



February 13, 2018

Mr. David Locey  
Project Manager  
NYSDEC Division of Remediation  
270 Michigan Avenue  
Buffalo, New York 14203

**Re: 1827 Fillmore Avenue Site, Buffalo, NY (BCP Site No. C915279)  
Supplemental Remedial Investigation (RI) Work Plan**

Dear Mr. Locey:

Benchmark Environmental Engineering and Science, PLLC in association with TurnKey Environmental Restoration, LLC (Benchmark-TurnKey) has prepared this Supplemental RI Work Plan for the implementation of supplemental RI activities at the 1827 Fillmore Avenue Site, BCP Site No. C915279, located in the City of Buffalo, New York (Site). During our January 25, 2018 meeting with the New York State Department of Environmental Conservation NYSDEC (NYSDEC or Department) and New York State Department of Health (NYSDOH), NYSDEC requested further delineation of specific areas of the Site where elevated concentrations of lead, arsenic and polycyclic aromatic hydrocarbons (PAHs) were identified during the initial RI activities and/or a previous Phase II investigation by others. The planned scope of work for this work plan is further described below.

**SUPPLEMENTAL REMEDIAL INVESTIGATION ACTIVITIES**

**Lead Area at RI TP-13**

To further assess for potential hazardous levels of lead identified at RI TP-13, additional test pits will be completed. One (1) test pit will be completed adjacent to the initial TP-13 location for collection of fill samples from 8 to 10 feet below ground surface (fbgs) and 10 to 15 fbgs. Benchmark-TurnKey will attempt to obtain an additional fill sample from 15 to 17 fbgs, which is the approximate maximum reach of the excavator. The fill samples will be analyzed for toxicity characteristic leaching procedure (TCLP) lead.

Four (4) step-out test pits (see attached Figure 1) will be completed approximately 30 feet to the north, south, east and west of TP-13. One (1) sample from each of the test pits will be analyzed for TCLP lead. A second row of four (4) step-out test pits will be completed approximately 60 feet out from TP-13. One (1) sample from each test pit will be collected and placed on hold at the laboratory for potential TCLP lead analysis pending analytical results from the first step-out results. If lead is detected at a concentration greater than 5 milligrams per liter (mg/L) in one (1) or more of the samples, the next corresponding sample from the second row of step-out test pits will be analyzed.

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### **Lead Area at SB-21**

To further assess for potential hazardous levels of lead identified at SB-21 (previous investigation location), additional test pits will be completed similar to the RI TP-13 Area. One (1) test pit will be completed adjacent to SB-21 and samples will be collected from depths of 10 to 12 fbgs and 12 to 16 fbgs for TCLP lead analysis. Benchmark-TurnKey will attempt to obtain an additional fill sample for TCLP lead analysis from 16 to 18 fbgs, which is the approximate maximum reach of the excavator.

Four (4) step-out test pits (see attached Figure 1) will be completed approximately 30 feet to the north, south, east and west of SB-21. One (1) sample from each of the test pits will be analyzed for TCLP lead. A second row of four (4) step-out test pits will be completed approximately 60 feet out from SB-21. One (1) sample from each test pit will be collected and placed on hold at the laboratory for TCLP lead analysis pending analytical results from the first step-out results, similar to the RI TP-13 investigation area.

We note that this supplemental investigation will be completed in close proximity to MW-8 (which had a total lead concentration of 785 milligrams per kilogram (mg/kg) from 14 to 16 fbgs). Therefore, the test pit completed closest to MW-8 (likely from the second row of step-out test pits) will also be analyzed for TCLP lead.

### **Lead Assessment Across Site From Previously Sampled Location**

During the RI, five (5) sample locations were selected for TCLP lead analysis based on their elevated total lead results. As discussed with the Department, Benchmark-TurnKey will analyze six (6) additional samples from the RI for TCLP lead, provided the laboratory has sufficient volume to complete the analysis. Their initial review of retained sample volume indicates that TCLP lead analysis can be completed on the following samples; the Department will be notified if there is a change. Samples were selected to provide additional Site coverage and analysis of varying soil matrices (see attached Figure 1).

- MW-2, 2 to 4 fbgs (total lead concentration – 283 mg/kg): clay fill
- MW-4, 12 to 14 fbgs (125 mg/kg): ash fill
- RI TP-3, 10 to 14.5 fbgs (156 mg/kg): ash fill
- RI TP-14, 10 to 15 fbgs (113 mg/kg): sand fill
- RI TP-26, 12 to 15 fbgs (105 mg/kg): ash fill
- RI TP-27, 7 to 9 fbgs (210 mg/kg): sandy clay fill

### **Arsenic Area at Historic Boring SB-41**

Arsenic was detected at 73 mg/kg at this previous investigation location. One (1) test pit will be completed adjacent to SB-41 and samples will be collected from depths of 6 to 8 fbgs, 8 to 11 fbgs and 11 to 13 fbgs for total arsenic analysis. Four (4) step-out test pits will be completed approximately 30 feet to the north, south, east and west of SB-41 and one (1) sample from each of the test pits will be analyzed for total arsenic (see attached figure). A

second row of four (4) step-out test pits will be completed approximately 60 feet out from SB-41. One (1) sample from each test pit will be collected and placed on hold at the laboratory for total arsenic analysis pending the first set of analytical results.

### **PAH Area in Vicinity of TP-25 and SS-13**

PAHs were detected at concentration greater than 500 mg/kg total PAHs at these two (2) locations. In order to delineate the extent of the elevated PAHs, ten (10) test pits will be completed in this area, which will include two (2) test pits at the original locations of TP-25 and SS-13; these two test pits will be sampled at depths greater than the sample interval where elevated PAH concentrations were identified in the original samples (see attached Figure 1). One (1) sample from each of the ten (10) test pits will be analyzed for PAHs.

### **General Scope of Work Discussion**

We anticipate the supplemental investigation activities discussed above will take approximately to 3 field days to complete. The Department will be notified prior to implementing the supplemental work. Benchmark-TurnKey will oversee the work and create a field logs (including photographs) with geologic description, visual/olfactory observations and field screening results for each test pit location. Real-time air and particulate monitoring will be conducted during intrusive activities using a photoionization detected (PID) and particulate monitor in accordance with the community air monitoring program (CAMP). The excavated soil/fill will be placed on the ground adjacent to the test pits for classification, laboratory analysis, and field screening with a PID equipped a 10.6 eV lamp. The excavated materials will be placed back in to the ground in the general order in which they were removed.

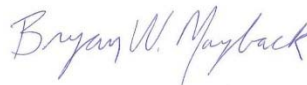
The results of the supplemental investigation activities will be included in the RI/AA Report with the results from initial RI activities.

Please contact us if you have any questions or require additional information.

Sincerely,  
The Benchmark and TurnKey Companies



Michael A. Lesakowski  
Sr. Project Manager/Principal



Bryan Mayback  
Sr. Project Scientist

Attachments:

Figure

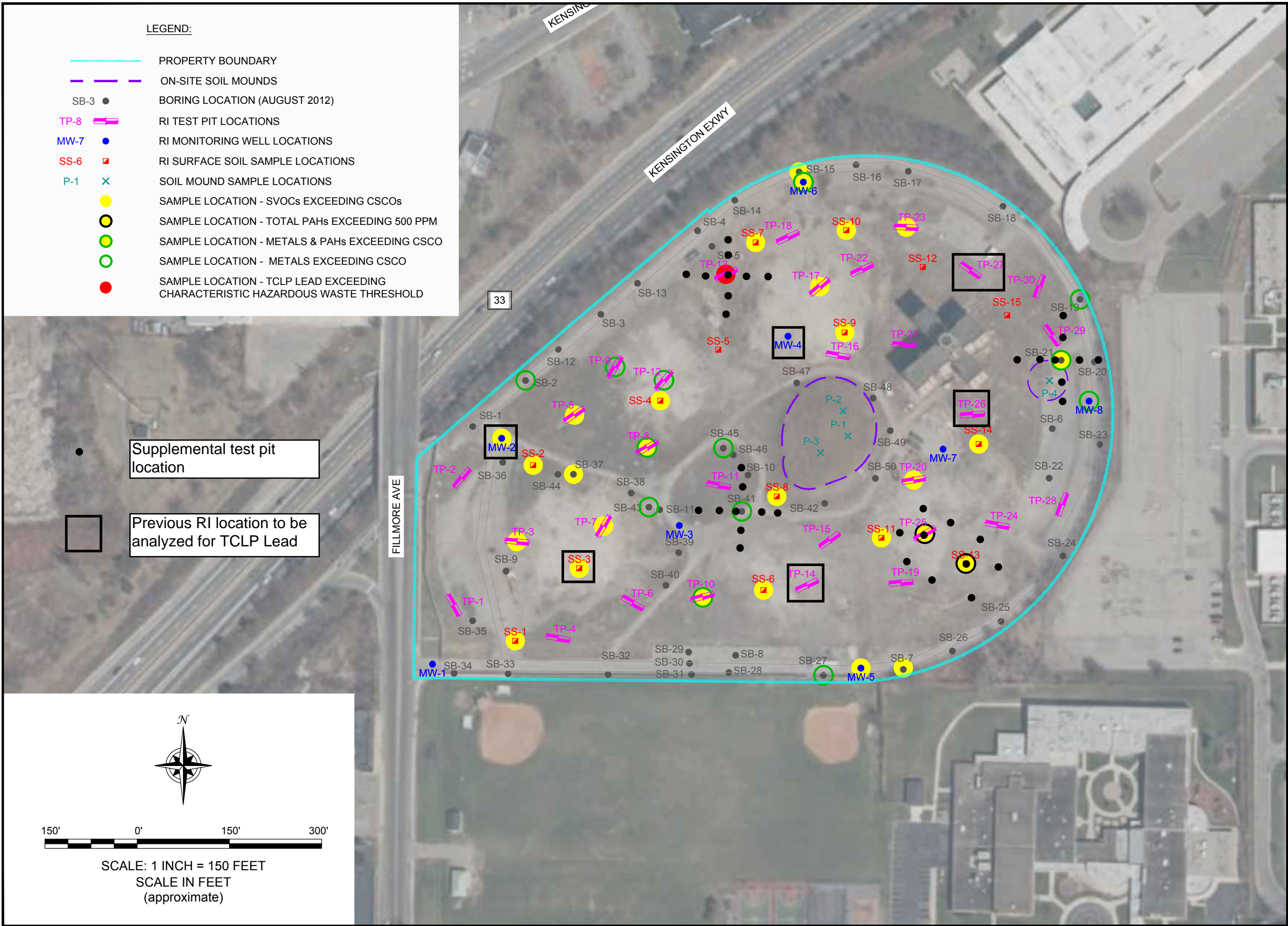
# FIGURE 1

## SUPPLEMENTAL INVESTIGATION PLAN



F:\CAD\Benchmark\Bupp, Baase, Plazgraf & Cunningham\LLC\1827 Fillmore Avenue\04 - RI-AA\Figure 3; RI Sample Locations.dwg

DATE: DECEMBER 2017  
DRAFTED BY: CMC



## SUPPLEMENTAL INVESTIGATION PLAN

1827 FILLMORE AVENUE SITE  
BUFFALO, NEW YORK  
PREPARED FOR  
1827 FILLMORE LLC



JOB NO.: 0421-017-001

FIGURE 1

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