

13 December 2017

Mr. Timothy Schneider
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
Avon, New York 14414-9519

**Subject: Agency Review Draft
Former Sperry Remington Site – North Portion (#808022)
Interim Remedial Measure (IRM) #2 Pre-Design Investigation
777 South Main Street, City of Elmira, Chemung County, NY**

Dear Mr. Schneider:

On behalf of Unisys Corporation (Unisys), Geosyntec Consultants, Inc. and its New York engineering affiliate, Beech and Bonaparte Engineering, P.C. (collectively, Geosyntec) are submitting this Interim Remedial Measure (IRM) #2 Pre-Design Investigation (PDI) Work Plan for the Former Sperry Remington Site – North Portion (Site #808022) (Site) in Elmira, New York. The Site is located at the Elmira High School (EHS) property (formerly known as Southside High School), 777 South Main Street in Elmira, Chemung County, New York (see **Figure 1**). Unisys has been conducting Site Characterization (SC) activities at the Site in accordance with an Order on Consent and Administrative Settlement (Order) with New York State Department of Environmental Conservation (NYSDEC or agency) dated 7 July 2014, the Site Characterization Work Plan (SC Work Plan) dated 29 July 2014 (revised 27 October 2014) and subsequent addenda dated 22 May 2016, 8 January 2016, 9 August 2016, 3 February 2017, and 16 March 2017. The SC Report for the Site was submitted to NYSDEC on 17 May 2017.

On 26 April 2016, Unisys applied to enter the Site into the NYSDEC Brownfields Cleanup Program (BCP) with the consent of Elmira City School District (ECSD). NYSDEC gave an initial determination that the BCP application is complete on 10 June 2016 and received public comments until 22 July 2016. BCP Agreement for the Site were executed on 23 March 2017. In Summer 2017, Unisys conducted an IRM to remove soils containing polychlorinated biphenyls (PCBs) at the EHS main parking lot and tennis courts in coordination with EHS capital improvement program (CIP) construction in accordance with the BCP Agreement and an IRM Work Plan dated 11 July 2017 and conditionally approved on 10 August 2017. Unisys is planning a second IRM (IRM #2) to be conducted in late Spring/Summer 2018 in coordination with EHS CIP construction in the South (Rear) Parking Lot. Review of validated data received to date indicate the need for additional data collection to complete an IRM design. The objectives of this PDI Work Plan are to define the horizontal and vertical limits of PCBs in Site soils that exceed Site Cleanup Objectives (SCOs), and provide waste characterization data for proper disposition of Site soils from the Rear Parking Lot area of the Site.

PROPOSED SCOPE OF WORK

Delineation of PCBs in Soils

The following scope of work is intended to complete delineation of PCBs in soils within areas scheduled for construction by Elmira City School District (ECSD) in 2018 by addressing data gaps identified in previously collected data (**Figure 2**). Historic sampling results are presented in **Tables 1, 2** and **3** for surface (zero to two [0-2] inches below ground surface [bgs]), shallow subsurface (less than two (2) feet bgs) and subsurface soils below two (2) feet bgs soils, respectively.

Figures 3 and **4** present the extent of total PCBs in surface (zero to two [0-2] inches bgs) and shallow subsurface (less than two (2) feet bgs) soils, respectively. Total PCB concentrations in surface and shallow subsurface soil are compared to the Restricted Residential Soil Cleanup Objective (SCO) for total PCBs of one (1) mg/kg and the threshold for PCB remediation waste of fifty (50) mg/kg as defined in 40 CFR §761.3 (TSCA). TSCA limits are not presented as soil cleanup goals but are considered in PCB delineation for identification of those soils that may be classified as hazardous waste containing PCBs as defined in 6 NYCRR Part 371.4 (e). Historic sampling results for these intervals are presented in **Tables 1** and **2**. Proposed shallow subsurface sample locations are presented on **Figure 4** to address data gaps in delineation of total PCBs to one (1) mg/kg for proposed excavation and delineation of total PCBs to fifty (50) mg/kg as the limit of PCB remediation waste. **Table 4** presents the proposed samples and sampling rationale.

Figures 5 to **10** present the extent of total PCBs in subsurface soils below two (2) feet bgs at two-foot (2 ft) intervals to a total depth of fourteen (14) feet bgs and proposed soil sample locations at each interval to address data gaps in the horizontal and vertical delineation of PCBs in soils. Historic sampling results for those intervals are presented in **Tables 3**. Total PCB concentrations in soil are compared to a screening value of ten (10) mg/kg for delineation and to the TSCA limit of fifty (50) mg/kg for PCB remediation wastes. Total PCBs have not been detected above groundwater standards in groundwater samples collected from monitoring wells MW-42, MW-43 and MW-46 (see **Figure 2**). Therefore, comparison to the Protection of Ground Water SCO for total PCBs of 3.2 mg/kg is not considered. Proposed subsurface sample locations are presented on **Figures 5** to **10** to address data gaps in delineation of total PCBs to ten (10) mg/kg for proposed excavation and delineation of total PCBs to fifty (50) mg/kg as the limit of PCB remediation waste. Horizontal data gaps may exist where the distance between two historic samples delineating potential limits of excavation or PCB remediation waste is greater than thirty (30) linear feet. Horizontal data gaps may also exist where historic samples delineating potential limits of excavation or PCB remediation waste concentrations were collected with less than fifty percent (50%) recovery in a given two feet bgs interval. **Table 4** presents the proposed samples and sampling rationale.

Soil sampling below two (2) feet bgs will also be used to pre-delineate the potential bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes. Potential bottom of excavation areas are shown on **Figures 5** to **10**. Limits of excavation are approximate and are subject to change during IRM design. Bottom samples will be collected to provide up to one (1) sample per nine hundred (900) square feet (SF) including historical data. **Table 5** presents the

approximate area of bottom of excavation to be delineated, the maximum number of samples required, the number of historic samples, the number of proposed bottom samples to be collected, and the sampling rationale. The total number of bottom samples may be less than one (1) sample per nine hundred (900) SF based on the level of PCB detections in the two-foot soil interval above with respect to screening values or the dimensions of the area. Note that the boring logs associated with historic samples within each proposed bottom area were examined to determine if the boring recovery met or exceeded fifty percent (50%) within the given two-foot bgs interval. Samples with less than fifty percent (50%) recovery are not considered for the purpose of meeting the one (1) sample per nine hundred (900) SF bottom of excavation area requirement.

Proposed soil sample locations are presented on **Figure 11** and **Table 4**. Soil samples will be collected using direct push technology (DPT) or hand augering (where necessary) in accordance with the SC Work Plan's Quality Assurance Project Plan/Field Sampling Plan (QAPP/FSP). Soil sampling within the first two (2) feet of soil cover will be conducted by collection of a composite shallow soil sample from zero (0) to two (2) feet bgs. Soil sampling in subsurface soils to ten (10) mg/kg below two (2) feet bgs will be conducted by collection of composite samples over two-foot intervals (2 ft) between two (2) and sixteen (16) feet bgs. Sampling intervals for each soil boring location are present in **Table 4**. Soil samples will be submitted to a fixed laboratory for PCB analyses with a standard (10-day) turnaround time (TAT) in accordance with the QAPP/FSP. As presented on **Table 4**, select samples will be held or extracted then held for PCB analysis. Upon receipt of un-validated analytical results, Unisys will identify samples that will be released for analyses. **Table 4** also identifies samples to be analyzed for metals using the toxicity characteristic leaching procedure (TCLP) for waste characterization of PCB remediation waste prior to transport and disposal during the IRM.

Historic soil cores collected during SC activities were scanned with a photoionization detector (PID) in accordance with the QAPP/FSP to screen for volatile organic compounds (VOCs). While several historic boring locations within the Rear Parking Lot Area had elevated PID readings (approximately twenty-five (25) to fifty (50) parts per million (ppm), with one reading near one-hundred and fifty (150) ppm), Unisys does not propose further sampling of VOCs in the Rear Parking Lot Area. The Rear Parking Lot Area coincides with the historic Remington Rand former coal pile area shown in the Preliminary Site Assessment prepared by Dames and Moore in 1988 and is not associated with potential VOC sources. VOC impacts were not identified in the Rear Parking Lot during the SC investigation. VOCs were not detected above Restricted-Residential SCOs in eight (8) borings located the Rear Parking Lot area.

QUALITY ASSURANCE

Sample handling, including sample custody and sample control, will be conducted in accordance with the QAPP/FSP. Quality control samples, including field duplicates, matrix spike/matrix spike duplicates, trip blanks, and equipment blanks, will be collected at the frequency specified in the QAPP/FSP.

HEALTH AND SAFETY

A Site-specific Health and Safety Plan (HASP) was presented in the SC Work Plan and subsequent addenda. Each contractor will be required to prepare a project-specific HASP in accordance with DER-10 to be followed during implementation of the field program.

IDM MANAGEMENT

Solid investigation-derived material (IDM) that will be generated may include disposable personal protection equipment (PPE), disposable sampling equipment, and excavated material. Liquid IDM that will be generated will consist of water generated during decontamination of field equipment, development water, and purge water. Solid and liquid IDM will be stored in on-site fifty-five (55) gallon drums for waste characterization (if necessary) and appropriate off-site disposal in accordance with the QAPP/FSP.

SCHEDULE AND DELIVERABLES

Unisys will commence the implementation of this PDI Work Plan Addendum following receipt of NYSDEC approval. Field work is planned for 2018 in order to complete an IRM work plan and design by March 2018 and mobilize for IRM construction in June 2018. Completion of the work will be dependent on weather conditions and access. Once initiated, Unisys anticipates that soil sample collection will take approximately two to three (2-3) weeks to complete.

Unisys will provide NYSDEC with unvalidated laboratory analytical reports in monthly progress reports following receipt from the laboratory. Data validation will begin upon receipt of all analytical data packages.

Validated soil analytical results will be submitted with the monthly progress following completion of data validation and presented in the IRM Work Plan.

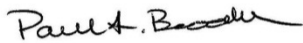
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CLOSING

Geosyntec appreciates the opportunity to submit this work plan to the NYSDEC, NYSDOH and ECSD. If you have any questions, please contact Mr. Kevin Krueger of Unisys at (651) 687-2210.

Sincerely,

Geosyntec Consultants, Inc.



Paul Brookner, P.G.
Principal/Project Director
Geosyntec Consultants, Inc.



Aron Krasnopoler, Ph.D., P.E.
Project Engineer/Project Manager
Beech and Bonaparte Engineering P.C.

Attachments: Figure 1 – Site Map
Figure 2 – Historic Soil Investigation Summary: Rear Parking Lot
Figure 3 – Surface Soil (0-2 in bgs) Sampling Results
Figure 4 – Proposed Soil Investigation - Rear Parking Lot (0-2 ft bgs)
Figure 5 – Proposed Soil Investigation - Rear Parking Lot (2-4 ft bgs)
Figure 6 – Proposed Soil Investigation - Rear Parking Lot (4-6 ft bgs)
Figure 7 – Proposed Soil Investigation - Rear Parking Lot (6-8 ft bgs)
Figure 8 – Proposed Soil Investigation - Rear Parking Lot (8-10 ft bgs)
Figure 9 – Proposed Soil Investigation - Rear Parking Lot (10-12 ft bgs)
Figure 10 – Proposed Soil Investigation - Rear Parking Lot (12-14 ft bgs)
Figure 11 – Proposed Soil Investigation – Proposed Boring Locations
Table 1 – PCB Results for Surface Soil, Rear Parking Lot
Table 2 – PCB Results for Shallow Sub-Surface Soil, Rear Parking Lot
Table 3 – PCB Results for Sub-Surface Soil, Rear Parking Lot
Table 4 – Summary of Proposed Soil Sampling
Table 5 – Potential Bottom Excavation Areas and Proposed Bottom Sampling

Copies to: Bernette Schilling, NYSDEC Kevin Krueger, Unisys
Krista Anders, NYSDOH David Noble, Unisys
Ben Conlon, NYSDEC John H. Paul, Beveridge & Diamond
Michael Cruden, NYSDEC Michael G. Murphy, Beveridge & Diamond
Justin Deming, NYSDOH Michael Dunn– ECSD
Dawn Hettrick, NYSDOH Hillary Austin – ECSD

FIGURES



C:\GIS\Elmira - Monitor\Map\WPEC - AOC's\Site\Chad\Banded\Elm\Figure 2 - Site Map A400.mxd author: 16 May 2017

Notes
 Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 16 May 2017. Image is dated 2 June 2010.

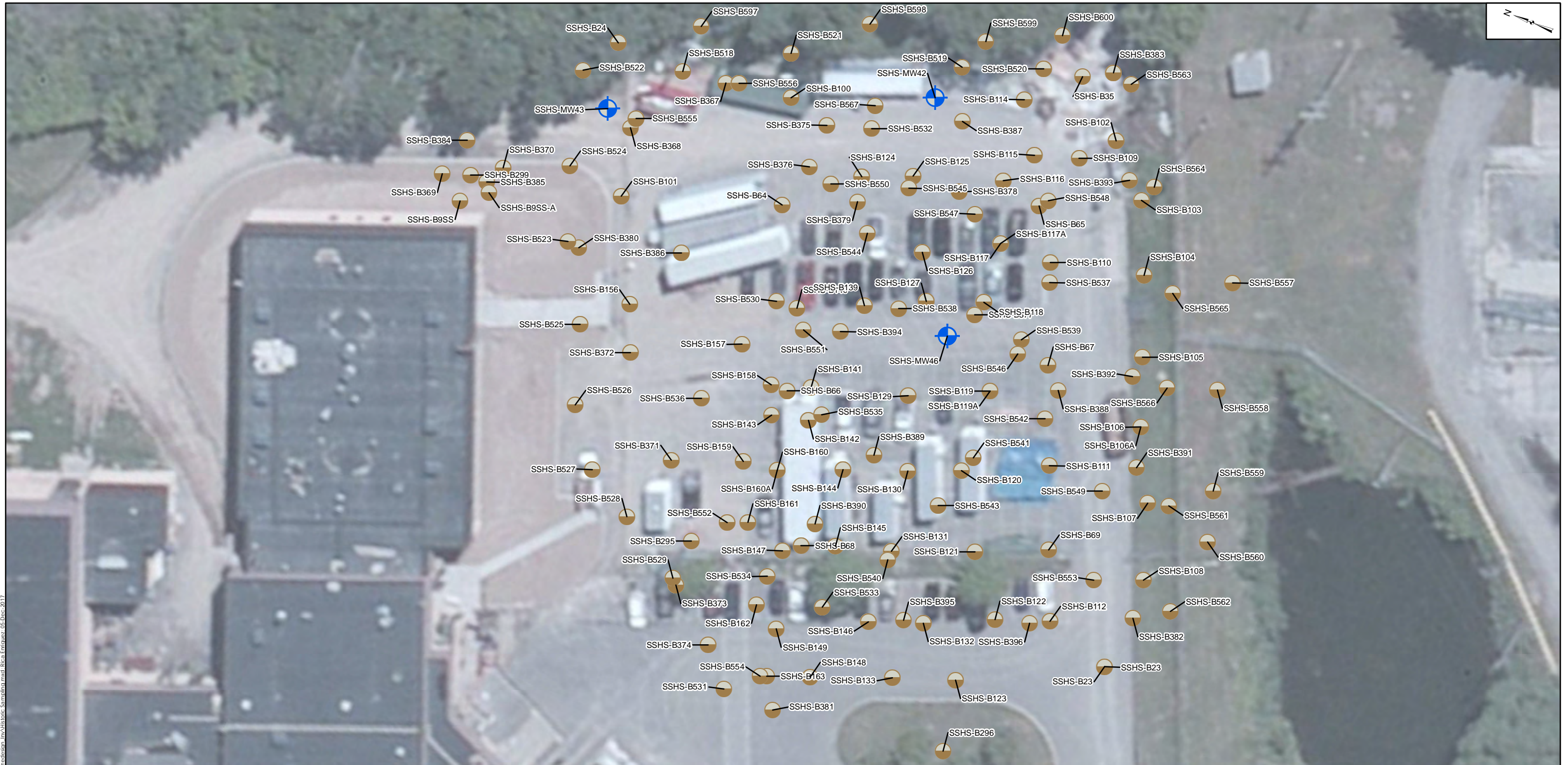


Site Map
 Former Sperry Remington - North Portion #808022
 Elmira, New York



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Figure 1

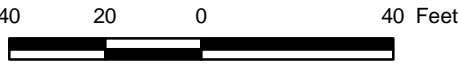



Legend

-  Monitoring Well
-  Soil Sample

Notes:

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 05 December 2017. Image is dated 2 June 2010.

	
<p>Historic Soil Investigation Summary: Rear Parking Lot Former Sperry Remington - North Portion #808022 Elmira, New York</p>	
	
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<p>Figure 2</p>	

\\minneapolis01\DATA\GIS\Elmira - MW\B2\Map\AVP\EC-AG\CA\B2M_2018\B2M_Prod\sshp_in\Historic_Summary.mxd, Rica Erdmeyer, 05-Dec-2017

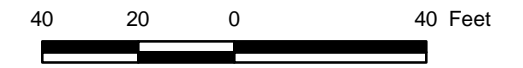


- Legend**
- Total PCB**
- Non-Detect
 - >0 to <1 mg/kg
 - >1 to <10 mg/kg
 - >10 to <50 mg/kg
 - >50 mg/kg

Notes:
 PCB - Polychlorinated Biphenyl
 in bgs - Inches below ground surface
 mg/kg - milligram per kilogram

Screening criteria of soil above 2 feet bgs is the Restricted Residential Soil Cleanup Objective of 1 mg/kg (6 NYCRR Part 375)

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 05 December 2017. Image is dated 2 June 2010.

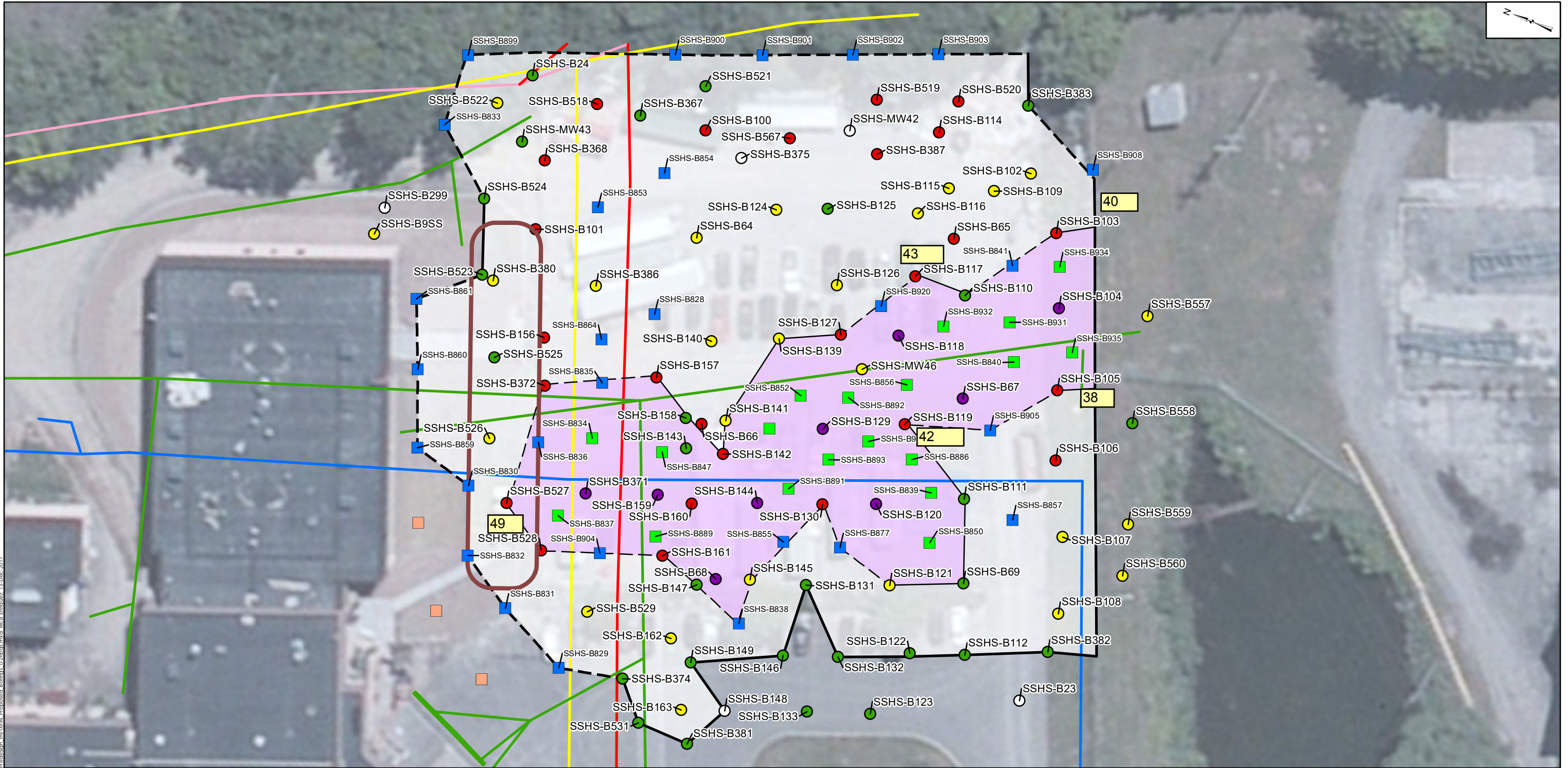


Surface Soil (0-2 in bgs) Sampling Results
 Former Sperry Remington - North Portion #808022
 Elmira, New York



Figure
3

\\minneapolis01\DATA\GIS\Elmira - MW\GIS\Mapas\WPEC - JG\CS\1811_2018\811_Produccion\Imágenes\SoilData.mxd: Bena Estrada, 05 Dec 2017



Legend

Total PCB Concentration	Proposed Sample - Data Gap	Utilities
○ Non-Detect	■ Proposed Sample - TSCA Refinement	— Electric
● >0 to <1 mg/kg	■ Proposed Sample - Extract and Hold	— Gas
● >1 to <10 mg/kg	■ Estimated Limit of PCB Remediation Waste	— Overhead
● >10 to <50 mg/kg	■ Proposed Limits of Excavation	— Stormwater
● >50 mg/kg	— Data Gap	— Water
		■ Bus Canopy Footing Area

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)
 The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Screening criteria of soil above 2 feet bgs is the Restricted Residential Soil Cleanup Objective of 1 mg/kg (6 NYCRR Part 375)

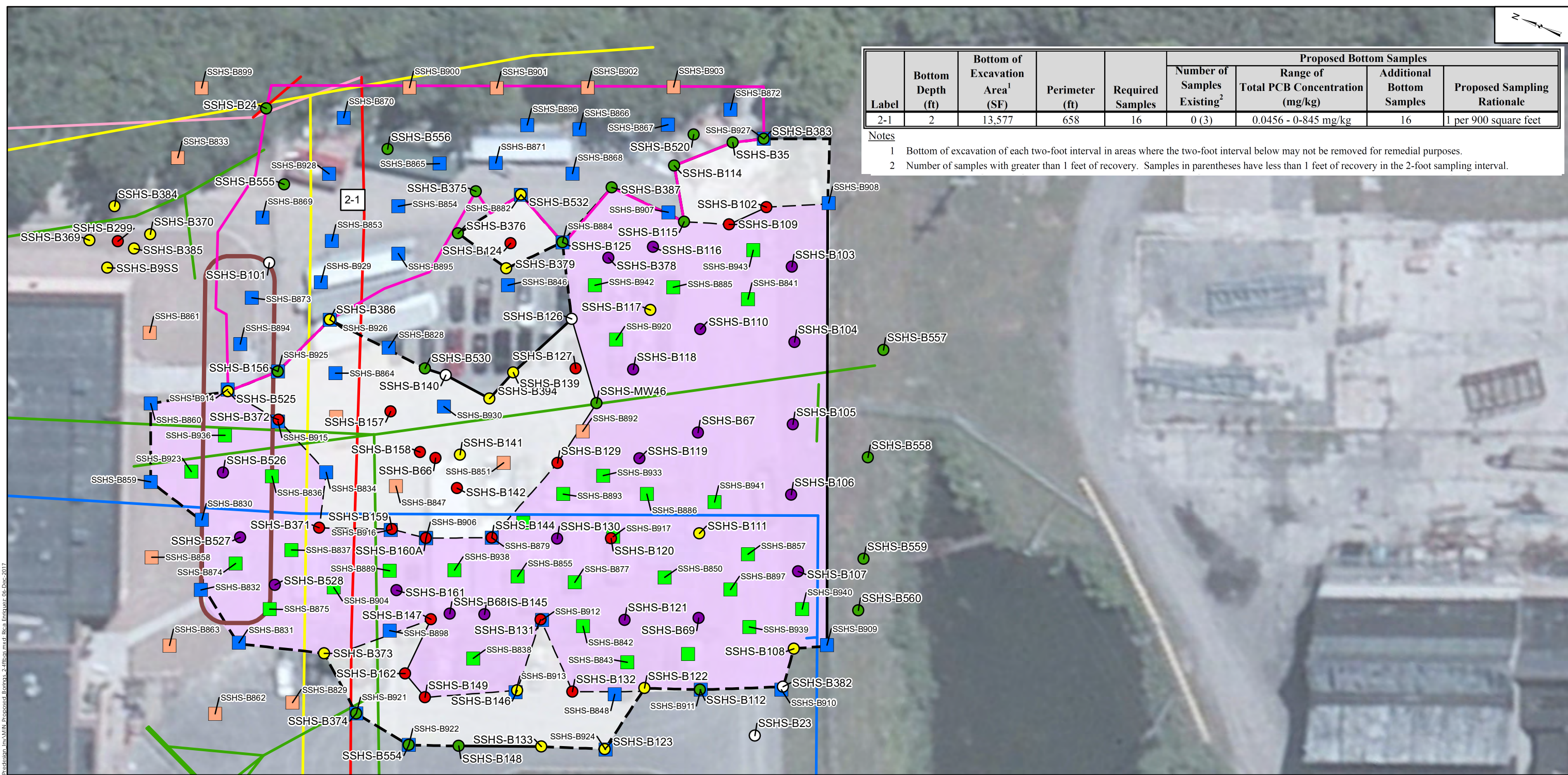
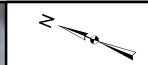
Depicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 13 December 2017. Image is dated 2 June 2010.

<p>40 20 0 40 Feet</p>	
<p>Proposed Soil Investigation - Rear Parking Lot (0-2 ft bgs) Former Sperry Remington - North Portion #808022 Elmira, New York</p>	
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Figure
4

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Label	Bottom Depth (ft)	Bottom of Excavation Area ¹ (SF)	Perimeter (ft)	Required Samples	Proposed Bottom Samples			
					Number of Samples Existing ²	Range of Total PCB Concentration (mg/kg)	Additional Bottom Samples	Proposed Sampling Rationale
2-1	2	13,577	658	16	0 (3)	0.0456 - 0-845 mg/kg	16	1 per 900 square feet

Notes
 1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.
 2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.

Legend

Total PCB Concentration

- Non-Detect
- >0 to <1 mg/kg
- >1 to <10 mg/kg
- >10 to <50 mg/kg
- >50 mg/kg

Proposed Sample - Data Gap (Blue square)

Proposed Sample - TSCA Refinement (Green square)

Proposed Sample - Extract and Hold (Orange square)

Proposed Excavation Bottom (2 ft bgs) (Pink outline)

Estimated Limit of PCB Remediation Waste (Purple shaded area)

Proposed Limits of Excavation (Black outline)

Utilities

- Electric (Red line)
- Gas (Yellow line)
- Overhead (Pink line)
- Stormwater (Green line)
- Water (Blue line)
- Bus Canopy Footing Area (Brown outline)

--- Data Gap (Dashed line)

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram
 ft - feet
 SF - square feet

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)

The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Proposed Cleanup Level – Total PCB concentration of ten (10) mg/kg

Deicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 06 December 2017. Image is dated 2 June 2010.

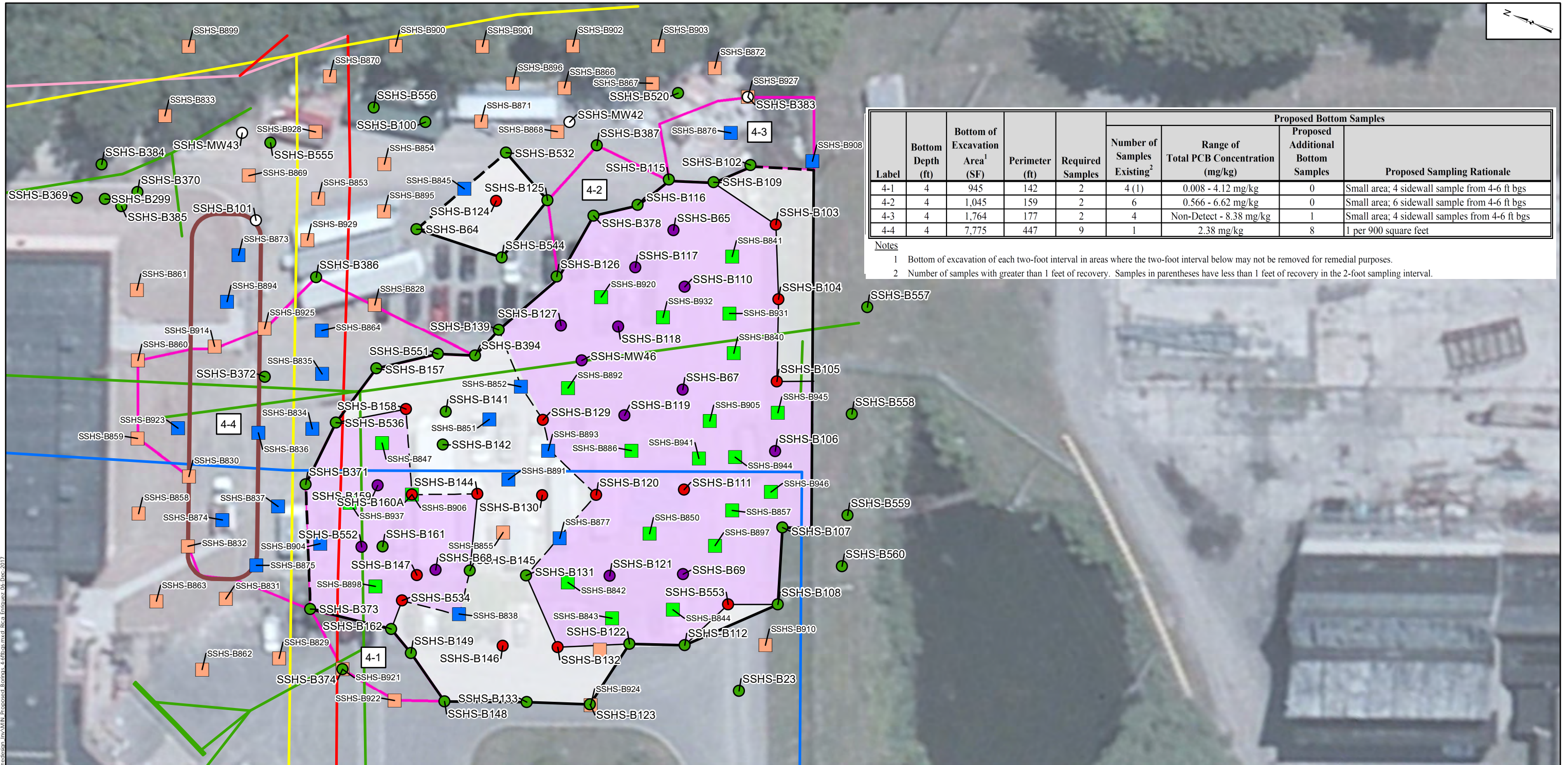
40 20 0 40 Feet

Proposed Soil Investigation - Rear Parking Lot (2-4 ft bgs)
 Former Sperry Remington - North Portion #808022
 Elmira, New York

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Figure
5

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Label	Bottom Depth (ft)	Bottom of Excavation Area ¹ (SF)	Perimeter (ft)	Required Samples	Proposed Bottom Samples			Proposed Sampling Rationale
					Number of Samples Existing ²	Range of Total PCB Concentration (mg/kg)	Proposed Additional Bottom Samples	
4-1	4	945	142	2	4 (1)	0.008 - 4.12 mg/kg	0	Small area; 4 sidewall sample from 4-6 ft bgs
4-2	4	1,045	159	2	6	0.566 - 6.62 mg/kg	0	Small area; 6 sidewall sample from 4-6 ft bgs
4-3	4	1,764	177	2	4	Non-Detect - 8.38 mg/kg	1	Small area; 4 sidewall samples from 4-6 ft bgs
4-4	4	7,775	447	9	1	2.38 mg/kg	8	1 per 900 square feet

Notes:
 1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.
 2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.

Legend

Total PCB Concentration

- Non-Detect
- >0 to 10 mg/kg
- >10 to 50 mg/kg
- >50 mg/kg

Proposed Sample - Data Gap (Blue square)

Proposed Sample - TSCA Refinement (Green square)

Proposed Sample - Extract and Hold (Orange square)

Estimated Limit of PCB Remediation Waste (Purple shaded area)

Proposed Limits of Excavation (Black outline)

Bus Canopy Footing Area (Red outline)

Utilities

- Electric (Red line)
- Gas (Yellow line)
- Overhead (Pink line)
- Stormwater (Green line)
- Water (Blue line)

--- Data Gap (Dashed line)

Proposed Excavation Bottom (4 ft bgs) (Pink outline)

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram
 ft - feet
 SF - square feet

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)

The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Proposed Cleanup Level – Total PCB concentration of ten (10) mg/kg

Depicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 06 December 2017. Image is dated 2 June 2010.

40 20 0 40 Feet

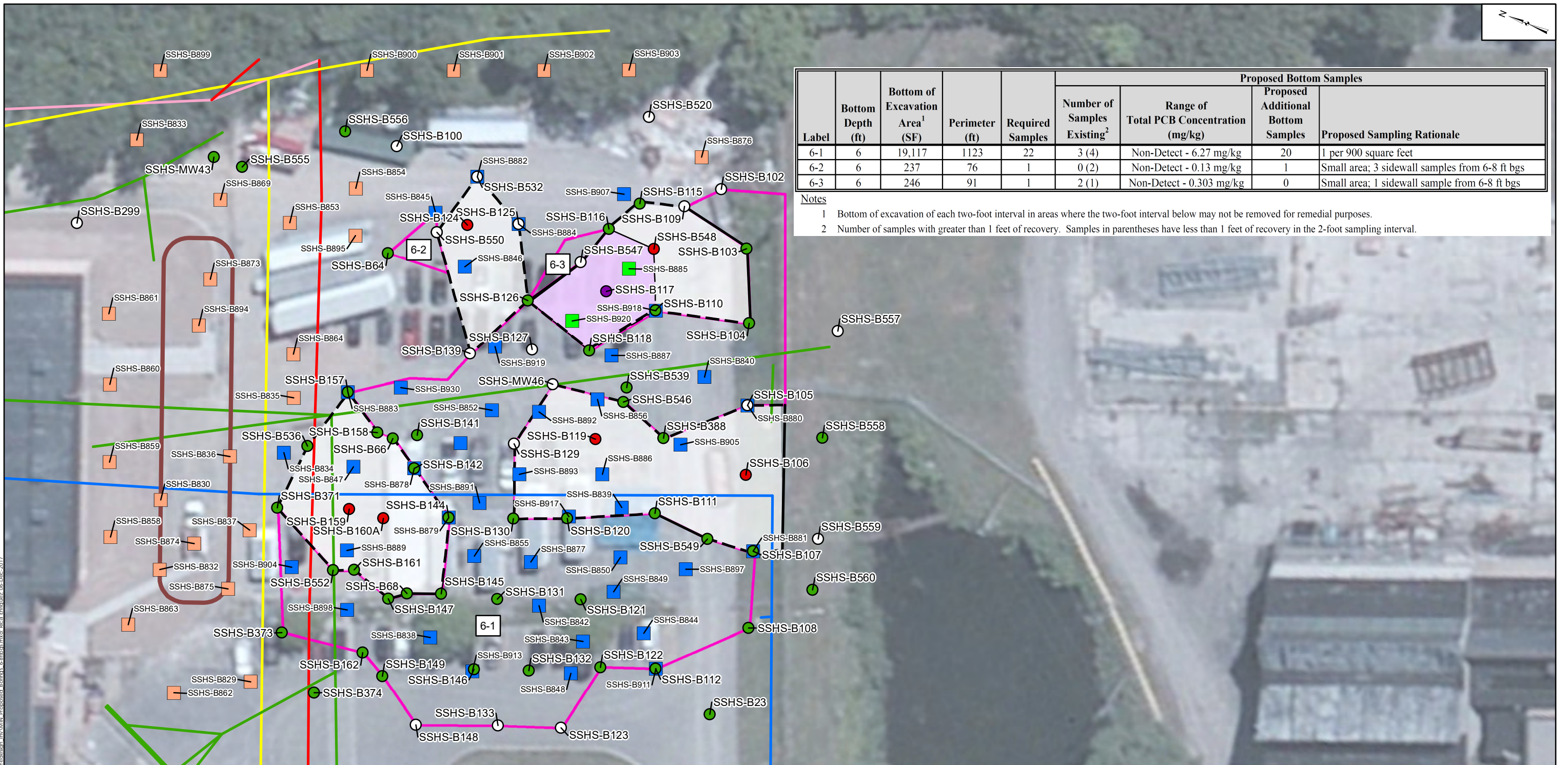
Proposed Soil Investigation - Rear Parking Lot (4-6 ft bgs)
 Former Sperry Remington - North Portion #808022
 Elmira, New York

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Figure
6

X:\mms\06-01\DATA\S\S\Elmira - MMS\S\S\Map\Map\VEG-C-LOG-VEG-2018\SSM - Proposed Remediation - 4-6 ft bgs.mxd; E:\B. Enriquez; 06-Dec-2017



Label	Bottom Depth (ft)	Bottom of Excavation Area ¹ (SF)	Perimeter (ft)	Required Samples	Proposed Bottom Samples			
					Number of Samples Existing ²	Range of Total PCB Concentration (mg/kg)	Proposed Additional Bottom Samples	Proposed Sampling Rationale
6-1	6	19,117	1123	22	3 (4)	Non-Detect - 6.27 mg/kg	20	1 per 900 square feet
6-2	6	237	76	1	0 (2)	Non-Detect - 0.13 mg/kg	1	Small area; 3 sidewall samples from 6-8 ft bgs
6-3	6	246	91	1	2 (1)	Non-Detect - 0.303 mg/kg	0	Small area; 1 sidewall sample from 6-8 ft bgs

Notes

- 1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.
- 2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.

Legend

Total PCB Concentration

- Non-Detect
- >0 to 10 mg/kg
- >10 to 50 mg/kg
- >50 mg/kg

Proposed Sample - Data Gap (Blue square)

Proposed Sample - TSCA Refinement (Green square)

Proposed Sample - Extract and Hold (Orange square)

Estimated Limit of PCB Remediation Waste (Purple shaded area)

Proposed Limits of Excavation (Black outline)

Bus Canopy Footing Area (Red outline)

Data Gap (Dashed line)

Utilities

- Electric (Red line)
- Gas (Yellow line)
- Overhead (Pink line)
- Stormwater (Green line)
- Water (Blue line)

Proposed Excavation Bottom (6 ft bgs) (Pink outline)

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram
 ft - feet
 SF - square feet

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)

The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Proposed Cleanup Level – Total PCB concentration of ten (10) mg/kg

Depicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 06 December 2017. Image is dated 2 June 2010.

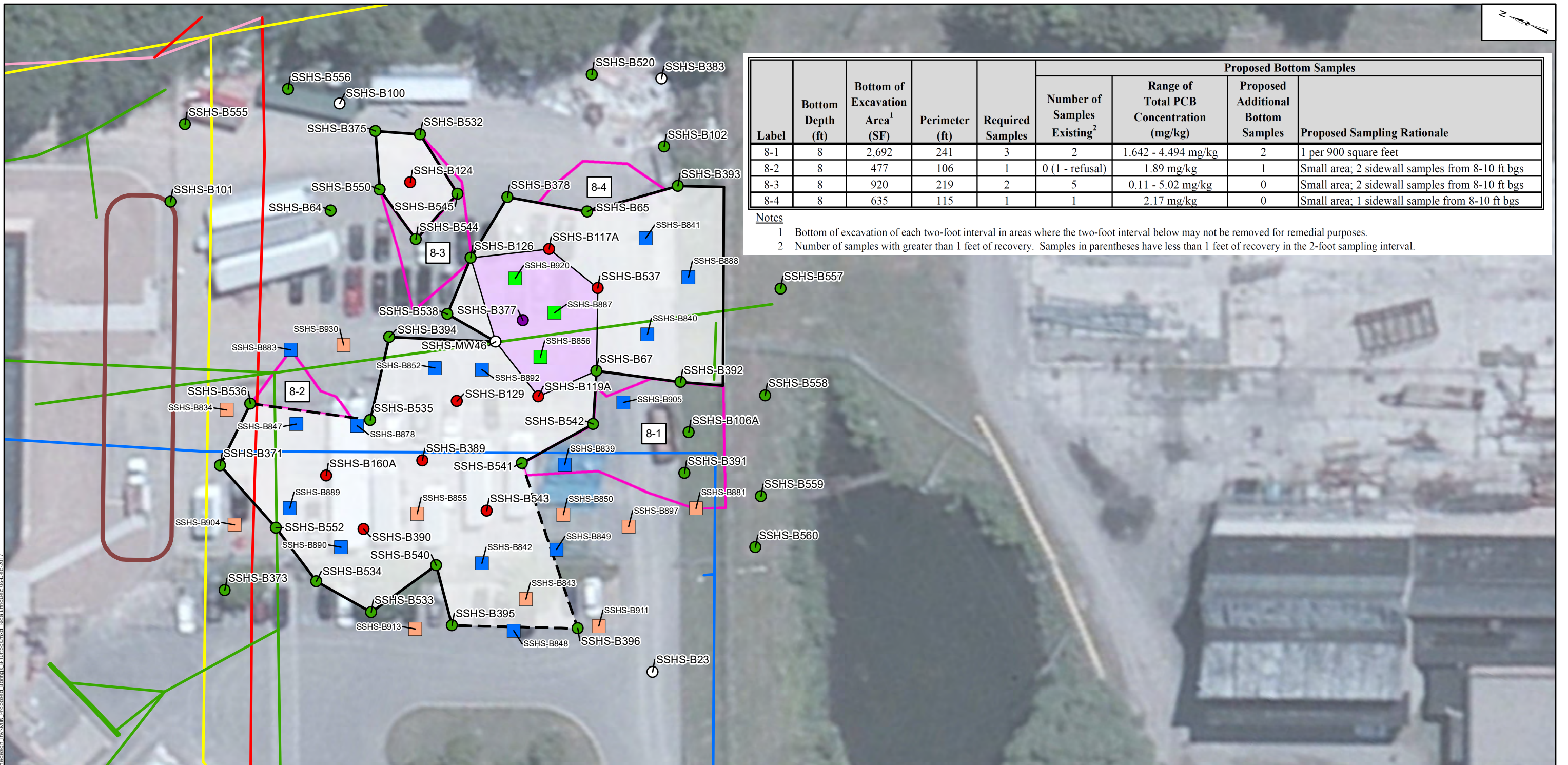
40 20 0 40 Feet

Proposed Soil Investigation - Rear Parking Lot (6-8 ft bgs)
 Former Sperry Remington - North Portion #808022
 Elmira, New York

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Figure 7

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Notes

- 1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.
- 2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.

Legend

○ Non-Detect	■ Proposed Sample - Data Gap	--- Data Gap
● >0 to 10 mg/kg	■ Proposed Sample - TSCA Refinement	Utilities
● >10 to 50 mg/kg	■ Proposed Sample - Extract and Hold	— Electric
● >50 mg/kg	■ Estimated Limit of PCB Remediation Waste	— Gas
□ Proposed Limits of Excavation	■ Bus Canopy Footing Area	— Overhead
		— Stormwater
		— Water
		■ Proposed Excavation Bottom (8 ft bgs)

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram
 ft - feet
 SF - square feet

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)

The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Proposed Cleanup Level – Total PCB concentration of ten (10) mg/kg

Deicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 06 December 2017. Image is dated 2 June 2010.

40 20 0 40 Feet

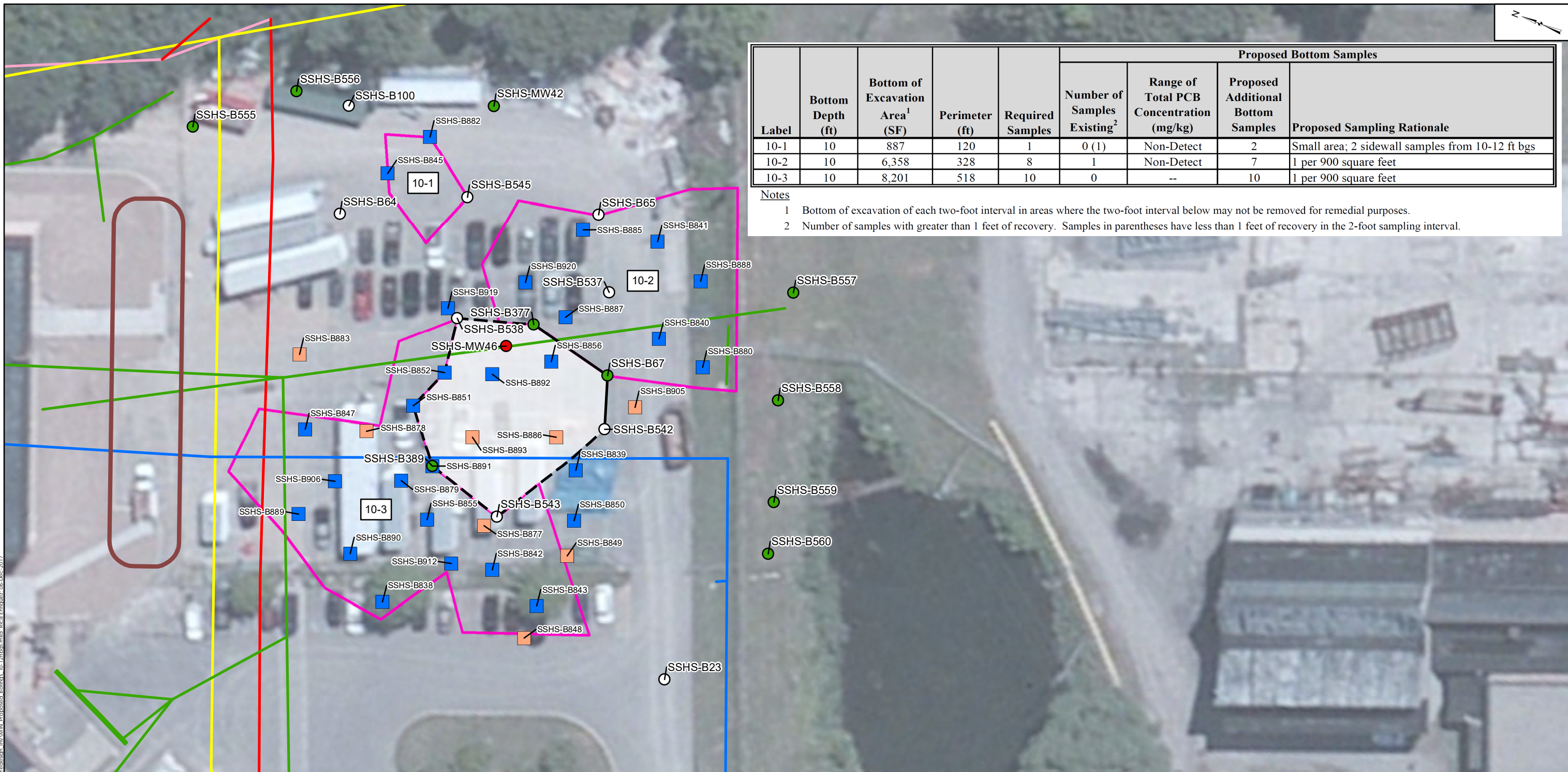
Proposed Soil Investigation - Rear Parking Lot (8-10 ft bgs)
 Former Sperry Remington - North Portion #808022
 Elmira, New York

Columbia, Maryland December 2017

Figure 8

Label	Bottom Depth (ft)	Bottom of Excavation Area ¹ (SF)	Perimeter (ft)	Required Samples	Proposed Bottom Samples			
					Number of Samples Existing ²	Range of Total PCB Concentration (mg/kg)	Proposed Additional Bottom Samples	Proposed Sampling Rationale
10-1	10	887	120	1	0 (1)	Non-Detect	2	Small area; 2 sidewall samples from 10-12 ft bgs
10-2	10	6,358	328	8	1	Non-Detect	7	1 per 900 square feet
10-3	10	8,201	518	10	0	--	10	1 per 900 square feet

Notes
 1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.
 2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.



Legend

- Total PCB Concentration**
 - Non-Detect
 - >0 to 10 mg/kg
 - >10 to 50 mg/kg
 - >50 mg/kg
- Proposed Sample - Data Gap (Blue square)
- Proposed Sample - TSCA Refinement (Green square)
- Proposed Sample - Extract and Hold (Orange square)
- Estimated Limit of PCB Remediation Waste (Purple shaded area)
- Proposed Limits of Excavation (Black outline)
- Bus Canopy Footing Area (Brown outline)
- Utilities**
 - Data Gap (Dashed line)
 - Electric (Red line)
 - Gas (Yellow line)
 - Overhead (Pink line)
 - Stormwater (Green line)
 - Water (Blue line)
 - Proposed Excavation Bottom (10 ft bgs) (Pink outline)

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram
 ft - feet
 SF - square feet

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)

The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Proposed Cleanup Level – Total PCB concentration of ten (10) mg/kg

Depicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 06 December 2017. Image is dated 2 June 2010.

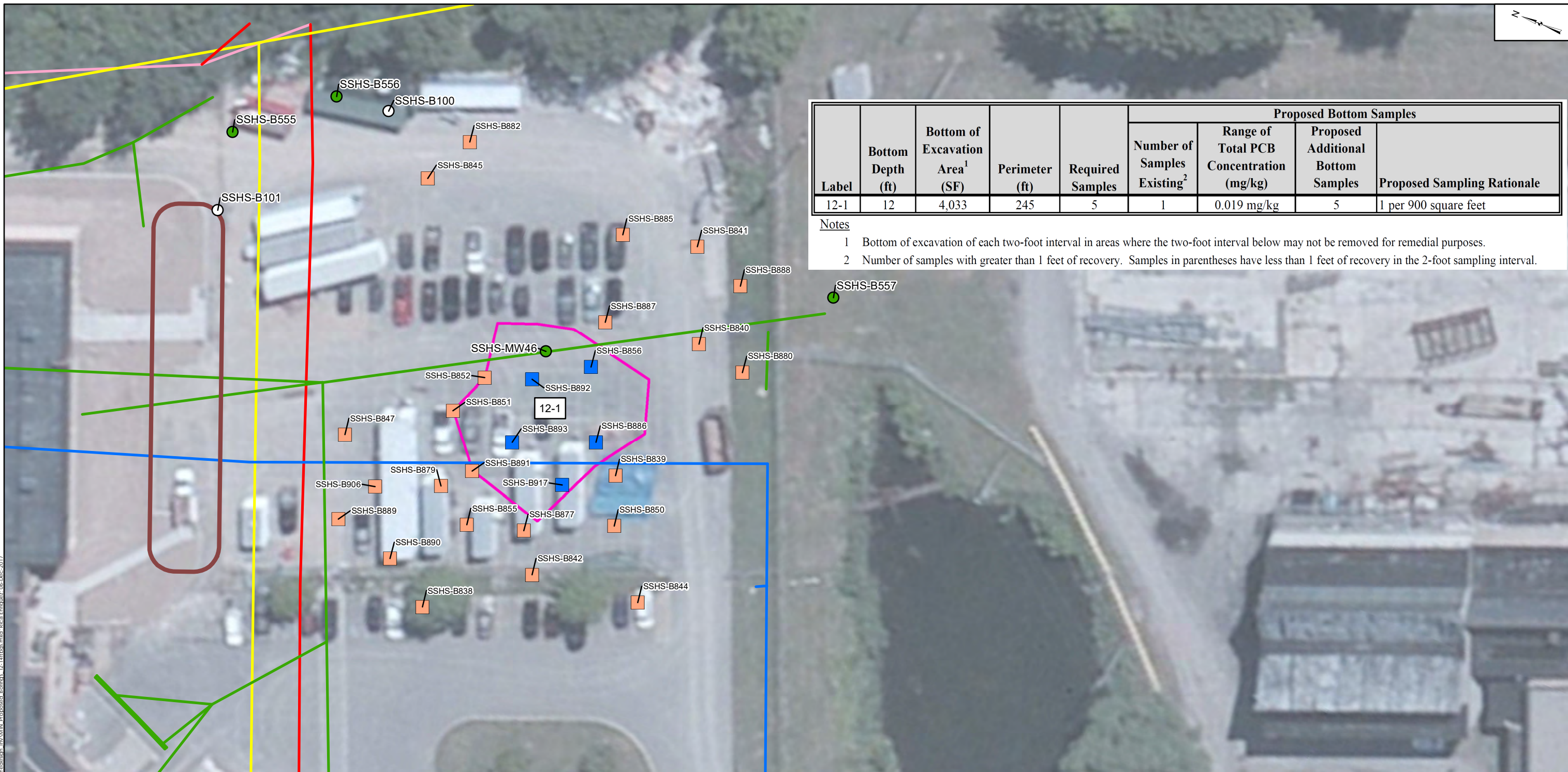
40 20 0 40 Feet

Proposed Soil Investigation - Rear Parking Lot (10-12 ft bgs)
 Former Sperry Remington - North Portion #808022
 Elmira, New York

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 consultants

Figure 9

Columbia, Maryland December 2017



Label	Bottom Depth (ft)	Bottom of Excavation Area ¹ (SF)	Perimeter (ft)	Required Samples	Proposed Bottom Samples			Proposed Sampling Rationale
					Number of Samples Existing ²	Range of Total PCB Concentration (mg/kg)	Proposed Additional Bottom Samples	
12-1	12	4,033	245	5	1	0.019 mg/kg	5	1 per 900 square feet

Notes
 1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.
 2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.

Legend

○ Non-Detect	■ Proposed Sample - Data Gap	--- Data Gap
● >0 to 10 mg/kg	■ Proposed Sample - TSCA Refinement	Utilities
● >10 to 50 mg/kg	■ Proposed Sample - Extract and Hold	— Electric
● >50 mg/kg	■ Estimated Limit of PCB Remediation Waste	— Gas
□ Proposed Limits of Excavation	■ Bus Canopy Footing Area	— Overhead
		— Stormwater
		— Water
		■ Proposed Excavation Bottom (12 ft bgs)

Notes:
 PCB - Polychlorinated Biphenyl
 ft bgs - Feet below ground surface
 mg/kg - milligram per kilogram
 ft - feet
 SF - square feet

PCB Remediation Waste – Total PCB concentration of fifty (50) mg/kg or greater as defined in 40 CFR §761.3 (TSCA)

The extent of PCB Remediation Waste may be revised based on future pre-delineation sampling.

Proposed Cleanup Level – Total PCB concentration of ten (10) mg/kg

Depicted utilities may not be present at this depth interval.

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 06 December 2017. Image is dated 2 June 2010.

40 20 0 40 Feet

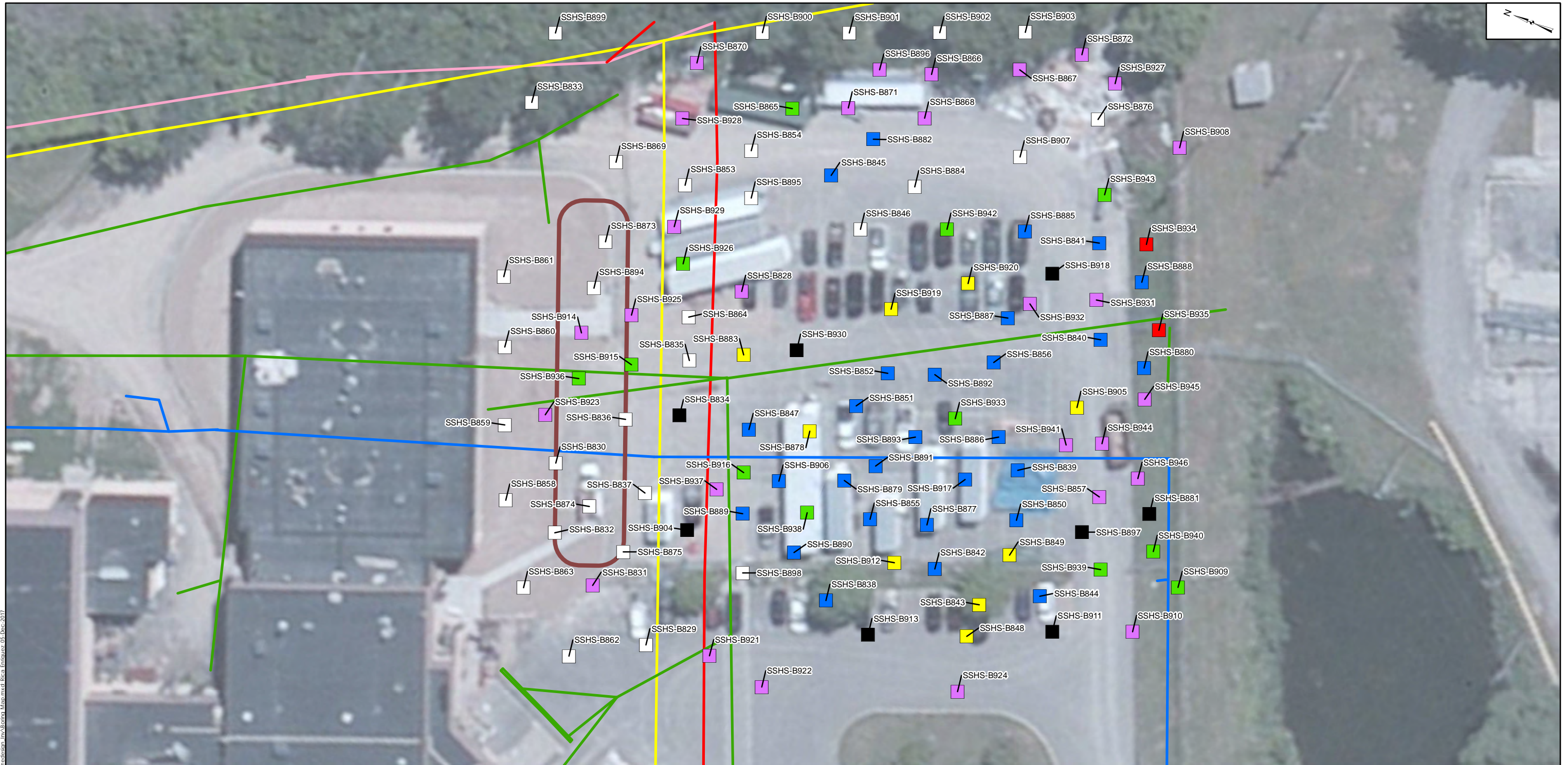
Proposed Soil Investigation - Rear Parking Lot (12-14 ft bgs)
 Former Sperry Remington - North Portion #808022
 Elmira, New York

Geosyntec
 consultants

Columbia, Maryland December 2017

Figure 10

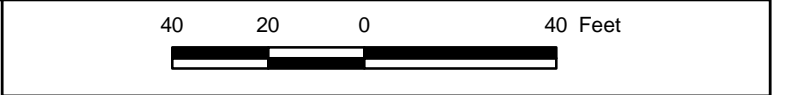
X:\mms\06-01\DATA\GIS\Elmira - MM\828\Map\AVR\GCS\808022\808022_12-14ftbgs.mxd: R:\Elmira\06-01\Dec-2017



Legend	
Proposed Boring	Bus Canopy Footing Area
2 ft bgs	Utilities
4 ft bgs	Electric
6 ft bgs	Gas
8 ft bgs	Overhead
10 ft bgs	Stormwater
12 ft bgs	Water
14 ft bgs	

Notes:
ft bgs - Feet below ground surface

Aerial imagery accessed via ArcGIS Online and provided by Microsoft on 05 December 2017. Image is dated 2 June 2010.



Proposed Soil Investigation - Proposed Boring Locations
Former Sperry Remington - North Portion #808022
Elmira, New York

Geosyntec
consultants

Columbia, Maryland December 2017

Figure
11

X:\minneapolis\01\DATA\GIS\Elmira - MM\B2\Map\AVOC\G:\CO\SRM - 2018\SRM - Prof\srp - Inv\Borings Map\mxd\Rev - Engineer - 05 - Dec-2017

TABLES

TABLE 1
PCB Results for Surface Soil
 Rear Parking Lot
 Former Sperry Remington Site - North
 Elmira, New York

			Arochlor 1016	Arochlor 1221	Arochlor 1232	Arochlor 1242	Arochlor 1248	Arochlor 1254	Arochlor 1260	Arochlor 1268	Arochlor 1262	Total PCBs
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL			0.0013	0.0017	0.0015	0.0014	0.00082	0.0012	0.0012	0.0011	0.0019	
Surface Soil Criteria												1
NYS Hazardous Material												50
Location	Sample Depth Range (ft bgs)	Sampled Date										
SSHS-B23	0-0.25	5/9/2000	<0.039U	<0.039U	<0.039U	<0.039U	0.79D	<0.039U	0.1	-	-	0.89
SSHS-B24	0-0.25	5/9/2000	<0.039U	<0.039U	<0.039U	<0.039U	<0.039U	<0.039U	<0.039U	-	-	0
SSHS-B295	0-0.17	7/24/2015	<0.0036U	<0.0044U	<0.0061U	<0.0045U	0.014J	0.019J	0.0097J	<0.0036U	<0.0065U	0.0427
SSHS-B296	0-0.17	7/21/2015	<0.0038U	<0.0046U	<0.0064U	<0.0047U	0.014J	0.0093J	<0.004U	<0.0037U	<0.0068U	0.0233
SSHS-B35	0-0.25	5/9/2000	<0.041U	<0.041U	<0.041U	<0.041U	0.33	<0.041U	0.097	-	-	0.427
SSHS-B561	0-0.17	9/2/2016	<0.0094U	<0.015U	<0.0052U	<0.0076U	2.2J	1J	0.15J	<0.0039U	<0.0064U	3.35
SSHS-B562	0-0.17	9/2/2016	<0.0084U	<0.013U	<0.0046U	<0.0068U	0.054J	0.047J	<0.0063U	<0.0034U	<0.0057U	0.101
SSHS-B563	0-0.17	9/2/2016	<0.0091U	<0.014U	<0.005U	<0.0073U	0.043J	0.043J	<0.0068U	<0.0037U	<0.0061U	0.086
SSHS-B564	0-0.17	9/2/2016	<0.0098U	<0.015U	<0.0054U	<0.0079U	3.3J	2.1J	0.3J	<0.004U	<0.0066U	5.7
SSHS-B565	0-0.17	9/2/2016	<0.01U	<0.016U	<0.0057U	<0.0084U	2.6J	1.7J	0.28J	<0.0042U	<0.007U	4.58
SSHS-B566	0-0.17	9/2/2016	<0.0099U	<0.016U	<0.0054U	<0.008U	3.6J	2.2J	0.35J	<0.004U	<0.0067U	6.15
SSHS-B597	0-0.17	2/16/2017	<0.012U	<0.012U	<0.0089U	<0.018U	0.011J	0.011J	<0.015U	<0.0069U	<0.016U	0.022
SSHS-B598	0-0.17	2/10/2017	<0.012U	<0.012U	<0.009U	<0.018U	0.062	0.047	0.018J	<0.0069U	<0.016U	0.127
SSHS-B599	0-0.17	2/10/2017	<0.011U	<0.011U	<0.0082U	<0.016U	0.3J	0.29J	0.077J	<0.0063U	<0.015U	0.667
SSHS-B600	0-0.17	2/10/2017	<0.019U	<0.018U	<0.014U	<0.028U	0.14J	0.12J	0.033J	<0.011U	<0.025U	0.293
SSHS-B9SS-A	0-0.17	7/22/2014	<0.0013U	<0.0017U	<0.0015U	<0.0014U	<0.00082U	<0.0012U	<0.0012U	<0.0011U	<0.0019U	0

Notes:

J - estimated value

U - non-detect

D - identified in an analysis at the secondary dilution factor

- - not analyzed

mg/kg - milligram per kilogram

ft bgs - feet below ground surface

PCBs - polychlorinated biphenyls

Concentrations detected above the soil criteria for PCBs (0-2 ft bgs) of 1 mg/kg (NYSDEC CP-51) are presented in grey.

PCB concentrations detected above New York State hazardous waste threshold (6 NYCRR Part 371.4 (e)) are presented in dark grey

TABLE 2
PCB Results for Shallow Sub-Surface Soil
Rear Parking Lot
Former Sperry Remington Site - North
Elmira, New York

Table with 13 columns: Arochlor 1016, Arochlor 1221, Arochlor 1232, Arochlor 1242, Arochlor 1248, Arochlor 1254, Arochlor 1260, Arochlor 1268, Arochlor 1262, Total PCBs. Rows include EQ, Surface Soil Criteria, NYS Hazardous Material, and sample data for locations SSS-B100 to SSS-MW46.

Notes:
J - estimated value
U - non-detect
- - not analyzed
mg/kg - milligram per kilogram
ft bgs - feet below ground surface
PCBs - polychlorinated biphenyls
Concentrations detected above the soil criteria for PCBs (0-2 ft bgs) of 1 mg/kg (NYSDEC CP-51) are presented in grey.
PCB concentrations detected above New York State hazardous waste threshold (6 NYCRR Part 371.4 (e)) are presented in dark grey

TABLE 4
Summary of Proposed Soil Sampling
Former Sperry Remington Site - North Portion
Elmira, New York

Sample Locations	Depth Interval						
	Shallow 0 to 2 ft bgs	Sub 1 2 to 4 ft bgs	Sub 2 4 to 6 ft bgs	Sub 3 6 to 8 ft bgs	Sub 4 8 to 10 ft bgs	Sub 5 10 to 12 ft bgs	Sub 6 12 to 14 ft bgs
SSHS-B828	DG	DG	EH				
SSHS-B829	DG	EH	EH	EH			
SSHS-B830	DG	DG	EH	EH			
SSHS-B831	DG	DG	EH				
SSHS-B832	DG	DG	EH	EH			
SSHS-B833	DG	EH	EH	EH			
SSHS-B834	HW	DG	VG	LR	EH		
SSHS-B835	DG	EH	VG	EH			
SSHS-B836	DG	HW	VG	EH			
SSHS-B837	HW	HW	VG	EH			
SSHS-B838	DG	HW	DG	VG		VG	EH
SSHS-B839	HW			LR	VG	DG	EH
SSHS-B840	HW		HW	VG	DG	VG	EH
SSHS-B841	DG	HW	HW		DG	VG	EH
SSHS-B842		HW	HW	VG	DG	VG	EH
SSHS-B843		HW	HW	VG	EH	VG	
SSHS-B844		HW	HW	VG			EH
SSHS-B845			DG	LR		VG	EH
SSHS-B846		LR		DG			
SSHS-B847	HW	EH	HW	DG	DG	VG	EH
SSHS-B848		LR	EH	VG	DG	EH	
SSHS-B849		WC		VG	DG	EH	
SSHS-B850	HW	HW	HW	VG	EH	VG	EH
SSHS-B851	HW	EH	DG	VG		DG	EH
SSHS-B852	HW		DG	VG	DG	DG	EH
SSHS-B853	DG	VG	EH	EH			
SSHS-B854	DG	VG	EH	EH			
SSHS-B855	DG	HW	EH	VG	EH	VG	EH
SSHS-B856	HW	WC	WC	LR	HW	DG	VG
SSHS-B857	DG	HW	HW				
SSHS-B858	EH	EH	EH	EH			
SSHS-B859	DG	DG	EH	EH			
SSHS-B860	DG	DG	EH	EH			
SSHS-B861	DG	EH	EH	EH			
SSHS-B862	EH	EH	EH	EH			
SSHS-B863	EH	EH	EH	EH			
SSHS-B864	DG	DG	VG	EH			
SSHS-B865		VG					
SSHS-B866		VG	EH				
SSHS-B867		VG	EH				
SSHS-B868		VG	EH				
SSHS-B869		VG	EH	EH			
SSHS-B870		VG	EH				
SSHS-B871		VG	EH				
SSHS-B872		VG	EH				
SSHS-B873		VG	DG	EH			
SSHS-B874		HW	VG	EH			
SSHS-B875		HW	VG	EH			
SSHS-B876			VG	EH			
SSHS-B877	DG	HW	DG	VG		EH	EH
SSHS-B878	WC			LR	VG	EH	
SSHS-B879		LR		LR		VG	EH
SSHS-B880				LR		VG	EH
SSHS-B881				LR	EH		
SSHS-B882		LR		LR		VG	EH
SSHS-B883				LR	VG	EH	
SSHS-B884		LR		LR			
SSHS-B885		HW		HW		VG	EH
SSHS-B886	HW	HW	HW	DG		EH	VG
SSHS-B887				LR	HW	DG	EH
SSHS-B888					DG	VG	EH

TABLE 4
Summary of Proposed Soil Sampling
 Former Sperry Remington Site - North Portion
 Elmira, New York

Sample Locations	Depth Interval						
	Shallow 0 to 2 ft bgs	Sub 1 2 to 4 ft bgs	Sub 2 4 to 6 ft bgs	Sub 3 6 to 8 ft bgs	Sub 4 8 to 10 ft bgs	Sub 5 10 to 12 ft bgs	Sub 6 12 to 14 ft bgs
SSHS-B889	HW	HW		LR	DG	VG	EH
SSHS-B890		WC	WC		DG	VG	EH
SSHS-B891	HW	HW	DG	VG		LR	EH
SSHS-B892	HW	EH	HW	DG	DG	DG	VG
SSHS-B893	HW	HW	DG	DG		EH	VG
SSHS-B894		VG	DG	EH			
SSHS-B895		VG	EH	EH			
SSHS-B896		VG	EH				
SSHS-B897		HW	HW	VG	EH		
SSHS-B898		DG	HW	VG			
SSHS-B899	DG	EH	EH	EH			
SSHS-B900	DG	EH	EH	EH			
SSHS-B901	DG	EH	EH	EH			
SSHS-B902	DG	EH	EH	EH			
SSHS-B903	DG	EH	EH	EH			
SSHS-B904	DG	HW	DG	VG	EH		
SSHS-B905	DG		HW	LR	VG	EH	
SSHS-B906		LR	LR			VG	EH
SSHS-B907		LR		LR			
SSHS-B908	DG	DG	DG				
SSHS-B909		DG					
SSHS-B910		LR	EH				
SSHS-B911		LR		LR	EH		
SSHS-B912		LR				VG	
SSHS-B913		LR		LR	EH		
SSHS-B914		LR	EH				
SSHS-B915		LR					
SSHS-B916		LR					
SSHS-B917		HW		LR			VG
SSHS-B918				LR	WC		
SSHS-B919				VG		LR	
SSHS-B920	DG	HW	HW	HW	HW	VG	
SSHS-B921		LR	EH				
SSHS-B922		LR	EH				
SSHS-B923		HW	VG				
SSHS-B924		LR	EH				
SSHS-B925		LR	EH				
SSHS-B926		LR					
SSHS-B927		LR	EH				
SSHS-B928		VG	EH				
SSHS-B929		VG	EH				
SSHS-B930		DG		VG	EH		
SSHS-B931	HW		HW				
SSHS-B932	HW		HW				

TABLE 4
Summary of Proposed Soil Sampling
 Former Sperry Remington Site - North Portion
 Elmira, New York

Sample Locations	Depth Interval						
	Shallow 0 to 2 ft bgs	Sub 1 2 to 4 ft bgs	Sub 2 4 to 6 ft bgs	Sub 3 6 to 8 ft bgs	Sub 4 8 to 10 ft bgs	Sub 5 10 to 12 ft bgs	Sub 6 12 to 14 ft bgs
SSHS-B933	HW	HW					
SSHS-B934	HW						
SSHS-B935	HW						
SSHS-B936		HW					
SSHS-B938		HW					
SSHS-B939		HW					
SSHS-B940		HW					
SSHS-B941		HW	HW				
SSHS-B942		HW					
SSHS-B943		HW					
SSHS-B944			HW				
SSHS-B945			HW				
SSHS-B946			HW				
SSHS-B937			HW				

Notes:

ft bgs - feet below ground surface

DG - horizontal data gap sample

VG - vertical data gap sample

LR - sample to address data gap from borings with less than 50% recovery within a two foot interval

HW - hazardous material refinement sample

WC - waste characterization sample

EH - extract and hold (or hold) sample

TABLE 5
Potential Bottom Excavation Areas and Proposed Bottom Sampling
Former Sperry Remington Site - North Portion
Elmira, New York

Figure	Label	Bottom Depth (ft)	Bottom of Excavation Area ¹ (SF)	Perimeter (ft)	Required Samples	Proposed Bottom Samples			
						Number of Samples Existing ²	Range of Total PCB Concentration (mg/kg)	Proposed Additional Bottom Samples	Proposed Sampling Rationale
5	2-1	2	13,577	658	16	0 (3)	0.0456 - 0.845 mg/kg	16	1 per 900 square feet
6	4-1	4	945	142	2	4 (1)	0.008 - 4.12 mg/kg	0	Small area; 4 sidewall sample from 4-6 ft bgs
6	4-2	4	1,045	159	2	6	0.566 - 6.62 mg/kg	0	Small area; 6 sidewall sample from 4-6 ft bgs
6	4-3	4	1,764	177	2	4	Non-Detect - 8.38 mg/kg	1	Small area; 4 sidewall samples from 4-6 ft bgs
6	4-4	4	7,775	447	9	1	2.38 mg/kg	8	1 per 900 square feet
7	6-1	6	19,117	1123	22	3 (4)	Non-Detect - 6.27 mg/kg	20	1 per 900 square feet
7	6-2	6	237	76	1	0 (2)	Non-Detect - 0.13 mg/kg	1	Small area; 3 sidewall samples from 6-8 ft bgs
7	6-3	6	246	91	1	2 (1)	Non-Detect - 0.303 mg/kg	0	Small area; 1 sidewall sample from 6-8 ft bgs
8	8-1	8	2,692	241	3	2	1.642 - 4.494 mg/kg	2	1 per 900 square feet
8	8-2	8	477	106	1	0 (1 - refusal)	1.89 mg/kg	1	Small area; 2 sidewall samples from 8-10 ft bgs
8	8-3	8	920	219	2	5	0.11 - 5.02 mg/kg	0	Small area; 2 sidewall samples from 8-10 ft bgs
8	8-4	8	635	115	1	1	2.17 mg/kg	0	Small area; 1 sidewall sample from 8-10 ft bgs
9	10-1	10	887	120	1	0 (1)	Non-Detect	2	Small area; 2 sidewall samples from 10-12 ft bgs
9	10-2	10	6,358	328	8	1	Non-Detect	7	1 per 900 square feet
9	10-3	10	8,201	518	10	0	--	10	1 per 900 square feet
10	12-1	12	4,033	245	5	1	0.019 mg/kg	5	1 per 900 square feet

Notes

1 Bottom of excavation of each two-foot interval in areas where the two-foot interval below may not be removed for remedial purposes.

2 Number of samples with greater than 1 feet of recovery. Samples in parentheses have less than 1 feet of recovery in the 2-foot sampling interval.

ft feet

SF square feet

mg/kg milligrams per kilogram

ft bgs feet below ground surface

PCB polychlorinated biphenyls