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Benjamin R. Weller, PE, CME, CPWM, S-3, C-3

January 12, 2021

#39050-02A

Richard Schwab Township of Delanco 770 Coopertown Road Delanco, NJ 08075

Re: Remedial Investigation Update

200 Ash Street Block 1405, Lot 6

Delanco Township, Burlington County, New Jersey

Dear Mr. Schwab:

Environmental Resolutions, Inc. (ERI) is completing a Remedial Investigation for the above referenced site at the following areas of concern (AOCs):

• AOC #2: Former Powerhouse

• AOC #5: Historic Fill

The Remedial Investigation has included the collection of soil samples for laboratory analysis. Sampling locations are depicted on the attached **Remedial Investigation Map** and laboratory results are summarized in the attached table. The extent of contamination has been delineated. Findings are summarized below with a discussion of potential remedial options.

AOC #2: Former Powerhouse

At AOC #2, benzo(a)pyrene has been detected above the New Jersey Department of Environmental Protection (NJDEP) Residential Soil Remediation Standards (RSRS). The Non-Residential Soil Remediation Standards (NRSRS) has not been exceeded. Based on the Remedial Investigation findings, the extent of the benzo(a)pyrene impacted soil has been delineated to area of 900 square feet and a depth of 7 feet.

This AOC can be remediated to unrestricted standards by excavation and offsite disposal of approximately 225 cubic yards of contaminated soil. The contaminated soil can also be remediated by engineering and institutional controls. The engineering control would consist of a cap and the institutional controls would include a Deed Notice and a Remedial Action Permit.

AOC #5: Historic Fill

The extent of historic fill has been delineated to an area of approximately 5,000 square feet. The fill extends to depths of 6 to 9 feet. Benzo(a)pyrene, benzo(a)anthracene, arsenic and lead have been detected above RSRS and NRSRS.

The presumptive remedy for historic fill is the use of engineering and institutional controls (cap, Deed Notice, and Remedial Action Permit. Based on the redevelopment plans, the appropriate engineering control would be a clean soil cap. During the Remedial Investigation, ERI collected six (6) samples to enable assessment of whether the upper 2-feet of soil within the historic fill area can function as an engineering control. Benzo (a) pyrene was detected above the RSRS in one (1) sample. No other contaminants were detected in the near surface samples above applicable remedial standards. It appears that it may be possible to use averaging to demonstrate compliance with the RSRS. NJDEP approval will be needed to use the existing soil as the engineering control.

ERI is currently evaluating the data using spatially weighted averaging to enable assessment of potential options for remediating to unrestricted standards (RSRS). Preliminarily, it appears that if a 350 square-foot hot spot area is excavated, compliance with RSRS can be achieved. A technical consultation with the NJDEP for this potential remedy will be requested after additional figures and tables are finalized. If approved, it should be possible to remediate this AOC to unrestricted standards by the excavation and disposal of approximately 125 cubic yards of soil.

Remedial Alternatives

As indicated above, soil at both AOCs can be remediated by engineering and institutional controls. Based on the redevelopment plans, it appears that a clean soil cap will be the appropriate engineering control for both AOCs. It also appears that the NJDEP may approve the use of the existing upper 2-feet of soil as the engineering control. If not, the import of clean soil will be needed during site construction. A Response Action Outcome restricted by a Remedial Action Permit would be issued at completion. Permit compliance requirements would include annual NJDEP fees, annual LSRP inspections, and biennial certifications. Permit compliance costs are estimated at \$2,000 per year.

Alternatively, if the NJDEP approves a hot spot remedy for the Historic Fill AOC, it should be possible to remediate to unrestricted standards by the excavation and disposal of approximately 350 cubic yards of soil. An unrestricted Response Action Outcome would be issued after remediation is completed. The additional cost for this remedy is estimated at \$30,000.

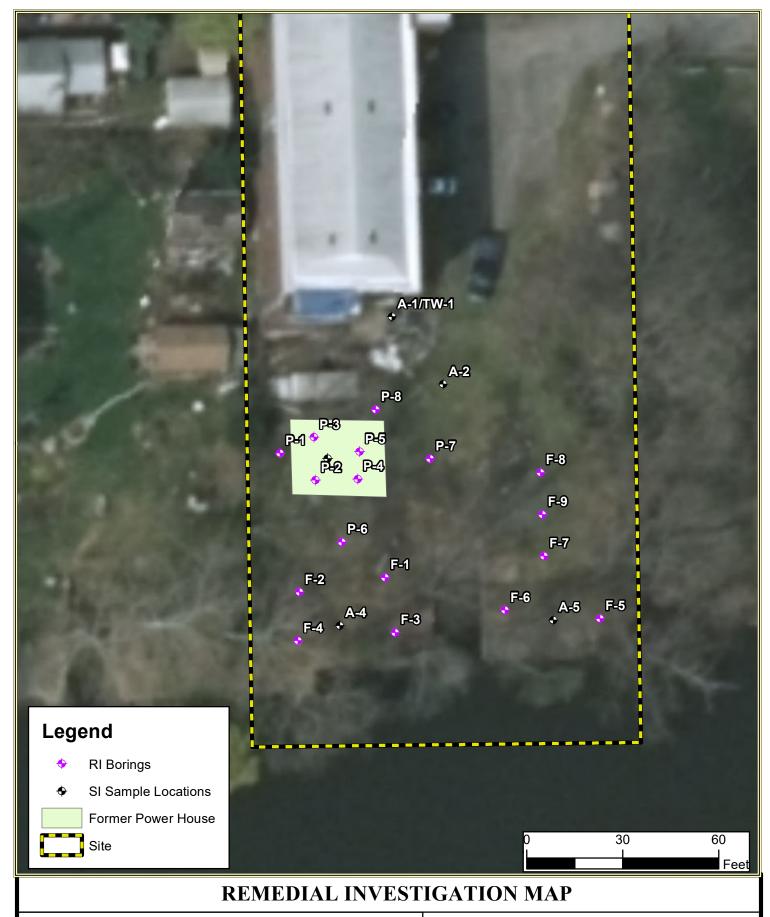
The above costs do not include engineering and LSRP oversight and NJDEP reporting, which will be similar for both remedies. Please call if you have any questions regarding this project.

Sincerely,

Environmental Resolutions, Inc.

Marc H. Selover, LSRP, PG

Principal





BASEMAP SOURCE:

http://njwebmap.state.nj.us/njimagery? Natural2015

SCALE: 1 INCH = 30 FT



200 ASH STREET
BLOCK 1405, LOT 6
DELANCO TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

ENVIRONMENTAL RESOLUTIONS, INC.

Table 2Soil Analytical Results- Detections
200 Ash St
Delanco Township, Burlington County, NJ

Sample ID	Sampling Date	Sample Depth (ft-bgs)	Benzo(a)pyrene	Benzo(a)anthracene	Arsenic	Lead
RSRS			0.5	5	19	400
NRSRS		2	17	19	800	
A-3B	2/18/2020	3.5-4	0.55	0.56	NA	NA
A-3C	2/18/2020	7-7.5	0.064	0.080	NA	NA
P-1	9/24/2020	3.5-4	0.093	0.090	NA	NA
P-2	9/24/2020	3.5-4	1.2	1.0	NA	NA
P-3	9/24/2020	3.5-4	0.11	0.099	NA	NA
P-4	9/24/2020	3.5-4	0.86	0.81	NA	NA
P-5	9/24/2020	3.5-4	0.34	0.24	NA	NA
P-6A	9/24/2020	3.5-4	0.046	0.047	4.0	25.2
P-6B	9/24/2020	7-7.5	0.12	0.073	48.1	64.7
P-7	9/24/2020	3.5-4	0.040	0.037 J	NA	NA
P-8	9/24/2020	3.5-4	0.047	0.046	NA	NA
A-4B	2/18/2020	4-4.5	94	110	17.8	2,290
A-5B	2/18/2020	4-4.5	0.19	0.24	6.6	111
F-1A	9/24/2020	0.5-1	1.2	0.96	6.8	102
F-1B	9/24/2020	4.5-5	0.013 U	0.017 U	6.6	63.1
F-1C	9/24/2020	8-8.5	0.011 U	0.014 U	2.3	7.1
F-2A	9/24/2020	1-1.5	0.14	0.12	6.5	37.6
F-2B	9/24/2020	4-4.5	0.27	0.27	10.4	174
F-3	9/24/2020	6.5-7	0.017 J	0.026 J	10.8	1,270
F-4A	9/24/2020	1.5-2	0.47	0.42	NA	NA
F-4B	9/24/2020	4.5-5	0.010 U	0.013 U	3.7	7.9
F-5A	9/24/2020	1.5-2	0.12	0.10	6.5	86.4
F-5B	9/24/2020	4.5-5	0.92	0.65	11.1	246
F-6	9/24/2020	4.5-5	0.20	0.19	10.8	311
F-7A	9/24/2020	0.5-1	0.043	0.035 J	6.3	113
F-7B	9/24/2020	4.5-5	0.58	0.37	6.1	340
F-8	9/24/2020	4.5-5	0.010 U	0.014 U	4.7	20
F-9A	9/24/2020	0.5-1	0.16	0.12	NA	NA
F-9B	9/24/2020	3.5-4	0.22	0.20	48.5	227

All reported units in mg/kg

U = Not detected

J= Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

NA = Not Analyzed

Exceeds Residential Soil Remediation Standard (RSRS)

Exceeds Non-Residential Soil Remediation Standard (NRSRS)