angle with the ports facing upwards; this position should keep any gas bubbles entering the cell away from the monitoring probes and allow the gas bubbles to exit the cell easily (see Low-Flow Setup Diagram). Note:

make sure there are no gas bubbles caught in the probes' protective guard; you may need to shake the cell to remove these bubbles.

8. Turn-on the monitoring probes and turbidity meter.

9. Record the temperature, pH, dissolved oxygen, specific conductance, and oxidation/reduction potential measurements. Open the valve on the "T" connector to collect a sample for the turbidity measurement, close the valve, do the measurement, and record this measurement. Calculate the pump's flow rate from the water exiting the flow-through-cell using a graduated container and a stop watch, and record the measurement. Measure and record the water level. Check flow-through-cell for gas bubbles and sediment; if present, remove them.

10. Repeat Step 9 every 5 minutes or as appropriate until monitoring parameters stabilized. Note: at least one flow-through-cell volume must be exchanged between readings. If not, the time interval between readings will need to be increased. Stabilization is achieved when three consecutive measurements are within the following limits:

> **Turbidity** (10% for values greater than 5 NTUs; if three Turbidity values are less than 5 NTUs, consider the values as stabilized),
> **Dissolved Oxygen** (10% for values greater than 0.5 mg/L, if three Dissolved Oxygen values are less than 0.5 mg/L, consider the values as stabilized),
> **Specific Conductance** (3%),
> **Temperature** (3%),
> **pH** (± 0.1 unit),
> **Oxidation/Reduction Potential** (±10 millivolts).

If these stabilization requirements do not stabilize in a reasonable time, the probes may have been coated from the materials in the groundwater, from a buildup of sediment in the flow-through-cell, or a gas bubble is lodged in the probe. The cell and the probes will need to be cleaned. Turn-off the probes (not the pump), disconnect the cell from the "T" connector and continue to purge the well. Disassemble the cell, remove the sediment, and clean the probes according to the manufacturer's instructions. Reassemble the cell and connect the cell to the "T" connector. Remove all gas bubbles from the cell, turn-on the probes, and continue the measurements. Record the time the cell was cleaned.

11. When it is time to collect the groundwater samples, turn-off the monitoring probes, and disconnect the pump's tubing from the "T" connector. If you are using a centrifugal or peristaltic pump check the pump's tubing to determine if the tubing is completely filled with water (no air space).

All samples must be collected and preserved according to the analytical method. VOCs and dissolved gases samples are normally collected first and directly into pre-preserved sample containers. However, this may not be the case for all sampling locations; the SAP/QAPP should list the order in which the samples are to be collected based on the project's objective(s). Fill all sample containers by allowing the pump discharge to flow gently down the inside of the container with minimal turbulence.

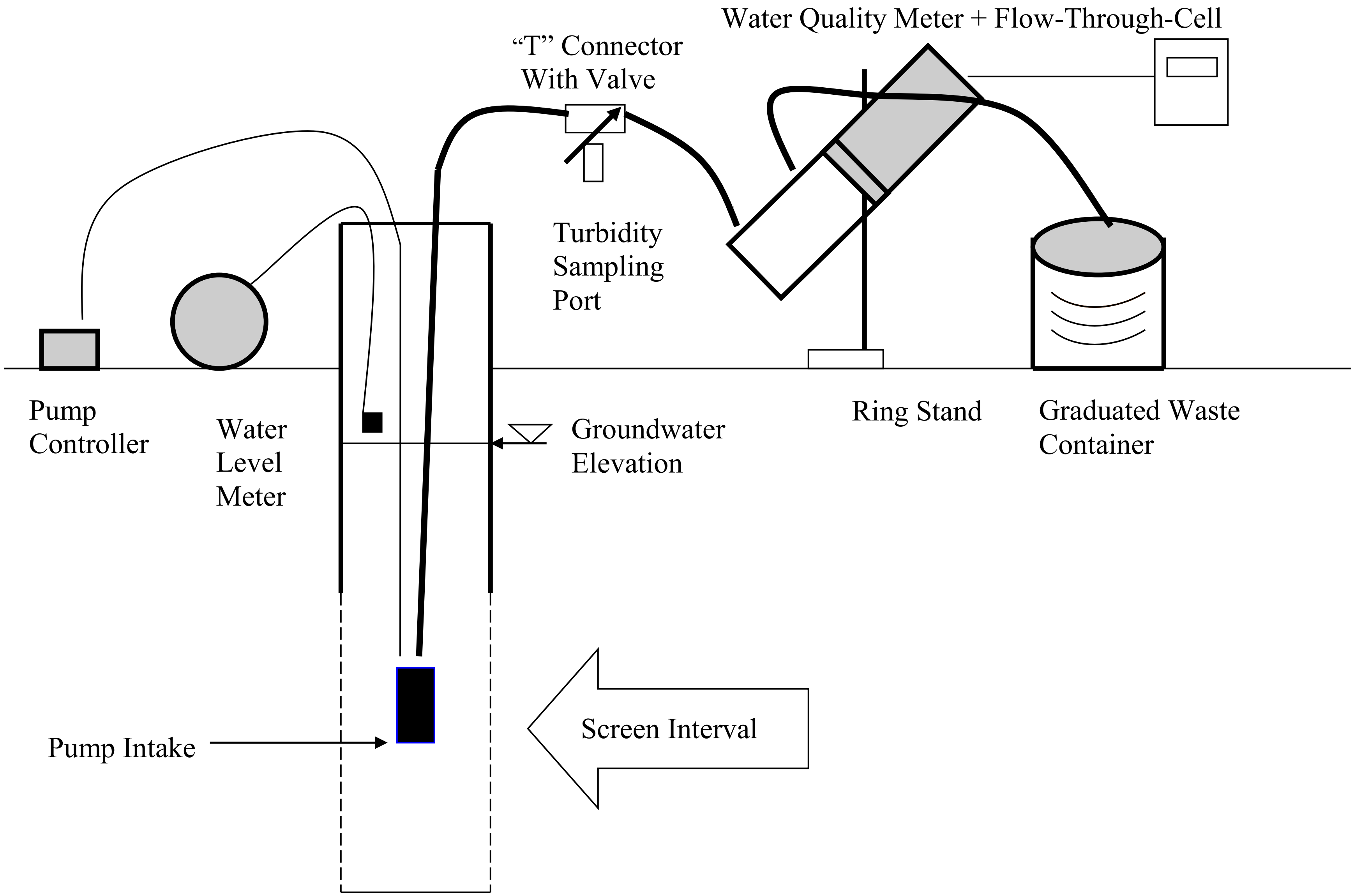
If the pump's tubing is not completely filled with water and the samples are being collected for VOCs and/or dissolved gases analyses using a centrifugal or peristaltic pump, do the following:

> All samples must be collected and preserved according to the analytical method. The VOCs and the dissolved gases (e.g., methane, ethane, ethene, and carbon dioxide) samples are collected last. When it becomes time to collect these samples increase the pump's flow rate until the tubing is completely filled. Collect the samples and record the new flow rate.

12. Store the samples according to the analytical method.

13. Record the total purged volume (graduated waste bucket). Remove the pump from the well and decontaminate the sampling equipment.

Low-Flow Setup Diagram



APPENDIX C

EXAMPLE (Minimum Requirements)

WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name)_______________________________

Well Number________________ Date_______________________

Field Personnel____

Sampling Organization_____________________________________

Identify MP____

Depth to _______/________ of screen

(below MP) top bottom

Pump Intake at (ft. below MP)_________

Purging Device; (pump type)__________

Total Volume Purged _______________

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged liters	Temp. "C	Spec. Cond.[2] µS/cm	pH	ORP[3] mv	DO mg/L	Tur-bidity NTU	Comments
Stabilization Criteria					3%	3%	±0.1	±10 mv	10%	10%	

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25°C.
3. Oxidation reduction potential (ORP)

SUPPLEMENT B

NYSDOH Vapor and Air Sampling Methods

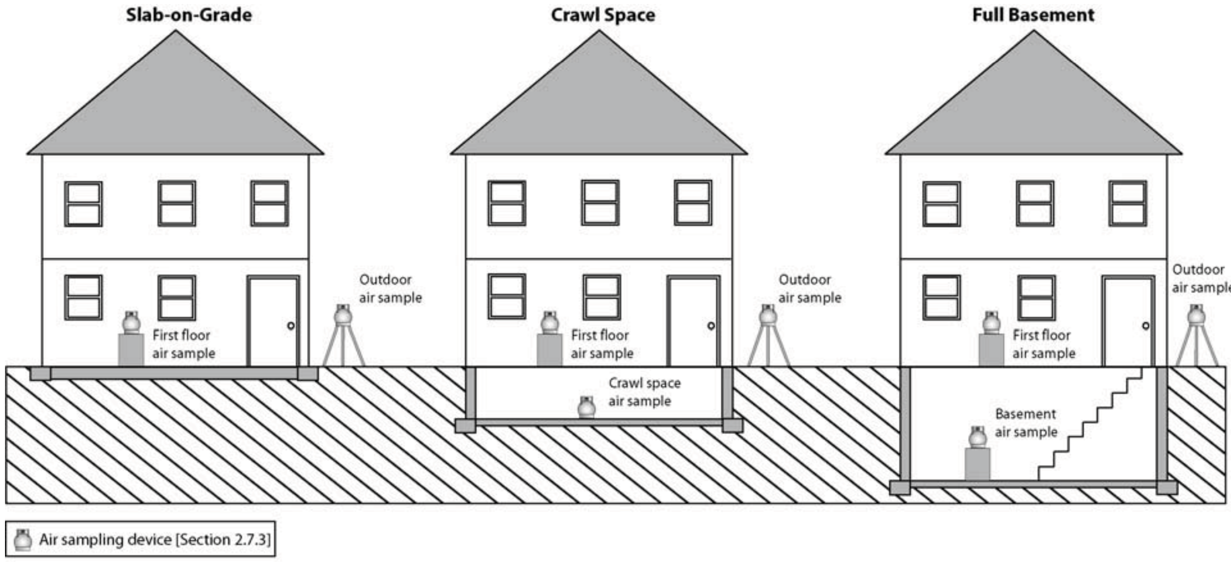


Figure 2.1
Schematic of indoor and outdoor air sampling locations

2.6.4 Outdoor air

Typically, an outdoor air sample is collected outside of each building where an indoor air sample is collected. However, if several buildings are being sampled within a localized area, representative outdoor air samples may be appropriate. For example, one outdoor air sample may be sufficient for three houses being sampled in a cul-de-sac. Outdoor air samples should be collected from a representative upwind location, away from wind obstructions (e.g., trees or bushes), and at a height above the ground to represent breathing zones (3 to 5 feet) [Figure 2.1]. A representative sample is one that is not biased toward obvious sources of volatile chemicals (e.g., automobiles, lawn mowers, oil storage tanks, gasoline stations, industrial facilities, etc.). For buildings with HVAC systems that draw outdoor air into the building, an outdoor air sample collected near the outdoor air intake may be appropriate.

2.7 Sampling protocols

The procedures recommended here may be modified depending on site-specific conditions, the sampling objectives, or emerging technologies and methodologies. Alternative sampling procedures should be described thoroughly and proposed in a work plan submitted for review by the State. The State will review and comment on the proposed procedure and consider the efficacy of the alternative sampling procedure based on the objectives of investigation. In all cases, work plans should thoroughly describe the proposed sampling procedure. Similarly, the procedures that were implemented in the field should be documented and included in the final report of the sampling results.

2.7.1 Soil vapor

Soil vapor probe installations [Figure 2.2] may be permanent, semi-permanent or temporary. In general, permanent or semi-permanent installations are preferred for data consistency reasons and to ensure outdoor air infiltration does not occur. Temporary probes should only be used if measures are taken to ensure that an adequate surface seal is created to prevent outdoor air infiltration and if tracer gas is used at every sampling location. [See Section 2.7.5 for additional information about the use of tracer gas when collecting soil vapor samples.] Soil vapor implants or probes should be constructed in the same manner at all sampling locations to minimize possible discrepancies. The following procedures should be included in any permanent construction protocol:

a. implants should be installed using an appropriate method based on site conditions (e.g., direct push, manually driven, auger — if necessary to attain the desired depth or if sidewall smearing is a concern, etc.);

b. porous, inert backfill material (e.g., glass beads, washed #1 crushed stone, etc.) should be used to create a sampling zone 1 to 2 feet in length;

c. implants should be fitted with inert tubing (e.g., polyethylene, stainless steel, nylon, Teflon®, etc.) of the appropriate size (typically 1/8 inch to 1/4 inch diameter) and of laboratory or food grade quality to the surface;

d. soil vapor probes should be sealed above the sampling zone with a bentonite slurry for a minimum distance of 3 feet to prevent outdoor air infiltration and the remainder of the borehole backfilled with clean material;

e. for multiple probe depths, the borehole should be grouted with bentonite between probes to create discrete sampling zones or separate nested probes should be installed [Figure 2.2]; and

f. steps should be taken to minimize infiltration of water or outdoor air and to prevent accidental damage (e.g., setting a protective casing around the top of the probe tubing and grouting in place to the top of bentonite, sloping the ground surface to direct water away from the borehole like a groundwater monitoring well, etc.).

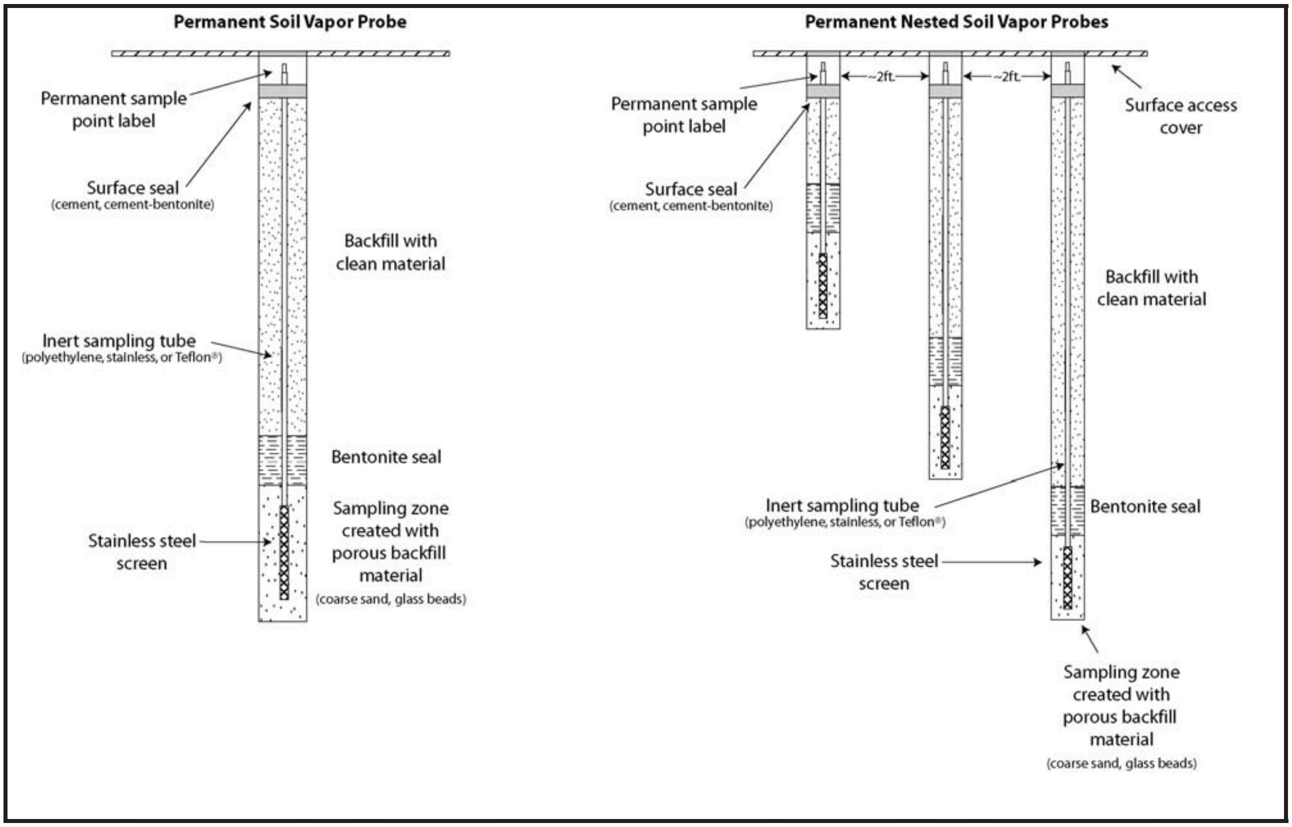


Figure 2.2

Schematics of a generic permanent soil vapor probe
and permanent nested soil vapor probes

[Note: Many variations exist and may be proposed in a work plan. Proposed installations should meet the sampling objectives and requirements of the analytical methods.]

To obtain representative samples and to minimize possible discrepancies, soil vapor samples should be collected in the following manner at all locations:

a. at least 24 hours after the installation of permanent probes and shortly after the installation of temporary probes, one to three implant volumes (i.e., the volume of the sample probe and tube) should be purged prior to collecting the samples;

b. flow rates for both purging and collecting should not exceed 0.2 liters per minute to minimize outdoor air infiltration during sampling;

c. samples should be collected, using conventional sampling methods, in an appropriate container — one which

    i. meets the objectives of the sampling (e.g., investigation of areas where low or high concentrations of volatile chemicals are expected; to minimize losses of volatile chemicals that are susceptible to photodegradation),

    ii. is consistent with the sampling and analytical methods (e.g., low flow rate; Summa® canisters if analyzing by using EPA Method TO-15), and

    iii. is certified clean by the laboratory;

d. sample size depends upon the volume of that will achieve minimum reporting limits [Section 2.9]; and

e. a tracer gas (e.g., helium, butane, sulfur hexafluoride, etc.) should be used when collecting soil vapor samples to verify that adequate sampling techniques are being implemented (i.e., to verify infiltration of outdoor air is not occurring) [Section 2.7.5].

In some cases, weather conditions may present certain limitations on soil vapor sampling. For example, condensation in the sample tubing may be encountered during winter sampling due to low outdoor air temperatures. Devices, such as tube warmers, may be used to address these conditions. Anticipated limitations to the sampling should be discussed prior to the sampling event so appropriate measures can be taken to address these difficulties and produce representative and reliable data.

When soil vapor samples are collected, the following actions should be taken to document local conditions during sampling that may influence interpretation of the results:

a. if sampling near a commercial or industrial building, uses of volatile chemicals during normal operations of the facility should be identified;

b. outdoor plot sketches should be drawn that include the site, area streets, neighboring commercial or industrial facilities (with estimated distance to the site), outdoor air sampling locations (if applicable), and compass orientation (north);

c. weather conditions (e.g., precipitation and outdoor temperature) should be noted for the past 24 to 48 hours; and

d. any pertinent observations should be recorded, such as odors and readings from field instrumentation.

Additional information that could be gathered to assist in the interpretation of the results includes barometric pressure, wind speed and wind direction.

The field sampling team should maintain a sample log sheet summarizing the following:

a. sample identification,

b. date and time of sample collection,

c. sampling depth,

d. identity of samplers,

e. sampling methods and devices,

f. purge volumes,

g. volume of soil vapor extracted,

h. if canisters used, the vacuum before and after samples were collected,

i. apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and

j. chain of custody protocols and records used to track samples from sampling point to analysis.

2.7.2 Sub-slab vapor

During colder months, heating systems should be operating to maintain normal indoor air temperatures (i.e., 65 – 75 °F) for at least 24 hours prior to and during the scheduled sampling time. Prior to installation of the sub-slab vapor probe, the building floor should be inspected and any penetrations (cracks, floor drains, utility perforations, sumps, etc.) should be noted and recorded. Probes should be installed at locations where the potential for ambient air infiltration via floor penetrations is minimal.

Sub-slab vapor probe installations [Figure 2.3] may be permanent, semi-permanent or temporary. A vacuum should not be used to remove drilling debris from the sampling port. Sub-slab implants or probes should be constructed in the same manner at all sampling locations to minimize possible discrepancies. The following procedures should be included in any construction protocol:

a. permanent recessed probes should be constructed with brass or stainless steel tubing and fittings;

b. temporary probes should be constructed with inert tubing (e.g., polyethylene, stainless steel, nylon, Teflon®, etc.) of the appropriate size (typically 1/8 inch to 1/4 inch diameter), and of laboratory or food grade quality;

c. tubing should not extend further than 2 inches into the sub-slab material;

d. porous, inert backfill material (e.g., glass beads, washed #1 crushed stone, etc.) should be added to cover about 1 inch of the probe tip for permanent installations; and

e. the implant should be sealed to the surface with non-VOC-containing and non-shrinking products for temporary installations (e.g., permagum grout, melted beeswax, putty, etc.) or cement for permanent installations.

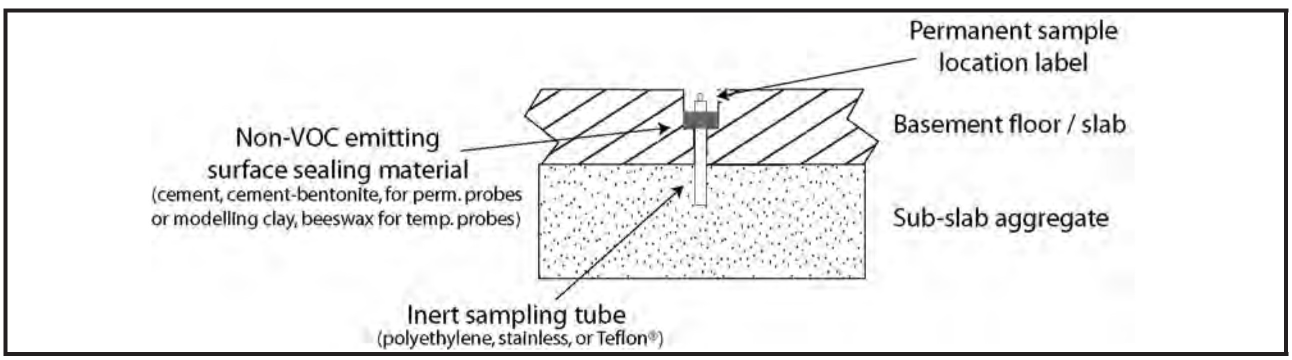


Figure 2.3

Schematic of a generic sub-slab vapor probe

[Note: Many variations exist and may be proposed in a work plan. Proposed installations should meet the sampling objectives and requirements of the analytical methods.]

To obtain representative samples that meet the data quality objectives, sub-slab vapor samples should be collected in the following manner:

a. after installation of the probes, one to three volumes (i.e., the volume of the sample probe and tube) must be purged prior to collecting the samples to ensure samples collected are representative;

b. flow rates for both purging and collecting must not exceed 0.2 liters per minute to minimize ambient air infiltration during sampling; and

c. samples should be collected, using conventional sampling methods, in an appropriate container — one which

    i. meets the objectives of the sampling (e.g., investigation of areas where low or high concentrations of volatile chemicals are expected; to minimize losses of volatile chemicals that are susceptible to photodegradation),

    ii. is consistent with the sampling and analytical methods (e.g., low flow rate; Summa® canisters if analyzing by using EPA Method TO-15), and

    iii. is certified clean by the laboratory;

d. sample size depends upon the volume of that will achieve minimum reporting limits [Section 2.9], the flow rate, and the sampling duration; and

e. ideally, samples should be collected over the same period of time as concurrent indoor and outdoor air samples.

When sub-slab vapor samples are collected, the following actions should be taken to document conditions during sampling and ultimately to aid in the interpretation of the sampling results [Section 3]:

a. historic and current storage and uses of volatile chemicals should be identified, especially if sampling within a commercial or industrial building (e.g., use of volatile chemicals in commercial or industrial processes and/or during building maintenance);

b. the use of heating or air conditioning systems during sampling should be noted;

c. floor plan sketches should be drawn that include the floor layout with sampling locations, chemical storage areas, garages, doorways, stairways, location of basement sumps or subsurface drains and utility perforations through building foundations, HVAC system air supply and return registers, compass orientation (north), footings that create separate foundation sections, and any other pertinent information should be completed;

d. outdoor plot sketches should be drawn that include the building site, area streets, outdoor air sampling locations (if applicable), compass orientation (north), and paved areas;

e. weather conditions (e.g., precipitation and indoor and outdoor temperature) and ventilation conditions (e.g., heating system active and windows closed) should be reported; and

f. any pertinent observations, such as spills, floor stains, smoke tube results, odors and readings from field instrumentation (e.g., vapors via PID, ppbRAE, Jerome Mercury Vapor Analyzer, etc.), should be recorded.

Additional documentation that could be gathered to assist in the interpretation of the results includes information about air flow patterns and pressure relationships obtained by using smoke tubes or other devices (especially between floor levels and between suspected contaminant sources and other areas), the barometric pressure and photographs to accompany floor plan sketches.

The field sampling team should maintain a sample log sheet summarizing the following:

a. sample identification,
b. date and time of sample collection,
c. sampling depth,
d. identity of samplers,
e. sampling methods and devices,
f. soil vapor purge volumes,
g. volume of soil vapor extracted,
h. if canisters used, vacuum of canisters before and after samples collected,
i. apparent moisture content (dry, moist, saturated, etc.) of the sampling zone, and
j. chain of custody protocols and records used to track samples from sampling point to analysis.

2.7.3 Indoor air

[Reference: NYSDOH's *Indoor Air Sampling & Analysis Guidance (February 1, 2005)*]

During colder months, heating systems should be operating to maintain normal indoor air temperatures (i.e., 65 – 75 °F) for at least 24 hours prior to and during the scheduled sampling time. If possible, prior to collecting indoor samples, a pre-sampling inspection [Section 2.11.1] should be performed to evaluate the physical layout and conditions of the building being investigated, to identify conditions that may affect or interfere with the proposed sampling, and to prepare the building for sampling. This process is described in Section 2.11.1.

In general, indoor air samples should be collected in the following manner:

a. sampling duration should reflect the exposure scenario being evaluated without compromising the detection limit or sample collection flow rate (e.g., an 8 hour sample from a workplace with a single shift versus a 24 hour sample from a workplace with multiple shifts). To ensure that air is representative of the locations sampled and to avoid undue influence from sampling personnel, samples should be collected for at least 1 hour. If the goal of the sampling is to represent average concentrations over longer periods, then longer duration sampling periods may be appropriate. Typically, 24 hour samples are collected from residential settings;
b. personnel should avoid lingering in the immediate area of the sampling device while samples are being collected;
c. sample flow rates must conform to the specifications in the sample collection method and, if possible, should be consistent with the flow rates for concurrent outdoor air and sub-slab samples; and
d. samples must be collected, using conventional sampling methods, in an appropriate container — one which

i. meets the objectives of the sampling (e.g., investigation of areas where low or high concentrations of volatile chemicals are expected; to minimize losses of volatile chemicals that are susceptible to photodegradation),

ii. is consistent with the sampling and analytical methods (e.g., low flow rate; Summa® canisters if analyzing by using EPA Method TO-15), and

iii. is certified clean by the laboratory.

At sites with tetrachloroethene contamination, passive air monitors that are specifically analyzed for tetrachloroethene (i.e., "perc badges") are commonly used to collect indoor and outdoor air samples. If site characterization activities indicate that degradation products of tetrachloroethene also represent a vapor intrusion concern, perc badges may be used to indicate the likelihood of vapor intrusion (i.e., by using tetrachloroethene as a surrogate) followed, as appropriate, by more comprehensive sampling and laboratory analyses to quantify both tetrachloroethene and its degradation products. Perc badge samples ideally should be collected over a twenty-four hour period, but for no less than eight hours.

The following actions should be taken to document conditions during indoor air sampling and ultimately to aid in the interpretation of the sampling results [Section 3]:

a. historic and current uses and storage of volatile chemicals should be identified, especially if sampling within a commercial or industrial building (e.g., use of volatile chemicals in commercial or industrial processes and/or during building maintenance);

b. a product inventory survey documenting sources of volatile chemicals present in the building during the indoor air sampling that could potentially influence the sample results should be completed [Section 2.11.2];

c. the use of heating or air conditioning systems during sampling should be noted;

d. floor plan sketches should be drawn that include the floor layout with sampling locations, chemical storage areas, garages, doorways, stairways, location of basement sumps or subsurface drains and utility perforations through building foundations, HVAC system supply and return registers, compass orientation (north), footings that create separate foundation sections, and any other pertinent information should be completed;

e. outdoor plot sketches should be drawn that include the building site, area streets, outdoor air sampling locations (if applicable), compass orientation (north), and paved areas;

f. weather conditions (e.g., precipitation and indoor and outdoor temperature) and ventilation conditions (e.g., heating system active and windows closed) should be reported; and

g. any pertinent observations, such as spills, floor stains, smoke tube results, odors and readings from field instrumentation (e.g., vapors via PID, ppbRAE, Jerome Mercury Vapor Analyzer, etc.), should be recorded.

Additional documentation that could be gathered to assist in the interpretation of the results includes information about air flow patterns and pressure relationships obtained by using smoke tubes or other devices (especially between floor levels and between suspected contaminant sources and other areas), the barometric pressure and photographs to accompany floor plan sketches.

The field sampling team should maintain a sample log sheet summarizing the following:

a. sample identification,

b. date and time of sample collection,

c. sampling height,

d. identity of samplers,

e. sampling methods and devices,

f. depending upon the method, volume of air sampled,

g. if canisters are used, vacuum of canisters before and after samples collected, and

h. chain of custody protocols and records used to track samples from sampling point to analysis.

2.7.4 Outdoor air

Outdoor air samples should be collected simultaneously with indoor air samples to evaluate the potential influence, if any, of outdoor air on indoor air quality. They may also be collected simultaneously with soil vapor samples to identify potential outdoor air interferences associated with infiltration of outdoor air into the sampling apparatus while the soil vapor was collected. To obtain representative samples that meet the data quality objectives, outdoor air samples should be collected in a manner consistent with that for indoor air samples (described in Section 2.7.3).

The following actions should be taken to document conditions during outdoor air sampling and ultimately to aid in the interpretation of the sampling results [Section 3]:

a. outdoor plot sketches should be drawn that include the building site, area streets, outdoor air sampling locations, the location of potential interferences (e.g., gasoline stations, factories, lawn movers, etc.), compass orientation (north), and paved areas;

b. weather conditions (e.g., precipitation and outdoor temperature) should be reported; and

c. any pertinent observations, such as odors, readings from field instrumentation, and significant activities in the vicinity (e.g., operation of heavy equipment or dry cleaners) should be recorded.

2.7.5 Tracer gas

When collecting soil vapor samples as part of a vapor intrusion evaluation, a tracer gas serves as a quality assurance/quality control measure to verify the integrity of the soil vapor probe seal. Without the use of a tracer, there is no way to verify that a soil vapor sample has not been diluted by outdoor air.

Depending on the nature of the contaminants of concern, a number of different compounds can be used as a tracer. Typically, sulfur hexafluoride (SF_6) or helium are used as tracers because they are readily available, have low toxicity, and can be monitored with portable measurement devices. Butane and propane (or other gases) could also be used as a tracer in some situations. Compounds other than those mentioned here may be appropriate, provided they meet project-specific data quality objectives. Where applicable, steps should be taken to ensure that the gas used by the laboratory to clean the air sampling container is different from the gas used as a tracer during sampling (e.g., helium).

The protocol for using a tracer gas is straightforward: simply enrich the atmosphere in the immediate vicinity of the area where the probe intersects the ground surface with the tracer gas, and measure a vapor sample from the probe for the presence of high concentrations (> 10%) of the tracer. A cardboard box, a plastic pail, or even a garbage bag can serve to keep the tracer gas in contact with the probe during the testing. If there are concerns about infiltration of ambient air through other parts of the sampling train (such as around the fittings, not just at the probe/ground interface), then consideration should be given to ensuring that the tracer gas is in contact with the entire sampling apparatus. In these cases, field personnel may prefer to use a liquid tracer — soaking paper towels with a liquid tracer and placing the towels around the probe/ground interface, around fittings, and/or in the corner of a shroud.

There are two basic approaches to testing for the tracer gas:

1. include the tracer gas in the list of target analytes reported by the laboratory; or
2. use a portable monitoring device to analyze a sample of soil vapor for the tracer prior to and after sampling for the compounds of concern. (Note that the tracer gas samples can be collected via syringe, Tedlar® bag etc. They need not be collected in Summa® canisters or minicans.)

The advantage of the second approach is that the real time tracer sampling results can be used to confirm the integrity of the probe seals prior to formal sample collection.

Figure 2.4 depicts common methods for using tracer gas. In examples a, b and c, the tracer gas is released in the enclosure prior to initially purging the sample point. Care should be taken to avoid excessive purging prior to sample collection. Care should also be taken to prevent pressure build-up in the enclosure during introduction of the tracer gas. Inspection of the installed sample probe, specifically noting the integrity of the surface seal and the porosity of the soil in which the probe is installed, will help to determine the tracer gas setup. Figure 2.4a may be most effective at preventing tracer gas infiltration, however, it may not be appropriate in some situations depending on site-specific conditions. Figures 2.4b and 2.4c may be sufficient for probes installed in tight soils with well-constructed surface seals. Figure 2d provides an example of using a liquid tracer. In all cases, the same tracer gas application should be used for all probes at any given site.

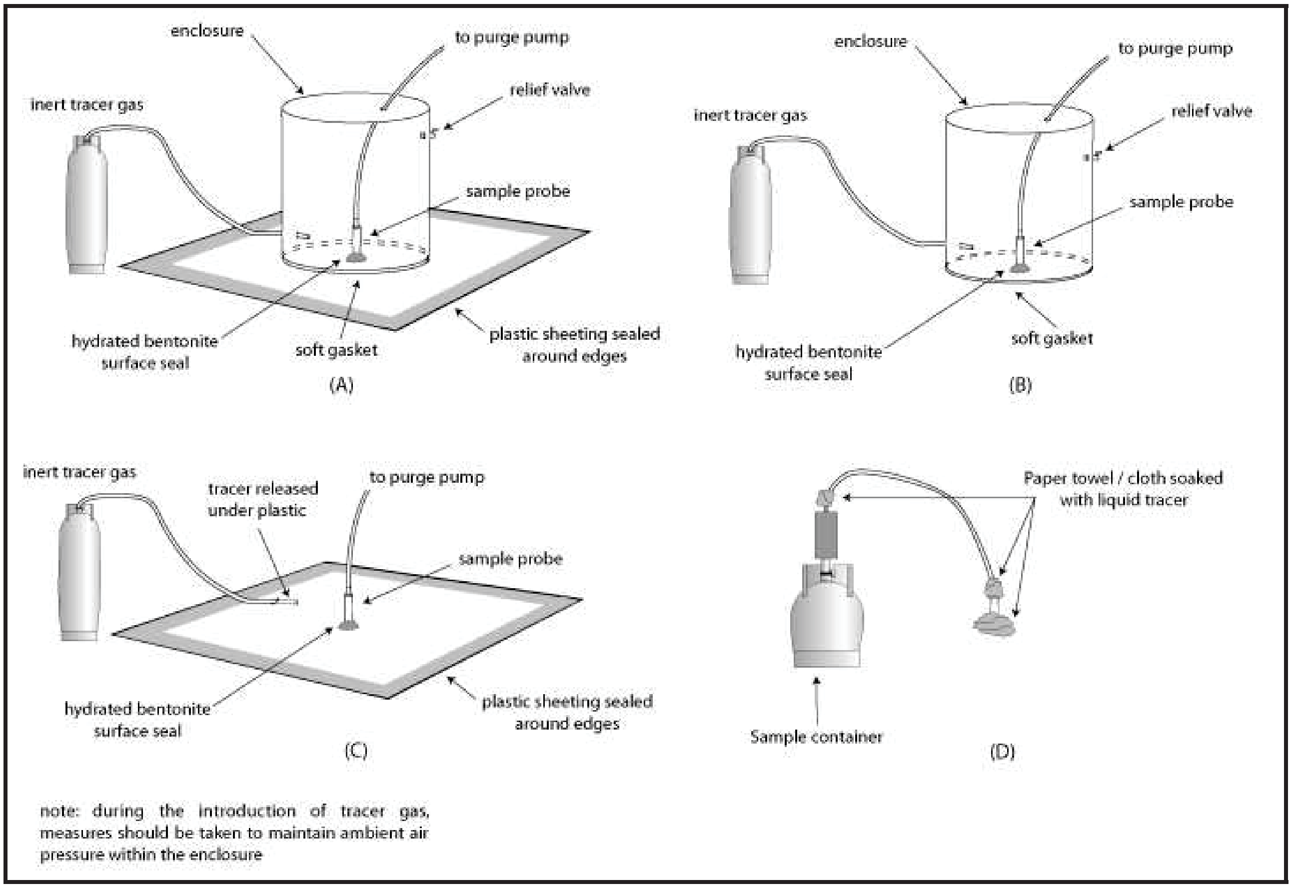


Figure 2.4
Schematics of generic tracer gas applications when collecting soil vapor samples

Because minor leakage around the probe seal should not materially affect the usability of the soil vapor sampling results, the mere presence of the tracer gas in the sample should not be a cause for alarm. Consequently, portable field monitoring devices with detection limits in the low ppm range are more than adequate for screening samples for the tracer. If high concentrations (> 10%) of tracer gas are observed in a sample, the probe seal should be enhanced to reduce the infiltration of outdoor air.

Where permanent or semi-permanent sampling probes are used, tracer gas samples should be collected at each of the sampling probes during the initial stages of a soil vapor sampling program. If the results of the initial samples indicate that the probe seals are adequate, reducing the number of locations at which tracer gas samples are employed may be considered. At a minimum, tracer gas samples should be collected with at least 10% of the soil vapor samples collected in subsequent sampling rounds. When using permanent soil vapor probes as part of a long-term monitoring program, annual testing of the probe integrity is recommended. Where temporary probes are used, tracer gas should be used at every sampling location, every time.

SUPPLEMENT C

Decontamination Materials and Procedures

SOP SUPPLEMENT: DECONTAMINATION

1.0 Objectives

Decontamination will occur any time a sampling tool or instrument used in field investigations contacts sampled media or personnel using the equipment. This procedure will be used in conjunction with all non-dedicated (i.e. reusable) equipment used during the handling, sampling or measuring of media. Special precautions are required when sampling for PFAS.

These procedures will be implemented primarily on-site at the point of use or at a designated equipment decontamination station at the project site. Examples of equipment usually requiring decontamination include pumps, depth gauges, hand augers, macro-core sampling barrels and other related equipment used for the collection of samples or the measurement of field parameters.

2.0 Required Materials

The equipment and supplies required for this SOP include the following:

- Plastic sheeting for the decontamination area
- Properly labeled drums to hold waste decontamination solutions and expendable supplies
- Plastic bags and/or aluminum foil to keep decontaminated equipment clean until the next use
- Gloves, aprons, safety glasses, and any other PPE required in the Site HASP
- Disposable towels and wipes
- Clean buckets or tubs to hold wash and rinse solutions, of a size appropriate to the equipment to be decontaminated
- Long-handled brushes for scrubbing and flat-bladed scrapers
- Dispensing bottles
- Tap water
- Deionized or distilled water (grade determined by project requirements)
- Non-phosphate detergent such as Alconox
- Methanol, nitric acid, etc. as required by the project work plan or quality assurance plan

Some Work Plans may include additional equipment rinses based on the contaminants being investigated. Examples of this are 0.1N nitric acid when cross-contamination from metals is a concern, and solvents such as methanol, isopropanol, or hexane, when cross-contamination from organics is a concern. If these are required, labeled inert dispensing bottles and Safety Data Sheets (SDS) for these rinses will be filed on site.

SUPPLEMENT D

PFAS Sampling Guides

NEW YORK STATE OF OPPORTUNITY. | Department of Environmental Conservation

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

Under NYSDEC's Part 375 Remedial Programs

June 2021

www.dec.ny.gov

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June 2021

ERRATA SHEET for

SAMPLING, ANALYSIS, AND ASSESSMENT OF PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) Under NYSDEC's Part 375 Remedial Programs Issued January 17, 2020

Citation and Page Number	Current Text	Corrected Text	Date
Title of Appendix I, page 32	Appendix H	Appendix I	2/25/2020
Document Cover, page 1	Guidelines for Sampling and Analysis of PFAS	Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs	9/15/2020
Routine Analysis, page 9	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1 or ISO 25101."	"However, laboratories analyzing environmental samples…PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533."	9/15/2020
Additional Analysis, page 9, new paragraph regarding soil parameters	None	"In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (EPA Method 9060), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils."	9/15/2020
Data Assessment and Application to Site Cleanup Page 10	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFAS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Target levels for cleanup of PFAS in other media, including biota and sediment, have not yet been established by the DEC.	Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Water Sample Results Page 10	PFAS should be further assessed and considered as a potential contaminant of concern in groundwater or surface water (…) If PFAS are identified as a contaminant of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water (…) If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.	9/15/2020
Soil Sample Results, page 10	"The extent of soil contamination for purposes of delineation and remedy selection should be determined by having certain soil samples tested by Synthetic Precipitation Leaching Procedure (SPLP) and the leachate analyzed for PFAS. Soil exhibiting SPLP results above 70 ppt for either PFOA or PFOS (individually or combined) are to be evaluated during the cleanup phase."	"Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values. " [Interim SCO Table] "PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP. As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf. "	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Testing for Imported Soil Page 11	Soil imported to a site for use in a soil cap, soil cover, or as backfill is to be tested for PFAS in general conformance with DER-10, Section 5.4(e) for the PFAS Analyte List (Appendix F) using the analytical procedures discussed below and the criteria in DER-10 associated with SVOCs. If PFOA or PFOS is detected in any sample at or above 1 µg/kg, then soil should be tested by SPLP and the leachate analyzed for PFAS. If the SPLP results exceed 10 ppt for either PFOA or PFOS (individually) then the source of backfill should be rejected, unless a site-specific exemption is provided by DER. SPLP leachate criteria is based on the Maximum Contaminant Levels proposed for drinking water by New York State's Department of Health, this value may be updated based on future Federal or State promulgated regulatory standards. Remedial parties have the option of analyzing samples concurrently for both PFAS in soil and in the SPLP leachate to minimize project delays. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable. PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.	9/15/2020

Citation and Page Number	Current Text	Corrected Text	Date
Footnotes	None	[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances. [2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the soil cleanup objective for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).	9/15/2020
Additional Analysis, page 9	In cases… soil parameters, such as Total Organic Carbon (EPA Method 9060), soil…	In cases… soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil…	1/8/2021
Appendix A, General Guidelines, fourth bullet	List the ELAP-approved lab(s) to be used for analysis of samples	List the ELAP- certified lab(s) to be used for analysis of samples	1/8/2021
Appendix E, Laboratory Analysis and Containers	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by ISO Method 25101.	Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101	1/8/2021
Water Sample Results Page 9	“In addition, further assessment of water may be warranted if either of the following screening levels are met: a. any other individual PFAS (not PFOA or PFOS) is detected in water at or above 100 ng/L; or b. total concentration of PFAS (including PFOA and PFOS) is detected in water at or above 500 ng/L”	Deleted	6/15/2021

Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs

Objective

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) performs or oversees sampling of environmental media and subsequent analysis of PFAS as part of remedial programs implemented under 6 NYCRR Part 375. To ensure consistency in sampling, analysis, reporting, and assessment of PFAS, DER has developed this document which summarizes currently accepted procedures and updates previous DER technical guidance pertaining to PFAS.

Applicability

All work plans submitted to DEC pursuant to one of the remedial programs under Part 375 shall include PFAS sampling and analysis procedures that conform to the guidelines provided herein.

As part of a site investigation or remedial action compliance program, whenever samples of potentially affected media are collected and analyzed for the standard Target Analyte List/Target Compound List (TAL/TCL), PFAS analysis should also be performed. Potentially affected media can include soil, groundwater, surface water, and sediment. Based upon the potential for biota to be affected, biota sampling and analysis for PFAS may also be warranted as determined pursuant to a Fish and Wildlife Impact Analysis. Soil vapor sampling for PFAS is not required.

Field Sampling Procedures

DER-10 specifies technical guidance applicable to DER's remedial programs. Given the prevalence and use of PFAS, DER has developed "best management practices" specific to sampling for PFAS. As specified in DER-10 Chapter 2, quality assurance procedures are to be submitted with investigation work plans. Typically, these procedures are incorporated into a work plan, or submitted as a stand-alone document (e.g., a Quality Assurance Project Plan). Quality assurance guidelines for PFAS are listed in Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS.

Field sampling for PFAS performed under DER remedial programs should follow the appropriate procedures outlined for soils, sediments or other solids (Appendix B), non-potable groundwater (Appendix C), surface water (Appendix D), public or private water supply wells (Appendix E), and fish tissue (Appendix F).

QA/QC samples (e.g. duplicates, MS/MSD) should be collected as specified in DER-10, Section 2.3(c). For sampling equipment coming in contact with aqueous samples only, rinsate or equipment blanks should be collected. Equipment blanks should be collected at a minimum frequency of one per day per site or one per twenty samples, whichever is more frequent.

Analysis and Reporting

As of October 2020, the United States Environmental Protection Agency (EPA) does not have a validated method for analysis of PFAS for media commonly analyzed under DER remedial programs (non-potable waters, solids). DER has developed the following guidelines to ensure consistency in analysis and reporting of PFAS.

The investigation work plan should describe analysis and reporting procedures, including laboratory analytical procedures for the methods discussed below. As specified in DER-10 Section 2.2, laboratories should provide a full Category B deliverable. In addition, a Data Usability Summary Report (DUSR) should be prepared by an independent, third party data validator. Electronic data submissions should meet the requirements provided at: https://www.dec.ny.gov/chemical/62440.html.

DER has developed a *PFAS Analyte List* (Appendix F) for remedial programs to understand the nature of contamination at sites. It is expected that reported results for PFAS will include, at a minimum, all the compounds listed. If lab and/or matrix specific issues are encountered for any analytes, the DER project manager, in consultation with the DER chemist, will make case-by-case decisions as to whether certain analytes may be temporarily or permanently discontinued from analysis at each site. As with other contaminants that are analyzed for at a site, the *PFAS Analyte List* may be refined for future sampling events based on investigative findings.

Routine Analysis

Currently, New York State Department of Health's Environmental Laboratory Approval Program (ELAP) does not offer certification for PFAS in matrices other than finished drinking water. However, laboratories analyzing environmental samples for PFAS (e.g., soil, sediments, and groundwater) under DER's Part 375 remedial programs need to hold ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, ISO 25101, or Method 533. Laboratories should adhere to the guidelines and criteria set forth in the DER's laboratory guidelines for PFAS in non-potable water and solids (Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids). Data review guidelines were developed by DER to ensure data comparability and usability (Appendix H - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids).

LC-MS/MS analysis for PFAS using methodologies based on EPA Method 537.1 is the procedure to use for environmental samples. Isotope dilution techniques should be utilized for the analysis of PFAS in all media. Reporting limits for PFOA and PFOS in aqueous samples should not exceed 2 ng/L. Reporting limits for PFOA and PFOS in solid samples should not exceed 0.5 µg/kg. Reporting limits for all other PFAS in aqueous and solid media should be as close to these limits as possible. If laboratories indicate that they are not able to achieve these reporting limits for the entire *PFAS Analyte List*, site-specific decisions regarding acceptance of elevated reporting limits for specific PFAS can be made by the DER project manager in consultation with the DER chemist.

Additional Analysis

Additional laboratory methods for analysis of PFAS may be warranted at a site, such as the Synthetic Precipitation Leaching Procedure (SPLP) and Total Oxidizable Precursor Assay (TOP Assay).

In cases where site-specific cleanup objectives for PFOA and PFOS are to be assessed, soil parameters, such as Total Organic Carbon (Lloyd Kahn), soil pH (EPA Method 9045), clay content (percent), and cation exchange capacity (EPA Method 9081), should be included in the analysis to help evaluate factors affecting the leachability of PFAS in site soils.

SPLP is a technique used to determine the mobility of chemicals in liquids, soils and wastes, and may be useful in determining the need for addressing PFAS-containing material as part of the remedy. SPLP by EPA Method 1312 should be used unless otherwise specified by the DER project manager in consultation with the DER chemist.

Impacted materials can be made up of PFAS that are not analyzable by routine analytical methodology. A TOP Assay can be utilized to conceptualize the amount and type of oxidizable PFAS which could be liberated in the environment, which approximates the maximum concentration of perfluoroalkyl substances that could be generated if all polyfluoroalkyl substances were oxidized. For example, some polyfluoroalkyl substances may degrade or transform to form perfluoroalkyl substances (such as PFOA or PFOS), resulting in an increase in perfluoroalkyl substance concentrations as contaminated groundwater moves away from a source. The TOP Assay converts, through oxidation, polyfluoroalkyl substances (precursors) into perfluoroalkyl substances that can be detected by routine analytical methodology.[1]

Commercial laboratories have adopted methods which allow for the quantification of targeted PFAS in air and biota. The EPA's Office of Research and Development (ORD) is currently developing methods which allow for air emissions characterization of PFAS, including both targeted and non-targeted analysis of PFAS. Consult with the DER project manager and the DER chemist for assistance on analyzing biota/tissue and air samples.

Data Assessment and Application to Site Cleanup

Until such time as Ambient Water Quality Standards (AWQS) and Soil Cleanup Objectives (SCOs) for PFOA and PFOS are published, the extent of contaminated media potentially subject to remediation should be determined on a case-by-case basis using the procedures discussed below and the criteria in DER-10. Preliminary target levels for cleanup of PFOA and PFOS in other media, including biota and sediment, have not yet been established by the DEC.

Water Sample Results

PFOA and PFOS should be further assessed and considered as potential contaminants of concern in groundwater or surface water if PFOA or PFOS is detected in any water sample at or above 10 ng/L (ppt) and is determined to be attributable to the site, either by a comparison of upgradient and downgradient levels, or the presence of soil source areas, as defined below.

If PFOA and/or PFOS are identified as contaminants of concern for a site, they should be assessed as part of the remedy selection process in accordance with Part 375 and DER-10.

Soil Sample Results

Soil cleanup objectives for PFOA and PFOS will be proposed in an upcoming revision to 6 NYCRR Part 375-6. Until SCOs are in effect, the following are to be used as guidance values.

Guidance Values for Anticipated Site Use	PFOA (ppb)	PFOS (ppb)
Unrestricted	0.66	0.88
Residential	6.6	8.8
Restricted Residential	33	44
Commercial	500	440
Industrial	600	440
Protection of Groundwater[2]	1.1	3.7

[1] TOP Assay analysis of highly contaminated samples, such as those from an AFFF (aqueous film-forming foam) site, can result in incomplete oxidation of the samples and an underestimation of the total perfluoroalkyl substances.
[2] The movement of PFAS in the environment is being aggressively researched at this time; that research will eventually result in more accurate models for the behaviors of these chemicals. In the meantime, DEC has calculated the guidance value for the protection of groundwater using the same procedure used for all other chemicals, as described in Section 7.7 of the Technical Support Document (http://www.dec.ny.gov/docs/remediation_hudson_pdf/techsuppdoc.pdf).

PFOA and PFOS results for soil are to be compared against the guidance values listed above. These guidance values are to be used in determining whether PFOA and PFOS are contaminants of concern for the site and for determining remedial action objectives and cleanup requirements. Site-specific remedial objectives for protection of groundwater can also be presented for evaluation by DEC. Development of site-specific remedial objectives for protection of groundwater will require analysis of additional soil parameters relating to leachability. These additional analyses can include any or all the parameters listed above (soil pH, cation exchange capacity, etc.) and/or use of SPLP.

As the understanding of PFAS transport improves, DEC welcomes proposals for site-specific remedial objectives for protection of groundwater. DEC will expect that those may be dependent on additional factors including soil pH, aqueous pH, % organic carbon, % Sand/Silt/Clay, soil cations: K, Ca, Mg, Na, Fe, Al, cation exchange capacity, and anion exchange capacity. Site-specific remedial objectives should also consider the dilution attenuation factor (DAF). The NJDEP publication on DAF can be used as a reference: https://www.nj.gov/dep/srp/guidance/rs/daf.pdf.

Testing for Imported Soil

Testing for PFAS should be included any time a full TAL/TCL analyte list is required. Results for PFOA and PFOS should be compared to the applicable guidance values. If PFOA or PFOS is detected in any sample at or above the guidance values then the source of backfill should be rejected, unless a site-specific exemption is provided by DER based on SPLP testing, for example. If the concentrations of PFOA and PFOS in leachate are at or above 10 ppt (the Maximum Contaminant Levels established for drinking water by the New York State Department of Health), then the soil is not acceptable.

PFOA, PFOS and 1,4-dioxane are all considered semi-volatile compounds, so composite samples are appropriate for these compounds when sampling in accordance with DER-10, Table 5.4(e)10. Category B deliverables should be submitted for backfill samples, though a DUSR is not required.

Appendix A - Quality Assurance Project Plan (QAPP) Guidelines for PFAS

The following guidelines (general and PFAS-specific) can be used to assist with the development of a QAPP for projects within DER involving sampling and analysis of PFAS.

General Guidelines in Accordance with DER-10

- Document/work plan section title – Quality Assurance Project Plan
- Summarize project scope, goals, and objectives
- Provide project organization including names and resumes of the project manager, Quality Assurance Officer (QAO), field staff, and Data Validator
  - The QAO should not have another position on the project, such as project or task manager, that involves project productivity or profitability as a job performance criterion
- List the ELAP certified lab(s) to be used for analysis of samples
- Include a site map showing sample locations
- Provide detailed sampling procedures for each matrix
- Include Data Quality Usability Objectives
- List equipment decontamination procedures
- Include an "Analytical Methods/Quality Assurance Summary Table" specifying:
  - Matrix type
  - Number or frequency of samples to be collected per matrix
  - Number of field and trip blanks per matrix
  - Analytical parameters to be measured per matrix
  - Analytical methods to be used per matrix with minimum reporting limits
  - Number and type of matrix spike and matrix spike duplicate samples to be collected
  - Number and type of duplicate samples to be collected
  - Sample preservation to be used per analytical method and sample matrix
  - Sample container volume and type to be used per analytical method and sample matrix
  - Sample holding time to be used per analytical method and sample matrix
- Specify Category B laboratory data deliverables and preparation of a DUSR

Specific Guidelines for PFAS

- Include in the text that sampling for PFAS will take place
- Include in the text that PFAS will be analyzed by LC-MS/MS for PFAS using methodologies based on EPA Method 537.1
- Include the list of PFAS compounds to be analyzed (*PFAS Analyte List*)
- Include the laboratory SOP for PFAS analysis
- List the minimum method-achievable Reporting Limits for PFAS
  - Reporting Limits should be less than or equal to:
    - Aqueous – 2 ng/L (ppt)
    - Solids – 0.5 µg/kg (ppb)
- Include the laboratory Method Detection Limits for the PFAS compounds to be analyzed
- Laboratory should have ELAP certification for PFOA and PFOS in drinking water by EPA Method 537, 537.1, EPA Method 533, or ISO 25101
- Include detailed sampling procedures
  - Precautions to be taken
  - Pump and equipment types
  - Decontamination procedures
  - Approved materials only to be used
- Specify that regular ice only will be used for sample shipment
- Specify that equipment blanks should be collected at a minimum frequency of 1 per day per site for each matrix

Appendix B - Sampling Protocols for PFAS in Soils, Sediments and Solids

General

The objective of this protocol is to give general guidelines for the collection of soil, sediment and other solid samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Containers

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in to contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel spoon
- stainless steel bowl
- steel hand auger or shovel without any coatings

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Sampling is often conducted in areas where a vegetative turf has been established. In these cases, a pre-cleaned trowel or shovel should be used to carefully remove the turf so that it may be replaced at the conclusion of sampling. Surface soil samples (e.g. 0 to 6 inches below surface) should then be collected using a pre-cleaned, stainless steel spoon. Shallow subsurface soil samples (e.g. 6 to ~36 inches below surface) may be collected by digging a hole using a pre-cleaned hand auger or shovel. When the desired subsurface depth is reached, a pre-cleaned hand auger or spoon shall be used to obtain the sample.

When the sample is obtained, it should be deposited into a stainless steel bowl for mixing prior to filling the sample containers. The soil should be placed directly into the bowl and mixed thoroughly by rolling the material into the middle until the material is homogenized. At this point the material within the bowl can be placed into the laboratory provided container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A soil log or sample log shall document the location of the sample/borehole, depth of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix C - Sampling Protocols for PFAS in Monitoring Wells

General

The objective of this protocol is to give general guidelines for the collection of groundwater samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including plumbers tape and sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel inertia pump with HDPE tubing
- peristaltic pump equipped with HDPE tubing and silicone tubing
- stainless steel bailer with stainless steel ball
- bladder pump (identified as PFAS-free) with HDPE tubing

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Monitoring wells should be purged in accordance with the sampling procedure (standard/volume purge or low flow purge) identified in the site work plan, which will determine the appropriate time to collect the sample. If sampling using standard purge techniques, additional purging may be needed to reduce turbidity levels, so samples contain a limited amount of sediment within the sample containers. Sample containers that contain sediment may cause issues at the laboratory, which may result in elevated reporting limits and other issues during the sample preparation that can compromise data usability. Sampling personnel should don new nitrile gloves prior to sample collection due to the potential to contact PFAS containing items (not related to the sampling equipment) during the purging activities.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Additional equipment blank samples may be collected to assess other equipment that is utilized at the monitoring well
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A purge log shall document the location of the sample, sampling equipment, groundwater parameters, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix D - Sampling Protocols for PFAS in Surface Water

General

The objective of this protocol is to give general guidelines for the collection of surface water samples for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Samples collected using this protocol are intended to be analyzed for PFAS using methodologies based on EPA Method 537.1.

The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include: stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer.

A list of acceptable equipment is provided below, but other equipment may be considered appropriate based on sampling conditions.

- stainless steel cup

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Where conditions permit, (e.g. creek or pond) sampling devices (e.g. stainless steel cup) should be rinsed with site medium to be sampled prior to collection of the sample. At this point the sample can be collected and poured into the sample container.

If site conditions permit, samples can be collected directly into the laboratory container.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- Collect one equipment blank per day per site and minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers
- Request appropriate data deliverable (Category B) and an electronic data deliverable

Documentation

A sample log shall document the location of the sample, sampling equipment, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate. Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appropriate rain gear (PVC, polyurethane, or rubber rain gear are acceptable), bug spray, and sunscreen should be used that does not contain PFAS. Well washed cotton coveralls may be used as an alternative to bug spray and/or sunscreen.

PPE that contains PFAS is acceptable when site conditions warrant additional protection for the samplers and no other materials can be used to be protective. Documentation of such use should be provided in the field notes.

Appendix E - Sampling Protocols for PFAS in Private Water Supply Wells

General

The objective of this protocol is to give general guidelines for the collection of water samples from private water supply wells (with a functioning pump) for PFAS analysis. The sampling procedure used should be consistent with Sampling Guidelines and Protocols – Technological Background and Quality Control/Quality Assurance for NYS DEC Spill Response Program – March 1991 (http://www.dec.ny.gov/docs/remediation_hudson_pdf/sgpsect5.pdf), with the following limitations.

Laboratory Analysis and Container

Drinking water samples collected using this protocol are intended to be analyzed for PFAS by EPA Method 537, 537.1, 533, or ISO Method 25101. The preferred material for containers is high density polyethylene (HDPE). Pre-cleaned sample containers, coolers, sample labels, and a chain of custody form will be provided by the laboratory.

Equipment

Acceptable materials for sampling include stainless steel, HDPE, PVC, silicone, acetate, and polypropylene. Additional materials may be acceptable if pre-approved by New York State Department of Environmental Conservation's Division of Environmental Remediation.

No sampling equipment components or sample containers should come in contact with aluminum foil, low density polyethylene, glass, or polytetrafluoroethylene (PTFE, Teflon™) materials (e.g. plumbers tape), including sample bottle cap liners with a PTFE layer.

Equipment Decontamination

Standard two step decontamination using detergent (Alconox is acceptable) and clean, PFAS-free water will be performed for sampling equipment. All sources of water used for equipment decontamination should be verified in advance to be PFAS-free through laboratory analysis or certification.

Sampling Techniques

Locate and assess the pressure tank and determine if any filter units are present within the building. Establish the sample location as close to the well pump as possible, which is typically the spigot at the pressure tank. Ensure sampling equipment is kept clean during sampling as access to the pressure tank spigot, which is likely located close to the ground, may be obstructed and may hinder sample collection.

Prior to sampling, a faucet downstream of the pressure tank (e.g., washroom sink) should be run until the well pump comes on and a decrease in water temperature is noted which indicates that the water is coming from the well. If the homeowner is amenable, staff should run the water longer to purge the well (15+ minutes) to provide a sample representative of the water in the formation rather than standing water in the well and piping system including the pressure tank. At this point a new pair of nitrile gloves should be donned and the sample can be collected from the sample point at the pressure tank.

Sample Identification and Logging

A label shall be attached to each sample container with a unique identification. Each sample shall be included on the chain of custody (COC).

Quality Assurance/Quality Control

- Immediately place samples in a cooler maintained at 4 ± 2º Celsius using ice
- Collect one field duplicate for every sample batch, minimum 1 duplicate per 20 samples. The duplicate shall consist of an additional sample at a given location
- Collect one matrix spike / matrix spike duplicate (MS/MSD) for every sample batch, minimum 1 MS/MSD per 20 samples. The MS/MSD shall consist of an additional two samples at a given location and identified on the COC
- If equipment was used, collect one equipment blank per day per site and a minimum 1 equipment blank per 20 samples. The equipment blank shall test the new and decontaminated sampling equipment utilized to obtain a sample for residual PFAS contamination. This sample is obtained by using laboratory provided PFAS-free water and passing the water over or through the sampling device and into laboratory provided sample containers.
- A field reagent blank (FRB) should be collected at a rate of one per 20 samples. The lab will provide a FRB bottle containing PFAS free water and one empty FRB bottle. In the field, pour the water from the one bottle into the empty FRB bottle and label appropriately.
- Request appropriate data deliverable (Category B) and an electronic data deliverable
- For sampling events where multiple private wells (homes or sites) are to be sampled per day, it is acceptable to collect QC samples at a rate of one per 20 across multiple sites or days.

Documentation

A sample log shall document the location of the private well, sample point location, owner contact information, sampling equipment, purge duration, duplicate sample, visual description of the material, and any other observations or notes determined to be appropriate and available (e.g. well construction, pump type and location, yield, installation date). Additionally, care should be performed to limit contact with PFAS containing materials (e.g. waterproof field books, food packaging) during the sampling process.

Personal Protection Equipment (PPE)

For most sampling Level D PPE is anticipated to be appropriate. The sampler should wear nitrile gloves while conducting field work and handling sample containers.

Field staff shall consider the clothing to be worn during sampling activities. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials should be avoided. All clothing worn by sampling personnel should have been laundered multiple times.

Appendix F - Sampling Protocols for PFAS in Fish

This appendix contains a copy of the latest guidelines developed by the Division of Fish and Wildlife (DFW) entitled "General Fish Handling Procedures for Contaminant Analysis" (Ver. 8).

Procedure Name: General Fish Handling Procedures for Contaminant Analysis

Number: FW-005

Purpose: This procedure describes data collection, fish processing and delivery of fish collected for contaminant monitoring. It contains the chain of custody and collection record forms that should be used for the collections.

Organization: Environmental Monitoring Section
Bureau of Ecosystem Health
Division of Fish and Wildlife (DFW)
New York State Department of Environmental Conservation (NYSDEC)
625 Broadway
Albany, New York 12233-4756

Version: 8

Previous Version Date: 21 March 2018

Summary of Changes to this Version: Updated bureau name to Bureau of Ecosystem Health. Added direction to list the names of all field crew on the collection record. Minor formatting changes on chain of custody and collection records.

Originator or Revised by: Wayne Richter, Jesse Becker

Date: 26 April 2019

Quality Assurance Officer and Approval Date: Jesse Becker, 26 April 2019

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GENERAL FISH HANDLING PROCEDURES FOR CONTAMINANT ANALYSES

A. Original copies of all continuity of evidence (i.e., Chain of Custody) and collection record forms must accompany delivery of fish to the lab. A copy shall be directed to the Project Leader or as appropriate, Wayne Richter. All necessary forms will be supplied by the Bureau of Ecosystem Health. Because some samples may be used in legal cases, it is critical that each section is filled out completely. Each Chain of Custody form has three main sections:

   1. The top box is to be filled out **and signed** by the person responsible for the fish collection (e.g., crew leader, field biologist, researcher). This person is responsible for delivery of the samples to DEC facilities or personnel (e.g., regional office or biologist).

   2. The second section is to be filled out **and signed** by the person responsible for the collections while being stored at DEC, before delivery to the analytical lab. This may be the same person as in (1), but it is still required that they complete the section. Also important is the **range of identification numbers** (i.e., tag numbers) included in the sample batch.

   3. Finally, the bottom box is to record any transfers between DEC personnel and facilities. Each subsequent transfer should be **identified, signed, and dated**, until laboratory personnel take possession of the fish.

B. The following data are required on each **Fish Collection Record** form:

   1. Project and Site Name.

   2. DEC Region.

   3. All personnel (and affiliation) involved in the collection.

   4. Method of collection (gill net, hook and line, etc.)

   5. Preservation Method.

C. The following data are to be taken on each fish collected and recorded on the **Fish Collection Record** form:

   1. Tag number - Each specimen is to be individually jaw tagged at time of collection with a unique number. Make sure the tag is turned out so that the number can be read without opening the bag. Use tags in sequential order. For small fish or composite samples place the tag inside the bag with the samples. The Bureau of Ecosystem Health can supply the tags.

   2. Species identification (please be explicit enough to enable assigning genus and species). Group fish by species when processing.

   3. Date collected.

   4. Sample location (waterway and nearest prominent identifiable landmark).

   5. Total length (nearest mm or smallest sub-unit on measuring instrument) and weight (nearest g or

smallest sub-unit of weight on weighing instrument). Take all measures as soon as possible with calibrated, protected instruments (e.g. from wind and upsets) and prior to freezing.

6. Sex - fish may be cut enough to allow sexing or other internal investigation, but do not eviscerate. Make any incision on the right side of the belly flap or exactly down the midline so that a left-side fillet can be removed.

D. General data collection recommendations:

1. It is helpful to use an ID or tag number that will be unique. It is best to use metal striped bass or other uniquely numbered metal tags. If uniquely numbered tags are unavailable, values based on the region, water body and year are likely to be unique: for example, R7CAY11001 for Region 7, Cayuga Lake, 2011, fish 1. If the fish are just numbered 1 through 20, we have to give them new numbers for our database, making it more difficult to trace your fish to their analytical results and creating an additional possibility for errors.

2. Process and record fish of the same species sequentially. Recording mistakes are less likely when all fish from a species are processed together. Starting with the bigger fish species helps avoid missing an individual.

3. If using Bureau of Ecosystem Health supplied tags or other numbered tags, use tags in sequence so that fish are recorded with sequential Tag Numbers. This makes data entry and login at the lab and use of the data in the future easier and reduces keypunch errors.

4. Record length and weight as soon as possible after collection and before freezing. Other data are recorded in the field upon collection. An age determination of each fish is optional, but if done, it is recorded in the appropriate “Age” column.

5. For composite samples of small fish, record the number of fish in the composite in the Remarks column. Record the length and weight of each individual in a composite. All fish in a composite sample should be of the same species and members of a composite should be visually matched for size.

6. Please submit photocopies of topographic maps or good quality navigation charts indicating sampling locations. GPS coordinates can be entered in the Location column of the collection record form in addition to or instead for providing a map. These records are of immense help to us (and hopefully you) in providing documented location records which are not dependent on memory and/or the same collection crew. In addition, they may be helpful for contaminant source trackdown and remediation/control efforts of the Department.

7. When recording data on fish measurements, it will help to ensure correct data recording for the data recorder to call back the numbers to the person making the measurements.

E. Each fish is to be placed in its own individual plastic bag. For small fish to be analyzed as a composite, put all of the fish for one composite in the same bag but use a separate bag for each composite. It is important to individually bag the fish to avoid difficulties or cross contamination when processing the fish for chemical analysis. Be sure to include the fish’s tag number inside the bag, preferably attached to the fish with the tag number turned out so it can be read. Tie or otherwise secure the bag closed. **The Bureau of Ecosystem Health will supply the bags.** If necessary, food grade bags may be procured from a suitable vendor (e.g., grocery store). It is preferable to redundantly label each bag with a manila tag tied between the knot and the body of the bag. This tag should be labeled with the project name, collection location, tag number, collection date, and fish species. If scales are collected, the scale envelope should be labeled with the same information.

F. Groups of fish, by species, are to be placed in one large plastic bag per sampling location. **The Bureau of Ecosystem Health will supply the larger bags.** Tie or otherwise secure the bag closed. Label the site bag with a manila tag tied between the knot and the body of the bag. The tag should contain: project, collection location, collection date, species and **tag number ranges**. Having this information on the manila tag enables lab staff to know what is in the bag without opening it.

G. Do not eviscerate, fillet or otherwise dissect the fish unless specifically asked to. If evisceration or dissection is specified, the fish must be cut along the exact midline or on the right side so that the left side fillet can be removed intact at the laboratory. If filleting is specified, the procedure for taking a standard fillet (SOP PREPLAB 4) must be followed, including removing scales.

H. Special procedures for PFAS: Unlike legacy contaminants such as PCBs, which are rarely found in day to day life, PFAS are widely used and frequently encountered. Practices that avoid sample contamination are therefore necessary. While no standard practices have been established for fish, procedures for water quality sampling can provide guidance. The following practices should be used for collections when fish are to be analyzed for PFAS:
    No materials containing Teflon.
    No Post-it notes.
    No ice packs; only water ice or dry ice.
    Any gloves worn must be powder free nitrile.
    No Gore-Tex or similar materials (Gore-Tex is a PFC with PFOA used in its manufacture).
    No stain repellent or waterproof treated clothing; these are likely to contain PFCs.
    Avoid plastic materials, other than HDPE, including clipboards and waterproof notebooks.
    Wash hands after handling any food containers or packages as these may contain PFCs. Keep pre-wrapped food containers and wrappers isolated from fish handling.
    Wear clothing washed at least six times since purchase.
    Wear clothing washed without fabric softener.
    Staff should avoid cosmetics, moisturizers, hand creams and similar products on the day of sampling as many of these products contain PFCs (Fujii et al. 2013). Sunscreen or insect repellent should not contain ingredients with “fluor” in their name. Apply any sunscreen or insect repellent well downwind from all materials. Hands must be washed after touching any of these products.

I. All fish must be kept at a temperature <45° F (<8° C) immediately following data processing. As soon as possible, freeze at -20° C ± 5° C. Due to occasional freezer failures, daily freezer temperature logs are required. The freezer should be locked or otherwise secured to maintain chain of custody.

J. In most cases, samples should be delivered to the Analytical Services Unit at the Hale Creek field station. Coordinate delivery with field station staff and send copies of the collection records, continuity of evidence forms and freezer temperature logs to the field station. For samples to be analyzed elsewhere, non-routine collections or other questions, contact Wayne Richter, Bureau of Ecosystem Health, NYSDEC, 625 Broadway, Albany, New York 12233-4756, 518-402-8974, or the project leader about sample transfer. Samples will then be directed to the analytical facility and personnel noted on specific project descriptions.

K. A recommended equipment list is at the end of this document.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF FISH AND WILDLIFE
FISH COLLECTION RECORD

Project and Site Name ____ DEC Region ____________

Collections made by (include all crew) ____

Sampling Method: ☐Electrofishing ☐Gill netting ☐Trap netting ☐Trawling ☐Seining ☐Angling ☐Other ____________________

Preservation Method: ☐Freezing ☐Other ____________________ Notes (SWFDB survey number): ____________________

FOR LAB USE ONLY- LAB ENTRY NO.	COLLECTION OR TAG NO.	SPECIES	DATE TAKEN	LOCATION	AGE	SEX &/OR REPROD. CONDIT	LENGTH ( )	WEIGHT ( )	REMARKS

richter: revised 2011, 5/7/15, 10/4/16, 3/20/17; becker: 3/23/17, 4/26/19

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAIN OF CUSTODY

I, ______________________________, of ____ collected the
(Print Name) (Print Business Address)

following on ____________________, 20____ from ____
(Date) (Water Body)

in the vicinity of ____
(Landmark, Village, Road, etc.)

Town of ____, in _________________________________ County.

Item(s) ____

____

Said sample(s) were in my possession and handled according to standard procedures provided to me prior to collection. The sample(s) were placed in the custody of a representative of the New York State Department of Environmental Conservation on ___________________________________, 20______.

____ ___________________________
Signature Date

I, __________________________________, received the above mentioned sample(s) on the date specified and assigned identification number(s) ____ to the sample(s). I have recorded pertinent data for the sample(s) on the attached collection records. The sample(s) remained in my custody until subsequently transferred, prepared or shipped at times and on dates as attested to below.

_______________________________________ ___________________
Signature Date

SECOND RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
THIRD RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
FOURTH RECIPIENT (Print Name)	TIME & DATE	PURPOSE OF TRANSFER
SIGNATURE	UNIT	
RECEIVED IN LABORATORY BY (Print Name)	TIME & DATE	REMARKS
SIGNATURE	UNIT	
LOGGED IN BY (Print Name)	TIME & DATE	ACCESSION NUMBERS
SIGNATURE	UNIT	

richter: revised 21 April 2014; becker: 23 March 2017, 26 April, 2019

NOTICE OF WARRANTY

By signature to the chain of custody (reverse), the signatory warrants that the information provided is truthful and accurate to the best of his/her ability. The signatory affirms that he/she is willing to testify to those facts provided and the circumstances surrounding the same. Nothing in this warranty or chain of custody negates responsibility nor liability of the signatories for the truthfulness and accuracy of the statements provided.

HANDLING INSTRUCTIONS

On day of collection, collector(s) name(s), address(es), date, geographic location of capture (attach a copy of topographic map or navigation chart), species, number kept of each species, and description of capture vicinity (proper noun, if possible) along with name of Town and County must be indicated on reverse.

Retain organisms in manila tagged plastic bags to avoid mixing capture locations. Note appropriate information on each bag tag.

Keep samples as cool as possible. Put on ice if fish cannot be frozen within 12 hours. If fish are held more than 24 hours without freezing, they will not be retained or analyzed.

Initial recipient (either DEC or designated agent) of samples from collector(s) is responsible for obtaining and recording information on the collection record forms which will accompany the chain of custody. This person will seal the container using packing tape and writing his signature, the time and the date across the tape onto the container with indelible marker. Any time a seal is broken, for whatever purpose, the incident must be recorded on the Chain of Custody (reason, time, and date) in the purpose of transfer block. Container then is resealed using new tape and rewriting signature, with time and date.

EQUIPMENT LIST

Scale or balance of appropriate capacity for the fish to be collected.

Fish measuring board.

Plastic bags of an appropriate size for the fish to be collected and for site bags.

Individually numbered metal tags for fish.

Manila tags to label bags.

Small envelops, approximately 2” x 3.5”, if fish scales are to be collected.

Knife for removing scales.

Chain of custody and fish collection forms.

Clipboard.

Pens or markers.

Paper towels.

Dish soap and brush.

Bucket.

Cooler.

Ice.

Duct tape.

Appendix G – PFAS Analyte List

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonates	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanesulfonic acid	PFOS	1763-23-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluoroalkyl carboxylates	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	PFHpA	375-85-9
	Perfluorooctanoic acid	PFOA	335-67-1
	Perfluorononanoic acid	PFNA	375-95-1
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUA/PFUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTriA/PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTA/PFTeDA	376-06-7
Fluorinated Telomer Sulfonates	6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
	8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4
Perfluorooctane-sulfonamides	Perfluroroctanesulfonamide	FOSA	754-91-6
Perfluorooctane-sulfonamidoacetic acids	N-methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6

Appendix H - Laboratory Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) developed the following guidelines for laboratories analyzing environmental samples for PFAS under DER programs. If laboratories cannot adhere to the following guidelines, they should contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov prior to analysis of samples.

Isotope Dilution

Isotope dilution techniques should be utilized for the analysis of PFAS in all media.

Extraction

For water samples, the entire sample bottle should be extracted, and the sample bottle rinsed with appropriate solvent to remove any residual PFAS.

For samples with high particulates, the samples should be handled in one of the following ways:

1. Spike the entire sample bottle with isotope dilution analytes (IDAs) prior to any sample manipulation. The sample can be passed through the SPE and if it clogs, record the volume that passed through.
2. If the sample contains too much sediment to attempt passing it through the SPE cartridge, the sample should be spiked with isotope dilution analytes, centrifuged and decanted.
3. If higher reporting limits are acceptable for the project, the sample can be diluted by taking a representative aliquot of the sample. If isotope dilution analytes will be diluted out of the sample, they can be added after the dilution. The sample should be homogenized prior to taking an aliquot.

If alternate sample extraction procedures are used, please contact the DER remedial program chemist prior to employing. Any deviations in sample preparation procedures should be clearly noted in the case narrative.

Signal to Noise Ratio

For all target analyte ions used for quantification, signal to noise ratio should be 3:1 or greater.

Blanks

There should be no detections in the method blanks above the reporting limits.

Ion Transitions

The ion transitions listed below should be used for the following PFAS:

PFOA	413 > 369
PFOS	499 > 80
PFHxS	399 > 80
PFBS	299 > 80
6:2 FTS	427 > 407
8:2 FTS	527 > 507
N-EtFOSAA	584 > 419
N-MeFOSAA	570 > 419

Branched and Linear Isomers

Standards containing both branched and linear isomers should be used when standards are commercially available. Currently, quantitative standards are available for PFHxS, PFOS, NMeFOSAA, and NEtFOSAA. As more standards become available, they should be incorporated in to the method. All isomer peaks present in the standard should be integrated and the areas summed. Samples should be integrated in the same manner as the standards.

Since a quantitative standard does not exist for branched isomers of PFOA, the instrument should be calibrated using just the linear isomer and a technical (qualitative) PFOA standard should be used to identify the retention time of the branched PFOA isomers in the sample. The total response of PFOA branched and linear isomers should be integrated in the samples and quantitated using the calibration curve of the linear standard.

Secondary Ion Transition Monitoring

Quantifier and qualifier ions should be monitored for all target analytes (PFBA and PFPeA are exceptions). The ratio of quantifier ion response to qualifier ion response should be calculated for each target analyte and the ratio compared to standards. Lab derived criteria should be used to determine if the ratios are acceptable.

Reporting

Detections below the reporting limit should be reported and qualified with a J qualifier.

The acid form of PFAS analytes should be reported. If the salt form of the PFAS was used as a stock standard, the measured mass should be corrected to report the acid form of the analyte.

Appendix I - Data Review Guidelines for Analysis of PFAS in Non-Potable Water and Solids

General

These guidelines are intended to be used for the validation of PFAS analytical results for projects within the Division of Environmental Remediation (DER) as well as aid in the preparation of a data usability summary report. Data reviewers should understand the methodology and techniques utilized in the analysis. Consultation with the end user of the data may be necessary to assist in determining data usability based on the data quality objectives in the Quality Assurance Project Plan. A familiarity with the laboratory's Standard Operating Procedure may also be needed to fully evaluate the data. If you have any questions, please contact DER's Quality Assurance Officer, Dana Barbarossa, at dana.barbarossa@dec.ny.gov.

Preservation and Holding Time

Samples should be preserved with ice to a temperature of less than 6°C upon arrival at the lab. The holding time is 14 days to extraction for aqueous and solid samples. The time from extraction to analysis for aqueous samples is 28 days and 40 days for solids.

Temperature greatly exceeds 6ºC upon arrival at the lab*	Use professional judgement to qualify detects and non-detects as estimated or rejected
Holding time exceeding 28 days to extraction	Use professional judgement to qualify detects and non-detects as estimated or rejected if holding time is grossly exceeded

*Samples that are delivered to the lab immediately after sampling may not meet the thermal preservation guidelines. Samples are considered acceptable if they arrive on ice or an attempt to chill the samples is observed.

Initial Calibration

The initial calibration should contain a minimum of five standards for linear fit and six standards for a quadratic fit. The relative standard deviation (RSD) for a quadratic fit calibration should be less than 20%. Linear fit calibration curves should have an R^2 value greater than 0.990.

The low-level calibration standard should be within 50% - 150% of the true value, and the mid-level calibration standard within 70% - 130% of the true value.

%RSD >20%	J flag detects and UJ non detects
R^2 >0.990	J flag detects and UJ non detects
Low-level calibration check <50% or >150%	J flag detects and UJ non detects
Mid-level calibration check <70% or >130%	J flag detects and UJ non detects

Initial Calibration Verification

An initial calibration verification (ICV) standard should be from a second source (if available). The ICV should be at the same concentration as the mid-level standard of the calibration curve.

ICV recovery <70% or >130%	J flag detects and non-detects

Continuing Calibration Verification

Continuing calibration verification (CCV) checks should be analyzed at a frequency of one per ten field samples. If CCV recovery is very low, where detection of the analyte could be in question, ensure a low level CCV was analyzed and use to determine data quality.

CCV recovery <70 or >130%	J flag results

Blanks

There should be no detections in the method blanks above the reporting limits. Equipment blanks, field blanks, rinse blanks etc. should be evaluated in the same manner as method blanks. Use the most contaminated blank to evaluate the sample results.

Blank Result	Sample Result	Qualification
Any detection	<Reporting limit	Qualify as ND at reporting limit
Any detection	>Reporting Limit and >10x the blank result	No qualification
>Reporting limit	>Reporting limit and <10x blank result	J+ biased high

Field Duplicates

A blind field duplicate should be collected at rate of one per twenty samples. The relative percent difference (RPD) should be less than 30% for analyte concentrations greater than two times the reporting limit. Use the higher result for final reporting.

RPD >30%	Apply J qualifier to parent sample

Lab Control Spike

Lab control spikes should be analyzed with each extraction batch or one for every twenty samples. In the absence of lab derived criteria, use 70% - 130% recovery criteria to evaluate the data.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects

Matrix Spike/Matrix Spike Duplicate

One matrix spike and matrix spike duplicate should be collected at a rate of one per twenty samples. Use professional judgement to reject results based on out of control MS/MSD recoveries.

Recovery <70% or >130% (lab derived criteria can also be used)	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only
RPD >30%	Apply J qualifier to detects and UJ qualifier to non detects of parent sample only

Extracted Internal Standards (Isotope Dilution Analytes)

Problematic analytes (e.g. PFBA, PFPeA, fluorotelomer sulfonates) can have wider recoveries without qualification. Qualify corresponding native compounds with a J flag if outside of the range.

Recovery <50% or >150%	Apply J qualifier
Recovery <25% or >150% for poor responding analytes	Apply J qualifier
Isotope Dilution Analyte (IDA) Recovery <10%	Reject results

Secondary Ion Transition Monitoring

Quantifier and qualifier ions should be monitored for all target analytes (PFBA and PFPeA are exceptions). The ratio of quantifier ion response to qualifier ion response should be calculated from the standards for each target analyte. Lab derived criteria should be used to determine if the ratios are acceptable. If the ratios fall outside of the laboratory criteria, qualify results as an estimated maximum concentration.

Signal to Noise Ratio

The signal to noise ratio for the quantifier ion should be at least 3:1. If the ratio is less than 3:1, the peak is discernable from the baseline noise and symmetrical, the result can be reported. If the peak appears to be baseline noise and/or the shape is irregular, qualify the result as tentatively identified.

Branched and Linear Isomers

Observed branched isomers in the sample that do not have a qualitative or quantitative standard should be noted and the analyte should be qualified as biased low in the final data review summary report. Note: The branched isomer peak should also be present in the secondary ion transition.

Reporting Limits

If project-specific reporting limits were not met, please indicate that in the report along with the reason (e.g. over dilution, dilution for non-target analytes, high sediment in aqueous samples).

Peak Integrations

Target analyte peaks should be integrated properly and consistently when compared to standards. Ensure branched isomer peaks are included for PFAS where standards are available. Inconsistencies should be brought to the attention of the laboratory or identified in the data review summary report.

Michigan Department of Environmental Quality

MDEQ PFAS SAMPLING QUICK REFERENCE FIELD GUIDE[1]

All Items Used During Sampling Event

Prohibited
• Items or materials that contain fluoropolymers such as o Polytetrafluoroethylene (PTFE), that includes the trademarks Teflon® and Hostaflon® o Polyvinylidene fluoride (PVDF), that includes the trademark Kynar® o Polycholotrifluoroethylene (PCTFE), that includes the trademark Neoflon ® o Ethylene-tetrafluoro-ethylene (ETFE), that includes the trademark Tefzel® o Fluorinated ethylene propylene (FEP), that includes the trademarks Teflon® FEP and Hostaflon® FEP • Items or materials that contain any other fluoropolymer

Pumps, Tubing, and Sampling Equipment

Prohibited	Allowable	Needs Screening[2]
• Items or materials containing any fluoropolymer (potential items include tubing, valves, or pipe thread seal tape)	• High-density polyethylene (HDPE) • Low-density polyethylene (LDPE) tubing • Polypropylene • Silicone • Stainless-steel • Any items used to secure sampling bottles made from: o Natural rubber o Nylon (cable ties) o Uncoated metal springs o Polyethylene	• Any items or materials that will come into direct contact with the sample that have **not** been verified to be PFAS-free o Do not assume that any sampling items or materials are PFAS-free based on composition alone

Sample Storage and Preservation

Prohibited	Allowable	Needs Screening[2]
• Polytetrafluoroethylene (PTFE): Teflon® lined bottles or caps	• Glass jars[4] • Laboratory-provided PFAS-Free bottles: o HDPE or polypropylene • Regular wet ice • Thin HDPE sheeting • LDPE resealable storage bags (i.e. Ziploc®) that will not contact the sample media[6]	• Aluminium foil[4] • Chemical or blue ice[5] • Plastic storage bags other than those listed as Allowable • Low-density polyethylene (LDPE) bottles

Field Documentation

Prohibited	Allowable	Needs Screening[2]
• Clipboards coated with PFAS • Notebooks made with PFAS treated paper • PFAS treated loose paper • PFAS treated adhesive paper products	• Loose paper (non-waterproof, non-recycled) • Rite in the Rain® notebooks • Aluminium, polypropylene, or Masonite field clipboards • Ballpoint pens, pencils, and Fine or Ultra-Fine Point Sharpie® markers	• Plastic clipboards, binders, or spiral hard cover notebooks • All markers not listed as Allowable • Post-It® Notes or other adhesive paper products • Waterproof field books

Decontamination

Prohibited	Allowable	Needs Screening[2]
• Decon 90® • PFAS treated paper towel	• Alconox®, Liquinox®, or Citranox® • Triple rinse with PFAS-free deionized water • Cotton cloth or untreated paper towel	• Municipal water • Recycled paper towels or chemically treated paper towels

Clothing, Boots, Rain Gear, and PPE

● Prohibited	■ Allowable	▲ Needs Screening[2]
• New or unwashed clothing • Anything made of or with: o Gore-Tex™ or other water-resistant synthetics • Anything applied with or recently washed with: o Fabric softeners o Fabric protectors, including UV protection o Insect resistant chemicals o Water, dirt, and/or stain resistant chemicals	• Powderless nitrile gloves • Well-laundered synthetic or 100% cotton clothing, with most recent launderings not using fabric softeners • Made of or with: o Polyurethane o Polyvinyl chloride (PVC) o Wax coated fabrics o Rubber / Neoprene o Uncoated Tyvek®	• Latex gloves • Water and/or dirt resistant leather gloves • Any special gloves required by a HASP • Tyvek® suits, clothing that contains Tyvek®, or coated Tyvek®

Food and Beverages

● Prohibited	■ Allowable
• No food should be consumed in the staging or sampling areas, including pre-packaged food or snacks. ■ If consuming food on-site becomes necessary, move to the staging area and remove PPE. After eating, wash hands thoroughly and put on new PPE.	• Brought and consumed only outside the vicinity of the sampling area: o Bottled water o Hydration drinks (i.e. Gatorade®, Powerade®)

Personal Care Products (PCPs) - for day of sample collection[6]

● Prohibited	■ Allowable	▲ Needs Screening[2]
• Any PCPs[6], sunscreen, and insect repellent applied in the sampling area.	PCPs[6], sunscreens, and insect repellents applied in the staging area, away from sampling bottles and equipment followed by thoroughly washing hands: **PCPs[6]:** • Cosmetics, deodorants/antiperspirants, moisturizers, hand creams, and other PCPs[6] **Sunscreens:** • Banana Boat® for Men Triple Defense Continuous Spray Sunscreen SPF 30 • Banana Boat® Sport Performance Coolzone Broad Spectrum SPF 30 • Banana Boat® Sport Performance Sunscreen Lotion Broad Spectrum SPF 30 • Banana Boat® Sport Performance Sunscreen Stick SPF 50 • Coppertone® Sunscreen Lotion Ultra Guard Broad Spectrum SPF 50 • Coppertone® Sport High Performance AccuSpray Sunscreen SPF 30 • Coppertone® Sunscreen Stick Kids SPF 55 • L'Oréal® Silky Sheer Face Lotion 50 • Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 50 • Meijer® Sunscreen Continuous Spray Broad Spectrum SPF 30 • Meijer® Clear Zinc Sunscreen Lotion Broad Spectrum SPF 15, 30 and 50 • Meijer® Wet Skin Kids Sunscreen Continuous Spray Broad Spectrum SPF 70 • Neutrogena® Beach Defense Water+Sun Barrier Lotion SPF 70 • Neutrogena® Beach Defense Water+Sun Barrier Spray Broad Spectrum SPF 30 • Neutrogena® Pure & Free Baby Sunscreen Broad Spectrum SPF 60+ • Neutrogena® UltraSheer Dry-Touch Sunscreen Broad Spectrum SPF 30 **Insect Repellents:** • OFF® Deep Woods • Sawyer® Permethrin	• Products other than those listed as ■Allowable

[1] This table is not considered to be a complete listing of prohibited or allowable materials. All materials should be evaluated prior to use during sampling. The manufacturers of various products should be contacted in order to determine if PFAS was used in the production of any particular product.

[2] Equipment blank samples should be taken to verify these products are PFAS-free prior to use during sampling.

[3] **For surface water foam samples:** LDPE storage bags may be used in the sampling of foam on surface waters. In this instance, it is allowable for the LDPE bag to come into direct contact with the sample media.

[4] **For fish and other wildlife samples:** Depending on the project objectives, glass jars and aluminum foil might be used for PFAS sampling. PFAS has been found to bind to glass and if the sample is stored in a glass jar, a rinse of the jar is required during the sample analysis. PFAS are sometimes used as a protective layer for some aluminum foils. An equipment blank sample should be collected prior to any aluminum foil use.

[5] Regular ice is recommended as there are concerns that chemical and blue ice may not cool and maintain the sample at or below 42.8˚F (6°C) (as determined by EPA 40 CFR 136 – NPDES) during collection and through transit to the laboratory.

[6] Based on evidence, avoidance of PCPs is considered to be precautionary because none have been documented as having cross-contaminated samples due to their use. However, if used, application of PCPs must be done at the staging area and away from sampling bottles and equipment, and hands must be thoroughly washed after the use of any PCPs prior to sampling.

● - Prohibited ■ - Allowable ▲ - Needs Screening

GALLAGHER BASSETT | TECHNICAL SERVICES

STANDARD OPERATING PROCEDURES

Laboratory Supplied Documents for PFAS

Updated September 2022

22 IBM Road, Suite 101, Poughkeepsie, NY 12601
(845)-452-1658 www.gallagherbassett.com

PFAS Target compounds

York Analytical Laboratories, Inc.

5/10/2019

Analytical Method Information

PFAS Target compounds by LC/MS-MS

PFAS, NYSDEC Target List in Water (EPA 537m)

Units: **ng/L**

Preservation: Cool 4°C — **Hold Time to Analysis** 28 days

Container: 10_250mL Plastic Cool to 4° C — **Amount Required:** 250 mL — **Hold Time to Extr.** 14 days

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
1H,1H,2H,2H-Perfluorodecanesulfonic aci	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
1H,1H,2H,2H-Perfluorooctanesulfonic aci	5.00	5.00 ng/L		30	25 - 150	35	50 - 130	30
N-EtFOSAA	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
N-MeFOSAA	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoro-1-decanesulfonic acid (PFDS)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoro-1-octanesulfonamide (FOSA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorobutanesulfonic acid (PFBS)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorodecanoic acid (PFDA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorododecanoic acid (PFDoA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoroheptanoic acid (PFHpA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorohexanoic acid (PFHxA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoro-n-butanoic acid (PFBA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorononanoic acid (PFNA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorooctanesulfonic acid (PFOS)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorooctanoic acid (PFOA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoropentanoic acid (PFPeA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorotetradecanoic acid (PFTA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluorotridecanoic acid (PFTrDA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30
Perfluoroundecanoic acid (PFUnA)	2.00	2.00 ng/L		30	25 - 150	35	50 - 130	30

PFAS, NYSDEC Target List in Soil (EPA 537m)

Units: **ug/kg**

Preservation: Cool 4°C — **Hold Time to Analysis** 28 days

Container: 10_250mL Plastic Cool to 4° C — **Amount Required:** 250 mL — **Hold Time to Extr.** 14 days

Analyte	MDL	Reporting Limit	Surrogate %R	Duplicate RPD	Matrix Spike %R	Matrix Spike RPD	Blank Spike / LCS %R	Blank Spike / LCS RPD
1H,1H,2H,2H-Perfluorodecanesulfonic aci	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
1H,1H,2H,2H-Perfluorooctanesulfonic aci	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
N-EtFOSAA	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
N-MeFOSAA	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoro-1-decanesulfonic acid (PFDS)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoro-1-heptanesulfonic acid (PFHpS)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoro-1-octanesulfonamide (FOSA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorobutanesulfonic acid (PFBS)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorodecanoic acid (PFDA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorododecanoic acid (PFDoA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoroheptanoic acid (PFHpA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorohexanesulfonic acid (PFHxS)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorohexanoic acid (PFHxA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoro-n-butanoic acid (PFBA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorononanoic acid (PFNA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorooctanesulfonic acid (PFOS)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorooctanoic acid (PFOA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoropentanoic acid (PFPeA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorotetradecanoic acid (PFTA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluorotridecanoic acid (PFTrDA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30
Perfluoroundecanoic acid (PFUnA)	0.500	0.500 ug/kg		30	25 - 150	35	50 - 130	30

Standard Operating Procedure – Summary

PFAS in Groundwater, Surface water and Soils

Standard Operating Procedure - Summary
PFAS in Groundwater, Surface water and Soils

1.0 Summary

Target PFAS compounds are prepared and analyzed using EPA Method 537.1 modified. Aqueous and Soil samples are fortified with isotopic surrogates of the target PFAS compounds, extracted and concentrated to a known volume. The extracts are then analyzed employing LC-MSMS techniques.

Each preparation batch (per matrix) includes a preparation blank, lab control sample (blank spike), sample matrix spike and matrix spike duplicate and up to 20 samples.

2.0 Sample Preparation

Sample preparation involves extraction/clean-up and final concentration to a known volume before analysis. Isotopic surrogates are added to all preparation batch samples/QC.

2.1 Aqueous Samples

A known volume of sample is spiked with isotopic surrogates and extracted using Solid Phase Extraction (SPE) techniques. The SPE tubes are eluted with solvent and the eluant is then concentrated using nitrogen evaporation to a final volume of 1.0 mL. The final concentrated extract is fortified with Internal Standard and analyzed by LC-MSMS.

2.2 Soil Samples

A known weight of sample is fortified with isotopic surrogates, mixed then extracted in methanolic potassium hydroxide employing vortex mixing, followed by orbital shaking and finally ultrasonic extraction.

The extract is centrifuged and the supernatant solvent is quantitatively poured off and a small volume of PFAS free water is added to the solvent. The solvent mixture is evaporated using nitrogen evaporation and the remaining aqueous extract is brought to a known volume with PFAS free water.

The aqueous extract is then pH adjusted to 6-8 using glacial acetic acid and the resulting aqueous solution is extracted using SPE techniques. The SPE tube is eluted with solvent and the eluant is then concentrated using nitrogen evaporation to a final volume of 2.0 mL. The final concentrated extract is fortified with Internal Standard and analyzed by LC-MSMS.

3.0 **Analysis**

Analysis is conducted utilizing an Agilent Infinity 1290 HPLC system interfaced to an Agilent 6470AAR LC-MSMS with an Agilent Jet Stream-ElectroSpray Ionization (AJS-ESI)interface. The system is operated in the dynamic MRM (multiple reaction monitoring) mode for specific PFAS target isotopes and native analogs.

Where possible, multiple MRM transitions are used for targets and isotopes. Some species only exhibit single MRM transitions. Precursors and product ions are used for Quantitative and Qualitative purposes respectively.

3.1 Initial Calibration

The LC-MSMS is calibrated with 7 standards of a total of 40 isotopes and analog target PFAS compounds. Calibration is conducted from 0.25 to 20 ng/mL. Calibration employs internal standard techniques and either average response factor or quadratic regression is used depending upon the best calibration model based upon accuracy across the calibration range.

3.2 Continuing Calibration Verification

Each analytical sequence includes an opening continuing calibration verification (CCV) and a CCV after every 10 injections and at the end of the analysis sequence.

The CCV acceptance criteria are $\pm$ 30% of the expected value. Internal Standard areas are acceptable when -50% to +50% of the average response in the initial calibration.

3.3 Isotopic Surrogates (Isotope Dilution Analytes (IDA)

18 IDAs are utilized for this procedure. These isotopes are used to correct for recovery of detected target analog PFAS compounds through the preparation/analysis processes. The recovery limits currently are 25-150 % recovery and these limits are adjusted based upon laboratory determined control limits when sufficent data points per matrix are available.

3.4 Method Blanks (MBLK)

Each preparation batch includes a laboratory method blank. Any result greater than the Reporting Limit or 2 ng/L (aqueous) or 0.5 ug/kG (soil) is "B" flagged according with the exception of any detection of PFOA, PFOS or PFNA above the RL will require re-extraction of the batch.

3.5 Blank Spike (LCS)

Each preparation batch includes and BS/LCS. Recoveries are calculated and based upon isotope dilution. Recovery acceptance limits are 50-150% with RPD of 30% for a BSD if performed.

3.6 Matrix Spike/Matrix Spike Duplicates (MS/MSD)

Each preparation batch includes and MS/MSD pair. Recoveries are calculated and based upon isotope dilution. Recovery acceptance limits are 25-150% with RPD of 35% for samples.

4.0 Data Review and Reporting

All quantitation reports and LIMS output files are generated using the Agilent Mass Hunter reporting programs. The Quant reports include all Quantitative data and MRM transition data which are reviewed. The LIMS output file is in a format that allows upload to Element LIMS.

Isotope Dilution calculations are performed using our custom PFAS.mdb program which automatically uploads to the LIMS output file for upload to Element LIMS.

Once uploaded to ELEMENT, any exceptions/outliers are noted, flagged and set to reviewed.

All data reported are isotopically corrected for all QC and samples.

5.0 Revision History

May 1, 2019 Revision 1.0 First Issue

6.0 Approvals:

Laboratory Director Ben Gulizia

Corp. Technical Director Robert Bradley

Corp. QA Officer Sarah Widomski

ATTACHMENT C

SCO Tables

Department of Environmental Conservation

Division of Environmental Remediation

6 NYCRR PART 375

Environmental Remediation Programs

Subparts 375-1 to 375- 4 & 375-6

Effective December 14, 2006

New York State Department of Environmental Conservation

375-6.8 Soil cleanup objective tables.

(a) Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 [c]
Barium	7440-39-3	350 [c]
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 [c]
Chromium, hexavalent [e]	18540-29-9	1[b]
Chromium, trivalent [e]	16065-83-1	30 [c]
Copper	7440-50-8	50
Total Cyanide [e, f]		27
Lead	7439-92-1	63 [c]
Manganese	7439-96-5	1600 [c]
Total Mercury		0.18 [c]
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9[c]
Silver	7440-22-4	2
Zinc	7440-66-6	109 [c]
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) [f]	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 [b]
4,4'-DDT	50-29-3	0.0033 [b]
4,4'-DDD	72-54-8	0.0033 [b]
Aldrin	309-00-2	0.005 [c]
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC [g]	319-86-8	0.04
Dibenzofuran [f]	132-64-9	7
Dieldrin	60-57-1	0.005 [c]
Endosulfan I [d, f]	959-98-8	2.4
Endosulfan II [d, f]	33213-65-9	2.4
Endosulfan sulfate [d, f]	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenapthylene [f]	208-96-8	100 [a]
Anthracene [f]	120-12-7	100 [a]
Benz(a)anthracene [f]	56-55-3	1[c]
Benzo(a)pyrene	50-32-8	1[c]
Benzo(b)fluoranthene [f]	205-99-2	1[c]
Benzo(g,h,i)perylene [f]	191-24-2	100
Benzo(k)fluoranthene [f]	207-08-9	0.8 [c]
Chrysene [f]	218-01-9	1[c]
Dibenz(a,h)anthracene [f]	53-70-3	0.33 [b]
Fluoranthene [f]	206-44-0	100 [a]
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene [f]	193-39-5	0.5 [c]
m-Cresol [f]	108-39-4	0.33 [b]
Naphthalene [f]	91-20-3	12
o-Cresol [f]	95-48-7	0.33 [b]

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol [f]	106-44-5	0.33 [b]
Pentachlorophenol	87-86-5	0.8 [b]
Phenanthrene [f]	85-01-8	100
Phenol	108-95-2	0.33 [b]
Pyrene [f]	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane [f]	71-55-6	0.68
1,1-Dichloroethane [f]	75-34-3	0.27
1,1-Dichloroethene [f]	75-35-4	0.33
1,2-Dichlorobenzene [f]	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 [c]
cis -1,2-Dichloroethene [f]	156-59-2	0.25
trans-1,2-Dichloroethene [f]	156-60-5	0.19
1,3-Dichlorobenzene [f]	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 [b]
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene [f]	104-51-8	12
Carbon tetrachloride [f]	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene [f]	100-41-4	1
Hexachlorobenzene [f]	118-74-1	0.33[b]
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether [f]	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene [f]	103-65-1	3.9
sec-Butylbenzene [f]	135-98-8	11
tert-Butylbenzene [f]	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene [f]	95-63-6	3.6
1,3,5-Trimethylbenzene[f]	108-67-8	8.4
Vinyl chloride[f]	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

[a] The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

[b] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

[c] For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

[d] SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

[e] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[f] Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with “NS”. Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

CP-51 / Soil Cleanup Guidance

New York State Department of Environmental Conservation

DEC Policy

Issuing Authority: Alexander B. Grannis, Commissioner	
Date Issued: October 21, 2010	**Latest Date Revised:**

I. Summary

This policy provides the framework and procedures for the selection of soil cleanup levels appropriate for each of the remedial programs in the New York State Department of Environmental Conservation (DEC) Division of Environmental Remediation (DER). This policy applies to the Inactive Hazardous Waste Disposal Site Remedial Program, known as the State Superfund Program (SSF); Brownfield Cleanup Program (BCP); Voluntary Cleanup Program (VCP); Environmental Restoration Program (ERP); Spill Response Program - Navigation Law (NL) section 176 (SRP); and the Resource Conservation and Recovery Act (RCRA) Corrective Action Program. It replaces *Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels* (January 24, 1994); the *Petroleum Site Inactivation and Closure Memorandum* (February 23, 1998); and Sections III and IV of *Spill Technology and Remediation Series (STARS) #1* (August 1992).

This document is used in conjunction with the applicable statutes, regulations and guidance. Site-specific soil cleanup levels, determined in accordance with this guidance, are only applied after:

- the site, or area of concern, is fully investigated to determine the nature and extent of contamination;
- all sources of contamination are addressed consistent with the hierarchy provided in 6 NYCRR 375-1.8(c) or consistent with the RCRA Corrective Action Program (as appropriate);
- groundwater, if contaminated, has been evaluated for appropriate remedial actions consistent with 6 NYCRR 375-1.8(d) or consistent with the RCRA Corrective Action Program (as appropriate); and
- impacts on adjacent residential properties, surface water, aquatic ecological resources are evaluated, as well as indoor air, soil vapor, vapor intrusion and other appropriate media.

II. Policy

It is DEC's policy, consistent with applicable statutes and regulations, that all remedies will be protective of public health and the environment. DEC's preference is that remedial programs, including the selection of soil cleanup levels, be designed such that the performance standard results in the implementation of a permanent remedy resulting in no future land use restrictions. However, some of

Table 1

Supplemental Soil Cleanup Objectives
(ppm)

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
METALS							
Aluminum	7429-90-5					10,000 [a,b]	
Antimony	7440-36-0					12[c]	
Boron	7440-42-8					0.5	
Calcium	7440-70-2					10,000 [a,b]	
Cobalt	7440-48-4	30				20	
Iron	7439-89-6	2,000					
Lithium	7439-93-2					2	
Molybdenum	7439-98-7					2	
Technetium	7440-26-8					0.2	
Thallium	7440-28-0					5 [c]	
Tin	7440-31-5					50	
Uranium	7440-61-1					5	
Vanadium	7440-62-2	100 [a]				39[b]	
PESTICIDES							
Biphenyl	92-52-4					60	
Chlordecone (Kepone)	143-50-0					0.06	
Dibenzofuran	132-64-9						6.2
2,4-D (2,4-Dichloro-phenoxyacetic acid)	94-75-7	100 [a]					0.5
Furan	110-00-9					600	
Gamma Chlordane	5103-74-2	0.54					14
Heptachlor Epoxide	1024-57-3	0.077					0.02
Methoxychlor	72-43-5	100 [a]				1.2	900

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
Parathion	56-38-2	100 [a]					1.2
2,4,5-T	93-76-5	100 [a]					1.9
2,3,7,8-TCDD	1746-01-6					0.000001	
2,3,7,8-TCDF	51207-31-9					0.000001	
SEMIVOLATILE ORGANIC COMPOUNDS							
Aniline	62-53-3	48	100[a]	500[a]	1000[a]		0.33[b]
Bis(2-ethylhexyl) phthalate	117-81-7	50				239	435
Benzoic Acid	65-85-0	100[a]					2.7
Butylbenzyl-phthalate	85-68-7	100 [a]					122
4-Chloroaniline	106-47-8	100 [a]					0.22
Chloroethane	75-00-3						1.9
2-Chlorophenol	95-57-8	100 [a]				0.8	
3-Chloroaniline	108-42-9					20	
3-Chlorophenol	108-43-0					7	
Di-n-butyl-phthalate	84-74-2	100 [a]				0.014	8.1
2,4-Dichlorophenol	120-83-2	100 [a]				20	0.40
3,4-Dichlorophenol	95-77-2					20	
Diethylphthalate	84-66-2	100 [a]				100	7.1
Di-*n*-hexyl-phthalate	84-75-3					0.91	
2,4-Dinitrophenol	51-28-5	100 [a]				20	0.2
Dimethylphthlate	131-11-3	100 [a]				200	27
Di-n-octylphthlate	117-84-0	100 [a]					120
1,2,3,6,7,8-HCDF	57117-44-9					0.00021	
Hexachloro-benzene	118-74-1	0.41					1.4
2,6-Dinitrotoluene	606-20-2	1.03					1.0
Isophorone	78-59-1	100 [a]					4.4

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
2-methyl-naphthalene	91-57-6	0.41					36.4
2-Nitroaniline	88-74-4						0.4
3-Nitroaniline	99-09-2						0.5
Nitrobenzene	98-95-3	3.7	15	69	140	40	0.17[b]
2-Nitrophenol	88-75-5					7	0.3
4-Nitrophenol	100-02-7					7	0.1
Pentachloroaniline	527-20-8					100	
2,3,5,6-Tetrachloroaniline	3481-20-7					20	
2,3,4,5-Tetrachlorophenol	4901-51-3					20	
2,4,5-Trichloroaniline	636-30-6					20	
2,4,5-Trichlorophenol	95-95-4	100[a]				4	0.1
2,4,6-Trichlorophenol	88-06-2					10	
VOLATILE ORGANIC COMPOUNDS							
2-Butanone	78-93-3	100[a]					0.3
Carbon Disulfide	75-15-0	100[a]					2.7
Chloroacetamide	79-07-2					2	
Dibromochloro-methane	124-48-1					10	
2,4-Dichloro aniline	554-00-7					100	
3,4-Dichloroaniline	95-76-1					20	
1,2-Dichloropropane	78-87-5					700	
1,3-Dichloropropane	142-28-9						0.3
2,6-Dinitrotoluene	606-20-2	1.03					0.17[b]
Ethylacetate	141-78-6					48	

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
113 Freon (1,1,2- TFE)	76-13-1	100 [a]					6
isopropylbenzene	98-82-8	100 [a]					2.3
p-isopropyltoluene	99-87-6						10
Hexachlorocyclo-pentadiene	77-47-4					10	
Methanol	67-56-1					6.5	
N-nitrosodiphenyl-amine	86-30-6					20	
Pentachloro-benzene	608-93-5					20	
Pentachloronitro-benzene	82-68-8					10	
Styrene	100-42-5					300	
1,2,3,4-Tetrachlorobenzene	634-66-2					10	
1,1,2,2-Tetrachloroethane	79-34-5	35					0.6
1,1,2,2-Tetrachloroethylene	127-18-4					2	
1,2,3-Trichlorobenzene	87-61-6					20	
1,2,4-Trichlorobenzene	120-82-1					20	3.4
1,2,3-Trichloropropane	96-18-4	80					0.34

[a] SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.

[b] Based on rural background study

[c] SCO limited by contract required quantitation limit.

Table 2

Soil Cleanup Levels for Gasoline Contaminated Soils

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Ethylbenzene	100-41-4	1.0
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Methyl-Tert-Butyl-Ether	1634-04-4	0.93
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Tert-Butylbenzene	98-06-6	5.9
Toluene	108-88-3	0.7
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Xylene (Mixed)	1330-20-7	0.26

Table 3

Soil Cleanup Levels for Fuel Oil Contaminated Soil

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Acenaphthene	83-32-9	20
Acenaphthylene	208-96-8	100
Anthracene	120-12-7	100
Benz(a)Anthracene	56-55-3	1.0
Dibenzo(a,h)Anthracene	53-70-3	0.33
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Tert-Butylbenzene	98-06-6	5.9
Chrysene	218-01-9	1.0
Ethylbenzene	100-41-4	1.0
Fluoranthene	206-44-0	100
Benzo(b)Fluoranthene	205-99-2	1.0
Benzo(k)Fluoranthene	207-08-9	0.8
Fluorene	86-73-7	30
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Benzo(g,h,i)Perylene	191-24-2	100
Phenanthrene	85-01-8	100
Pyrene	129-00-0	100
Benzo(a)Pyrene	50-32-8	1.0
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Toluene	108-88-3	0.7
Xylene (Mixed)	1330-20-7	0.26

ATTACHMENT D

Resumes

ERICK SALAZAR

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: ASSISTANT PROJECT MANAGER

PROFESSIONAL SUMMARY

Erick Salazar serves as Assistant Project Manager for environmental site assessments and Phase II technical environmental investigations. His responsibilities include: investigating site histories, conducting facility inspections, reviewing regulatory agency records, documenting facility compliance with relevant State and Federal regulations, and preparing reports. He assists with Phase II technical environmental investigations and fieldwork including implementation of community air monitoring plans (CAMP), collecting soil and water samples and tank removal oversight.

Mr. Salazar has experience in the implementation of CAMP monitoring, personal sampling for lead and dust of workers, coordinating pre-demolition C&D waste inventory as part of Sandy relief work on Staten Island, and providing oversight of site remedial activities on rural properties.

PROFESSIONAL EXPERIENCE

Mr. Salazar has experience in the implementation of CAMP monitoring, personal sampling for lead and dust of workers, coordinating pre-demolition C&D waste inventory as part of Sandy relief work on Staten Island, and providing oversight of site remedial activities on rural properties.
Mr. Salazar's experience with Health and Safety services include:

- Complete OSHA training and three years' experience of Sites handling regulated materials as well as hazardous and non-hazardous wastes.
- Preparation of Environmental Health & Safety Plan for (EHASP) for debris removal and soil sampling project in Ulster County, New York.
- Assistance in the preparation of EHASPs for NYSDEC sites in Dutchess and Westchester Counties.
- Implementation of CAMP at sites in Dutchess, Ulster, Bronx and Queens Counties, including preparation of status reports, preparation of incident reports, and communication with involved regulatory agencies.
- Collection/analysis of media samples (air, water and soil) per requirements of the EHASP and/or remedial work plans.

EDUCATION:

- BS, Biology, State University at New Paltz, NY

REGISTRATIONS / CERTIFICATIONS:

- OSHA, 40-hr Hazardous Waste Operations & Emergency Response Health & Safety Certification
- OSHA, 10-hr General Construction Industry Training & Certification

RICHARD HOOKER, PH.D.

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: MANAGER, ENVIRONMENTAL CONSULTING

PROFESSIONAL SUMMARY

Richard Hooker serves as Senior Project Manager for investigative and remedial projects including NYSDEC and OER Brownfields sites, Phase II investigations, and environmental management of construction projects. He also prepares and evaluates interdisciplinary, comprehensive environmental impact assessment reviews (NEPA, SEQR and CEQR) and has a particular expertise in noise issues. Mr. Hooker develops investigative and remedial work plans, health and safety plans, performs fieldwork, and prepares technical reports. He works with regulatory authorities and subcontractors including construction personnel, waste repositories and haulage contractors, laboratories and drillers. His responsibilities include: designing noise studies, investigating site histories, and document reviews, cost benefit analysis of remedial alternatives, overseeing excavations and in situ remediation, sampling, sample data evaluation, report preparation, and obtaining regulatory closure. He has extensive experience of sampling and sample collection protocols for soil, vapor, indoor air, sediment, and groundwater and has worked to remediate a wide range of environmental contaminants including petroleum, heavy metals, PCBs, and solvents.

Mr. Hooker holds a Ph.D. from the University of St. Andrews, St. Andrews, Scotland and a BA from Staffordshire University, Stoke-on-Trent, England. Prior to relocating to the Hudson Valley, he served as an Assistant Professor at the University of Glasgow, Scotland.

PROFESSIONAL EXPERIENCE

3475 Third Avenue, Bronx, NY—Investigated and remediated this former manufacturing facility to NYSDEC Brownfields to Track 1 cleanup standards. This site was the first project in the OER Jumpstart program established to assist cleanup on government supported affordable and supportive housing projects in NYC. Under this program OER sponsored enrollment in the NYS Brownfield Cleanup Program. Work on this trailblazing project required liaising with OER and NYSDEC Region 2 to ensure documentation met the requirements of both agencies. Certificate of Completion secured in 2016.

Former A.C. Dutton Lumber Yard, Dutchess County, NY—Documented hazardous concentrations of arsenic and chromium in soils and concrete surfaces at this NYSDEC Brownfields site contaminated by the historical pressure treatment of lumber. Developed a Workplan for site remediation and directed environmental restoration activities, including: characterization, excavation and removal of hazardous soils, scarification concrete warehouse floors, removal aboveground and underground chemical and petroleum storage tanks.

Lincoln Place, Brooklyn, NY—performed CEQR, SEQR and NEPA reviews including shadow and noise studies for this site prior to development. Prepared Remedial Workplan and oversaw remediation of metals-contaminated soils during construction and implemented remedy for the site including SSDS system installation, vapor barrier, and installation of composite cover system. Prepared FER and obtained NYCHPD and NYCDEP closeout for the site.

Grace Terrace, Mount Vernon, NY—oversaw remediation and obtained NTSDEC Spill file closure after a previously unknown UST and associated petroleum contaminated soil were encountered during construction excavations. Coordinated with the GC to ensure appropriate cleanup was performed without delaying the construction schedule. Remedial actions included characterization and appropriate off-site disposition of petroleum contaminated soil and groundwater, application of chemical oxidation treatment, installation vapor barrier and active SSDS system.

Former Fur Processing Facility, Bronx, NY—Documented the presence of chlorinated hydrocarbon, petroleum, and metals contamination beneath and/or near a former industrial structure. Coordinated the sampling and removal of multiple drums of hazardous and non-hazardous material from the structure and secured NYCDEP approval. Developed a Workplan for site remediation and directed environmental restoration activities, including: excavation and removal of both aboveground and underground storage tanks, removal of contaminated soils, installation of a barrier layer soil cap, and pre-demolition removal of asbestos materials.

Jamaica Hospital Medical Center, Queens, NY—Coordinated and supervised the removal of two, large underground storage tanks and documented site conditions through soil and groundwater sampling. Secured NYSDEC approval of PBS tank closure and registration requirements.

EDUCATION:

- Ph.D., University of St. Andrews, Scotland
- BA, Staffordshire University, England

REGISTRATIONS / CERTIFICATIONS

- OSHA-40 Hazwoper
- OSHA-10 Construction

SCOTT SPITZER

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: DIRECTOR OF ENVIRONMENTAL INVESTIGATIONS

PROFESSIONAL SUMMARY

Scott Spitzer serves as Director of Environmental Investigations, overseeing the technical elements of Phase I and Phase II technical environmental investigations and remedial projects, including Brownfield sites. Mr. Spitzer supervises all GBTS field staff and reviews all documents prepared by GBTS to ensure consistency and technical accuracy.

His responsibilities associated with the preparation of site assessments include: investigating site histories, conducting facility inspections, reviewing regulatory agency records, documenting facility compliance with relevant State and Federal regulations, and preparing reports. As project manager for complex technical environmental investigations (including sites currently on the NYSDEC Registry of Inactive Hazardous Waste Sites), Mr. Spitzer is involved with: coordinating subcontractors; overseeing fieldwork; designing and implementing material, soil, and water sampling plans, preparing technical reports and interfacing with regulatory agency personnel.

Mr. Spitzer has 15 years' experience in the preparation of Phase I, Phase II and Brownfields investigations and in the management of complex remediation projects. He is knowledgeable in both New York State and Federal environmental regulations and has an understanding of a broad range of remedial technologies. Mr. Spitzer studied environmental science at SUNY Purchase and holds a BS in Biology from SUNY at Stony Brook, Stony Brook, New York.

PROFESSIONAL EXPERIENCE

Former NuHart Plastics Manufacturing Site, Brooklyn, NY: GBTS conducted a complex remedial investigation of a NYSDEC Class 2 Inactive Hazardous Waste Disposal ("Superfund") site, where a plume of liquid phthalates and chlorinated solvents had impacted groundwater. Extensive sampling was conducted of both on- and off-site soil, soil vapor and groundwater, and phthalates were removed from recovery wells as an interim remedial measure. A Remedial Investigation Report was completed, allowing the site owner to move create a Remedial Design Document.

Scenic Hudson Land Trust, Inc., Beacon Waterfront Project, Beacon, NY: GBTS conducted soil and groundwater investigations on a former MOSF and adjacent scrap yard. Projects involved soil remediation of both petroleum and PCB-contaminated soils and long-term groundwater monitoring. Both projects were classified as Voluntary Clean-Up projects by the NYSDEC and closure status was attained.

Sakmann Restaurant Corporation Site, Fort Montgomery, NY: Conducted Phase I Environmental Site Assessment and Phase II Subsurface Investigations for former filling station and automotive repair garage contaminated by solvent and waste-oil discharges to an on-site drywell. Designed and implemented a sampling plan for soils impacted by chlorinated hydrocarbons, petroleum, and metals. Created Work Plan (in coordination with the NYSDEC Voluntary Cleanup Program) for remediation of on-site contamination and long-term sampling of on-site groundwater monitoring wells.

Staten Island Marina Site, Staten Island, NY: Conducted Phase I Environmental Site Assessment and Phase II Subsurface Investigation for an active marine facility engaged in boat painting and engine maintenance activities. Coordinated the delineation of metals contamination over a three-acre area and analyzed potential impacts from onsite fill materials. Submitted remedial and budgetary analysis in support of regulatory agency approval for conversion of boatyard into a public park.

Octagon House Development Site, Roosevelt Island, NY: Conducted Phase I Environmental Site Assessment and Phase II Subsurface Investigations at the former site of a large, urban hospital. Interpreted the results of geotechnical studies, extended test pits, and conducted extensive soil sampling, to document subsurface soil conditions in support of client's application to the U.S. Housing and Urban Development Agency (HUD). Created Work Plan (in coordination with the NYCDEP Office of Environmental Planning and Assessment) for site-wide remediation of contaminated soils and secured NYCDEP approval for site remediation as required by HUD.

Camp Glen Gray Boy Scout Facility, Mahwah, NJ: Conducted Phase I Environmental Site Assessment and Phase II Subsurface Investigations at an approximately 800-acre campground containing numerous structures. Documented subsurface soil conditions at the locations of aboveground and underground storage tanks, and delineated lead contamination at a former firing range. Assisted in design and implementation of remediation plans for removal of petroleum and lead contaminated soils, and obtained NJDEP approvals.

EDUCATION:

- BS, Biology, SUNY at Stony Brook, NY

REGISTRATIONS / CERTIFICATIONS

- OSHA, 40-hr. Hazardous Waste Operations & Emergency Response Health & Safety Certification
- OSHA, 10-hr. General Construction Industry Training and Certification

VICTORIA PANICO

GALLAGHER BASSETT | TECHNICAL SERVICES

CURRENT POSITION: ASSISTANT PROJECT MANAGER

PROFESSIONAL SUMMARY

Victoria Panico serves as an Assistant Project Manager for environmental site assessments, Phase II environmental investigations and NYC OER remediation projects. Ms. Panico develops investigative and remedial work plans, performs fieldwork, prepares technical reports, and coordinates with subcontractors including construction personnel, laboratories and drillers. Her responsibilities include: investigating site histories, conducting facility inspections, reviewing regulatory agency records, communications with stakeholders (client, construction manager, and regulatory agencies), preparation, submission and approval of reports, and obtain regulatory closure. She conducts Phase II technical environmental investigations and fieldwork including implementation of community air monitoring plans (CAMP), and sampling of soil, soil vapor and groundwater.

Ms. Panico has experience preparing Remedial Action Reports, conducting Site Management Plan annual inspections and reporting, evaluating the effectiveness of SSD systems and providing oversight of site remedial activities on rural properties.

PROFESSIONAL EXPERIENCE

Gallagher Bassett Technical Services
Phase I Environmental Site Assessments (ESAs)

Completed over 75 Phase I ESAs including residential, commercial, industrial and agricultural properties. Responsibilities include: investigating site histories, conducting facility inspections, reviewing regulatory agency records, documenting facility compliance with relevant State and Federal regulations, and preparing reports.

Phase II ESAs and Site Investigations

Completed/assisted with over 15 Phase II sub-surface investigations. Experience sampling and sample collection for soil, soil vapor and groundwater. Ms. Panico works with regulatory authorities and subcontractors including construction personnel, waste repositories, laboratories and drillers. She has also experience conducting waste characterization sampling and collection of end-point samples.

NYC Voluntary Cleanup Program (VCP) Sites

Serves as Assistant Project Manager for NYC Voluntary Cleanup Program (VCP) remediation and redevelopment projects, which includes assisting in the design of remedial actions, oversight of remedial activities, and implementing remedies including installation of SSD systems, vapor barriers, and composite cover systems. Responsibilities include: preparation of RIRs and RAWPs, on-going project management and remedial oversight, ensuring compliance with the remedial action, communications with stakeholders (client, construction manager, and regulatory agencies), facilitation of spill closure, preparation and submission of daily, weekly, and monthly status reports, client updates and satisfaction, preparation of RARs, and obtaining regulatory closure.

EDUCATION:

- BS, Environmental Science, Science Emphasis, Marist College, Poughkeepsie, NY

REGISTRATIONS / CERTIFICATIONS

- 40-hour OSHA HAZWOPER & annual refresher training
- 30-hour OSHA Construction
- 8-hour Fall Prevention
- 4-hour Supported Scaffold User & refresher