

Corrective Action Plan

USEPA ACRES ID 244653

Location:

24 and 32 York Street
Rochester, NY 14611
NYSDEC Spill #1901036

Prepared on Behalf of:

City of Rochester
Division of Environmental Quality
30 Church Street, Room 300B
Rochester, NY, 14614-1278

Prepared By:

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LaBella Project No. 2220406

June 9, 2022

In addition to the funding from the USEPA, this project will also be funded by the City of Rochester. Though this project has been funded, wholly or in part, by EPA, the contents of this CAP do not necessarily reflect the views and policies of EPA.



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July 7, 2022

Ms. Alexandra Zobel
Assistant Environmental Technician
Division of Environmental Quality
Department of Environmental Services
30 Church Street
Room 300B
Rochester, New York 14614

**Subject: 24&32 York Street
Rochester (C), Monroe County
Spill No. 1901036**

Dear Ms. Zobel:

The Department has reviewed the Corrective Action Plan dated June 9, 2022 for the above-referenced site. The Plan is acceptable to the Department.

Please notify the Department at least one day in advance of any site activities related to the corrective action so that we may have the opportunity to be onsite.

If you have any questions, please feel free to contact me at 585-226-5322.

Sincerely,



Gregory P. Young
Professional Geologist 1
Spill Prevention and Response
Region 8/Division of Environmental Remediation

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CERTIFICATION

I Ann A. Barber certify that I am currently a NYS registered professional engineer and that this Corrective Action 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).



____100521____

NYS Professional Engineer #

____6/7/22____

Date

A handwritten signature in blue ink that reads "Ann Barber".

Signature



1.0 INTRODUCTION & BACKGROUND

LaBella Associates, DPC (LaBella) is pleased to submit this Corrective Action Plan (CAP) on behalf of the City of Rochester (City). This CAP was generated for the remediation of petroleum impacts identified on two (2) City-owned adjoining parcels with a combined area of approximately 0.27 acres located at 24 and 32 York Street, City of Rochester, Monroe County, New York, herein after referred to as the “Site.” A Site Location map is included as Figure 1. The New York State Department of Environmental Conservation (NYSDEC) assigned Spill No.1901036 to the Site, which is currently listed as an active spill (“Unknown Petroleum”).

Three (3) remedial alternatives were evaluated in an Analysis of Brownfields Cleanup Alternatives (ABCA) by LaBella dated March 2022 and summarized in an Action Memorandum by LaBella dated June 7, 2022. The selected alternative includes the excavation and off-Site disposal of petroleum-impacted soil, upper one-foot of fractured bedrock and groundwater, the direct application of a bioremediation additive to the open excavation, the installation of in-situ bioremediation delivery hardware in the excavation, a second application of chemical additive through the in-situ remediation delivery system, preparation of a NYSDEC Region 8 SGMP and flagging the Site in the City’s BIS as environmental institutional controls to ensure disturbed or displaced residual contamination are properly addressed, and one year of quarterly post-remediation groundwater monitoring. This CAP details the procedures to carry out the selected remedial alternative.

1.1 Site Description & History

The Site consists of two contiguous parcels located at 24 and 32 York Street in the City of Rochester, Monroe County, New York (Site). As of the date of this report, the Site is owned by the City, and the Monroe County Tax ID numbers for the 24 and 32 York Street parcels are 120.42-2-70 and 120.42-2-71, respectively. The Site parcels are zoned C-2 (Community Center District) which allows a variety of multi-residential and commercial uses, include mixed use. The Site is currently vacant. The former structure including the foundation and footers was demolished by the City in 2020. Building materials adjacent to the sidewalk may still be in place and will be removed during the remedy implementation.

Historical uses of the 24 York Street portion of the Site included a blacksmith shop and a wood working shop in at least 1892; a blacksmith shop, wagon shop, and painting and harness shop in at least 1912; an auto repair facility in at least 1924; a gasoline station (with at least eight underground tanks and at least six pump dispensers) from at least 1925 through at least 1954; an auto repair facility and blacksmith shop in at least 1929-30; a blacksmith shop in at least 1935 and 1950; an auto repair facility from at least 1941 to at least 1973; and an auto sales facility in at least 1978, and vacant land and/or a parking lot from about 1981 to the present.

Historical uses of the 32 York Street portion of the Site included residential from at least 1888 to about 1935, a post office from about 1935 to at least 1997, and a church from about 2001 to 2020.

The Site is bounded to the north and east by commercial property, to the west by York Street with residential and commercial property beyond, and to the south by Ruby Place (alley with public right of way) with commercial property beyond. The City owns the adjacent vacant land parcel to the east.

The Site is located within the City of Rochester Bull’s Head Brownfield Opportunity Area (BOA). The City of Rochester is in the process of developing plans to redevelop the portion of the Bull’s Head



BOA that includes the Site.

1.2 Previous Investigations

Previous environmental studies that have been completed for the 24 and 32 York Street Site and/or surrounding area include:

- A December 20, 2017 (revised January 3, 2018) Phase I Environmental Site Assessment (Phase I ESA) report completed by DAY for the 24 York Street parcel;
- A December 20, 2017 (revised January 3, 2018) Phase I ESA report completed by DAY for the 32 York Street parcel;
- A July 19, 2019 Preliminary Phase II Environmental Site Assessment (Preliminary Phase II ESA) report completed by DAY for the 24 York Street parcel;
- A July 19, 2019 Preliminary Phase II ESA report completed by DAY for the 32 York Street parcel;
- A July 2019 Pre-Development Phase II Environmental Site Assessment and Geotechnical Study Report completed by DAY for 15 adjoining/nearby City-owned parcels, including investigation work in the public right-of-ways of York Street and Ruby Place that bound the Site; and,
- A November 2019 Phase II ESA Report completed by DAY for the 24 and 32 York Street parcels.

1.2.1 January 3, 2018 Phase I ESAs – 24 and 32 York Street

The Phase I ESA identified historical uses of the 24 York Street parcel as an on-site environmental concern that could impact environmental conditions at the Site. These historical uses included a blacksmith shop and a wood working shop in at least 1892; a blacksmith shop, wagon shop, and painting and harness shop in at least 1912; an auto repair facility in at least 1924; a gasoline station (with at least eight underground tanks [USTs] and at least six pump dispensers) from at least 1925 through at least 1954; an auto repair facility and blacksmith shop in at least 1929-30; a blacksmith shop in at least 1935 and 1950; an auto repair facility from at least 1941 to at least 1973; and an auto sales facility in at least 1978.

In addition, historical uses and regulatory listings of adjoining/nearby properties were identified as an off-site concern that had the potential to impact environmental conditions at the Site. These adjoining/nearby sites included a former dry cleaner, automobile sales and service facilities, a coal company, tailors, a milliner, a sewing machine company, a sheet metal worker, heating contractors, and a locksmith. Documented spill files exist for adjoining/nearby properties.

1.2.2 January 19, 2019 Preliminary Phase II ESAs – 24 and 32 York Street

The Preliminary Phase II ESAs included: a geophysical survey to look for anomalies that could suggest the presence of abandoned underground storage tanks; the advancement of 12 test borings; the installation of ten temporary monitoring wells within ten of these test borings; and the collection and laboratory analysis of soil and groundwater samples. Appendix A contains Figure 2 and select data tables from both of the Preliminary Phase II ESA reports, as well as figures and tables from other previous on-site and adjacent/nearby investigations. The results of the Preliminary



Phase II ESA work are summarized below.

- The geophysical survey conducted at the Site did not detect the presence of USTs within the study area at the Site, which suggests any previous tanks have been removed.
- Field evidence of potential petroleum-type impact [e.g., photoionization detector (PID) readings up to 1,067 parts per million (ppm), petroleum-type odors and sheen] was documented at six of the test borings located in the general area of former pump islands, USTs and auto repair buildings. Petroleum sheen and/or light non-aqueous phase liquid (LNAPL) were also detected on groundwater at several of the temporary monitoring wells. Analytical laboratory testing indicates that volatile organic compounds (VOCs) and/or semi-volatile organic compounds (SVOCs) associated with this petroleum impacts exceeded some NYSDEC Part 375 Unrestricted Use soil cleanup objectives (SCOs) and/or NYSDEC CP-51 soil cleanup levels (SCLs), but did not exceed the NYSDEC Part 375 Restricted Residential Use SCOs or Commercial Use SCOs. One or more VOC concentrations detected in some of the groundwater samples exceeded NYSDEC groundwater standards or guidance values referenced in the document titled “Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations” (TOGS 1.1.1). Based on the evidence of petroleum impact encountered during the Preliminary Phase II ESAs, a spill was reported to the NSYDEC on April 30, 2019. The NYSDEC opened Spill File #1901036, which currently has an active status.
- Fill material that contained trace to layers of ash, coal, brick, concrete, and/or cinders was observed in fill material. Analytical laboratory testing indicates the some SVOCs and metals in this fill material exceeds some NYSDEC Part 375 Unrestricted Use SCOs, Restricted Residential Use SCOs, and/or Commercial Use SCOs.
- PCBs were not detected at concentrations above the laboratory method detection limits.

It was concluded that the former uses of the Site (e.g., gasoline station, auto repair, etc.) have impacted soil/fill and groundwater at the Site, primarily with petroleum-related constituents. Petroleum-impacted soil/fill that exhibited nuisance characteristics (e.g., odors) at some of the test boring locations was encountered initially at depths ranging between 0.5 and 8.5 feet below the ground surface (bgs). As a result, it is possible that petroleum-impacted soil/fill could be encountered during future subsurface work (e.g., utility work, redevelopment activities, etc.). A recommendation in the Preliminary Phase II ESAs was to complete additional investigation and remediation in relation to the on-site petroleum impacts associated with Spill File #1901036.

1.2.3 July 2019 Pre-Development Phase II ESA and Geotechnical Study for Bull's Head Sub-Area North

The Pre-Development Phase II ESA and Geotechnical study included evaluation of subsurface environmental conditions on properties and public right-of-ways that adjoining the 24 and 32 York Street Site. This completion field screening and laboratory analysis of soil and groundwater samples from test pits, test borings and/or monitoring wells. Appendix A contains Figure 3 and select data tables from this report, as well as select figures and tables from other previous on-site investigations. Field and laboratory evidence of petroleum impact was encountered at off-site test location MW-08 to the south, but not off-site test location TB-15 that is also located to the south. No field or laboratory evidence of petroleum impact was encountered at off-site test locations to the west (TB-19 and MW-07), to the north (TP-13), and to the east (TB-04, MW-01, TB18, TB-05, TB-06 and TB-24). Petroleum impact at MW-08 exceeded NYSDEC TOGS 1.1.1 groundwater standards or guidance values, but did not exceed applicable NYSDEC Part 375 SCOs or NYSDEC CP-51 SCLs.



1.2.4 November 19, 2019 Phase II ESA – 24 and 32 York Street

The Phase II ESA at the Site included: the advancement of 8 test borings; the installation of five temporary monitoring wells within five of these test borings; and the collection and laboratory analysis of soil samples, groundwater samples and a post-purge water sample from the basement sump inside the former building. Appendix A contains Figure 2 through Figure 7 and Table 3 through Table 6 from this report, as well as select figures and tables from other previous on-site and adjoining/nearby investigations. The results of the Phase II ESA work are summarized below.

- Field evidence of potential petroleum-type impact (e.g., PID readings up to 165.3 ppm, petroleum-type odors and sheen) was documented at six of the test borings. Petroleum odors and sheen was also detected on groundwater at three of the five temporary monitoring wells.
- Soil samples contained some VOCs, but not at concentrations above their respective NYSDEC Part 375 Unrestricted Use SCOs, Restricted Residential Use SCOs, Commercial Use SCOs and/or NYSDEC CP-51 SCLs. Soil samples also contained SVOCs. The concentrations of SVOCs in one soil sample exceeded some NYSDEC Part 375 Unrestricted Use SCOs, Restricted Residential Use SCOs, Commercial Use SCOs and/or NYSDEC CP-51 SCLs.
- The basement sump post-purge water sample contained one VOC, but at a concentration below its TOGS 1.1.1 groundwater guidance value. SVOCs were not detected in this water sample.
- One or more VOC and SVOC concentrations detected in some of the groundwater samples exceeded their respective NYSDEC TOGS 1.1.1 groundwater standards or guidance values.

It was concluded that the cumulative environmental studies were successful in defining the nature and extent of on-site petroleum contamination associated with NYSDEC Spill #1901036. Petroleum-impacted media are primarily located on the 24 York Street parcel (in areas of suspected former USTs, pump islands and auto repair buildings) and the southeast portion of the 32 York Street parcel that comprise the Site. Petroleum impact has potentially migrated off-site to the south onto or near Ruby Place (83.3 ppm PID readings in MW-08; however, groundwater samples from this well in Ruby Place reported VOCs below groundwater standards and/or guidance values), and likely also to some limited extent to the east onto 42 York Street (vacant parcel owned by the City), and potentially to the west. Petroleum impact exceeding NYSDEC soil and/or groundwater criteria has been documented on-site and also off-site to the south.

Gravel and fractured rock were encountered prior to drilling equipment refusal at many of the test locations. This fractured rock layer was typically wet, and field evidence of petroleum impact in this layer tended to be less significant in comparison to overlying finer-grained soils. Based on these observations and given the top of the water table was observed in the overburden on the Site and adjoining properties, it is expected that only the upper one or two feet of fractured/weathered bedrock may be impacted with petroleum.

The Site is located within the City of Rochester Bull's Head Brownfield Opportunity Area (BOA). The City of Rochester is in the process of developing plans to redevelop the portion of the Bull's Head BOA that includes the Site. Unless the site is remediated, it is possible that petroleum-impacted soil



and groundwater could be encountered during future subsurface work (e.g., utility work, redevelopment activities, etc.).

1.3 Proposed Future Use of Site

The Site is part of the City's Bull's Head BOA. The City has indicated that the portion of the Bull's Head BOA where the Site is located is anticipated to be redeveloped for mixed use, and could include multi-family restricted residential or commercial use. This future use is also consistent with the City's Bull's Head Revitalization Project plans and current C-2 zoning for the Site.

1.4 Geology and Hydrology

Based on previous reports by others as documented in Section 1.2, soil-fill material consisting of reworked sand, silt and/or gravel intermixed with historic fill material (HFM) including some brick, rock, ash, metal, concrete, coal and organics was observed to depths ranging from 2.0-7.0-ft bgs. Petroleum impacts are generally present from 4.0ft bgs to top of bedrock (approximately at an average depth of 9.5-ft bgs). Indigenous soils beneath the soil-fill material and HFM generally consisted of various mixtures of sand, silt, clay and gravel. Top of bedrock was encountered at depths ranging from approximately 8.3-11.5-ft bgs. Four (4) types of material will be excavated as part of the remedy implementation.

- **Soil-fill** material consisting of silty-clay intermixed with angular gravel and flagstone, and trace layers of HFM (ash, cinders, brick, concrete, and/or coal) were observed from just below the ground surface to 4.0-ft bgs in the source area.
- **Historical Fill Material (HFM)** (aka, "urban fill") is a regulated solid waste in New York State. It is estimated that approximately 75% of the material from this depth interval in the source area will consist of soil fill material, and 25% of the material from this depth interval in the source area will consist of HFM.
- **Petroleum contaminated soils** reportedly range from 4.0-9.5-ft bgs with an average thickness of 3.5-ft.
- **Petroleum impacted bedrock** is expected to be encountered in the top 2-ft of bedrock at the Site, at a depth ranging from 9.5-11.5-ft bgs. It is assumed that an average of 1-ft of bedrock (i.e., 474-tons) will need to be excavated across the entire remedial excavation area (6,405-sq.ft.).

Groundwater monitoring wells installed during previous investigations were surveyed and static water levels were collected on November 4, 2019. Depth to groundwater generally ranges from approximately 5.4-7.0-ft bgs with top of groundwater elevations ranging from approximately 529.7-530.5. Groundwater generally flows towards the west toward York Street.

2.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

New York State, County of Monroe and City laws and regulations apply to this cleanup. Federal, state, and local laws regarding procurement of contractors to conduct the cleanup will be followed.

2.1 Applicable or Relevant and Appropriate Requirements (ARARS)

ARARs define the minimum level of protection that must be provided by a remedy.

2.1.1 Standards, Criteria, and Guidance (SCG)

SCG values to allow for a mixed residential and commercial use are considered for the cleanup. The SCGs assist in defining the extent of contamination requiring remediation and are used to evaluate



the effectiveness of the remedy. The SCGs for soil, groundwater, and soil vapor intrusion to be used for this project are provided below.

Soil:

- Analytical laboratory results for soil will be compared to SCOs referenced in the 6 New York Codes, Rules and Regulations (NYCRR) NYSDEC document titled “Part 375, Environmental Remediation Programs” dated December 14, 2006. Specific SCOs to be considered will include Unrestricted Use SCOs, Restricted Residential Use SCOs, Commercial Use SCOs, and Protection of Groundwater SCOs.
- Analytical laboratory results for soil will also be compared to SCLs referenced in the NYSDEC document titled “CP-51 / Soil Cleanup Guidance” dated October 21, 2010. SCLs to be considered are included in Table 2 and Table 3 of the referenced document.

Groundwater:

- Analytical laboratory results for groundwater will be compared to groundwater standards and guidance values referenced in the NYSDEC document titled “Division of Technical and Operational Guidance Series, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations” (TOGS 1.1.1) dated June 1998 as amended by April 2000 and June 2004 Addendums. Chapter 59 (Health and Sanitation), Article III (Nuisances and Sanitation) § 59-27 (Water Supply) of the current Charter and Code of the City of Rochester, New York implies that groundwater cannot be used as a source of potable water within the city limits.

Soil Vapor:

- There are currently no structures on the Site; therefore, no SCGs for soil vapor are applicable. If buildings are constructed in the future, a soil vapor intrusion evaluation may be completed to determine if a sub-slab depressurization system (SSDS) is warranted. Alternatively, a SSDS may be installed proactively without testing. Future soil vapor intrusion evaluations will be completed in accordance with the “NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York” dated October 2006 and subsequent updates.

Impacted soil, fill or groundwater containing contaminants above SCGs that are left in-place will be managed with environmental engineering and institutional controls such as:

- A SGMP that provides guidance on management of disturbed or displaced impacted media during future Site activities, such as redevelopment, installation or repair of buried utilities, etc.,
- Flagging the Site in the City’s BIS.
- Evaluating the potential for soil vapor intrusion into new structures, and installing soil vapor mitigation systems on new building if warranted, in accordance with guidelines outlined in the New York State Department of Health (NYSDOH) document “*Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York*” dated October 2006, as amended.

2.1.2 Remedial Action Objectives (RAOs)

RAOs are medium-specific objectives for the protection of human health and the environment. RAOs for this project are as follows:



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

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of groundwater contamination.

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

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 a site.

2.2 Cleanup Oversight Responsibility

The City executed a Stipulation Agreement with the NYSDEC dated February 11, 2022 for the cleanup of the Site. Through the Petroleum Spill Cleanup Program, representatives of the NYSDEC Region 8 office will approve project work plans, oversee the cleanup, and approve project reports.

3.0 REMEDIAL ACTION IMPLEMENTATION

This section summarizes the remedial actions planned to address petroleum impacts and HFM. All work will be completed in accordance with LaBella's Health and Safety Plan (HASP) (refer to Appendix 1), Quality Assurance Project Plan (QAPP) (refer to Appendix 2) and Community Air Monitoring Plan (refer to Appendix 3). All laboratory analyses will be completed by a New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP)-certified



laboratory. ASP Category B deliverables and Data Usability Summary Reports (DUSRs) will be prepared for confirmatory/ documentation samples and post-remedial groundwater sampling only.

The remedy will consist of excavation and off-Site disposal of HFM, petroleum-impacted soil and bedrock, and in-situ bioremediation treatment, in addition to engineering and institutional controls. The on-Site petroleum-impacted area requiring excavation and off-Site disposal comprises an irregular-shaped polygon area approximately 6,405-square feet (sq.ft.). While the extent of impacts on the eastern adjacent City-owned parcel addressed as 42 York Street are unknown, it is currently estimated approximately 100 sq. ft. of petroleum impacts extend from the Site onto 42 York Street (refer to Figure 2). Excavation will continue onto 42 York Street as warranted based on confirmatory analytical data. Excavation is not anticipated to continue off-Site in any other locations based on current data.

3.1 Site Preparation

Prior to initiating remedial activities at the Site, the wooden bollards currently installed at the Site will be removed and stored for use after project completion. A 6-foot high temporary chain-link fence will be installed around the perimeter of the Site, and around portions of the eastern adjacent city-owned property (42 York Street) which is intended to be utilized for materials and equipment staging. In addition, if during the remedial excavation it is apparent that petroleum impacts extend onto 42 York Street, excavation will continue onto 42 York Street until confirmatory soil sampling criteria is met (refer to Section 3.6). The fence will be completed with one locked gate which will be utilized for the construction entrance. Additionally, a USEPA/NYSDEC sign will be created and adhered to the chain-linked fence with appropriate grant information and agency contact information. The temporary fence will remain at the Site until remedial activities are complete and the Site has been restored to its pre-remedial grade.

3.2 Pre-Characterization Study

Prior to initiating the remedial excavation, LaBella will mobilize to the Site to conduct a pre-characterization study of the subsurface materials planned for off-Site disposal. This will allow for expedited waste profiling, rather than collecting the waste characterization samples after stockpiling.

Based on the extent of the planned remedial excavation, six (6) soil borings will be advanced to characterize regulated waste present in the subsurface at the Site. Proposed pre-characterization boring locations are shown on Figure 2. The soil borings will be advanced using a Geoprobe® and macrocore samplers through the petroleum-contaminated soil until bedrock or uncontaminated soils are encountered. Subsurface conditions will be recorded on detailed field logs to enhance the understanding of the subsurface prior to initiating the remedial excavation. All soil cores will be assessed by a LaBella Environmental Geologist/Engineer for visual or olfactory indications of impairment, and/or indication of detectable VOCs with a PID.

Waste characterization samples will be collected from historical fill material (HFM) and petroleum contaminated soils encountered during the pre-characterization study. The source area requiring excavation and off-Site disposal comprises an irregular shaped polygon area approximately 123-ft long by 87-ft wide, and a total area of approximately 6,505-sq.ft. The on-Site source area is approximately 6,405-sq.ft. and the off-Site area of impacts on 42 York Street is anticipated to be limited to approximately 100 sq. ft. (refer to Figure 2).

The excavation area included in this CAP is approximate and is subject to change based on field conditions observed during remedy implementation. Off-Site excavation will continue towards the east onto the City-owned property addressed as 42 York Street. Excavation is not anticipated to



continue off-Site in any other direction based on current data. Excavation will continue on-Site and off-Site to the east until confirmatory soil samples meet Restricted Residential Use to the extent feasible (refer to Section 3.6 for details).

Based on previous investigations completed by DAY, there are four (4) media types in the source area that will require excavation: soil-fill material, HFM, petroleum-contaminated soil, and petroleum-contaminated bedrock.

- **Soil-fill** material consisting of silty-clay intermixed with angular gravel and flagstone, and trace layers of HFM (ash, cinders, brick, concrete, and/or coal) were observed from just below the ground surface to 4.0-ft bgs in the source area.
- **Historical Fill Material** (aka, “urban fill”) is a regulated solid waste in New York State. It is estimated that approximately 75% of the material from 0-4-ft bgs in the source area will consist of soil fill material, and 25% of the material from 0-4-ft bgs in the source area will consist of HFM.
- **Petroleum contaminated soils** reportedly range from 4.0-9.5-ft bgs with an average thickness of 3.5-ft.
- **Petroleum impacted bedrock** is expected to be encountered in the top 2-ft of bedrock at the Site, at a depth ranging from 9.5-11.5-ft bgs. It is assumed that an average of 1-ft of bedrock (i.e., 474-tons) will need to be excavated across the remedial excavation area (6,505-sq.ft.).

Petroleum impacted material (soil/fill and bedrock) includes material with evidence of impairment including petroleum odors, petroleum-like staining, and/ or PID readings greater than 10 ppm above background. Testing locations advanced during previous investigations are shown on Figure 2. It is anticipated that the following materials and quantities will be characterized for disposal during the pre-characterization study:

- HFM – 237.5-CY or approximately 392-tons
- Petroleum Contaminated Soil – 830-CY or approximately 1,370-tons

Any soil-fill material that is free of HFM or petroleum impacts will be segregated and stockpiled on-Site for use as backfill in the final excavation; as such, pre-characterization samples of soil-fill material will not be collected. In addition, a bedrock sample will be collected during the excavation work for waste characterization purposes (refer to the analytical list below) rather than during the pre-characterization study. The estimated quantities above were derived from previous reports prepared for the Site by others and the actual quantities may change based on subsurface conditions encountered during the remedial excavation.

A total of four (4) waste characterization soil/ fill samples will be collected from the HFM and petroleum contaminated soils and one (1) waste characterization sample will be collected from bedrock and analyzed for the following parameters:

- Toxicity Leachate Characteristics Procedure (TCLP) VOCs using USEPA Method 8260/1311;
- TCLP SVOCs using USEPA Method 8270/1311;
- TCLP Metals using USEPA Method 6010/7470;
- Polychlorinated Biphenyls (PCBs) using USEPA Method 8082;
- Reactivity using USEPA Method 7.3;
- Ignitability using USEPA Method 1030; and,
- pH using USEPA Method 9045



The six (6) soil borings will also be evaluated by a geotechnical engineer. Soil-fill material planned for reuse will be evaluated for geotechnical purposes and quantity of fill material. If the soil-fill material does not appear to meet geotechnical requirements for future Site use (e.g., parking lot, building), an additional three (3) waste characterization samples will need to be collected from the soil-fill material to facilitate waste characterization and profiling for off-Site disposal. LaBella will consult with its geotechnical engineering team to assist with the structural determinations of the soil-fill material. Please note that if the soil-fill material does not appear to meet the geotechnical requirements for structural backfill, LaBella will discuss costs with the City and options for potential off-Site disposal.

All samples will be placed on ice and sent under standard chain of custody procedures to a NYSDOH Environmental Laboratory Accreditation Program ELAP-certified laboratory with a standard turnaround time of 5-10 business days. Upon receipt of the analytical data, LaBella will share the results with the City and prepare the appropriate waste profiling documentation for disposal at a NYSDEC permitted waste disposal facility.

3.3 Source Excavation

LaBella will mobilize to the Site to conduct the remedial excavation and construction oversight. The source area requiring excavation and off-Site disposal comprises an irregular shaped polygon area approximately 123-ft long by 87-ft wide, and a total area of approximately 6,405-sq. ft on-Site (refer to Figure 2). Although unknown at this time, the off-Site area of impacts on 42 York Street is estimated to be approximately 100 sq. ft. (refer to Figure 2). The excavation will continue to the east off-Site onto 42 York Street pending confirmatory soil sample results. The excavation will not continue off-Site in any other direction other than to the east onto 42 York Street. The existing ten (10) monitoring wells will be removed/ decommissioned during excavation. Four (4) wells will be installed following excavation and backfilling to monitor the effectiveness of the remedy (refer to Section 3.8).

The excavation will extend to depths of native material and/or bedrock which ranges from approximately 9.5-11.5-ft bgs. If petroleum contaminated bedrock is encountered during the remedial excavation, it is anticipated that up to the top 2-ft of rock in certain areas of the excavation will be pulverized using an excavator with hoe ram breaker attachment and removed for off-Site disposal. Since the petroleum contaminated bedrock will not be characterized for waste disposal during the pre-characterization study, one (1) waste characterization sample will be collected from the bedrock during excavation for the parameters outlined in Section 3.2.

Since the remedial excavation consists of a large footprint, the excavation will be completed in sections or “cells” to limit sidewall collapse and dewatering as well as to facilitate more efficient materials management. Each excavation cell will be advanced to the full depths required for remediation, and partially backfilled to a nominal depth of 1-2-ft above the water table. A vertical sheet of poly will be placed between the backfill area and adjacent unexcavated cell to prevent cross contamination of impacts into clean backfill. The poly sheeting will be removed when the next cell is excavated. Confirmatory/ documentation samples will be collected from the excavation sidewalls and/or bottom prior to backfilling as discussed in Section 3.6. Previously placed backfill materials may be redistributed within the excavation as part of compaction efforts.

Trucks will enter the Site either from York Street directly onto 24, 32 or 42 York Street. Trucks or other construction equipment will not occupy other properties other than these 3 City-owned parcels.

Based on previous investigations, it is anticipated that the following materials and quantities will be encountered during this remedial excavation:



- **Soil-Fill Material** – Approximately 712.5-CY/1,175-tons. It is anticipated excavated soil consisting of silty-clay intermixed with angular gravel and flagstone, and trace layers of HFM (ash, cinders, brick, concrete, and/or coal) will be considered soil-fill material and will be stockpiled for reuse if deemed acceptable material by a geotechnical engineer.
- **HFM** – Approximately 237.5-CY/392-tons. It is anticipated HFM will include but is not limited to ash, cinders, brick, concrete, and/or coal. HFM will be disposed of off-Site.
- **Petroleum Contaminated Soil** – Approximately 830-CY/1,370-tons. It is anticipated that excavated soil with PID readings greater than 10 ppm, evidence of petroleum odors and/or staining will be considered petroleum contaminated soil. Petroleum contaminated soil will be disposed of off-Site.
- **Petroleum Contaminated Bedrock** – Approximately 237-CY/474-tons. It is anticipated that bedrock with PID readings greater than 10 ppm, petroleum odors, staining and/or located directly beneath petroleum contaminated soil will be considered petroleum contaminated bedrock and will be removed to a maximum depth of 2-ft below top of rock for off-Site disposal.

3.4 Soil Screening, Management and Reuse

All excavated materials will be separated and staged in stockpiles based on the material designations described in Section 3.3. Based on PID readings observed during previous investigations by others, it is anticipated that excavated soil with PID readings greater than 10 ppm, and/or evidence of petroleum odors and/or staining will be considered petroleum contaminated soil. Soil/ fill with less than 10 ppm PID readings and no evidence of petroleum odors or staining will be characterized as soil-fill material or HFM, depending on the composition of the material.

All stockpiled materials will be staged on and coved with minimum 6-mil poly sheeting until approved for on-Site reuse or transported off-Site for disposal. Poly sheeting will be secured to prevent erosion.

Soil-fill material will be stockpiled for reuse if determined to be acceptable by a geotechnical engineer. Soil-fill material planned for reuse will be sampled at a rate of 1 sample per 100 CY for the following parameters:

- NYSDEC Part 375 and CP-51 List VOCs using USEPA Method 8260; and,
- NYSDEC Part 375 and CP-51 List SVOCs using USEPA Method 8270.

If the soil-fill material meets 6NYCRR Part 375 Restricted Residential Use SCOs, it will be reused as backfill in the excavation. If any soil-fill material samples do not meet the criteria, that portion of the pile will be disposed of off-Site, pending waste characterization samples collected from the pile consistent with parameters listed in Section 3.2.

Given the limited space available for construction materials on 32 York Street, it is anticipated that a portion of 42 York Street will be utilized for stockpiles, the frac tank, and construction equipment (refer to Figure 3). LaBella will coordinate with the City to obtain an access agreement for 42 York Street.

3.5 Groundwater Infiltration Management

According to previously prepared reports for the Site, the groundwater table has been encountered at approximately 5.0-8.0-ft bgs. Since the water table will be encountered at depths shallower than



the terminal depth of the remedial excavation (9.5-11.5-ft bgs.) and because rain events may cause stormwater to accumulate in the excavations, dewatering appears to be warranted during excavation. As such, a 21,000-gallon frac tank will be staged at 32 York Street. Water from the excavation will be pumped into the frac tank as needed to facilitate further excavation.

At the conclusion of the project or when the frac tank approaches maximum capacity, the tank contents will be sampled and discharged to public combined sewer under a Specialty Short Term Discharge, pending permit approval from Monroe County Pure Waters (MCPW). It is anticipated one (1) sample will be collected from the frac tank for analytical parameters consistent with current Monroe County permit requirements as follows:

- PPL VOCs (EPA 624)
- PCBs (EPA 608)
- PPL Metals & mercury (EPA 200.7/245.1)
- PPL acids/ base/ neutrals, including PAHs (USEPA 625)
- Pesticides (EPA 608)

LaBella will discuss subsequent sampling requirements with Monroe County Pure Waters.

3.6 Confirmatory/ Documentation Sampling

Prior to backfilling the excavation and applying additional in-situ treatment measures, confirmatory/ documentation samples will be collected from the sidewalls and portions of the bottom of the excavation with soil. Documentation samples will refer to samples collected from the excavation that are not final endpoint samples (i.e., additional soil must be removed to meet SCOs/SCLs). Confirmatory samples will refer to endpoint samples that meet SCOs/SCLs or represent the termination of soil removal in the excavation sidewall. It is anticipated that soil with PID readings less than 10 ppm and no significant petroleum staining/odors may remain in place. Confirmatory/ documentation samples will not be collected from the bottom of the excavation in areas of exposed bedrock per NYSDEC DER-10.

The confirmatory/ documentation samples will be collected in accordance with DER-10; one (1) sidewall confirmatory/ documentation sample will be collected for every 30 linear feet of excavation perimeter, and one (1) bottom confirmatory/ documentation sample will be collected for every 900-sq.ft. of excavation bottom area. While it is currently anticipated that most of the excavation bottom will consist of bedrock, the bottom confirmatory/ documentation sample quantities will be calculated based on the area of exposed soils at the excavation bottom, if any. If minimal soil remains at the bottom of the excavation (less than 6 inches), it will be removed to bedrock.

Since the perimeter of the remedial excavation is currently anticipated to measure approximately 360-ft, up to twelve (12) sidewall confirmatory/ documentation soil samples will be collected. While the exact area of exposed soil at the bottom of the excavation is unknown, it is estimated that two (2) bottom confirmatory/ documentation soil samples will be collected. Quantities of confirmatory/ documentation samples are subject to change based on actual excavation perimeter/ area. Each confirmatory/ documentation soil sample will be submitted for laboratory analysis of the following:

- NYSDEC Part 375 and CP-51 List VOCs using USEPA Method 8260; and,
- NYSDEC Part 375 and CP-51 List SVOCs using USEPA Method 8270.

A blind duplicate and matrix spike/ matrix spike duplicate sample will be collected from the confirmatory/ documentation samples at a rate of one (1) per twenty (20) samples.



Samples will be sent under standard Chain of Custody procedures to a NYSDOH ELAP-certified laboratory. To reduce the amount of time the excavation will remain open without backfill, all confirmatory samples will be submitted with a rush turnaround time of approximately 3 business days.

Upon receipt of the analytical results, LaBella will share the data with the City in real time so the City can evaluate the effectiveness of the remedy on achieving the cleanup objectives for the Site. If soil sample results do not meet 6 NYCRR Part 375 Restricted Residential Use SCOs and NYSDEC CP-51 SCLs, the excavation may be expanded if feasible and confirmatory soil samples will be recollected following further excavation. If expansion of the excavation is not feasible due to proximity to infrastructure such as sidewalks, etc., LaBella will discuss with the City and NYSDEC. Confirmatory/ documentation sample locations and elevations will be recorded utilizing a global positioning system (GPS). It should be noted that because the City is serviced by public water supply and groundwater at the Site is not used as a potable water source, Protection of Groundwater SCOs are not applicable for determining when the excavation is complete.

ASP Category B data deliverables will be provided by the laboratory. DUSRs will be completed by a third party for confirmatory/ documentation soil samples. All sampling and analysis will be completed in accordance with the QAPP.

3.7 In-Situ Treatment

After receiving the confirmatory soil sampling results and prior to backfilling the excavation, approximately 1,000 pounds of an oxygen release compound (ORC) by Regenesis, ORC-Advanced®, will be added to the remedial excavation to facilitate aerobic bioremediation of any residual petroleum contamination at the Site. Note that due to the planned excavation in cells, ORC-Advanced® will be added to each cell prior to backfilling that section. The 1,000-lbs will be evenly distributed as much as possible. Refer to Appendix 4 for the Safety Data Sheet.

Additionally, infrastructure will be installed in the remedial excavation to facilitate future applications of in-situ treatment measures, if warranted following post-remedial groundwater monitoring (refer to Section 4.0). The infrastructure will consist of two sets of 4-inch diameter PVC perforated pipes, connected to two vertical risers at the lateral ends of the horizontal piping. The horizontal piping will be set approximately 3-feet above bedrock, which is approximately 1-3-ft below the top of the water table. The horizontal perforated piping will be bedded with pea stone (minimum 6-inches of pea stone on all sides of the piping) to allow for easy transmission of water and treatment materials into the subsurface. A layer of geotextile fabric will be placed above the pea stone to prevent fine-grained materials in the overlying backfill from plugging the pore spaces in the pea stone bedding. A curb box will be installed at each vertical riser location flush with the ground surface.

Refer to attached Figure 2 which outlines the proposed locations of the infrastructure for future in-situ treatment. The infrastructure shown on Figure 2 is currently planned based on existing data for the Site and may be relocated depending on the field conditions encountered.

3.8 Site Restoration

The overburden portion of the excavation will be backfilled with either on-Site soil-fill material if deemed acceptable by a geotechnical engineer and meets the reuse sample criteria, imported recycled concrete, or a combination of these materials. Backfill materials will be compacted to 95%



of their maximum dry density to more readily facilitate future development. The excavation will be backfilled to a nominal depth of 1.5-ft below the Site's original grade. The excavation area will be capped with a 1.5-ft thick cover system, which will consist of topsoil from the surface to a nominal depth of 0.5-ft bgs, and crusher-run 2 (CR-2) from a depth of 0.5-1.5-ft bgs. The topsoil will be hydroseeded. The use of topsoil and CR-2 for the final surface completion appears to meet the future redevelopment goals for this Site and the surrounding area, which is assumed to be redeveloped for mixed commercial and residential use. The construction fence installed at the Site will be removed, and the stored wooden bollards will be reinstalled at the Site.

3.9 Monitoring Well Installation

After the Site is restored to its original grade, four (4) new groundwater monitoring wells will be installed to facilitate the post-remedial groundwater monitoring. It is currently anticipated the wells will be 2-inch diameter bedrock interface wells; however, the wells may be overburden only if warranted based on observations made during the remedial excavation and following discussions with the City and NYSDEC.

Bedrock interface wells will be installed in the locations shown on Figure 2. Samples will not be logged since the wells will be installed within clean backfill. Hollow stem augers will be advanced into the top of weathered bedrock to depths of 2-ft below top of rock. A 10-ft length of 2-inch diameter slotted PVC screen will be installed spanning the top 2-ft of bedrock and 8-ft above top of bedrock (approximately 1.5-3.5-ft bgs). A sand pack will be placed around the screened section to 1-2-ft above the top of the screen. A bentonite seal will be placed above the sand pack. A curb box will be installed flush with the ground surface.

4.0 POST-REMEDIATION GROUNDWATER MONITORING

Each of the four (4) new monitoring wells will be sampled quarterly for the first year after completion of the project. Each groundwater sample will be collected using low-flow methodology as follows:

1. Wells will be checked for NAPL immediately prior to groundwater sampling and static water levels will be collected.
2. Groundwater will be purged from each well using a bladder pump. The top of pump will be placed approximately in the center of the screened intervals for each well.
3. Water quality parameters including turbidity, pH, temperature, specific conductivity, dissolved oxygen, and depth to water will be recorded at five (5) minute intervals during sampling until the parameters have stabilized for three (3) consecutive intervals within the specified ranges below, at which time the samples will be collected:
 - Water level drawdown (<0.3')
 - Turbidity (+/- 10%)
 - pH (+/-0.1)
 - Temperature (+/- 3%)
 - Specific conductivity (+/- 3%)
 - Dissolved Oxygen (+/- 10%)
 - Oxidation reduction potential (+/- 10 millivolts)

Samples will be submitted to a NYSDOH ELAP laboratory for analysis of the following:

- CP-51 list VOCs using USEPA Method 8260; and,



- CP-51 list SVOCs using USEPA method 8270.

If SVOCs are non-detect during the first round of groundwater sampling for any well, that well will not be analyzed for SVOCs during subsequent groundwater monitoring events.

One (1) blind duplicate and MS/MSD will be collected during each groundwater sampling event. ASP Category B data deliverables will be provided by the laboratory. DUSRs will be completed for groundwater data. All sampling and analysis will be completed in accordance with the QAPP.

At the conclusion of each sampling event, a brief letter report will be prepared. The letter reports will include a description of the work performed, detailed summary of groundwater data, and a groundwater potentiometric contour map.

A Soil and Groundwater Management Plan (SGMP) will be prepared for the Site in accordance with the NYSDEC Region 8 Spills Unit criteria to address any residual contamination that may be present at the Site subsequent to remediation. LaBella understands that the City will impose an EC/IC plan for the Site, and that any future buildings constructed at the Site will be equipped with a Sub-Slab Depressurization System (SSDS).

5.0 HEALTH AND SAFETY PLAN (HASP)

LaBella's HASP included in Appendix 1 will be implemented by all LaBella personnel. This HASP reflects LaBella's policy only and other contractors working on the Site will follow their own HASP.

6.0 QUALITY ASSURANCE PROJECT PLAN (QAPP)

The QAPP included in Appendix 2 will be implemented during this CAP. The QAPP was developed in accordance with *EPA QA/R-5 EPA Requirements for Quality Assurance Project Plans* as required per the EPA grant.

7.0 COMMUNITY AIR MONITORING PLAN (CAMP)

The NYSDOH Generic CAMP included as Appendix 3 will be implemented during all subsurface work to monitor for dust and VOCs. The CAMP will include one upwind and one downwind station, and each station will include a Dust Trak to measure aerosolized particulates and a PID to measure VOCs. Data will be continuously recorded. If CAMP action levels are exceeded, measures will be implemented to reduce dust and/or VOCs as warranted. Dust suppression may include the use of potable water during excavation. VOC suppression may include the use of BioSolve® a product with has been effective in quickly suppressing vapors and odors in other similar petroleum source removal projects. Any exceedances of the CAMP and subsequent corrective actions will be document and detailed in the final report.

8.0 SCHEDULE AND DELIVERABLES

The remediation is planned to start in late August 2022 and site restoration is anticipated to be completed by November 2022. The first quarterly groundwater monitoring event will be completed



around February 2023 and the last quarterly groundwater monitoring event will be completed around November 2023.

Public outreach is being completed in accordance with the Citizen Participation Plan (CPP) by LaBella dated April 8, 2022.

During remedy implementation, LaBella will provide a daily email summary to the City and NYSDEC summarizing the work completed, any samples collected, significant observations, deviations to the CAP, and planned work for the following day.

Throughout the project, LaBella will keep a record of all remedial excavation limits, depths, and soil sample locations utilizing a GPS unit capable of recording locations on the US State Plane 1983 (New York Western Zone) coordinate system.

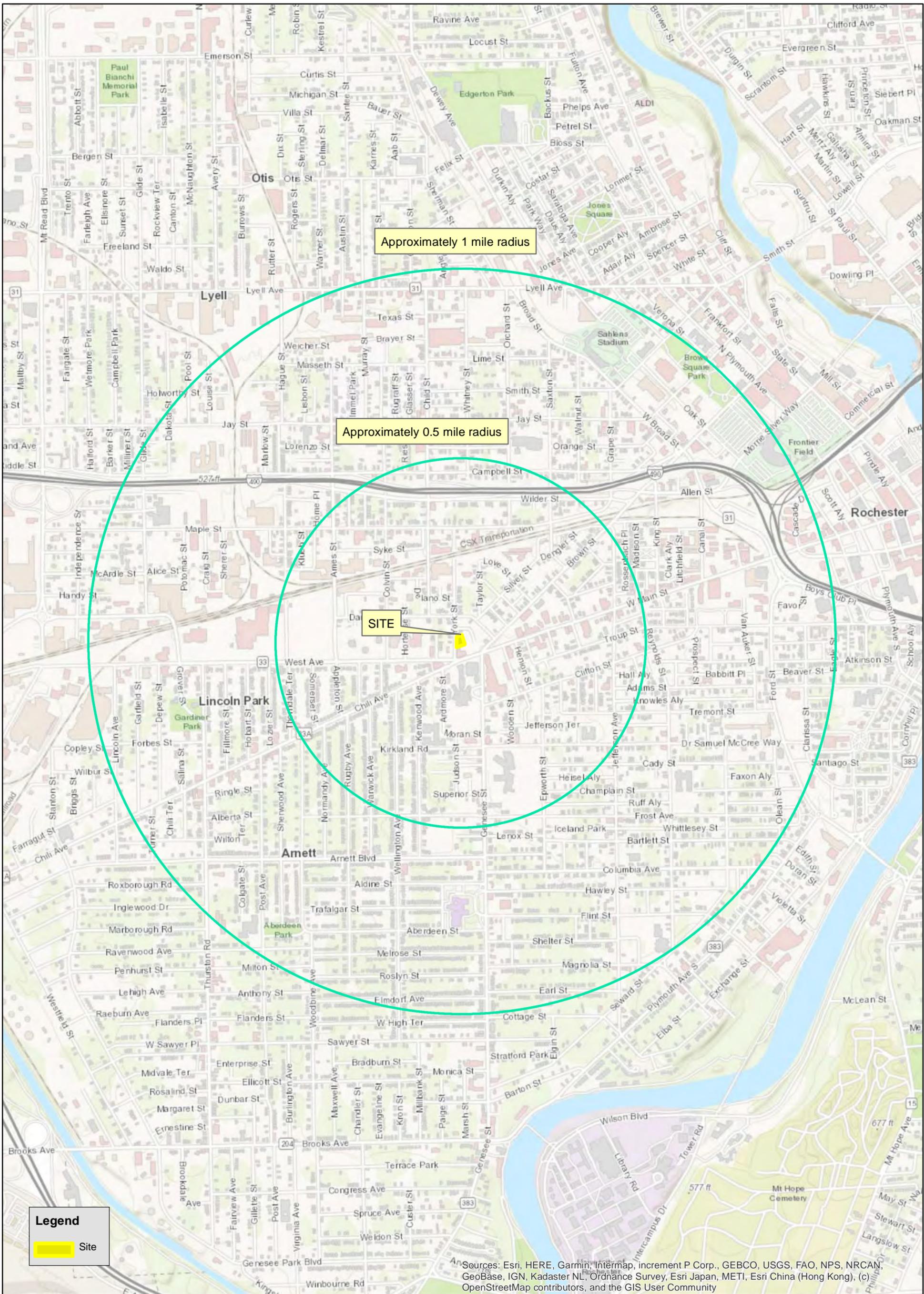
At the conclusion of the project, a Remedial Construction/Closure Report (RCCR) will be prepared for the Site. This report will document all remedial actions implemented, and include the following at a minimum:

1. Summary of all remedial work performed;
2. Field documentation in a field notebook and daily summaries;
3. Scaled drawings showing the actual limits of excavation(s);
4. All quantities (tonnage) of all media disposed of;
5. Estimate of percent mass in overburden removed;
6. Figures showing post source removal soil and groundwater exceedances (created in GIS using most recent aerials);
7. Analytical sampling documentation;
8. Disposal documentation; and,
9. Photographs of the work performed.

It is anticipated that the RCCR will be submitted to the City and NYSDEC after the completion of the first quarterly groundwater sampling event.

\\PROJECTS2\PROJECTSNZ-2\ROCHESTER, CITY\2220406 - 24 & 32 YORK ST ENV. CLEANUP\REPORTS\CAP\2220406 - 24 32 YORK ST CAP DRAFT V3.DOCX

FIGURES



PROJECT #/DRAWING #/ DATE

2220406

FIGURE 1

4/5/2022

DRAWING NAME:

SITE LOCATION MAP

CLIENT:

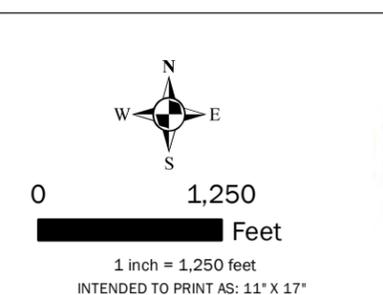
CITY OF ROCHESTER

PROJECT:

CAP

24 & 32 YORK STREET

ROCHESTER, NY





Excavation off-Site on City-owned 42 York St. Approximately 100 sq. ft.

Groundwater Flow Direction

- Legend**
- Proposed New Overburden/ Bedrock Interface Monitoring Wells
 - Monitoring Well, Day, 2018
 - Monitoring Well, Day, 2019
 - Soil Boring, Day, 2018
 - Soil Boring, Day, 2019
 - Pre-Characterization Soil Borings
 - Proposed In-Situ Vertical Risers
 - Proposed In-Situ Perforated Pipes
 - Site Boundary
 - Site Parcels
 - Approximate Limit of Petroleum Impacts (6,856 sq. ft.)
 - Remedial Action Soil Excavation Area off-Site (100 sq.ft.)
 - Remedial Action Soil Excavation Area on-Site (6,405 sq.ft.)

NOTES:

- 1) Property boundaries obtained from Monroe County GIS 2019 and are considered approximate.
- 2) 2021 aerial image from Pictometry International.
- 3) All remedial action features will be located using a global positioning system (GPS).
- 4) Overburden groundwater flow direction based on modeling completed by Day Environmental as part of the Phase II ESA dated November 19, 2019.
- 5) Final layout of in-situ treatment infrastructure to be determined based on conditions observed during remedial excavation work.
- 6) Previous testing locations and excavation limits georeferenced from reports by Day Environmental and are approximate.
- 7) Excavation to continue towards the east onto 42 York Street until confirmatory soil samples meet 6 NYCRR Part 375 Restricted Residential Soil Cleanup Objectives. Excavation will not continue off-Site other than onto 42 York Street. Exact extent of impacts on 42 York Street from the Site is unknown but anticipated to be approximately 100 sq. ft.
- 8) Existing groundwater monitoring wells shown are to be removed during remedy implementation.

PROJECT #/DRAWING #/ DATE

2220406

FIGURE 2

5/19/2022

DRAWING NAME:

APPROXIMATE AREA OF PETROLEUM IMPACT REMOVAL AREA & IN-SITU TREATMENT AREA

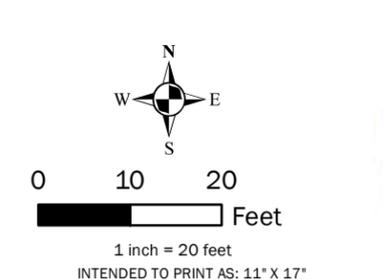
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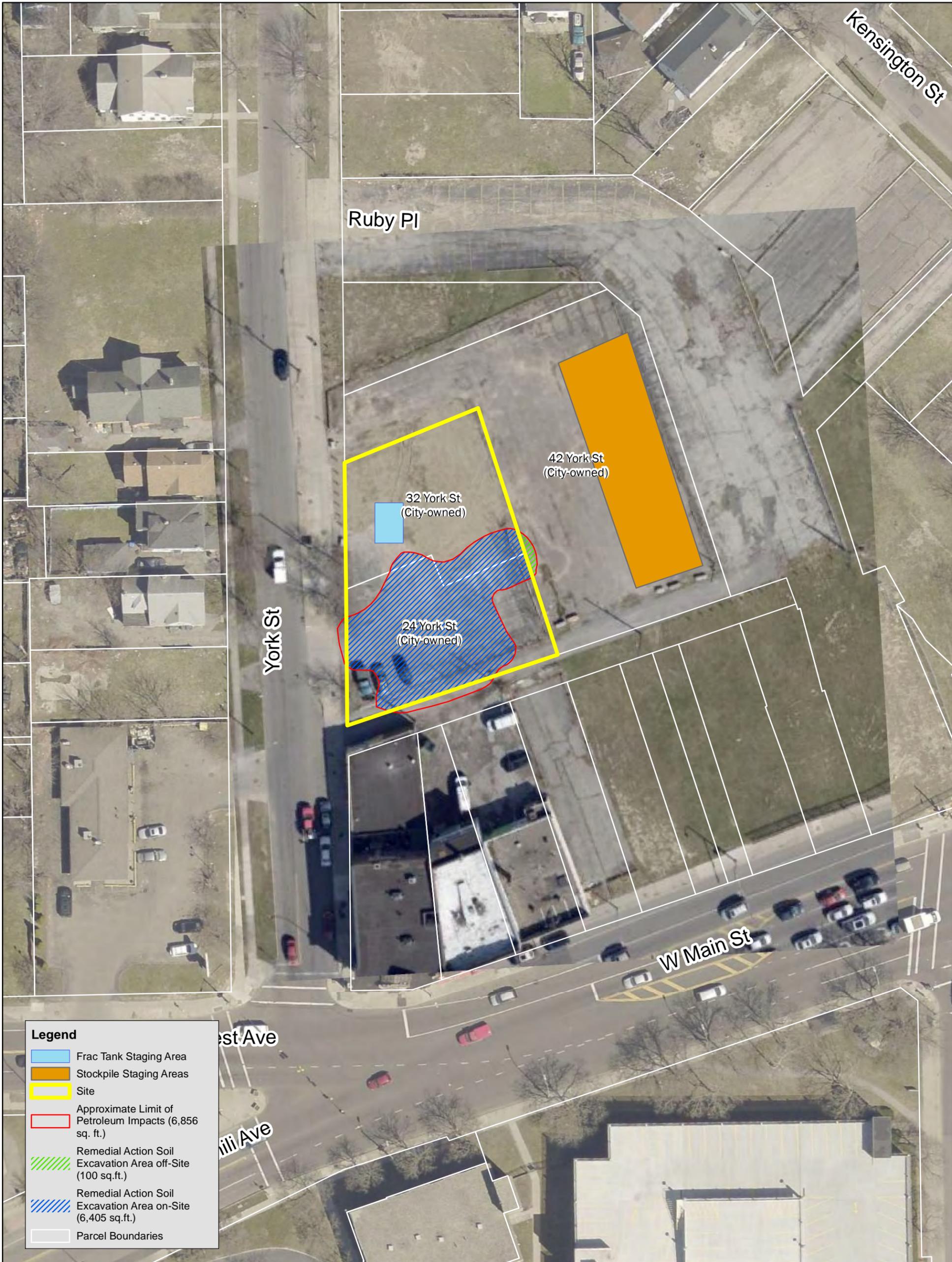
CITY OF ROCHESTER

PROJECT:

CAP

24 & 32 YORK STREET ROCHESTER, NY



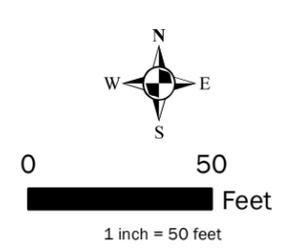


Legend

- Frac Tank Staging Area
- Stockpile Staging Areas
- Site
- Approximate Limit of Petroleum Impacts (6,856 sq. ft.)
- Remedial Action Soil Excavation Area off-Site (100 sq.ft.)
- Remedial Action Soil Excavation Area on-Site (6,405 sq.ft.)
- Parcel Boundaries

NOTES:

- 1) Property boundaries obtained from Monroe County GIS 2019 and are considered approximate.
- 2) 2021 aerial image from Pictometry International.
- 3) Staging areas are subject to change based on field conditions and actual excavation area. Staging and trucking will be limited to 24, 32, and 42 York Street only.

PROJECT #/DRAWING #/ DATE <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">2220406</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">FIGURE 3</div> 5/19/2022	DRAWING NAME: <div style="text-align: center; padding: 10px 0;"> SITE LAYOUT AND STAGING AREAS </div>	CLIENT: <div style="text-align: center; padding: 10px 0;"> CITY OF ROCHESTER <small>PROJECT:</small> CAP 24 & 32 YORK STREET ROCHESTER, NY </div>	<div style="text-align: center;">  <p>0 50 Feet 1 inch = 50 feet INTENDED TO PRINT AS: 11" X 17"</p> </div>	 <p>LaBella <i>Powered by partnership.</i></p>
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APPENDIX 1

Health and Safety Plan

Health and Safety Plan

Location:

24 and 32 York Street
Rochester, NY 14611
NYSDEC Spill #1901036

Prepared for:

City of Rochester
Division of Environmental Quality
30 Church Street, Room 300B
Rochester, NY, 14614-1278

LaBella Project No. 2220406

April 2022

In addition to the funding from the USEPA, this project will also be funded by the City of Rochester. Though this project has been funded, wholly or in part, by EPA, the contents of this CAP do not necessarily reflect the views and policies of EPA.

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Tables

Table 1	Exposure Limits and Recognition Qualities
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SITE HEALTH AND SAFETY PLAN

Project Title:	24 and 32 York Street
Project Number:	2220406
Project Location (Site):	24 and 32 York Street, Rochester, NY
Proposed Date(s) of Field Activities:	To Be Determined
Site Conditions:	0.27-acres vacant lot
Site Environmental Information Provided By:	<ul style="list-style-type: none">• Phase I Environmental Site Assessment (ESA), Day Environmental (DAY), January 2018• Preliminary Phase II ESA, DAY, July 2019• Phase II ESA, DAY, November 2019
Air Monitoring Provided By:	LaBella
Site Control Provided By:	LaBella

EMERGENCY CONTACTS

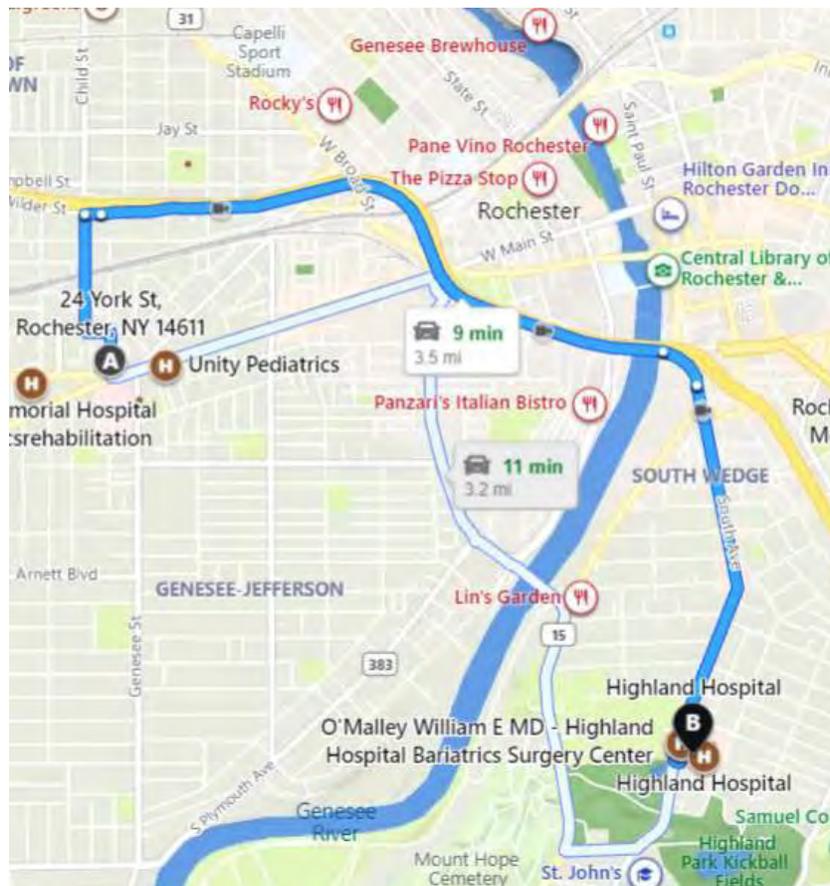
	Name	Phone Number
Ambulance:	As Per Emergency Service	911
Hospital Emergency:	Highland Hospital	585-473-2200
Poison Control Center:	Finger Lakes Poison Control	716-275-5151
Police (local, state):	Rochester Police Department	911
Fire Department:	Rochester Fire Department	911
Site Contact:	City of Rochester – Alexandra Zobel	585-428-7094
Agency Contact:	NYSDEC – Gregory Young	585-226-2466
Environmental Director:	LaBella - Gregory Senecal	585-295-6243
Project Manager:	LaBella – Ann Barber	585-295-6289
Safety Director	LaBella - Catherine Monian	845-486-1557

MAP AND DIRECTIONS TO THE MEDICAL FACILITY - HIGHLAND HOSPITAL

Total Est. Time: 9 minutes Total Est. Distance: 3.5 miles

- | | | |
|-----------|--------------------------------------|-----------|
| 1: | Head north on York St toward Ruby Pl | 400 feet |
| 2: | Turn left onto Danforth St | 364 feet |
| 3: | Turn right onto Wilder St | 0.3 miles |
| 4: | Take the ramp on left to I-490 E | 233 feet |
| 5: | Take Exit 15 towards NY-15 / NY-31 | 1.7 miles |
| 6: | Bear left onto South Ave | 1 mile |

End at 1000 South Ave



1.0 Introduction

The purpose of this Health and Safety Plan (HASP) is to provide guidelines for responding to potential health and safety issues that may be encountered during the Corrective Action Plan (CAP) Implementation at 24 and 32 York Street, Rochester, New York 14611 (Site). This HASP only reflects the policies of LaBella Associates D.P.C. The requirements of this HASP are applicable to all approved LaBella personnel at the work site. This document's project specifications, and the Community Air Monitoring Plan (CAMP), are to be consulted for guidance in preventing and quickly abating any threat to human safety or the environment. The provisions of the HASP do not replace or supersede any regulatory requirements of the USEPA, NYSDEC, OSHA or other regulatory bodies.

2.0 Responsibilities

This HASP presents guidelines to minimize the risk of injury to project personnel, and to provide rapid response in the event of injury. The HASP is applicable only to activities of approved LaBella personnel and their authorized visitors. The Project Manager shall implement the provisions of this HASP for the duration of the project. It is the responsibility of LaBella employees to follow the requirements of this HASP, and all applicable company safety procedures.

3.0 Activities Covered

The activities covered under this HASP are limited to the following:

- Management of environmental remediation activities
- Environmental Monitoring
- Collection of samples
- Management of excavated soil and fill

4.0 Work Area Access and Site Control

The contractor(s) will have primary responsibility for work area access and site control.

5.0 Potential Health and Safety Hazards

This section lists some potential health and safety hazards that project personnel may encounter at the project site and some actions to be implemented by approved personnel to control and reduce the associated risk to health and safety. This is not intended to be a complete listing of any and all potential health and safety hazards. New or different hazards may be encountered as site environmental and site work conditions change. The suggested actions to be taken under this plan are not to be substituted for good judgment on the part of project personnel. At all times, the Site Safety Officer has responsibility for site safety and his instructions must be followed.

5.1 *Hazards Due to Heavy Machinery*

Potential Hazard:

Heavy machinery including trucks, drilling rigs, trailers, etc. will be in operation at the site. The presence of such equipment presents the danger of being struck or crushed. Use caution when working near heavy machinery.

Protective Action:

Make sure that operators are aware of your activities, and heed operator's instructions and warnings. Wear bright colored clothing and walk safe distances from heavy equipment. A hard hat, safety glasses and steel toe shoes are required.

5.2 *Excavation Hazards*

Potential Hazard:

Excavations and trenches can collapse, causing injury or death. Edges of excavations can be unstable and collapse. Toxic and asphyxiant gases can accumulate in confined spaces and trenches. Excavations that require working within the excavation will require air monitoring in the breathing zone (refer to Section 9.0).

Excavations left open create a fall hazard which can cause injury or death.

Protective Action:

Personnel must receive approval from the Project Manager to enter an excavation for any reason. Subsequently, approved personnel are to receive authorization for entry from the Site Safety Officer. Approved personnel are not to enter excavations over 4 feet in depth unless excavations are adequately sloped. Additional personal protective equipment may be required based on the air monitoring.

Personnel should exercise caution near all excavations at the site as it is expected that excavation sidewalls will be unstable. Do not proceed closer than 3 feet to an unsupported or non-sloped excavation side wall.

Fencing and/or barriers accompanied by "no trespassing" signs should be placed around all excavations when left open for any period of time when work is not being conducted.

5.3 *Cuts, Punctures and Other Injuries*

Potential Hazard:

In any excavation and construction work site there is the potential for the presence of sharp or jagged edges on rock, metal materials, and other sharp objects. Serious cuts and punctures can result in loss of blood and infection.

Protective Action:

The Project Manager is responsible for making First Aid supplies available at the work site to treat minor injuries. The Site Safety Officer is responsible for arranging the transportation of authorized on-site personnel to medical facilities when First Aid treatment is not sufficient. Do not move seriously injured workers. All injuries requiring treatment are to be reported to the Project Manager. Serious injuries are to be reported immediately to the Site Safety Officer

5.4 *Injury Due to Exposure of Chemical Hazards*

Potential Hazards:

Contaminants identified in testing locations at the Site include various petroleum-related volatile organic compounds (VOCs). Volatile organic vapors, chlorinated solvents or other chemicals may be encountered during subsurface activities at the project work site. Inhalation of high concentrations of volatile organic vapors can cause headache, stupor, drowsiness, confusion and other health effects. Skin contact can cause irritation, chemical burn, or dermatitis.

Protective Action:

The presence of organic vapors may be detected by their odor and by monitoring instrumentation. Approved employees will not work in environments where hazardous concentrations of organic vapors are present. Air monitoring (refer to Section 9.0) of the work area will be performed at least every 60 minutes or more often using a Photoionization Detector (PID). Personnel are to leave the work area whenever PID measurements of ambient air exceed 25 ppm consistently for a 5 minute period. In the event that sustained total volatile organic compound (VOC) readings of 25 ppm are encountered personnel should upgrade personal protective equipment to Level C (refer to Section 8.0) and an Exclusion Zone should be established around the work area to limit and monitor access to this area (refer to Section 6.0).

5.5 *Injuries due to extreme hot or cold weather conditions*

Potential Hazards:

Extreme hot weather conditions can cause heat exhaustion, heat stress and heat stroke or extreme cold weather conditions can cause hypothermia.

Protective Action:

Precaution measures should be taken such as dress appropriately for the weather conditions and drink plenty of fluid. If personnel should suffer from any of the above conditions, proper techniques should be taken to cool down or heat up the body and taken to the nearest hospital if needed.

6.0 **Work Zones**

In the event that conditions warrant establishing various work zones (i.e., based on hazards - Section 5.0), the following work zones should be established:

Exclusion Zone (EZ):

The EZ will be established in the immediate vicinity and adjacent downwind direction of site activities that elevate breathing zone VOC concentrations to unacceptable levels based on field screening. These site activities include contaminated soil excavation and soil sampling activities. If access to the site is required to accommodate non-project related personnel then an EZ will be established by constructing a barrier around the work area (yellow caution tape and/or construction fencing). The EZ barrier shall encompass the work area and any equipment staging/soil staging areas necessary to perform the associated work. The contractor(s) will be responsible for establishing the EZ and limiting access to approved

personnel. Depending on the condition for establishing the EZ, access to the EZ may require adequate PPE (e.g., Level C).

Contaminant Reduction Zone (CRZ):

The CRZ will be the area where personnel entering the EZ will don proper PPE prior to entering the EZ and the area where PPE may be removed. The CRZ will also be the area where decontamination of equipment and personnel will be conducted as necessary.

7.0 Decontamination Procedures

Upon leaving the work area, approved personnel shall decontaminate footwear as needed. Under normal work conditions, detailed personal decontamination procedures will not be necessary. Work clothing may become contaminated in the event of an unexpected splash or spill or contact with a contaminated substance. Minor splashes on clothing and footwear can be rinsed with clean water. Heavily contaminated clothing should be removed if it cannot be rinsed with water. Personnel assigned to this project should be prepared with a change of clothing whenever on site.

Personnel will use the contractor’s disposal container for disposal of PPE.

8.0 Personal Protective Equipment

Generally, site conditions at this work site require level of protection of Level D or modified Level D; however, air monitoring will be conducted to determine if up-grading to Level C PPE is required (refer to Section 9.0). Descriptions of the typical safety equipment associated with Level D and Level C are provided below:

Level D:

Hard hat, safety glasses, rubber nitrile sampling gloves, steel toe construction grade boots, etc.

Level C:

Level D PPE and full or ½-face respirator and tyvek suit (if necessary). [*Note: Organic vapor cartridges are to be changed after each 8-hours of use or more frequently.*]

9.0 Air Monitoring

Air monitoring shall be completed in accordance with the CAMP. According to 29 CFR 1910.120(h), air monitoring shall be used to identify and quantify airborne levels of hazardous substances and health hazards in order to determine the appropriate level of employee protection required for personnel working onsite. Air monitoring will consist at a minimum of the procedure listed below. Air monitoring instruments will be calibrated and maintained in accordance with the manufacturer’s specifications.

The Air Monitor will utilize a photoionization detector (PID) to screen the ambient air in the work areas (drilling, excavation, soil staging, and soil grading areas) for total Volatile Organic Compounds (VOCs) and a DustTrak aerosol monitor or equivalent for measuring particulates. Work area ambient air will generally be monitored in the work area and downwind of the work area. Air monitoring of the

work areas and downwind of the work areas will be performed at least every 15 minutes using a PID and the DustTrak meter. Refer to the CAMP for action levels and monitoring requirements.

10.0 Emergency Action Plan

In the event of an emergency, employees are to turn off and shut down all powered equipment and leave the work areas immediately. Employees are to walk or drive out of the Site as quickly as possible, wait at the assigned 'safe area' and follow the instructions of the Site Safety Officer.

Employees are not authorized or trained to provide rescue and medical efforts. Rescue and medical efforts will be provided by local authorities.

11.0 Medical Surveillance

Medical surveillance will be provided to all employees who are injured due to overexposure from an emergency incident involving hazardous substances at this site.

12.0 Employee Training

Personnel who are not familiar with this site plan will receive training on its entire content and organization before working at the Site.

Individuals involved with the remedial investigation must be 40-hour OSHA HAZWOPER trained with current 8-hour refresher certification.

Table 1
Exposure Limits and Recognition Qualities

Compound	PEL-TWA (ppm)(b)(d)	TLV-TWA (ppm)(c)(d)	STEL (ppm)(b)	LEL (%) ^(e)	UEL (%) ^(f)	IDLH (ppm)(g)(d)	Odor	Odor Threshold (ppm)	Ionization Potential
Acetone	750	500	NA	2.15	13.2	20,000	Sweet	4.58	9.69
Anthracene	.2	.2	NA	NA	NA	NA	Faint aromatic	NA	NA
Benzene	1	0.5	5	1.3	7.9	3000	Pleasant	8.65	9.24
Benzo (a) pyrene (coal tar pitch volatiles)	0.2	0.1	NA	NA	NA	700	NA	NA	NA
Benzo (a)anthracene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (b) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (g,h,i)perylene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo (k) Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	NA	NA	NA	NA	NA	NA	NA	NA	10.88
Carbon Disulfide	20	1	NA	1.3	50	500	Odorless or strong garlic type	.096	10.07
Chlorobenzene	75	10	NA	1.3	9.6	2,400	Faint almond	0.741	9.07
Chloroform	50	2	NA	NA	NA	1,000	ethereal odor	11.7	11.42
Chrysene	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethylene	200	200	NA	9.7	12.8	400	Acrid	NA	9.65
1,2-Dichlorobenzene	50	25	NA	2.2	9.2		Pleasant		9.07
Ethyl Alcohol	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	100	100	NA	1.0	6.7	2,000	Ether	2.3	8.76
Fluoranthene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropyl Alcohol	400	200	500	2.0	12.7	2,000	Rubbing alcohol	3	10.10
Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene Chloride	500	50	NA	12	23	5,000	Chloroform-like	10.2	11.35
Naphthalene	10, Skin	10	NA	0.9	5.9	250	Moth Balls	0.3	8.12
n-propylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phosphoric Acid	1	1	3	NA	NA	10,000	NA	NA	NA
Polychlorinated Biphenyl	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium Hydroxide	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethane	NA	NA	NA	NA	NA	NA	Sweet	NA	NA
Toluene	100	100	NA	0.9	9.5	2,000	Sweet	2.1	8.82
Trichloroethylene	100	50	NA	8	12.5	1,000	Chloroform	1.36	9.45
1,2,4-Trimethylbenzene	NA	25	NA	0.9	6.4	NA	Distinct	2.4	NA
1,3,5-Trimethylbenzene	NA	25	NA	NA	NA	NA	Distinct	2.4	NA
Vinyl Chloride	1	1	NA	NA	NA	NA	NA	NA	NA
Xylenes (o,m,p)	100	100	NA	1	7	1,000	Sweet	1.1	8.56
Metals									
Arsenic	0.01	0.2	NA	NA	NA	100, Ca	NA	NA	NA
Cadmium	0.2	0.5	NA	NA	NA	NA	NA	NA	NA
Calcium	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	1	0.5	NA	NA	NA	NA	NA	NA	NA
Iron	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	0.05	0.15	NA	NA	NA	700	NA	NA	NA
Mercury	0.05	0.05	NA	NA	NA	28	NA	NA	NA
Selenium	0.2	0.02	NA	NA	NA	Unknown	NA	NA	NA

- (a) Skin = Skin Absorption
- (b) OSHA-PEL Permissible Exposure Limit (flame weighted average, 8-hour): NIOSH Guide, June 1990
- (c) ACGIH - 8 hour time weighted average from Threshold Limit Values and Biological Exposure Indices for 2003.
- (d) Metal compounds in mg/m³
- (e) Lower Exposure Limit (%)
- (f) Upper Exposure Limit (%)
- (g) Immediately Dangerous to Life or Health Level: NIOSH Guide, June 1990.

Notes:

1. All values are given in parts per million (PPM) unless otherwise indicated.
2. Ca = Possible Human Carcinogen, no IDLH information.