Response Action Plan

Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

AEC Project No. 20-021
March 6, 2020

Prepared for:

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And

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1.0 SITE OVERVIEW

1.1 Introduction

At the request of 400 Church Owner, LLC ("Client'), AEC has prepared a Response Action Plan (RAP) for the property at 400 East Church Street, Frederick, Maryland (i.e. the "Site"). The property is identified as Property ID 0414 0000 1329A and is 2.6799 acres in size. The property is developed with an 81,632 square-foot, two-story warehouse that most recently served as a donation center and warehouse for Goodwill Industries. Current plans are to rehabilitate the structure into a multifamily apartment building.

A Site Vicinity Map is included as Figure 1 in Appendix A. A Site Plan depicting Site features is included as Figure 2 in Appendix A.

Relatively low concentrations of metals (particularly arsenic) and some polycyclic aromatic hydrocarbons (PAHs) are present in the shallow soils at levels exceeding Maryland Department of the Environment (MDE) Residential Soil Cleanup Criteria. These constituents are typical of industrial/urban land and burning of coal that likely historically occurred at the Site.

PAHs were found at higher levels in deep soil within the western portion of the Site. In addition, groundwater in this area was found to be impacted with volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) at levels above MDE Cleanup Standards. These impacts are believed to be the result of historic petroleum storage and manufactured gas operations at the adjacent former Frederick Gas Works property.

On November 22, 2019 AEI Consultants (AEI) submitted a Voluntary Cleanup Program (VCP) application to the MDE on behalf of 400 Church Owner, LLC for the Site parcel. In a letter, dated December 23, 2019, the MDE accepted the property into the VCP with a Tier 1B (Restricted Residential) future property use and confirmed 400 Church Owner, LLC as the responsible party. The MDE required that a RAP be developed, approved by MDE, and implemented to address elevated levels of TPH, PAHs, and Priority Pollutant Metals in soil and groundwater at the property. On January 14, 2020, 400 Church Owner, LLC informed the MDE VCP/Brownfields Division that it intends to proceed as a participant in the VCP.

1.2 Site Description

The Site consists of a 2.6799-acre parcel, identified as Property ID 0414 0000 1329A, and addressed as 400 East Church Street, Frederick, Maryland. The Site is located east of the intersection of East Church Street and East 2nd Street. The Site is developed with a 81,632 square-foot, two-story warehouse with a partial crawlspace that was originally developed in 1891 with additions constructed from 1905 through 1947. The building consists of offices, storage rooms, retail areas, restrooms, vacant spaces, utility areas, and warehouse areas. Additionally, the property consists of a shed and asphalt paved parking areas. Former railroad spurs are on the southeast and western portions of the Site. Sanborn fire insurance maps dated 1952 and 1971 illustrate three oil tanks along the western boundary of the Site. This area was also identified as a storage location for paints and aerosol containers during Site reconnaissance conducted during prior Phase I Environmental Site Assessments (ESAs).

Three additional oil tanks area also illustrated on Sanborn maps within the northwest corner of the Site in 1904 and 1911. Goodwill Industries most recently occupied the Site until May 2019 and operated the Site as a donation center and warehouse. The building is currently vacant.

The Site vicinity consists of residential, commercial, and industrial development. The Site is bordered to the northwest by East Church Street followed by single family residences and a pub. Properties adjacent to the northeast are a pet groomer and two multi-tenant commercial properties consisting of offices, a restaurant, and warehouse space. The Potomac Edison utility company occupies the area adjacent to the southeast, which consists of a storage yard and offices. Yellow Cab of Frederick is adjacent to the southwest.

Public utilities, including potable water and sanitary sewer services provided by the City of Frederick, natural gas, and electricity are available to the Site and vicinity.

1.3 Site History

The structure was initially developed in 1891, with additions constructed from 1905 through 1947. The property was occupied by the Ox Fibre Brush Company, initially Palmetto Fibre Company, since 1891. Ox Fibre developed the Site for the manufacture of machinery to produce brush filling fiber and for the manufacturing of fiber brushes. The building housed offices, a machine shop, fiber and frame storage; filling, brush cleaning, and drilling operations, with expansions for varnishing and packing. The property served as a donation center and warehouse for Goodwill Industries beginning in 1970 through May 2019.

1.4 Previous Investigatory Information

AEC has prepared a summary of the following previous investigations or reports for the Site.

1) ICOR, ltd (ICOR), Phase I Environmental Site Assessment, Goodwill Property, 400 E. Church Street, Frederick, Maryland, dated June 27, 2017
2) ICOR, Subject: Phase II Site Assessment – Findings, 400 E Church Street, Frederick, Maryland, dated January 17, 2018
3) AEI, Limited Phase II Subsurface Investigation, Property Identification: Goodwill Industries, 400 East Church Street, Frederick, Maryland 21701, dated December 14, 2018
4) AEI, Phase I Environmental Site Assessment, Property Information: Goodwill Industries, 400 East Church Street, Frederick, Frederick County, Maryland 21701, dated March 21, 2019
5) AEI, Phase I Environmental Site Assessment, Property Information: Ox Fibre Apartments, 400 East Church Street, Frederick, Frederick County, Maryland 21701, dated October 29, 2019
6) AEI, Limited Phase II Subsurface Investigation, Property Identification: Ox Fibre Apartments, 400 East Church Street, Frederick, Maryland 21701, dated October 29, 2019
7) MDE, Re: Voluntary Cleanup Program Application, Ox Fibre Apartments, 400 East Church Street, Frederick, Maryland 21701, dated December 23, 2019

1) ICOR, ltd (ICOR), Phase I Environmental Site Assessment, Goodwill Property, 400 E. Church Street, Frederick, Maryland, dated June 27, 2017

At the time of the June 2017 Phase I ESA, completed by ICOR, the Site was occupied by Goodwill Industries and consisted of office areas, warehouse spaces, off-limit areas, a maintenance shed, and a small space for meetings. One section of the building had been declared uninhabitable due to structural degradation and instability.

Historical research identified the Site as the Ox Fibre Brush Company – Frederick Plant from the 1850s through the 1950s. Maps from 1940 and 1952 indicated the presence of a railroad spur within the eastern portion of the Site property connecting the Site to the south. The 1952 map illustrated three, 10,000-gallon, fuel oil tanks located centrally along the western border; although, it is not known whether these tanks were below or above ground.

Historical research also identified the former Frederick Town Gas property adjacent to the west with a large holding tank. This western adjacent property was formally the Frederick Town Gas site and is listed on multiple environmental regulatory databases including Brownfields, Comprehensive Environmental Response, Compensation, Liability, Information System (CERCLIS) - No Further Remedial Action Planned (NFRAP), Underground Storage Tank (UST), Facility Index System (FINDS), Hazardous Waste Sites (HWS), State Master List (SML), Oil Control Program (OCP), Resource Conservation and Recovery Act (RCRA) Small Quantity Generator (SQG), and Historical UST databases. Operations at this property historically consisted of gasification of coal and natural gas storage and supply since between 1875 and 1884. Much of the plant was demolished between 1955 and 1959. In 1985 the State of Maryland conducted a Preliminary Assessment of the property. The report cited unknown disposal practices and possible spillage as reasons for further study. By the late 1980s to early 1990s, environmental investigations indicated contamination in the soil and groundwater, including free-phase coal tar product. In 1994, a recovery system was installed and implemented. Currently, tar is recovered semi-annually. As of April 2002, over 500 gallons of tar have been recovered. Groundwater monitoring of VOCs, semivolatile organic compounds (SVOCs), cyanide, and metals is also being conducted annually.

The environmental regulatory records review identified OCP case #90-2812FR as associated with the Site. The case was listed as “closed” and related to a release from an aboveground storage tank (AST) that occurred in January 1990. The listing indicates a cleanup was performed.

Based on the assessment, ICOR identified the following recognized environmental conditions (RECs) for the Site:

- The on-Site railroad spur on southeastern portion of the site.
- Three former 10,000-gallon fuel oil tanks along the western border of the site.
- The former Frederick Town Gas property adjacent to the west, which is a MDE Brownfield with impacted soil and groundwater.

ICOR identified the following historical REC (HREC):

- OCP case #90-2812FR which is listed as “closed” and relates to a release from an AST that occurred in January 1990.

ICOR recommend conducting a Phase II subsurface investigation to determine if the subsurface at the Site had been impacted by the above listed RECs.

2) ICOR, Subject: Phase II Site Assessment – Findings, 400 E Church Street, Frederick, Maryland, dated January 17, 2018

ICOR conducted a Phase II site assessment at the Site on August 16, 2017. Borings were completed at eight locations within the western portion of the property in the vicinity of the three former 10,000-gallon fuel oil tanks and near the border with the former Frederick Town Gas property. Soil samples were collected for laboratory analysis at depths determined by photoionization detector (PID) readings and field observations. Groundwater samples were collected from two borings.

In general, the upper five feet consisted of fill material. Groundwater was noted within fractures in the weathered bedrock at depths ranging from nine to 19 feet below ground surface (bgs).

Petroleum odors were noted in B-3 at depths of 14 to 20 feet bgs, in B-4 at four to 15 feet bgs, in B-5 at 18 to 25 feet bgs, and in B-7 at 12 to 20 feet bgs. Various VOCs, PAHs, TPH diesel range organics (DRO), and TPH gasoline range organics (GRO) were found above and below MDE Residential Cleanup Standards in soil samples. The VOCs benzene, ethylbenzene, xylenes, and naphthalene, TPH DRO, and TPH GRO were found above the MDE Groundwater Standards in one groundwater sample.

Tables 1 through 3 summarize the soil sample results. Table 4 summarizes the groundwater sample results. Figures 3 through 5 illustrate the sample locations and soil quality. Figure 6 illustrates the groundwater sample locations and groundwater quality.

Table 1 – VOC Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected August 17, 2017

Analyte	1-B-3 (19-20)	1-B-4 (13-14)	1-B-5 (19-20)	1-B-7 (17-18)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
Benzene	BDL	**29,000**	BDL	BDL	**1,200**	**5,100**
Methylcyclohexane	BDL	4,000	BDL	BDL	NS	NS
Ethylbenzene	1,600	**110,000**	**35,000**	BDL	**5,800**	**25,000**
m&p-Xylene	BDL	**410,000**	6,000	BDL	**58,000**	**250,000**
o-Xylene	BDL	**160,000**	9,200	BDL	**58,000**	250,000
Styrene	BDL	**88,000**	BDL	BDL	**58,000**	250,000
Isopropylbenzene	BDL	BDL	6,600	1,900	NS	NS
Naphthalene	**46,000**	NA	NA	**54,000**	**3,800**	**17,000**

BDL = below detection limits
NA = not analyzed
NS = no published standard
Bold = designates exceedance of a standard
Results in parts per billion or µg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 2 – PAH Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected August 17, 2017

Analyte	1-B-3 (14-15)	1-B-4 (13-14)	1-B-5 (19-20)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
Acenaphthene	22,000	120,000	52,000	360,000	4,500,000
Acenaphthylene	8,700	530,000	6,200	NS	NS
Anthracene	8,800	550,000	27,000	1,800,000	23,000,000
Benzo[a]anthracene	**19,000**	**470,000**	**13,000**	**1,100**	**21,000**
Benzo[a]pyrene	**15,000**	**430,000**	**10,000**	**110**	**2,100**
Benzo[b]fluoranthene	**7,100**	**310,000**	**5,300**	**1,100**	**21,000**
Benzo[g,h,i]perylene	1,100	150,000	3,100	NS	NS
Benzo[k]fluoranthene	8,000	**390,000**	6,700	**11,000**	**210,000**
Chrysene	17,000	**380,000**	11,000	**110,000**	2,100,000
Dibenz[a,h]anthracene	**780**	**73,000**	**1,700**	**110**	**2100**
Fluoranthene	39,000	**1,200,000**	27,000	**240,000**	3,000,000
Fluorene	31,000	**760,000**	32,000	**240,000**	3,000,000
Indeno[1,2,3-dc]pyrene	**1,200**	**190,000**	**2,800**	**1,100**	**21,000**
Naphthalene	460	**1,200,000**	**83,000**	**3,800**	**17,000**
Phenanthrene	44,000	**1,900,000**	99,000	**180,000**	2,300,000
Pyrene	53,000	**830,000**	39,000	**180,000**	2,300,000

NS = no published standard
Bold = designates exceedance of a standard
Results in parts per billion or µg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 3 – TPH Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected August 17, 2017

Analyte	1-B-2 (8-9)	1-B-3 (14-15)	1-B-4 (13-14)	1-B-5 (19-20)	1-B-7 (17-18)	1-B-8 (19-20)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
TPH DRO	13	**9,000**	**19,000**	**5,800**	**7,500**	62	**230**	**620**
TPH GRO	BDL	5.6	**3,900**	**1,000**	**340**	BDL	**230**	**620**

BDL = below detection limits
Bold = designates exceedance of a standard
Results in parts per million or mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 4 – Groundwater Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected August 17, 2017

Analyte	1-B-5	MDE Cleanup Standards
Benzene	**850**	**5**
Ethylbenzene	**5,800**	**700**
m&p-Xylene	**310**	**10,000**
Isopropylbenzene	460	NS
Naphthalene	**30,000**	**0.17**
TPH DRO	**420**	**0.047**
TPH GRO	**38**	**0.047**

Bold = designates exceedance of a standard
VOC results in parts per billion or µg/kg
TPH results in parts per million of mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

ICOR collected two sub-slab soil vapor samples from two locations within the western portion of the Site building. Neither of the two samples were found to contain constituents above the MDE Tier 1 Residential Cleanup Standards. Table 5 summarizes the sub-slab soil vapor results. Figure 7 illustrates the sub-slab soil vapor sample locations and soil gas quality.

Table 5 – Sub-Slab Soil Vapor Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected August 17, 2017

Analyte	1-SV-1	1-SV-2	MDE Tier 1 Residential Cleanup Standards
Acetone	51	46.5	660,000
Benzene	1.41	1.53	64
Carbon disulfide	16.4	8.35	14,600
Chloromethane	0.66	0.66	1,880
Cyclohexane	4.82	6.47	126,000
Ethylbenzene	2.78	2.43	200
4-Ethyltoluene	9.44	8.46	NS
n-Heptane	2.95	3.61	NS
Methylene chloride	BDL	125	12,600
Methyl ethyl ketone	3.07	1.89	106,000
Methyl isobutyl ketone	3.93	3.6	64,000
n-Propylbenzene	5.9	5.11	22,000
Styrene	1.7	1.53	22,000
Tetrahydrofuran	1.18	1.18	4,200
Toluene	29.2	34.5	10,600
1,2,4-Trimethylbenzene	92.6	71.8	146
2,2,4-Trimethylpentane	20.1	17.9	NS
Total xylenes	17.45	15.94	2,200

BDL = below detection limit
NS = no published standard
Results in micrograms per cubic meter ($\mu g/m^3$)
MDE Standards (Table 1 – Residential Ambient Air, June 2012 – Revised according to 5/12/2012 published data from EPA/Region III)

The investigation found impact within the northwestern portion of the Site near the border with the former Frederick Town Gas property. ICOR concluded that petroleum related constituents had migrated to the Site from the adjacent property, as most of the impact was noted within the deeper subsurface (greater than 14 feet bgs). ICOR noted that a responsible party had been identified for the adjacent former Frederick Town Gas property and impacts at the adjacent property were being addressed under the MDE VCP. ICOR concluded that the three, former on-Site, 10,000-gallon tanks had not impacted the subsurface. In addition, based on the soil vapor results, ICOR concluded that vapor intrusion into the on-Site structure was not a concern.

ICOR recommended no additional assessment or cleanup at the time, but did recommend monitoring the cleanup activities at the adjacent Frederick Town Gas property through MDE interface and document review. ICOR stated that cleanup costs, if incurred for the Site, should be the responsibility of the Frederick Town Gas property responsible party.

3) AEI, Limited Phase II Subsurface Investigation, Property Identification: Goodwill Industries, 400 East Church Street, Frederick, Maryland 21701, dated December 14, 2018

Prior to conducting a Phase II subsurface investigation at the Site, AEI performed a geophysical survey to identify any underground anomalies present at proposed boring locations. The survey did not identify any characteristics consistent with the presence of USTs in the vicinity of the planned borings. Four borings were completed on November 27, 2018 within the southeastern portion of the Site. One boring (B-1) was collected from within the building and was collected by hand auger and a coring machine to four feet bgs. The remaining three samples were collected using a hand auger to five feet followed by a Macro-Core sampling to a maximum depth of 20 feet bgs.

Soil samples were collected for laboratory analysis from each boring at depths with the highest likelihood for impacts as determined by PID readings. PID readings were noted in B-1 at concentrations of 0.1 to 0.3 parts per million (ppm), in B-2 at concentrations of 0.2 to 0.5, in B-3 at concentrations of zero to 0.2 ppm, and in B-4 at concentrations of 0.1 to one ppm.

Each of the borings generally consisted of gravel and fill materials to approximately 0.5 feet bgs, underlain by silty and sandy clays. Silty sand was encountered in SB-4 at two to five feet bgs. Groundwater was encountered at B-2 and B-4. Temporary well points were installed at these two locations for the collection of groundwater samples. Groundwater was measured at depths of 15.09 feet bgs and 18.85 feet bgs.

The VOC acetone was found below MDE Residential Cleanup Standards in one soil sample. The SVOC pentachlorophenol was found below the standards in one soil sample. Various metal were found in one soil sample. Only arsenic was above the standards. Various VOCs, SVOCs, and metals were found in the groundwater samples. No constituents were above the MDE Groundwater Standards.

Table 7 summarizes the soil sample results. Table 8 summarizes the groundwater sample results. Figures 8 illustrates the sample locations and soil quality. Figure 9 illustrates the groundwater sample locations and groundwater quality.

Table 6 – Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected November 27, 2018

Analyte	2-B-1 (3-4)	2-B-3 (5-6)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
VOCs				
Acetone	BDL	15	6,100,000	67,000,000
SVOCs				
Pentachlorophenol	BDL	94	1,000	4,000
Metals				
Arsenic, total	**6.7**	NA	**0.68**	**3**
Barium, total	41	NA	1,500	22,000
Cadmium, total	0.32	NA	7.1	98
Chromium, total	21	NA	12,000	180,000
Lead, total	9.93	NA	400	800
Mercury, total	0.127	NA	1.1	4.6
Selenium, total	0.63	NA	39	580

BDL = below detection limits
NA = not analyzed
NS = no published standard
Bold = designates exceedance of a standard
VOC and SVOC results in parts per billion or µg/kg
Metals results in parts per million or mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 7 – Groundwater Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected November 27, 2018

Analyte	2-B-2	2-B-4	MDE Cleanup Standards
VOCs			
Acetone	BDL	5.7	1,400
Chloroform	2.8	BDL	80
Tetrachloroethene	0.18	BDL	5
SVOCs			
Benzaldehyde	0.72	1.3	NS
Phenol	0.58	1.3	580
di-n-Butylphthalate	0.77	BDL	90
Bis(2-ethylhexyl) phthalate	BDL	1.6	6
Metals			
Arsenic, total	NA	560.9	10,000
Barium, total	NA	168,300	2,000,000
Cadmium, total	NA	390.4	5,000
Chromium, total	NA	1,604	2,200,000
Selenium, total	NA	24,200	50,000

BDL = below the detection limit
NA = not analyzed
NS = no published standard
VOC and SVOC results in parts per billion or µg/kg
Metals results in parts per million of mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

AEI collected five sub-slab soil vapor samples from locations throughout the Site building on November 26, 2018. None of the samples were found to contain constituents above the MDE Tier 1 Residential Cleanup Standards. Table 8 summarizes the sub-slab soil vapor results. Figure 10 illustrates the sub-slab soil vapor sample locations and soil gas quality.

Table 8 – Sub-Slab Soil Vapor Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected November 26, 2018

Analyte	2-SV-1	2-SV-2	2-SV-3	2-SV-4	2-SV-5	MDE Tier 1 Residential Cleanup Standards
1,3-Butadiene	0.566	0.94	0.681	BDL	BDL	16.4
1,4-Dioxane	BDL	BDL	BDL	0.778	BDL	NS
2-Butanone	5.07	19.5	3.83	BDL	BDL	106,000
2-Hexanone	BDL	0.893	BDL	BDL	BDL	640
Acetone	201	40.4	45.4	29.7	13.2	660,000
Benzene	0.732	1.04	BDL	BDL	BDL	64
Carbon disulfide	1.41	2.34	1.37	BDL	BDL	1,460
Cyclohexane	BDL	1.59	1.28	BDL	1.43	126,000
Dichlorodifluoromethane	1.49	1.83	1.81	2.5	2.58	4,200
Ethyl alcohol	46.2	BDL	BDL	11.9	BDL	NS
Ethylbenzene	2.08	BDL	BDL	BDL	BDL	200
n-Heptane	0.988	1.36	BDL	BDL	BDL	NS
Iso-Propyl alcohol	42.2	1.71	3.47	8.43	BDL	NS
n-Hexane	BDL	1.68	BDL	BDL	BDL	14,600
o-Xylene	2.21	BDL	BDL	BDL	BDL	2,200
m&p-Xylenes	7.51	BDL	BDL	BDL	BDL	2,200
Propylene	3.36	4.41	3.6	BDL	BDL	64,000
Tetrachloroethene	BDL	68.5	4.67	BDL	BDL	840
Tetrahydrofuran	3.13	BDL	BDL	2.07	BDL	4,200
Toluene	14.8	1209	7.16	BDL	1.07	10,600
Trichloroethene	BDL	BDL	BDL	1.13	BDL	36
Trichlorofluoromethane	BDL	1.51	1.43	1.5	1.48	14,600

BDL = below detection limit
NS = no published standard
Results in micrograms per cubic meter ($\mu g/m^3$)
MDE Standards (Table 1 – Residential Ambient Air, June 2012 – Revised according to 5/12/2012 published data from EPA/Region III)

AEI concluded that, based on the investigation, and assuming non-residential land use, no action was warranted at the time. AEI stipulated that should redevelopment or disturbance of the existing slab and underlying soils occur, that additional characterization may be necessary. In addition, AEI stated that management of on-Site soils and groundwater in accordance with MDE requirements may be required.

4) AEI, Phase I Environmental Site Assessment, Property Information: Goodwill Industries, 400 East Church Street, Frederick, Frederick County, Maryland 21701, dated March 21, 2019

At the time of the March 2019 Phase I ESA, completed by AEI, the Site was occupied by Goodwill Industries, which operated a donations center and retail sales facility with associated administrative areas. The Site was proposed for conversion to multi-family residential use.

AEI's historical research determined that the Site had initially been developed for the manufacturing of machinery to produce brush filling and of fiber brushes. The Site was first occupied by Palmetto Fibre Company in 1891 and then by Ox Fibre Brush Company by 1902. The property consisted of offices, a machine shop, fiber and frame storage areas, and areas for filling and cleaning brushes, drilling operations, varnishing, and packing. Additions to the building were constructed from 1902 through 1947. According to historical maps, fuel tanks appear to be located adjacent to the southwest of the main building from at least 1904 through 1930. Operations at the Ox Fibre factory reportedly ceased in 1967.

In 1970 Goodwill Industries purchased the property began utilizing the Site for donations processing and retail sales. Some time between 1974 and the early 1980s, a fire destroyed approximately 100,000 square feet of the southern portion of the structure, bringing the structural improvements to the present-day configuration. A building renovation in January 2002 improved approximately 12,000 square feet of the second floor, which had previously been uninhabitable.

AEI also noted the historical presence of the Frederick Town Gas property adjacent to the west of the Site. AEI noted that in 1988, subsurface investigations reported coal tar contamination, greatest in and around the old buried gas and tar handling structures but also present above and below the water table in fill and residual soil. Additionally, concentrations of VOCs, SVOCs, and cyanide were found in soil and groundwater, with the greatest concentrations on the central portion of the property. Groundwater flow was found to be generally southwest, and migration of coal tar and VOCs off-Site to the south was a concern.

A tar recovery program was initiated in 1994 and has operated through 2015. The volume of tar collected has reportedly steadily decreased and is now pumped semi-annually. In 1994 94.80 gallons of tar was collected and in 2015, 2.9 gallons was collected. In 2013 impacted soils from the east adjoining residential property were excavated. In 2015 data from six monitoring wells at the adjacent property indicated impacts in excess of applicable MDE Cleanup Standards. The closest monitoring well to the subject Site exhibited low levels of constituents below MDE Cleanup Standards.

AEI's regulatory review identified further information with regard to OCP Case # 90-2812FR, which was opened on February 2, 1990 and closed October 20, 2000. Information provided by MDE indicated that an AST located "behind 400 East Church Street" fell down a three foot embankment and released approximately 250-gallons of kerosene to bare soil. Two-hundred gallons of free-standing product was pumped into drums and two dump truck loads of kerosene saturated soil was excavated and removed.

During Site reconnaissance, AEI identified a former railroad spur on the southeast portion of the Site. In addition, approximately 50 gallons of maintenance products, such as paints, paint-related products, and lubricant oils, were observed in the shed and warehouse areas of the Site. The containers were properly labeled and stored and no signs of releases were observed on the date of reconnaissance.

Based on the assessment, AEI identified the following REC for the Site:

- The historical use of the Site and adjacent property to the west. The historical Site use included the industrial use of the Site for the manufacture of brush filling and fiber brushes. The Site use included the presence of an on-Site railroad spur within the southeastern portion, and three 10,000-gallon oil tanks along western border of the Site. Known contamination is associated with the historical Frederick Town Gas property adjacent to the west. Impacts were identified within the western portion of the subject Site within deeper sub-surface soil and groundwater and were presumed to have migrated from the western adjacent property.

AEI identified the following HREC:

- OCP case #90-2812FR which was due to an AST release that occurred on February 2, 1990. A cleanup occurred and MDE determined that no further action was required and closed the case on October 20, 2000.

AEI recommended submitting the Phase II Site Assessment, completed by ICOR on January 17, 2018, and the Limited Phase II Subsurface Investigation, completed by AEI on December 14, 2018, to MDE for review and guidance on further assessment and case closure.

5) AEI, Phase I Environmental Site Assessment, Property Information: Ox Fibre Apartments, 400 East Church Street, Frederick, Frederick County, Maryland 21701, dated October 29, 2019

At the time of the October 2019 Phase I ESA, completed by AEI, the Goodwill Industries had moved all operations out of the Site facility except for the donations center. The proposed future use remained as multi-family residential.

AEI described the historical use of the Site and adjacent property to the west as discussed in the prior Phase I ESAs dated March 2019 and June 2017. The 2019 report expanded on the locations of USTs at the Site and the adjacent Frederick Town Gas property to the west. According to historical Sanborn fire insurance maps, three USTs are depicted within the northwestern corner of the Site property on maps dated 1904 and 1911. The USTs appear to the south of this location on the adjacent Frederick Town Gas property in 1922 and 1947. Maps from 1952 and 1971 depict the USTs straddling the central portion of the western Site property line, partially occupying the Frederick Town Gas property. AEI noted that these tanks may possibly have been ASTs.

In addition, AEI detailed impacts discovered at the Site during the prior Phase II investigations described in the reports dated January 2018 and December 2018 and impacts documented at the adjacent Frederick Town Gas property.

AEI noted that no USTs or ASTs were identified in the EDR Database or MDE files reviewed. In addition, geophysical surveys conducted at the Site as part of previous subsurface investigations had not identified anomalies indicative of buried USTs.

During Site reconnaissance, AEI again identified a former railroad spur on the southeast portion of the Site. In addition, AEI identified the presence of a second former railroad spur is located on the west portion of the site. AEI also noted the presence of approximately 200 gallons of maintenance products, such as paints, paint-related products, and lubricant oils on pallets west of the receiving bay scheduled for removal.

Based on the assessment, AEI identified the following REC for the Site:

- The historical use of the Site and adjacent property to the west. The historical Site use included the industrial use of the Site for the manufacture of brush filling and fiber brushes. The Site use included the presence of an on-Site railroad spur within the southeastern portion, and three 10,000-gallon oil tanks along western border of the Site. Known contamination is associated with the historical Frederick Town Gas property adjacent to the west. Impacts were identified within the western portion of the subject Site within deeper sub-surface soil and groundwater and were presumed to have migrated from the western adjacent property.

AEI identified the following HREC:

- OCP case #90-2812FR which was due to an AST release that occurred on February 2, 1990. A cleanup occurred and MDE determined that no further action was required and closed the case on October 20, 2000.

AEI noted that on April 29, 2019 the Site owner submitted an application to the MDE VCP. AEI recommended following MDE guidance regarding further assessment and case closure.

6) AEI, Limited Phase II Subsurface Investigation, Property Identification: Ox Fibre Apartments, 400 East Church Street, Frederick, Maryland 21701, dated October 29, 2019

Prior to conducting a Phase II subsurface investigation at the Site, AEI performed a geophysical survey across the Site. The survey did not identify anomalies consistent with USTs. The survey identified anomalies consistent with buried construction debris, a metallic anomaly within the southwestern area of the Site in the vicinity of B-6, and a railroad spur within the eastern portion of the Site.

Twelve borings were completed on July 23, 2019 throughout the Site. The samples were collected to five feet using a Macro-Core sampling device and by continuously advancing rods

with five-foot long acetate sample liners. Soil samples were collected for laboratory analysis from each boring at depths of zero to two feet bgs and two to four feet bgs.

The borings consisted of approximately one foot of asphalt followed by fine brown silty sand. At B-2 a sheen was observed in the recovered soil core from the 15 to 20 foot bgs interval; however, no indication of any residual oil, or globules on the water level meter or recovered soil, were observed. No other PID readings, staining, or other evidence of impact was observed during boring installation.

Borings SB-2, SB-7, and SB-9 were advanced to depths of 20 feet bgs, 25 feet bgs, and 20 feet bgs, respectively, to evaluate groundwater elevations. At each of the deep borings a temporary well point was placed within the borehole. After equilibration, the depth to groundwater was measured and the top of the well casing was surveyed using an arbitrary benchmark. The direction of groundwater flow was determined to be southeast. The depth to groundwater and groundwater elevations are listed in Table 9.

Table 9 – Groundwater Elevations
400 East Church Street
Frederick, Maryland 21701
Measurements Collected July 23, 2019

Boring	Top of Casing Elevation (feet above datum)	Depth to Water (feet)	Groundwater Elevation (feet above datum)
3-B-2	97.80	17.18	80.62
3-B-7	95.07	16.57	78.50
3-B-9	91.54	14.52	77.02

Various VOCs were identified in soil samples at below MDE Residential Cleanup Standards. Various PAHs were found above and below the standards. Benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene were above the criteria. TPH DRO and TPH GRO were detected with TPH DRO above the standard in two samples. The metals antimony, arsenic, mercury, and thallium were above the residential standard. Hexavalent chromium was found above the residential standard in seven samples.

Tables 10 through 13 summarize the soil sample results. Figures 11 through 14 illustrate the soil sample locations and soil quality.

Table 10 – VOC Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected July 23, 2019

Analyte	3-B-1 (2.5-3)	3-B-2 (1.5-2)	3-B-2 (2.5-3)	3-B-3 (1-1.5)	3-B-3 (3.5-4)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
Acetone	BDL	BDL	5.7	BDL	5.8	6,100,000	67,000,000
Benzene	BDL	BDL	BDL	13	BDL	1,200	5,100
Chloroform	BDL	BDL	BDL	BDL	BDL	320	1400
Cyclohexane	BDL	BDL	BDL	140	BDL	NS	NS
Ethylbenzene	BDL	BDL	BDL	17	BDL	5,800	25,000
Isopropylbenzene	BDL	BDL	BDL	8.7	BDL	NS	NS
Methyl Acetate	BDL	BDL	1.6	150	BDL	NS	NS
Methylcyclohexane	1.1	2.6	BDL	380	BDL	NS	NS
o-Xylene	BDL	BDL	BDL	94	BDL	58,000	250,000
m&p-Xylene	BDL	BDL	BDL	140	BDL	58,000	250,000
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	8,100	39,000
Toluene	BDL	BDL	BDL	140	BDL	490,000	4,700,000
Xylenes, total	BDL	BDL	BDL	230	0.75	58,000	250,000
Analyte	**3-B-4 (2.5-3)**	**3-B-5 (1.5-2)**	**3-B-5 (2.5-3)**	**3-B-6 (1.5-2)**	**3-B-6 (1.5-2) DUP**	**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
Acetone	4.7	14	4	BDL	10	6,100,000	67,000,000
Benzene	BDL	BDL	BDL	BDL	BDL	1,200	5,100
Chloroform	BDL	0.34	0.75	BDL	BDL	320	1400
Cyclohexane	BDL	BDL	BDL	0.7	0.66	NS	NS
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	5,800	25,000
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	NS	NS
Methyl Acetate	BDL	2.9	BDL	BDL	7	NS	NS
Methylcyclohexane	BDL	BDL	BDL	BDL	0.95	NS	NS
m&p-Xylene	BDL	BDL	BDL	BDL	BDL	58,000	250,000
o-Xylene	BDL	BDL	BDL	BDL	BDL	58,000	250,000
Tetrachloroethene	BDL	BDL	BDL	BDL	BDL	8,100	39,000
Toluene	BDL	BDL	BDL	BDL	BDL	490,000	4,700,000
Xylenes, total	BDL	BDL	BDL	BDL	BDL	58,000	250,000

Analyte	3-B-6 (2.5-3)	3-B-6 (2.5-3) DUP	3-B-8 (1.5-2)	3-B-9 (1.5-2)	3-B-9 (2.5-3)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
Acetone	22	4.6	BDL	BDL	BDL	6,100,000	67,000,000
Benzene	BDL	BDL	BDL	BDL	BDL	1,200	5,100
Chloroform	BDL	BDL	BDL	BDL	BDL	320	1400
Cyclohexane	BDL	BDL	BDL	BDL	0.64	NS	NS
Ethylbenzene	BDL	BDL	BDL	BDL	BDL	5,800	25,000
Isopropylbenzene	BDL	BDL	BDL	BDL	BDL	NS	NS
Methyl Acetate	11	2.6	BDL	2.3	BDL	NS	NS
Methylcyclohexane	BDL	BDL	BDL	BDL	1.8	NS	NS
m&p-Xylene	BDL	BDL	BDL	BDL	BDL	58,000	250,000
o-Xylene	BDL	BDL	BDL	BDL	BDL	58,000	250,000
Tetrachloroethene	BDL	BDL	0.23	BDL	BDL	8,100	39,000
Toluene	BDL	BDL	BDL	BDL	BDL	490,000	4,700,000
Xylenes, total	BDL	BDL	BDL	BDL	BDL	58,000	250,000
Analyte	**3-B-10 (2.5-3)**	**3-B-11 (1.5-2)**	**3-B-11 (2.5-3)**	**3-B-12 (1.5-2)**		**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
Acetone	5	16	BDL	73		6,100,000	67,000,000
Benzene	BDL	BDL	BDL	BDL		1,200	5,100
Chloroform	BDL	BDL	BDL	BDL		320	1400
Cyclohexane	BDL	BDL	BDL	BDL		NS	NS
Ethylbenzene	BDL	BDL	BDL	BDL		5,800	25,000
Isopropylbenzene	BDL	BDL	BDL	BDL		NS	NS
Methyl Acetate	20	BDL	3.3	6.7		NS	NS
Methylcyclohexane	BDL	0.81	0.5	BDL		NS	NS
m&p-Xylene	BDL	BDL	BDL	BDL		58,000	250,000
o-Xylene	BDL	BDL	BDL	BDL		58,000	250,000
Tetrachloroethene	BDL	BDL	BDL	BDL		8,100	39,000
Toluene	BDL	BDL	BDL	BDL		490,000	4,700,000
Xylenes, total	BDL	BDL	BDL	BDL		58,000	250,000

BDL = below detection limits
NS = no published standard
Results in parts per billion or µg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 11 – PAH Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected July 23, 2019

Analyte	3-B-1 (1.5-2)	3-B-1 (2.5-3)	3-B-2 (1.5-2)	3-B-2 (2.5-3)	3-B-3 (1-1.5)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
2-Methylnaphthalene	45	BDL	55	71	550	24,000	300,000
Acenaphthene	BDL	BDL	88	120	150	360,000	4,500,000
Acenaphthylene	140	BDL	150	160	1,200	NS	NS
Anthracene	65	BDL	470	660	1,400	1,800,000	23,000,000
Benzo[a]anthracene	380	BDL	**2,000**	**2,700**	**8,700**	**1,100**	21,000
Benzo[a]pyrene	**410**	**130**	**2,400**	**3,000**	**9,700**	**110**	**2,100**
Benzo[b]fluoranthene	580	180	**3,200**	**4,000**	**11,000**	**1,100**	21,000
Benzo[g,h,i]perylene	330	76	1,900	2,000	3,900	NS	NS
Benzo[k]fluoranthene	180	54	860	1,400	3,900	11,000	210,000
Chrysene	410	110	1,800	2,600	7,900	110,000	2,100,000
Dibenz[a,h]anthracene	76	26	**380**	**440**	**1,100**	**110**	2100
Fluoranthene	360	130	3,000	4,400	16,000	240,000	3,000,000
Fluorene	20	BDL	110	150	340	240,000	3,000,000
Indeno[1,2,3-dc]pyrene	330	86	**2,000**	**2,200**	**4,900**	**1,100**	21,000
Naphthalene	60	BDL	170	250	1,600	3,800	17,000
Phenanthrene	240	66	1,200	1,800	4,300	180,000	2,300,000
Pyrene	410	120	2,800	4,100	14,000	180,000	2,300,000

Analyte	3-B-3 (3.5-4)	3-B-4 (1.5-2)	3-B-4 (2.5-3)	3-B-5 (1.5-2)	3-B-5 (2.5-3)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
2-Methylnaphthalene	380	51	34	520	330	24,000	300,000
Acenaphthene	93	BDL	BDL	1,700	540	360,000	4,500,000
Acenaphthylene	1,600	BDL	69	1,300	640	NS	NS
Anthracene	710	BDL	76	7,800	2,800	1,800,000	23,000,000
Benzo[a]anthracene	**4,300**	68	470	**23,000**	**8,800**	**1,100**	**21,000**
Benzo[a]pyrene	**4,300**	61	**440**	**24,000**	**7,500**	**110**	**2,100**
Benzo[b]fluoranthene	**5,700**	100	570	**26,000**	**10,000**	**1,100**	**21,000**
Benzo[g,h,i]perylene	2,300	47	280	11,000	4,300	NS	NS
Benzo[k]fluoranthene	1,500	BDL	200	9,600	3,200	11,000	210,000
Chrysene	4,400	120	440	20,000	8,400	110,000	2,100,000
Dibenz[a,h]anthracene	**530**	BDL	82	**2,800**	**1,100**	**110**	**2100**
Fluoranthene	6,900	63	410	51,000	18,000	240,000	3,000,000
Fluorene	330	BDL	BDL	3,000	1,000	240,000	3,000,000
Indeno[1,2,3-dc]pyrene	**2,500**	40	270	**13,000**	**4,900**	**1,100**	21,000
Naphthalene	880	43	55	900	490	3,800	17,000
Phenanthrene	2,100	110	350	23,000	8,700	180,000	2,300,000
Pyrene	6,800	77	510	46,000	16,000	180,000	2,300,000

Analyte	3-B-7 (1.5-2)	3-B-9 (1.5-2)	3-B-9 (2.5-3)	3-B-11 (1.5-2)	3-B-11 (2.5-3)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
2-Methylnaphthalene	BDL	BDL	BDL	BDL	BDL	24,000	300,000
Acenaphthene	BDL	BDL	BDL	BDL	BDL	360,000	4,500,000
Acenaphthylene	BDL	BDL	85	BDL	BDL	NS	NS
Anthracene	BDL	BDL	BDL	BDL	BDL	1,800,000	23,000,000
Benzo[a]anthracene	63	32	93	200	26	1,100	21,000
Benzo[a]pyrene	71	54	**160**	**260**	BDL	**110**	2,100
Benzo[b]fluoranthene	97	76	230	290	48	1,100	21,000
Benzo[g,h,i]perylene	56	160	130	160	BDL	NS	NS
Benzo[k]fluoranthene	BDL	BDL	67	110	BDL	11,000	210,000
Chrysene	77	35	110	190	BDL	110,000	2,100,000
Dibenz[a,h]anthracene	BDL	BDL	35	41	BDL	110	2100
Fluoranthene	120	34	110	330	32	240,000	3,000,000
Fluorene	BDL	BDL	BDL	BDL	BDL	240,000	3,000,000
Indeno[1,2,3-dc]pyrene	42	110	160	190	BDL	1,100	21,000
Naphthalene	BDL	BDL	BDL	BDL	BDL	3,800	17,000
Phenanthrene	100	BDL	60	170	24	180,000	2,300,000
Pyrene	100	38	98	280	25	180,000	2,300,000

BDL = below detection limit
NS = no published standard
Bold = designates exceedance of a standard
Results in parts per billion or µg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 12 – TPH Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected July 23, 2019

Analyte	3-B-1 (1.5-2)	3-B-1 (2.5-3)	3-B-2 (1.5-2)	3-B-2 (2.5-3)	3-B-3 (1-1.5)	3-B-3 (3.5-4)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
TPH DRO	49	9	91	61	**480**	160	**230**	620
TPH GRO	1.8	1.9	2	2	4.7	1.6	230	620
Analyte	**3-B-4 (1.5-2)**	**3-B-4 (2.5-3)**	**3-B-5 (1.5-2)**	**3-B-5 (2.5-3)**	**3-B-7 (1.5-2)**	**3-B-7 (2.5-3)**	**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
TPH DRO	53	31	**500**	86	48	2.7	**230**	620
TPH GRO	1.3	1.3	1.8	1.5	1.2	1.3	230	620
Analyte	**3-B-8 (1.5-2)**	**3-B-8 (2.5-3)**	**3-B-9 (1.5-2)**	**3-B-9 (2.5-3)**	**3-B-10 (1.5-2)**	**3-B-10 (2.5-3)**	**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
TPH DRO	2.4	BDL	28	BDL	BDL	4	230	620
TPH GRO	1.7	1.2	2.7	2	1.3	1.6	230	620
Analyte	**3-B-11 (1.5-2)**	**3-B-11 (2.5-3)**	**3-B-12 (1.5-2)**	**3-B-12 (2.5-3)**			**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
TPH DRO	5.2	BDL	BDL	BDL			230	620
TPH GRO	1.1	1.2	1.3	1.4			230	620

BDL = below detection limits
Bold = designates exceedance of a standard
Results in parts per million or mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 13 – Metals Soil Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected July 23, 2019

Analyte	3-B-1 (1.5-2)	3-B-1 (2.5-3)	3-B-2 (1.5-2)	3-B-2 (2.5-3)	3-B-3 (1-1.5)	3-B-3 (3.5-4)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
Antimony	1.23	BDL	BDL	1.44	1.23	1.16	3.1	47
Arsenic	**8.09**	**8.01**	**10.2**	**10.5**	**32.4**	**6.72**	**0.68**	**3.0**
Beryllium	0.409	1.04	0.84	0.93	0.356	0.571	16	230
Cadmium	0.26	0.309	0.395	BDL	0.813	BDL	7.1	98
Chromium	7.08	11.5	14.4	13.9	6.87	11.3	12,000	180,000
Copper	37.3	10.5	18.1	19	58.3	119	310	4,700
Lead	117	44.8	41.2	10.3	70.6	20.8	400	800
Mercury	0.433	0.064	**1.5**	0.153	0.055	BDL	**1.1**	4.6
Nickel	9.35	12.2	13.2	12.4	10.5	8.14	150	2,200
Selenium	0.242	BDL	0.766	BDL	0.409	BDL	39	580
Silver	BDL	BDL	BDL	BDL	BDL	BDL	39	580
Thallium	BDL	**1.66**	**2.37**	BDL	BDL	BDL	**0.078**	**1.2**
Zinc	178	43.5	58.6	26.6	225	27.3	2,300	35,000
Hexavalent Chromium	BDL	BDL	0.211	0.216	BDL	0.186	0.3	6.3
Analyte	**3-B-4 (1.5-2)**	**3-B-4 (2.5-3)**	**3-B-5 (1.5-2)**	**3-B-5 (2.5-3)**	**3-B-6 (1.5-2)**	**3-B-6 (2.5-3)**	**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
Antimony	2.86	BDL	1.52	BDL	**5.21**	**6.13**	**3.1**	47
Arsenic	**7.08**	**15.2**	**11.9**	**8.12**	**10.6**	**22.9**	**0.68**	**3.0**
Beryllium	0.482	0.972	0.818	0.586	0.514	0.638	16	230
Cadmium	BDL	0.249	0.464	0.544	BDL	BDL	7.1	98
Chromium	8.22	7.64	13	16.3	11.7	16.2	12,000	180,000
Copper	41.7	13	28	12	248	75.5	310	4,700
Lead	24.8	16.7	49.4	19.8	47.3	66.8	400	800
Mercury	BDL	0.324	BDL	BDL	**2.1**	BDL	**1.1**	4.6
Nickel	11.6	14	12.2	7.85	16.5	12.6	150	2,200
Selenium	0.223	1.45	0.818	0.712	0.219	0.957	39	580
Silver	BDL	BDL	BDL	BDL	BDL	BDL	39	580
Thallium	BDL	**3.57**	**2.7**	**2.83**	BDL	BDL	**0.078**	**1.2**
Zinc	29.2	23	85.4	229	35.4	53.0	2,300	35,000
Hexavalent Chromium	BDL	BDL	BDL	0.241	NA	NA	0.3	6.3

Analyte	3-B-7 (1.5-2)	3-B-7 (2.5-3)	3-B-8 (1.5-2)	3-B-8 (2.5-3)	3-B-9 (1.5-2)	3-B-9 (2.5-3)	MDE Residential Cleanup Standards	MDE Non-Residential Cleanup Standards
Antimony	0.773	1.63	1.59	1.44	**4.7**	2.95	**3.1**	47
Arsenic	**4.69**	**6.84**	**6.12**	**6.49**	**31.1**	**17.1**	**0.68**	**3.0**
Beryllium	0.549	0.638	0.612	0.835	0.513	0.483	16	230
Cadmium	BDL	BDL	BDL	BDL	0.708	0.17	7.1	98
Chromium	10.8	23.1	29.9	20.4	9.47	39.1	12,000	180,000
Copper	7.47	14.8	12.1	10.1	155	53.6	310	4,700
Lead	9.33	10.6	14.2	11.9	185	328	400	800
Mercury	BDL	BDL	BDL	BDL	BDL	0.374	1.1	4.6
Nickel	5.94	9.1	9.09	9.43	18.7	10.6	150	2,200
Selenium	BDL	BDL	BDL	BDL	0.899	1.86	39	580
Silver	BDL	BDL	BDL	BDL	0.191	BDL	39	580
Thallium	BDL	BDL	BDL	BDL	**0.481**	**0.212**	**0.078**	1.2
Zinc	15.4	24	25.4	27.9	259	333	2,300	35,000
Hexavalent Chromium	BDL	**0.843**	BDL	**0.324**	**0.574**	BDL	**0.3**	6.3
Analyte	**3-B-10 (1.5-2)**	**3-B-10 (2.5-3)**	**3-B-11 (1.5-2)**	**3-B-11 (2.5-3)**	**3-B-12 (1.5-2)**	**3-B-12 (2.5-3)**	**MDE Residential Cleanup Standards**	**MDE Non-Residential Cleanup Standards**
Antimony	1.27	1.82	0.301	BDL	BDL	0.304	3.1	47
Arsenic	**5.14**	**8.72**	**4.39**	**4.33**	**3**	**4.7**	**0.68**	**3.0**
Beryllium	0.525	1.18	0.481	0.671	0.525	0.64	16	230
Cadmium	BDL	BDL	0.198	0.175	0.105	0.258	7.1	98
Chromium	29.7	16.4	7.03	17.1	7.62	19.8	12,000	180,000
Copper	11.3	24.7	16.8	5.84	4.41	12.3	310	4,700
Lead	10.2	17.1	130	13.4	9.24	12.1	400	800
Mercury	BDL	0.067	0.069	BDL	0.054	BDL	1.1	4.6
Nickel	9	18.6	9.8	7.49	4.99	10.2	150	2,200
Selenium	BDL	0.757	0.562	0.481	0.475	0.451	39	580
Silver	BDL	BDL	0.153	BDL	BDL	BDL	39	580
Thallium	BDL	BDL	**0.494**	BDL	**0.52**	BDL	**0.078**	1.2
Zinc	26.7	36.9	52	21	13.5	28.3	2,300	35,000
Hexavalent Chromium	**0.642**	**1.29**	BDL	0.208	**0.495**	**0.65**	**0.3**	6.3

BDL = below detection limits
NS = not analyzed
Bold = designates exceedance of a standard
Results in parts per million or mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

AEI collected three interior sub-slab soil gas samples from locations near the western wall of the building, and two exterior soil gas samples from the northwestern area of the Site on July

23, 2019. Indoor air quality (IAQ) samples from the western portion of the building within the breathing zone (three feet to five feet above the ground surface). Multiple VOCs were detected in the soil gas samples. Chloroform and 1,3-butadiene were found just above the MDE Tier I Residential Cleanup Standard in one exterior sample (3-SV-2). Chloroform is found in potable water that has been treated with chlorine. It is possible that the presence of this compound is the result of off-gassing of potable water lines. 1,3-Butadiene is a common urban and suburban contaminant due to cigarette smoke, wood fires, vehicle exhaust, and other combustion sources. This compound was below the screening level in the nearby indoor soil gas sample, 3-SV-3, and IAQ samples. The remaining VOCs detected in IAQ samples were at concentrations below the MDE Residential Cleanup Standards for ambient air.

Table 14 and 15 summarizes the soil vapor and indoor air sample results. Figures 15 illustrates the soil vapor sample locations and soil gas quality. Figure 16 illustrates the indoor air sample locations and indoor air quality.

Table 14 – Sub-Slab Soil Vapor Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected July 23, 2019

Analyte	3-SV-1	3-SV-2	3-SV-3	3-SV-4	3-SV-5	MDE Tier 1 Residential Cleanup Standards
1,2,4-Trimethylbenzene	5.75	5.95	6.34	6.44	6.1	146
1,2-Dichloroethane	BDL	6.8	BDL	BDL	BDL	18.8
1,3,5-Trimethylbenzene	BDL	BDL	1.94	2	1.93	106
1,3-Butadiene	11.2	**18.5**	2.74	2.15	BDL	**16.4**
2-Butanone	82.3	58.4	7.55	7.34	20.8	106,000
2-Hexanone	10.4	8.24	BDL	BDL	BDL	640
4-Ethyltoluene	BDL	BDL	2.05	1.94	1.77	NS
4-Methyl-2-pentanone	BDL	BDL	2.09	BDL	4.96	64,000
Acetone	2450	1960	149	62.9	180	660,000
Benzene	17.2	6.07	2.94	27.4	0.661	64
Carbon disulfide	17.3	28.2	2.71	1.73	7.04	14,600
Chloroform	BDL	**23.3**	BDL	BDL	BDL	**22**
Chloromethane	4.15	3.35	BDL	BDL	BDL	1,880
Cyclohexane	19.6	43.4	2.84	2.59	0.916	126,000
Dichlorodifluoromethane	BDL	BDL	1.93	1.5	1.96	4,200
Ethyl alcohol	BDL	BDL	BDL	BDL	59.7	NS
Ethylbenzene	104	106	98.6	74.7	72.5	200
n-Heptane	7.87	10.1	2.05	22.3	1.09	NS
Iso-Propyl alcohol	32	30.2	27.5	14.6	62.7	NS
n-Hexane	14	20.6	1.87	16.5	1.2	14,600
o-Xylene	104	107	102	81.7	80.4	2,200
m&p-Xylenes	419	439	406	328	319	2,200
Propylene	294	454	19.6	22	1.77	64,000
Styrene	BDL	BDL	2.81	2.41	2.45	22,000
Tetrachloroethene	BDL	BDL	BDL	3.26	2.69	840
Tetrahydrofuran	BDL	BDL	BDL	38.6	3.27	4,200
Toluene	10.6	15.5	28.8	25.4	27.2	10,600
Trichloroethene	BDL	BDL	BDL	2.22	BDL	36
Trichlorofluoromethane	BDL	BDL	1.26	BDL	1.15	14,600
Xylene	521	543	508	409	399	2,200

BDL = below detection limit
NS = no published standard
Results in micrograms per cubic meter ($\mu g/m^3$)
MDE Standards (Table 1 – Residential Ambient Air, June 2012 – Revised according to 5/12/2012 published data from EPA/Region III)

Table 15 – Indoor Air Sample Results
400 East Church Street
Frederick, Maryland 21701
Samples Collected July 23, 2019

Analyte	3-IA-1	3-IA-2	MDE Residential Cleanup Standards
Acetone	6.22	5,27	33,000
Chloromethane	0.975	1.03	94
Cyclohexane	1.24	1.1	6,300
Dichlorodifluoromethane	1.44	1.79	210
Ethyl alcohol	BDL	23.4	NS
Methylene chloride	4.38	BDL	630
n-Hexane	0.796	0.821	730
Toluene	0.961	0.863	5,300
Trichlorofluoromethane	1.23	1.43	730

BDL = below detection limit
NS = no published standard
Results in micrograms per cubic meter ($\mu g/m^3$)
MDE Standards (Table 1 – Residential Ambient Air, June 2012 – Revised according to 5/12/2012 published data from EPA/Region III)

The geophysical survey performed as part of the July 2019 investigation suggested that the former tanks, if historically present within the subsurface, had been removed. AEI reviewed the July subsurface investigation data as well as the prior August 2017 and November 2018 data and formulated several conclusions.

The PAHs and relatively low concentrations of metals found above regulatory levels in soil samples are typical of former industrial and urbanized land where storage and burning of coal has historically occurred. In general, constituent levels are higher in the western portion of the Site.

Deeper soil impacts are limited to the western portion of the Site. Elevated PAHs and VOCs are present at or near the groundwater table (approximately 14 feet bgs). Based on the depth of the impact, and the absence of USTs or other sources on the Site, and the absence of comparable concentrations of the same constituents within shallower zone soils, these impacts are not believed to be the result of Site operations. The most likely source of these constituents would be the Manufactured Gas Plant operations at adjacent former Frederick Gas Works property to the west.

Based on the analytical and field screening results for soil samples collected near the suspected kerosene spill area (3-B-8), and the area of the suspected 10,000-gallon tank location and Goodwill aerosol storage (3-B-6, 2-B-1, and 2-B-2), no releases in these areas are apparent.

TPH DRO was detected above MDE Residential Standards in soil samples from within the parking lot area west of the Site building (3-B-3 and 3-B-5). The shallow depths of these samples (1.5 to two feet bgs), suggests these concentrations are the result of historical vehicular parking.

Historical groundwater data, collected in August 2017 and November 2018, indicates that petroleum VOC, TPH DRO, and TPH GRO impacts to groundwater are limited to the western portion of the Site where similar petroleum impacts have been confirmed in soil near the groundwater table. The groundwater flow direction was determined as from northwest to southeast. This flow direction, in conjunction with the absence of these impacts in shallow soils near the western boundary, indicates that petroleum impact has migrated onto the Site from a source to the west.

Soil vapor and indoor air results indicate there is no potential for vapor intrusion for VOC constituents detected in soil and groundwater at the Site. VOC levels in indoor air meet the most stringent MDE Residential Tier I Screening Levels.

The slight exceedance of 1,3-butadiene in exterior soil gas sample 3-SV-2 at above the Tier I Residential Screening Level is a common urban and suburban contaminant due to cigarette smoke, wood fires, vehicle exhaust, and other combustion sources. This compound was below the screening level in the nearby indoor soil gas sample, 3-SV-3, and indoor air samples.

AEI recommended no further investigation at the Site. The report indicated that future plans include engineering controls, such as asphaltic and concrete pavement, and institutional controls, such as an environmental covenant, to prevent future occupant exposure to the identified contaminants. In addition, a radon mitigation system or sub-slab depressurization system (SSDS) was proposed as an additional control, although vapor intrusion was not identified as a concern.

7) MDE, Re: Voluntary Cleanup Program Application, Ox Fibre Apartments, 400 East Church Street, Frederick, Maryland 21701, dated December 23, 2019

In a letter, dated December 23, 2019, the MDE approved the application for the Site property to participate in the VCP with the proposed use as restricted residential (Tier B) and responsible person status for 400 Church Owner, LLC. The MDE stated that the Site does not qualify for a No Further Requirement Determination, and a RAP must be developed, and approved by MDE, and implemented, to address the elevated levels of TPH, PAHs, and priority pollutant metals found in soil and groundwater at the Site. In addition, public participation requirements consist of posting a sign at the property and publishing a notice of the proposed RAP in a daily or weekly newspaper of general circulation in the geographic area where the property is located. Both notices must include a date and location of the public informational meeting. Upon satisfactory implementation and completion of the requirements of the approved RAP, and any subsequent addendums, the MDE will issue a Certificate of Completion (COC) for the property. The COC must be recorded in the land records of Frederick County within 30 days of receipt.

1.5 Summary of Proposed Response Actions

The proposed response actions will resolve any outstanding environmental issues associated with the Site. Based on the identified potential risks, AEC is proposing remedies that have been successfully implemented at similar sites. The identified potential risks, proposed remedial actions, and a rationale for each remedial action are presented in the following table:

Table 16 – Remedial Action Rationale

Identified Potential Risk	Proposed Remedial Action	Rationale
Ingestion and dermal contact of soil impacted with VOCs, PAHs, TPH, and metals	Maintenance of existing building slab, asphalt and concrete surfaces surrounding the structure, and clean topsoil in landscaped areas and to prevent direct contact with impacted soil	Deep soils (13 to 20 feet bgs) are impacted with VOCs, PAHs, and TPH. Shallow soils (1.5 to four feet bgs) are impacted with PAHs, TPH, and metals. The building slab, paved exterior surfaces, and clean topsoil are effective barriers between impacted soil and building occupants. A Containment Remedy Operations and Maintenance Plan (CROMP) will be developed and used to evaluate the slab and pavement surfaces and condition of topsoil on an annual basis.
	Excavation restrictions	An excavation restriction will apply to the property. Any proposed construction that will breach the building slab, paved exterior surfaces, or landscaped areas will require development and implementation of a soil management plan (SMP) and a Health and Safety Plan (HASP) to ensure worker safety. The SMP and HASP will be included as part of the CROMP.
	Implementation of SMP and HASP	During redevelopment activities utilities will be installed. Development will include grading and landscaping, including the installation of stormwater management ponds .
Ingestion and dermal contact of groundwater	Restrict groundwater use at the Site	The depth to groundwater at the Site is approximately 15 feet bgs and it is not anticipated that groundwater will be encountered during intrusive activities that may become necessary (e.g., utility installation or repair and landscaping activities). In addition, municipal water is provided to the Site. In order to further ensure that groundwater will not present an exposure risk, a groundwater use restriction will be implemented.

2.0 ADDITIONAL INVESTIGATORY INFORMATION

No additional investigations have been performed at the Site since the subsurface investigation and indoor air study conducted July 23, 2019. Subsurface investigations were previously completed on August 17, 2017 and November 26 and 27, 2019. The results of these investigations were previously discussed in Section 1.4.

3.0 EXPOSURE ASSESSMENT

3.1 Future Development

Plans are to redevelop the Site for multi-family residential use. The existing structure will be renovated as loft apartments. The land use and restriction category for the property is expected to continue to be Tier 1 (Residential) B (Restricted).

3.2 Media of Concern

Risk of exposure to potential chemicals of concern has been assessed through previous investigations performed at the Site. Risk to residents to the Site is assessed through the comparison of sampling results to Maryland's applicable standards for soil, groundwater, soil gas, and indoor air, assuming a residential use scenario.

3.3 Contaminants of Concern

Based on the data presented in Section 1.4 and Figures 3 through 16, VOCs, PAHs, TPH, and metals are a concern in soil and VOCs, naphthalene, and TPH are a concern in groundwater. Specific VOCs of concern in soil are bezene, ethylbenzene, m&p-xylene, o-xylene, and styrene. PAHs of concern in soil are benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenz[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-dc]pyrene, phenanthrene, and pyrene. The metals antimony, arsenic, mercury, thallium, and hexavalent chromium are of concern in soil. Benzene, ethylbenzene, m&p-xylene, and naphthalene are of concern in groundwater. TPH DRO and TPH GRO are of concern in soil and groundwater. No constituents were identified as a concern in soil gas or indoor air.

Table 17 - Contaminants in Soil
400 East Church Street
Frederick, Maryland 21701

Contaminant of Concern	Highest Detected Concentration	Sampling Date	Sampling Point (depth)	Report Source	MDE Residential Clean-Up Standards	Central Maryland ATC
Benzene	**29,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**1,200**	N/A
Ethylbenzene	**110,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**5,800**	N/A
m&p-Xylene	**410,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**58,000**	N/A

Contaminant of Concern	Highest Detected Concentration	Sampling Date	Sampling Point (depth)	Report Source	MDE Residential Clean-Up Standards	Central Maryland ATC
o-Xylene	**160,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**58,000**	N/A
Styrene	**88,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**58,000**	N/A
Naphthalene	**1,200,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**3,800**	N/A
Benzo[a]anthracene	**470,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**1,100**	N/A
Benzo[a]pyrene	**430,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**110**	N/A
Benzo[b]fluoranthene	**310,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**1,100**	N/A
Benzo[k]fluoranthene	**390,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**11,000**	N/A
Chrysene	**380,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**110,000**	N/A
Dibenz[a,h]anthracene	**73,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**110**	N/A
Fluoranthene	**1,200,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**240,000**	N/A
Fluorene	**760,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**240,000**	N/A
Indeno[1,2,3-cd]pyrene	**190,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**1,100**	N/A

Contaminant of Concern	Highest Detected Concentration	Sampling Date	Sampling Point (depth)	Report Source	MDE Residential Clean-Up Standards	Central Maryland ATC
Phenanthrene	**1,900,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**180,000**	N/A
Pyrene	**830,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**180,000**	N/A
TPH DRO	**19,000**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**230**	N/A
TPH GRO	**3,900**	8/17/2017	1-B-4 (13-14)	ICOR, Phase II Site Assessment, dated January 17, 2018	**230**	N/A
Antimony	**6.13**	7/23/2019	3-B-6 (2.5-3)	AEI, Phase II Subsurface Investigation, dated October 29, 2019	**3.1**	**3.2**
Arsenic	**32.4**	7/23/2019	2-B-1 (3-4)	AEI, Phase II Subsurface Investigation, dated October 29, 2019	**0.68**	**11**
Mercury	**2.1**	7/23/2019	3-B-6 (1.5-2)	AEI, Phase II Subsurface Investigation, dated October 29, 2019	**1.1**	**0.12**
Thallium	**3.57**	7/23/2019	3-B-4 (2.5-3)	AEI, Phase II Subsurface Investigation, dated October 29, 2019	**0.078**	4.6
Hexavalent chromium	**1.29**	7/23/2019	3-B-10 (2.5-3)	AEI, Phase II Subsurface Investigation, dated October 29, 2019	**0.3**	N/A

Bold values exceed regulatory standards
N/A = Not Applicable
VOC and PAH results in parts per billion or µg/kg
Metals and TPH results in parts per million or mg/kg
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

Table 18 - Contaminants in Groundwater
400 East Church Street
Frederick, Maryland 21701

Contaminant of Concern	Highest Detected Concentration	Sampling Date	Sampling Point	Report Source	Type I and II Aquifers Clean-Up Standards
Benzene	**850**	8/17/2017	1-B-5	ICOR, Phase II Site Assessment, dated January 17, 2018	**5**
Ethylbenzene	**5,800**	8/17/2017	1-B-5	ICOR, Phase II Site Assessment, dated January 17, 2018	**700**
m&p-Xylene	**310**	8/17/2017	1-B-5	ICOR, Phase II Site Assessment, dated January 17, 2018	**10,000**
Naphthalene	**30,000**	8/17/2017	1-B-5	ICOR, Phase II Site Assessment, dated January 17, 2018	**0.17**
TPH DRO	**420**	8/17/2017	1-B-5	ICOR, Phase II Site Assessment, dated January 17, 2018	**0.047**
TPH GRO	**38**	8/17/2017	1-B-5	ICOR, Phase II Site Assessment, dated January 17, 2018	**0.047**

Bold values exceed regulatory standards
VOC and PAH results in parts per billion or µg/l
TPH results in parts per million or mg/l
MDE Standards (Generic Numeric Cleanup Standards for Groundwater and Soil - Interim Final Guidance Update No. 3.0 – October 2018)

3.4 Potentially Exposed Populations

Future potentially exposed populations include residents, commercial workers, intermittent visitors, and construction workers. Current exposed populations include intermittent visitors.

3.5 Exposure Pathways

The potential exposure pathway for surface and subsurface soil is dermal exposure. This pathway is limited as the paved surfaces and building slab are effective barriers between impacted soils and receptors. During Site construction, this pathway is considered complete as workers could come into contact with soils during installation of utilities and during grading and landscaping activities, including installation of stormwater management ponds.

Direct ingestion of groundwater is not considered a complete exposure pathway because groundwater is not anticipated to be encountered during intrusive activities that may become necessary (e.g., utility installation or repair, landscaping) and will not be used for any purpose as municipal water is provided to the Site and vicinity.

4.0 CLEANUP CRITERIA

4.1 Soil Cleanup Criteria

Based on an incomplete pathway, no cleanup criteria are proposed for soil. Deep soils from 13 feet bgs to 20 feet bgs are impacted with VOCs, PAHs, and TPH. Shallow soils from 1.5 feet bgs to four feet bgs are impacted with PAHs, TPH, and metals. The remedial technologies selected to address the incidental ingestion risk from surface and subsurface soils includes maintenance of the building slab, asphalt and concrete surfaces surrounding the structure, and clean topsoil in landscaped areas, and implementation of a SMP and HASP during construction activities to prevent direct exposure. An excavation restriction will prevent intrusive activities that may encounter impacted soils. These remedial technologies are further discussed in Section 5.1.1.

4.2 Groundwater Cleanup Criteria

Based on an incomplete pathway, no cleanup criteria are proposed for groundwater. The depth to groundwater at the Site is approximately 15 feet bgs and it is not anticipated that groundwater will be encountered during intrusive activities that may become necessary (e.g., utility installation or repair and landscaping activities). In addition, municipal water is provided to the Site. In order to further ensure that groundwater will not present an exposure risk, a groundwater use restriction will be implemented.

4.3 Soil Gas Cleanup Criteria

No constituents were identified as a concern in soil gas; therefore, no cleanup criteria are proposed for this media.

4.4 Indoor Air Criteria

No constituents were identified as a concern in indoor air; therefore, no cleanup criteria are proposed for this media.

5.0 SELECTED TECHNOLOGY AND LAND USE CONTROLS

5.1 Selected Technology

5.1.1 Surface and Subsurface Soil

Surface and subsurface soils are not anticipated to be encountered by residents due to the presence of the existing Site building foundation slab, paved exterior surfaces, and clean topsoil. In order to further ensure that surface and subsurface soils will not present an exposure risk a Containment Remedy Operations and Maintenance Plan (CROMP) will be developed and implemented in order to ensure that the existing slab beneath the building, pavement surfaces, and condition of topsoil will be mainta ined with yearly inspections. Written records documenting building slab, pavement, and topsoil maintenance will be maintained at the Site and available upon request. In addition, the CROMP will include excavation restrictions for the Site.

An excavation restriction for the Site will prevent unsupervised intrusive activities. Any proposed construction that will require excavation will require development and implementation of a soil management plan (SMP) and a Health and Safety Plan (HASP) as defined in the CROMP. All soil from the Site will be analyzed before disposal, and the laboratory data will determine appropriate disposal in accordance with all applicable local, State, and federal regulations. Laboratory results will be maintained at the Site and available upon request. The MDE will be notified at least 30 days prior to soil excavation activities that require implementation of the CROMP SMP.

During redevelopment activities it is anticipated that construction workers may encounter soils during installation of utilities, and grading and landscaping including the installation of stormwater management ponds. Prior to redevelopment activities, a SMP and HASP will be developed and submitted to MDE for approval. The approved SMP and HASP will be implemented during these intrusive activities.

5.1.2 Groundwater

Groundwater is not anticipated to be encountered due to a depth of approximately 15 feet bgs, and the presence of municipal water supply at the Site and vicinity. In order to further ensure that groundwater will not present an exposure risk, a groundwater use restriction will be implemented.

5.2 Institutional Controls

The property use under the VCP is Restricted Residential (Tier 1B). The institutional controls set forth in the COC will include: 1) a prohibition on groundwater use; 2) a slab, pavement, and topsoil maintenance requirement for the property; 3) an excavation notification and soil disposal requirement for the property; and 4) a requirement for a HASP and SMP for any intrusive work at the property. Items 2 through 4 will be addressed in a CROMP document that will be attached to the COC.

6.0 EVALUATION CRITERIA FOR THE SELECTED TECHNOLOGY

6.1 Criteria for Certificate of Completion

A COC will be issued by the MDE when all of the following have been met:

1. The CROMP has been submitted to the VCP for review and approval at least 60 days prior to the request for the COC;
2. A RAP Completion Report is submitted to the VCP that fully and adequately documents all cleanup criteria have been met and all RAP activities have been completed. The request for issuance of the COC will be included within the report.

The COC and accompanying Environmental Covenant (EC) will include any necessary land use controls, engineering controls, or long-term requirements for the Site. Specific elements of the EC are detailed in Section 7.0 below. The COC and EC will be recorded within the Land Records of Frederick County as required.

6.2 Criteria for Contingency Measures

Should any new contamination, exposure pathways, or other circumstances not currently known to exist at the Site be encountered during the implementation of this RAP, the MDE will be notified within 24 hours. The new circumstances encountered at the Site will be evaluated to determine potential impacts on the effectiveness of the proposed remedies.

If the new conditions or contamination could have impacts on the effectiveness of the proposed remedies, the implementation of the RAP will be postponed after notifying and confirming the conditions and postponement with the VCP. The RAP will then be amended to address the new circumstances.

7.0 PROPOSED RESPONSE ACTIONS

7.1 Soil Response Action

In order to ensure that soil will not present an exposure risk, the building slab, pavement, and topsoil will be maintained and excavation restrictions for the property will be implemented.

7.1.1 Maintenance of the Slab, Pavement, and Topsoil

The impacted areas within the subsurface at the Site are currently covered with asphalt and concrete pavement and the Site building foundation. The building foundation slab, existing or new pavement, and new topsoil will be maintained with yearly inspections as defined in the CROMP. Written records documenting building slab, pavement, and topsoil maintenance will be maintained at the Site and available upon request.

7.1.2 Excavation Restriction

An excavation restriction for soils at the Site will prevent unsupervised intrusive activities. If intrusive activities are necessary, all soil excavated from the Site will be analyzed before disposal, and the laboratory data will determine appropriate disposal in accordance with all applicable local, State, and federal regulations. Laboratory results will be maintained at the Site and available upon request.

Any proposed construction that will require excavation of soils will require development and implementation of a soil management plan and a HASP to ensure worker safety as defined in the CROMP. The MDE will be notified at least 30 days prior to soil excavation activities that require implementation of the soil management plan.

The proposed excavation restriction area is depicted on Figure 17 in Appendix A.

7.1.3 Implementation of SMP and HASP

Redevelopment activities will require excavation of soils to install utilities and grading and landscaping including the installation of soil management ponds. An SMP and HASP will be developed and approved by MDE prior to this work. The HASP will be implemented to ensure worker safety. The SMP will be implemented to ensure soil is managed in a manner consistent with all applicable local, State, and federal regulations.

7.2 Groundwater Response Action

In order to ensure that groundwater will not present an exposure risk, a groundwater use restriction will be implemented. No remedy beyond a groundwater use restriction is proposed for groundwater. In addition, the groundwater use restriction will apply to all groundwater use and will not be limited to the shallow aquifer.

7.3 Reporting Requirements

The following reporting requirements will be adhered to during the implementation of this RAP:

- An initial notification (letter or email correspondence) will be submitted to the MDE VCP project manager five calendar days prior to of the start of RAP implementation activities at the Site;

- Monthly status reports will be submitted to the VCP via email during RAP implementation activities. Status reports will describe any RAP related activities occurring that month, including activities that involve implementing the HASP and SMP.

- A RAP implementation report will be submitted to the MDE VCP project manager. This report will describe a description of the barriers in place to prevent contact with impacted soil (i.e., building slab, paved surfaces, and topsoil). The RAP implementation report will also include the CROMP as an attachment. This report will be submitted 30 days following conclusion of the implementation activities.

- An addendum to the RAP implementation report will be submitted to the MDE VCP project manager in the event of any changes to Site use.

8.0 PERMITS, NOTIFICATIONS, AND CONTINGENCIES

The participants will comply with all applicable and appropriate local, State and federal regulations and obtain the necessary permits and/or approvals to implement this RAP. The MDE VCP will be verbally notified within 48 hours (72 hours in writing) of any changes (planned or emergency) to the RAP implementation schedule, any previously undiscovered contamination, any previously undiscovered storage tanks and other oil-related issues, and citations from regulatory entities related to health and safety practices. All notifications shall be made to the MDE VCP project manager and/or MDE VCP Division Chief at 410-537-3493.

If the new conditions or contamination could have impacts on the effectiveness of the proposed remedies, the implementation of the RAP will be postponed after notifying and confirming the conditions and postponement with the VCP. The RAP will then be amended to address the new circumstances.

Should redevelopment of the Site after RAP implementation be proposed, an amendment to the RAP will be proposed to address impacted materials (soil and groundwater).

9.0 HEALTH AND SAFETY PLAN

All applicable Occupational Safety and Health Administration (OSHA) regulations will be followed during the performance of this work. Any proposed construction that will breach the building slab, paved surfaces, or topsoil will require implementation of the SMP and HASP as defined in the CROMP to ensure worker safety.

10.0 IMPLEMENTATION SCHEDULE

The schedule below is for informational purposes. The MDE VCP project manager will be notified (letter or email correspondence) five calendar days prior to the beginning of RAP implementation activities. Monthly RAP status reports will be submitted to the MDE VCP project manager during the implementation of this RAP. In addition, the MDE VCP project manager will be verbally notified within 48 hours (72 hours in writing) of any changes (planned or emergency) to the RAP implementation schedule. All changes to the implementation schedule will be proposed in writing.

Table 20 – RAP Implementation Schedule

Event	Day
MDE VCP approves proposed RAP	Day X
Submit performance bond or other security	Day X + 10 days
Submit CROMP with SMP and HASP	Day X + 30 days
Notification to MDE VCP of start of RAP implementation activities	Day X + 30 days
Begin redevelopment of Site	Day X + 35 days
Monthly RAP Status Reports	15th day of each month following Day X
Site redevelopment is complete	December 31, 2020
Request COC and submit RAP Completion Report to the MDE	January 15, 2021

11.0 ADMINISTRATIVE REQUIREMENTS

11.1 Written Agreement Regarding Withdrawal

If the response action plan is approved by the MDE, the participant (400 Church Owner, LLC) agrees, subject to the withdrawal provisions of Section 7-512 of the Environment Article, to comply with the provisions of the RAP. The Participant understands that if they fail to implement and complete the requirements of the approved plan and schedule, the MDE may reach an agreement with the participant to revise the schedule of completion in the approved response action plan or, if an agreement cannot be reached, the MDE may withdraw approval of the plan. Copies of the executed agreements are presented in Appendix B.

11.2 Certified Statement Regarding Zoning Requirements

The participant hereby certifies that the property meets all applicable municipal zoning requirements.

The participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland, and that this certification is required to be included in a Response Action Plan for the Voluntary Cleanup Program pursuant to Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland. Copies of the executed statements are presented in Appendix B.

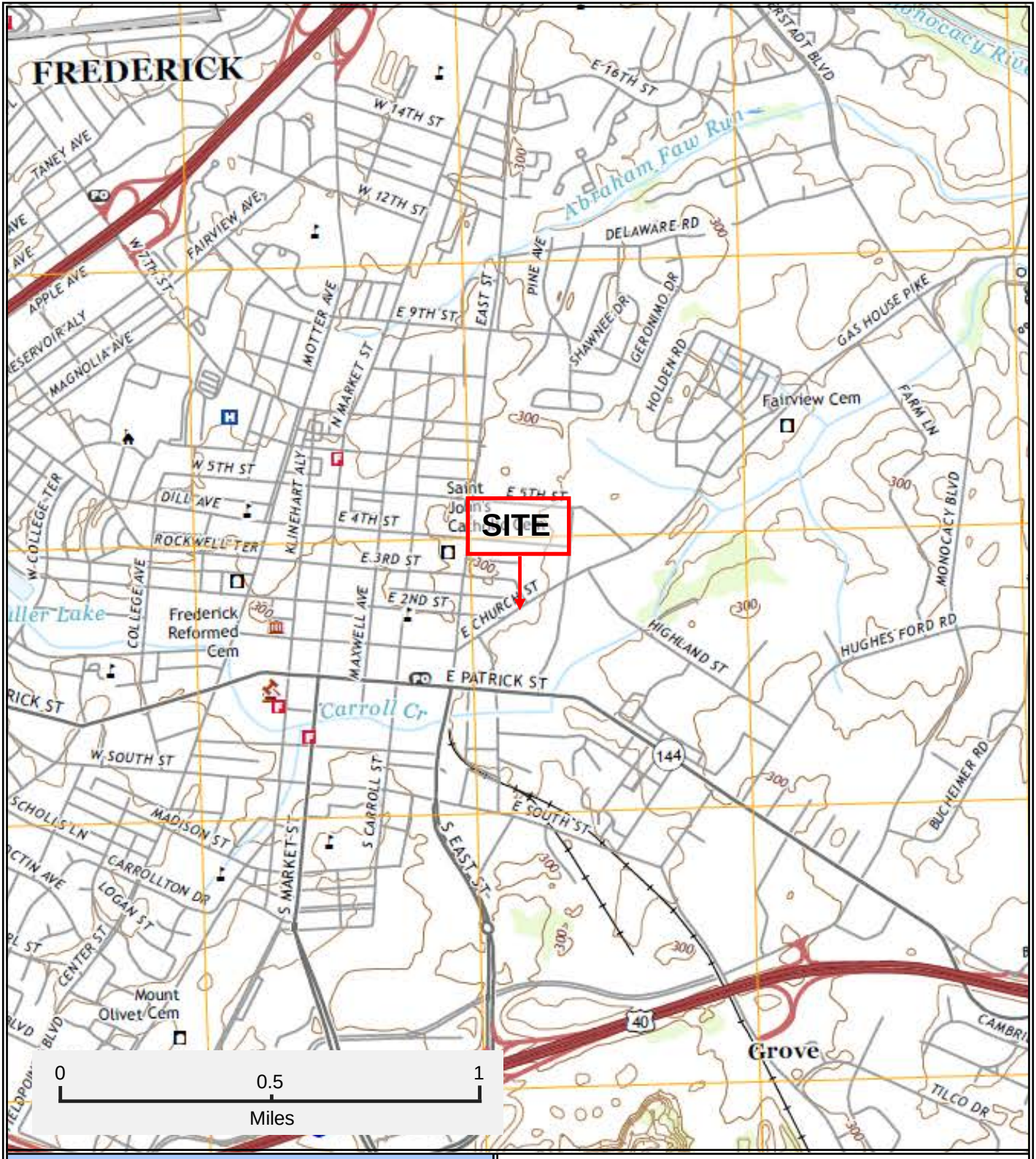
11.3 Letter of Credit or Other Security

A letter of credit, or other mechanism approved by the MDE, is proposed in the amount of $10,000 for securing and stabilizing the property. Securing and stabilizing the Site may consist of the following actions: Posting notices or warnings about conditions on the Site; restricting access to contaminated portions of the Site; preventing dust or other movement of contaminated soil or contaminants off the Site prior to continuing implementation of the RAP; disposing of contaminated material; placing clean fill material in excavated areas; preventing and abating any other dangerous conditions prior to continuing implementation of the RAP. 400 Church Owner, LLC will select either an irrevocable letter of credit or performance bond to meet this obligation. This financial instrument will be submitted to the MDE within 10 days of the MDE approving the RAP.

The participants understand that the obligation for the performance bond or other security remains in effect for the Site and does not become void until issuance of the Certificate of Completion for the Site, or 16 months after withdrawal of these applications from the VCP. The participants acknowledge that failure to maintain the performance bond or other security for the Site will result in the withdrawal of the application from the VCP.

APPENDIX A

FIGURES



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Jessup, Maryland 20794
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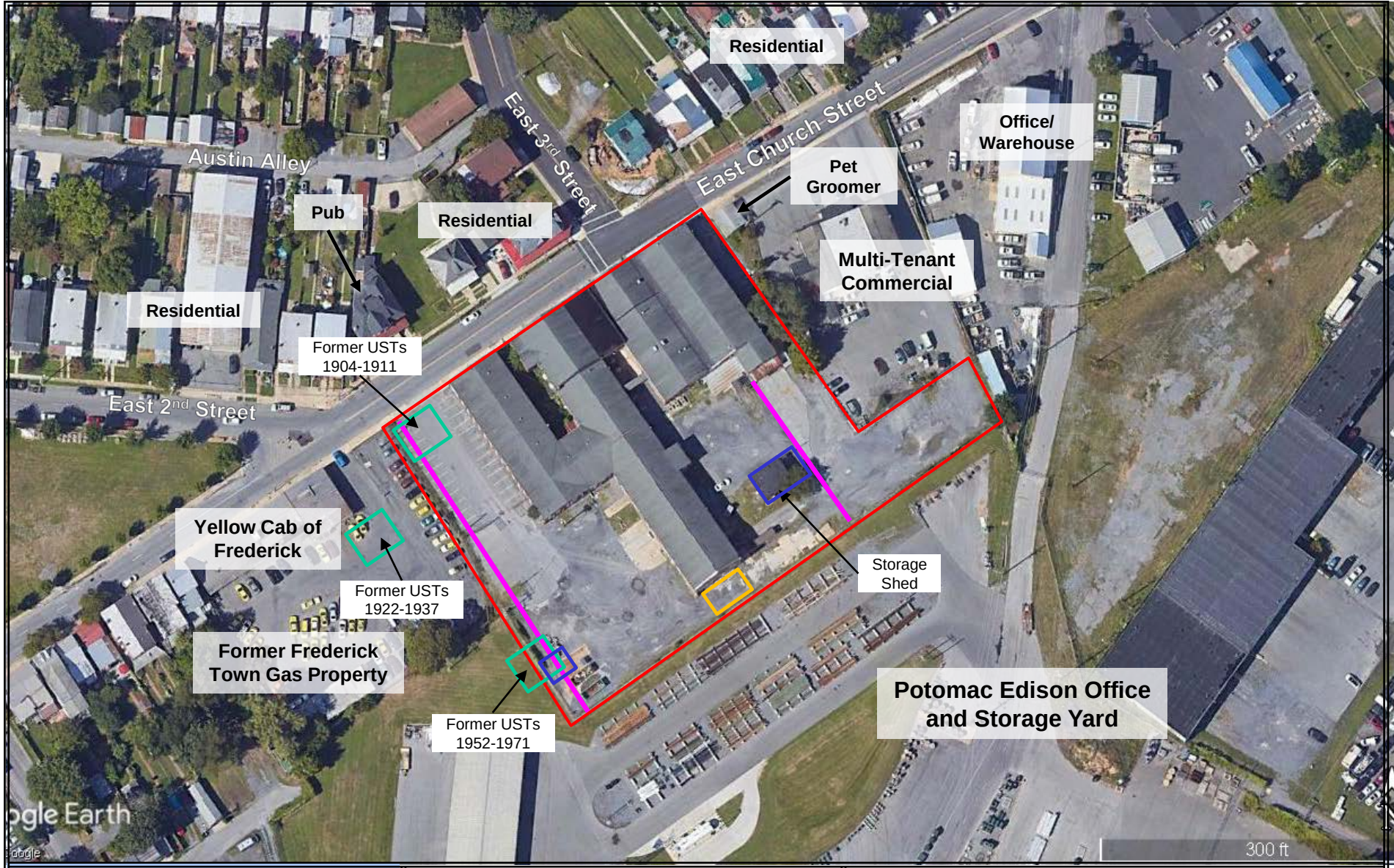
N

Figure 1 - Site Vicinity Map
7.5-Minute Series, Frederick, MD Quadrangle
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

AEC Project No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



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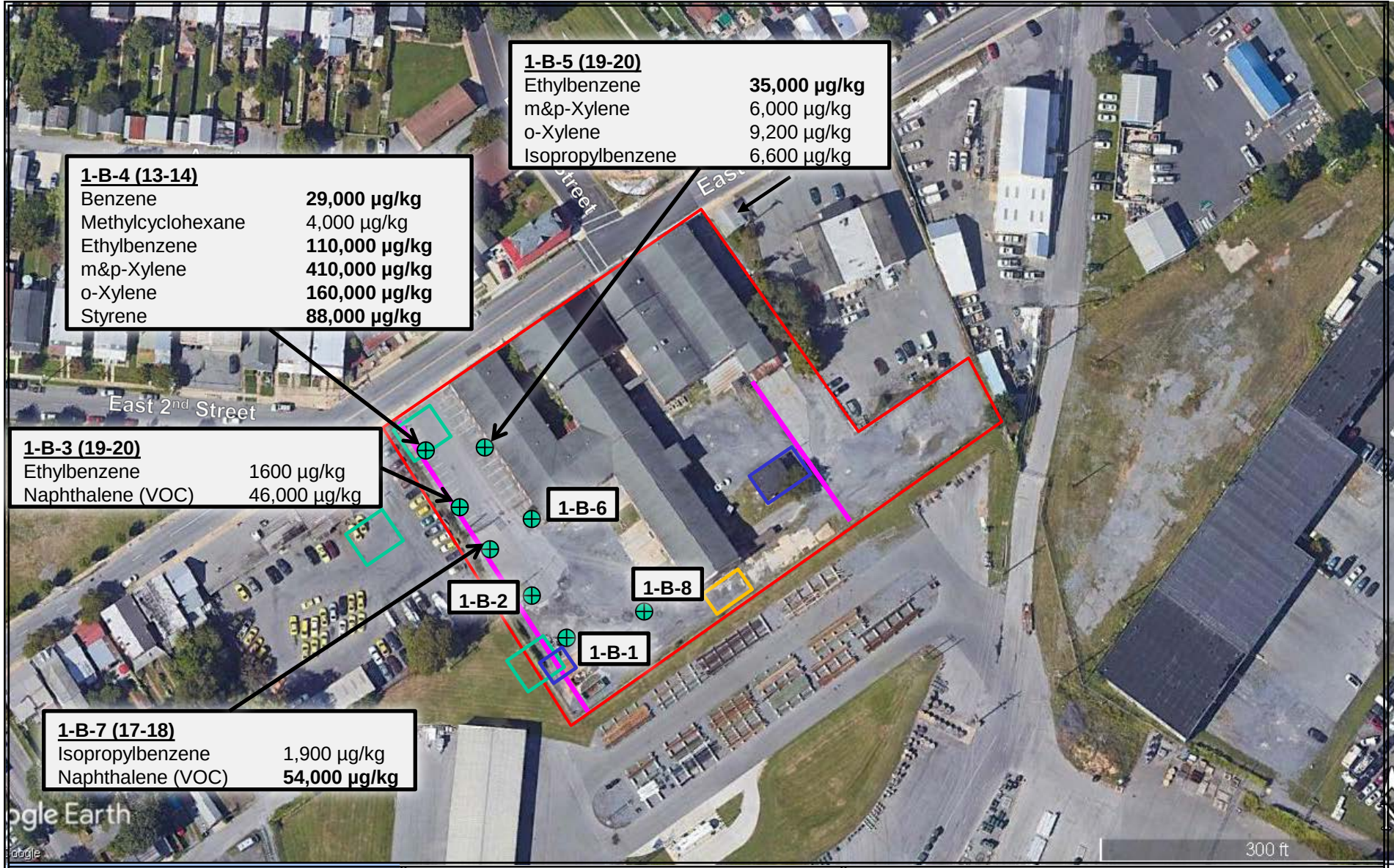
Phone: 301-776-0500 Fax: 301-776-1123

Legend
= Site Boundary
= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur

N

Figure 2 - Site Plan
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



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Legend
= Site Boundary
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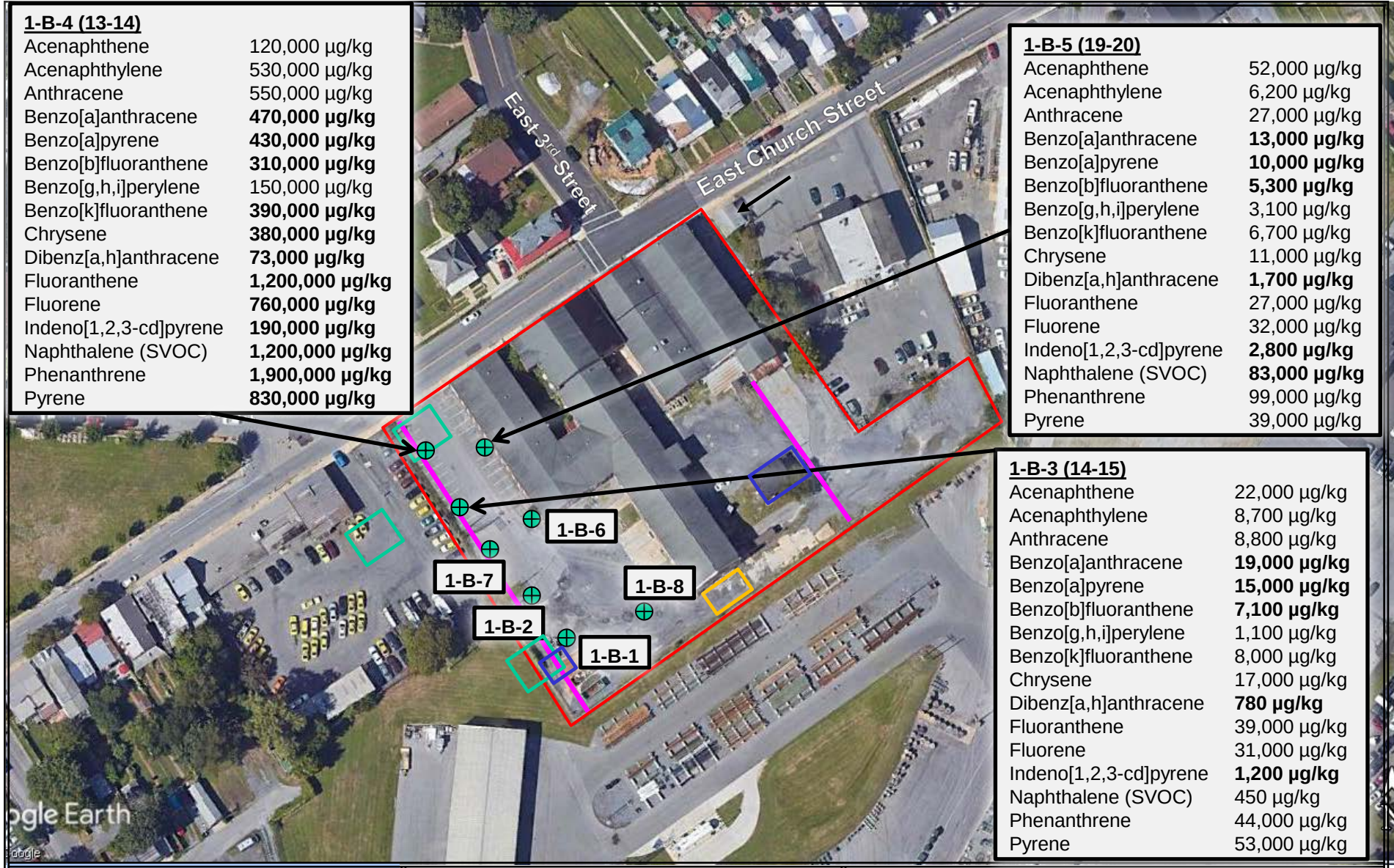
N

Figure 3 – VOC Soil Sample Results (August 17, 2017)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



1-B-4 (13-14)

Acenaphthene	120,000 µg/kg
Acenaphthylene	530,000 µg/kg
Anthracene	550,000 µg/kg
Benzo[a]anthracene	**470,000 µg/kg**
Benzo[a]pyrene	**430,000 µg/kg**
Benzo[b]fluoranthene	**310,000 µg/kg**
Benzo[g,h,i]perylene	150,000 µg/kg
Benzo[k]fluoranthene	**390,000 µg/kg**
Chrysene	**380,000 µg/kg**
Dibenz[a,h]anthracene	**73,000 µg/kg**
Fluoranthene	**1,200,000 µg/kg**
Fluorene	**760,000 µg/kg**
Indeno[1,2,3-cd]pyrene	**190,000 µg/kg**
Naphthalene (SVOC)	**1,200,000 µg/kg**
Phenanthrene	**1,900,000 µg/kg**
Pyrene	**830,000 µg/kg**

1-B-5 (19-20)

Acenaphthene	52,000 µg/kg
Acenaphthylene	6,200 µg/kg
Anthracene	27,000 µg/kg
Benzo[a]anthracene	**13,000 µg/kg**
Benzo[a]pyrene	**10,000 µg/kg**
Benzo[b]fluoranthene	**5,300 µg/kg**
Benzo[g,h,i]perylene	3,100 µg/kg
Benzo[k]fluoranthene	6,700 µg/kg
Chrysene	11,000 µg/kg
Dibenz[a,h]anthracene	**1,700 µg/kg**
Fluoranthene	27,000 µg/kg
Fluorene	32,000 µg/kg
Indeno[1,2,3-cd]pyrene	**2,800 µg/kg**
Naphthalene (SVOC)	**83,000 µg/kg**
Phenanthrene	99,000 µg/kg
Pyrene	39,000 µg/kg

1-B-3 (14-15)

Acenaphthene	22,000 µg/kg
Acenaphthylene	8,700 µg/kg
Anthracene	8,800 µg/kg
Benzo[a]anthracene	**19,000 µg/kg**
Benzo[a]pyrene	**15,000 µg/kg**
Benzo[b]fluoranthene	**7,100 µg/kg**
Benzo[g,h,i]perylene	1,100 µg/kg
Benzo[k]fluoranthene	8,000 µg/kg
Chrysene	17,000 µg/kg
Dibenz[a,h]anthracene	**780 µg/kg**
Fluoranthene	39,000 µg/kg
Fluorene	31,000 µg/kg
Indeno[1,2,3-cd]pyrene	**1,200 µg/kg**
Naphthalene (SVOC)	450 µg/kg
Phenanthrene	44,000 µg/kg
Pyrene	53,000 µg/kg

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Legend
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= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Soil Boring Location

N

Figure 4 – PAH Soil Sample Results (August 17, 2017)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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Legend
= Site Boundary
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= Soil Boring Location

N

Figure 5 – TPH Soil Sample Results (August 17, 2017)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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Legend
= Site Boundary
= Former Fuel Oil USTs
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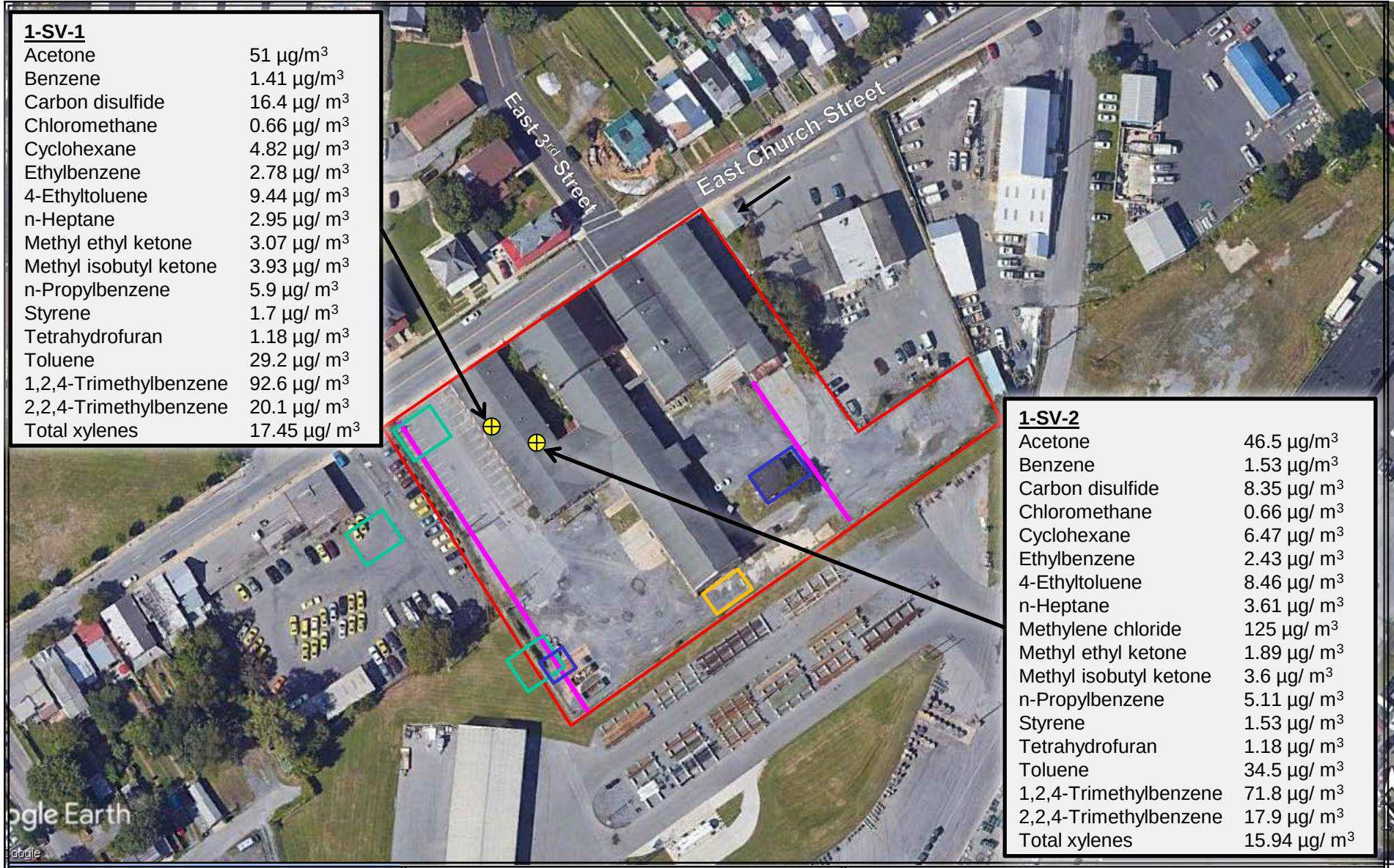
= Former Railroad Spur
= Soil Boring Location

Figure 6 – Groundwater Sample Results (August 17, 2017)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

N

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



1-SV-1

Acetone	51 µg/m³
Benzene	1.41 µg/m³
Carbon disulfide	16.4 µg/ m³
Chloromethane	0.66 µg/ m³
Cyclohexane	4.82 µg/ m³
Ethylbenzene	2.78 µg/ m³
4-Ethyltoluene	9.44 µg/ m³
n-Heptane	2.95 µg/ m³
Methyl ethyl ketone	3.07 µg/ m³
Methyl isobutyl ketone	3.93 µg/ m³
n-Propylbenzene	5.9 µg/ m³
Styrene	1.7 µg/ m³
Tetrahydrofuran	1.18 µg/ m³
Toluene	29.2 µg/ m³
1,2,4-Trimethylbenzene	92.6 µg/ m³
2,2,4-Trimethylbenzene	20.1 µg/ m³
Total xylenes	17.45 µg/ m³

1-SV-2

Acetone	46.5 µg/m³
Benzene	1.53 µg/m³
Carbon disulfide	8.35 µg/ m³
Chloromethane	0.66 µg/ m³
Cyclohexane	6.47 µg/ m³
Ethylbenzene	2.43 µg/ m³
4-Ethyltoluene	8.46 µg/ m³
n-Heptane	3.61 µg/ m³
Methylene chloride	125 µg/ m³
Methyl ethyl ketone	1.89 µg/ m³
Methyl isobutyl ketone	3.6 µg/ m³
n-Propylbenzene	5.11 µg/ m³
Styrene	1.53 µg/ m³
Tetrahydrofuran	1.18 µg/ m³
Toluene	34.5 µg/ m³
1,2,4-Trimethylbenzene	71.8 µg/ m³
2,2,4-Trimethylbenzene	17.9 µg/ m³
Total xylenes	15.94 µg/ m³

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Legend
= Site Boundary
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= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Soil Vapor Sample Location

N

Figure 7 – Soil Vapor Results (August 17, 2017)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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Legend
= Site Boundary
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= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Soil Boring Location

Figure 8 – Soil Sample Results (November 27, 2018)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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Legend
= Site Boundary
= Former Fuel Oil USTs
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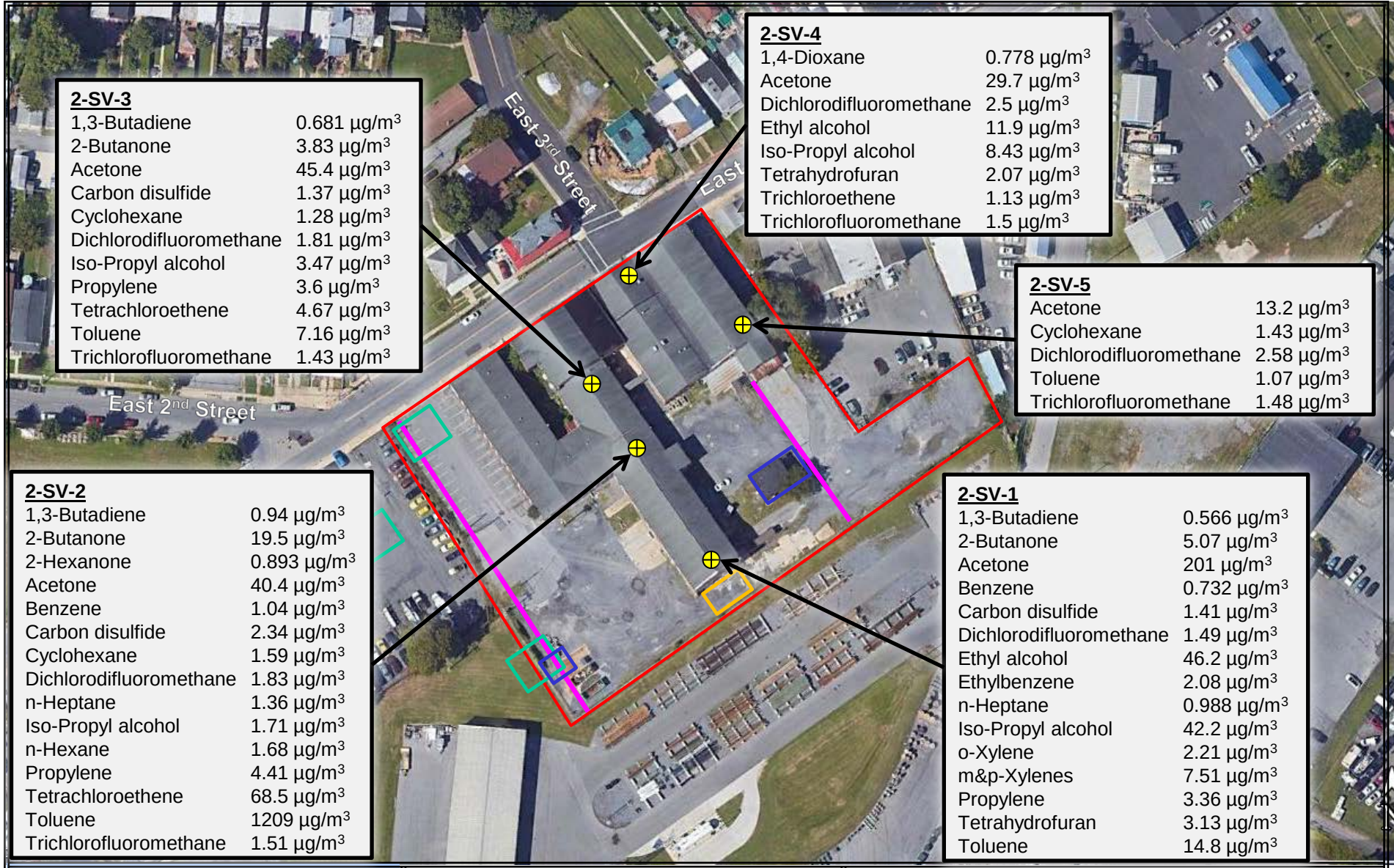
= Kerosene Spill
= Former Railroad Spur
= Soil Boring Location

Figure 9 – Groundwater Sample Results (November 27, 2018)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

N

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



2-SV-3

1,3-Butadiene	0.681 µg/m³
2-Butanone	3.83 µg/m³
Acetone	45.4 µg/m³
Carbon disulfide	1.37 µg/m³
Cyclohexane	1.28 µg/m³
Dichlorodifluoromethane	1.81 µg/m³
Iso-Propyl alcohol	3.47 µg/m³
Propylene	3.6 µg/m³
Tetrachloroethene	4.67 µg/m³
Toluene	7.16 µg/m³
Trichlorofluoromethane	1.43 µg/m³

2-SV-4

1,4-Dioxane	0.778 µg/m³
Acetone	29.7 µg/m³
Dichlorodifluoromethane	2.5 µg/m³
Ethyl alcohol	11.9 µg/m³
Iso-Propyl alcohol	8.43 µg/m³
Tetrahydrofuran	2.07 µg/m³
Trichloroethene	1.13 µg/m³
Trichlorofluoromethane	1.5 µg/m³

2-SV-5

Acetone	13.2 µg/m³
Cyclohexane	1.43 µg/m³
Dichlorodifluoromethane	2.58 µg/m³
Toluene	1.07 µg/m³
Trichlorofluoromethane	1.48 µg/m³

2-SV-2

1,3-Butadiene	0.94 µg/m³
2-Butanone	19.5 µg/m³
2-Hexanone	0.893 µg/m³
Acetone	40.4 µg/m³
Benzene	1.04 µg/m³
Carbon disulfide	2.34 µg/m³
Cyclohexane	1.59 µg/m³
Dichlorodifluoromethane	1.83 µg/m³
n-Heptane	1.36 µg/m³
Iso-Propyl alcohol	1.71 µg/m³
n-Hexane	1.68 µg/m³
Propylene	4.41 µg/m³
Tetrachloroethene	68.5 µg/m³
Toluene	1209 µg/m³
Trichlorofluoromethane	1.51 µg/m³

2-SV-1

1,3-Butadiene	0.566 µg/m³
2-Butanone	5.07 µg/m³
Acetone	201 µg/m³
Benzene	0.732 µg/m³
Carbon disulfide	1.41 µg/m³
Dichlorodifluoromethane	1.49 µg/m³
Ethyl alcohol	46.2 µg/m³
Ethylbenzene	2.08 µg/m³
n-Heptane	0.988 µg/m³
Iso-Propyl alcohol	42.2 µg/m³
o-Xylene	2.21 µg/m³
m&p-Xylenes	7.51 µg/m³
Propylene	3.36 µg/m³
Tetrahydrofuran	3.13 µg/m³
Toluene	14.8 µg/m³

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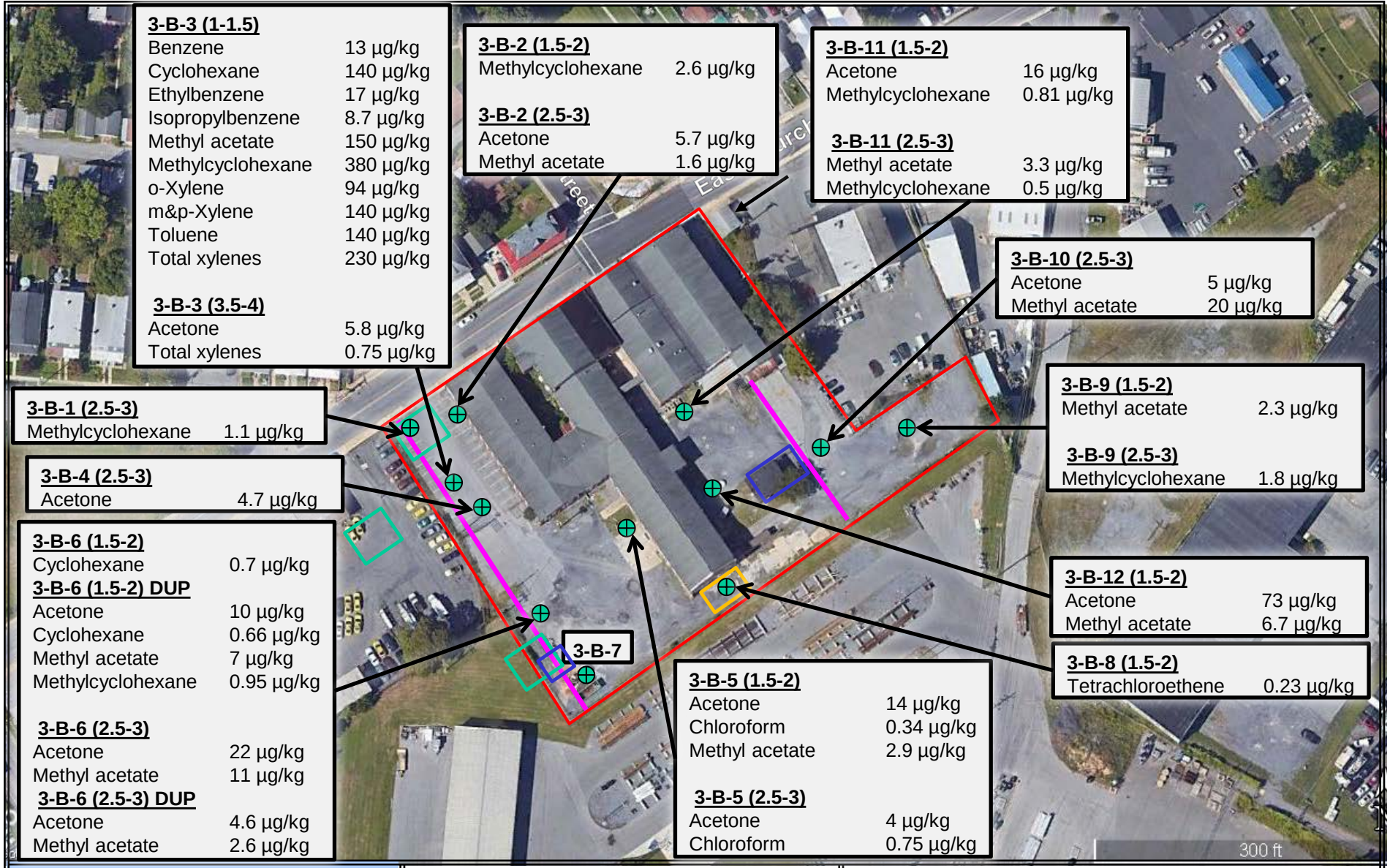
Legend
= Site Boundary
= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Soil Vapor Point Location

N

Figure 10 – Soil Vapor Results (November 26, 2018)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



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Legend
= Site Boundary
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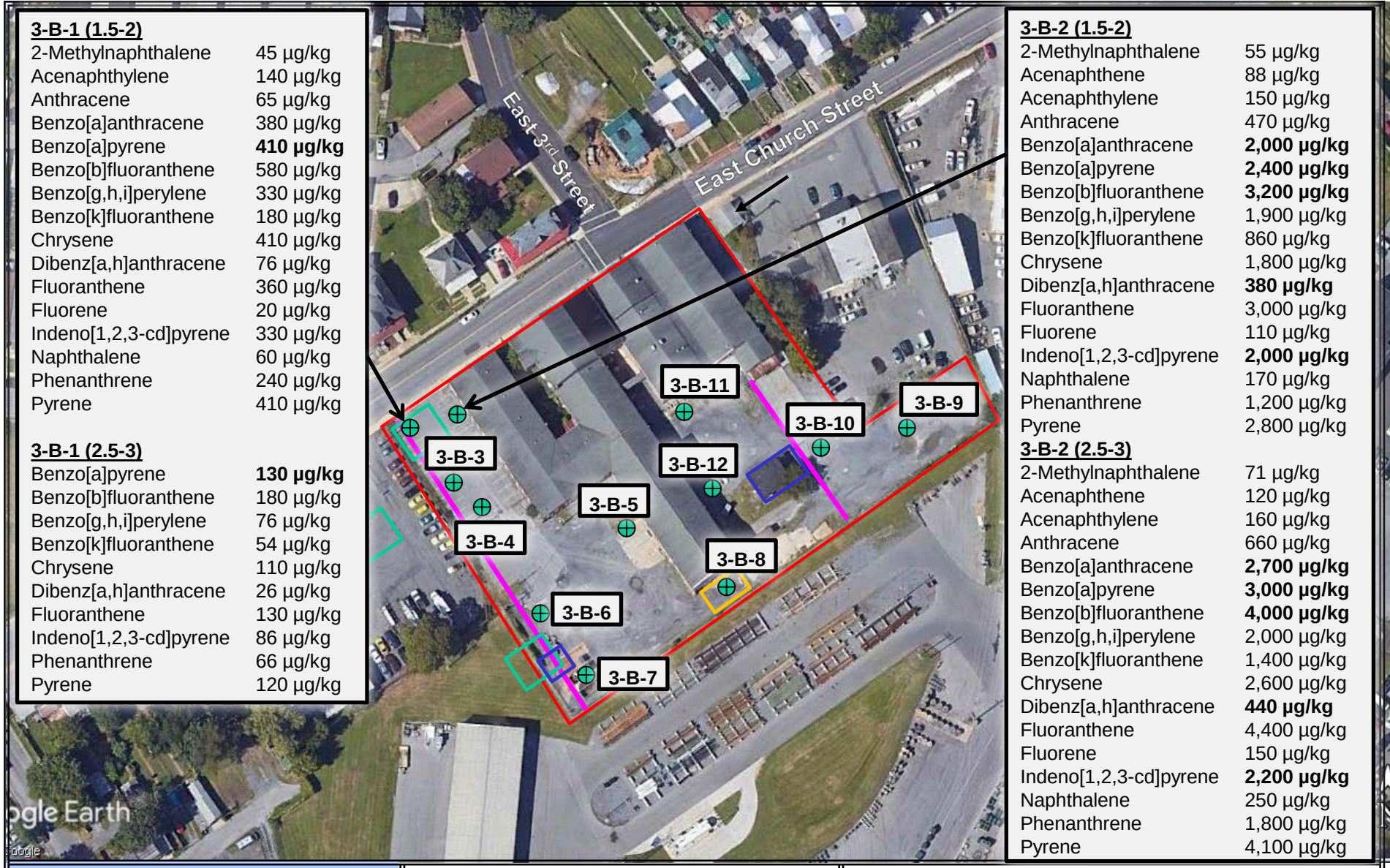
= Kerosene Spill
= Former Railroad Spur
= Soil Boring Location

N

Figure 11 – VOC Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-1 (1.5-2)

2-Methylnaphthalene	45 µg/kg
Acenaphthylene	140 µg/kg
Anthracene	65 µg/kg
Benzo[a]anthracene	380 µg/kg
Benzo[a]pyrene	**410 µg/kg**
Benzo[b]fluoranthene	580 µg/kg
Benzo[g,h,i]perylene	330 µg/kg
Benzo[k]fluoranthene	180 µg/kg
Chrysene	410 µg/kg
Dibenz[a,h]anthracene	76 µg/kg
Fluoranthene	360 µg/kg
Fluorene	20 µg/kg
Indeno[1,2,3-cd]pyrene	330 µg/kg
Naphthalene	60 µg/kg
Phenanthrene	240 µg/kg
Pyrene	410 µg/kg

3-B-1 (2.5-3)

Benzo[a]pyrene	**130 µg/kg**
Benzo[b]fluoranthene	180 µg/kg
Benzo[g,h,i]perylene	76 µg/kg
Benzo[k]fluoranthene	54 µg/kg
Chrysene	110 µg/kg
Dibenz[a,h]anthracene	26 µg/kg
Fluoranthene	130 µg/kg
Indeno[1,2,3-cd]pyrene	86 µg/kg
Phenanthrene	66 µg/kg
Pyrene	120 µg/kg

3-B-2 (1.5-2)

2-Methylnaphthalene	55 µg/kg
Acenaphthene	88 µg/kg
Acenaphthylene	150 µg/kg
Anthracene	470 µg/kg
Benzo[a]anthracene	**2,000 µg/kg**
Benzo[a]pyrene	**2,400 µg/kg**
Benzo[b]fluoranthene	**3,200 µg/kg**
Benzo[g,h,i]perylene	1,900 µg/kg
Benzo[k]fluoranthene	860 µg/kg
Chrysene	1,800 µg/kg
Dibenz[a,h]anthracene	**380 µg/kg**
Fluoranthene	3,000 µg/kg
Fluorene	110 µg/kg
Indeno[1,2,3-cd]pyrene	**2,000 µg/kg**
Naphthalene	170 µg/kg
Phenanthrene	1,200 µg/kg
Pyrene	2,800 µg/kg

3-B-2 (2.5-3)

2-Methylnaphthalene	71 µg/kg
Acenaphthene	120 µg/kg
Acenaphthylene	160 µg/kg
Anthracene	660 µg/kg
Benzo[a]anthracene	**2,700 µg/kg**
Benzo[a]pyrene	**3,000 µg/kg**
Benzo[b]fluoranthene	**4,000 µg/kg**
Benzo[g,h,i]perylene	2,000 µg/kg
Benzo[k]fluoranthene	1,400 µg/kg
Chrysene	2,600 µg/kg
Dibenz[a,h]anthracene	**440 µg/kg**
Fluoranthene	4,400 µg/kg
Fluorene	150 µg/kg
Indeno[1,2,3-cd]pyrene	**2,200 µg/kg**
Naphthalene	250 µg/kg
Phenanthrene	1,800 µg/kg
Pyrene	4,100 µg/kg

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= Kerosene Spill
= Former Railroad Spur
= Soil Boring Location

N

Figure 12a – PAH Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

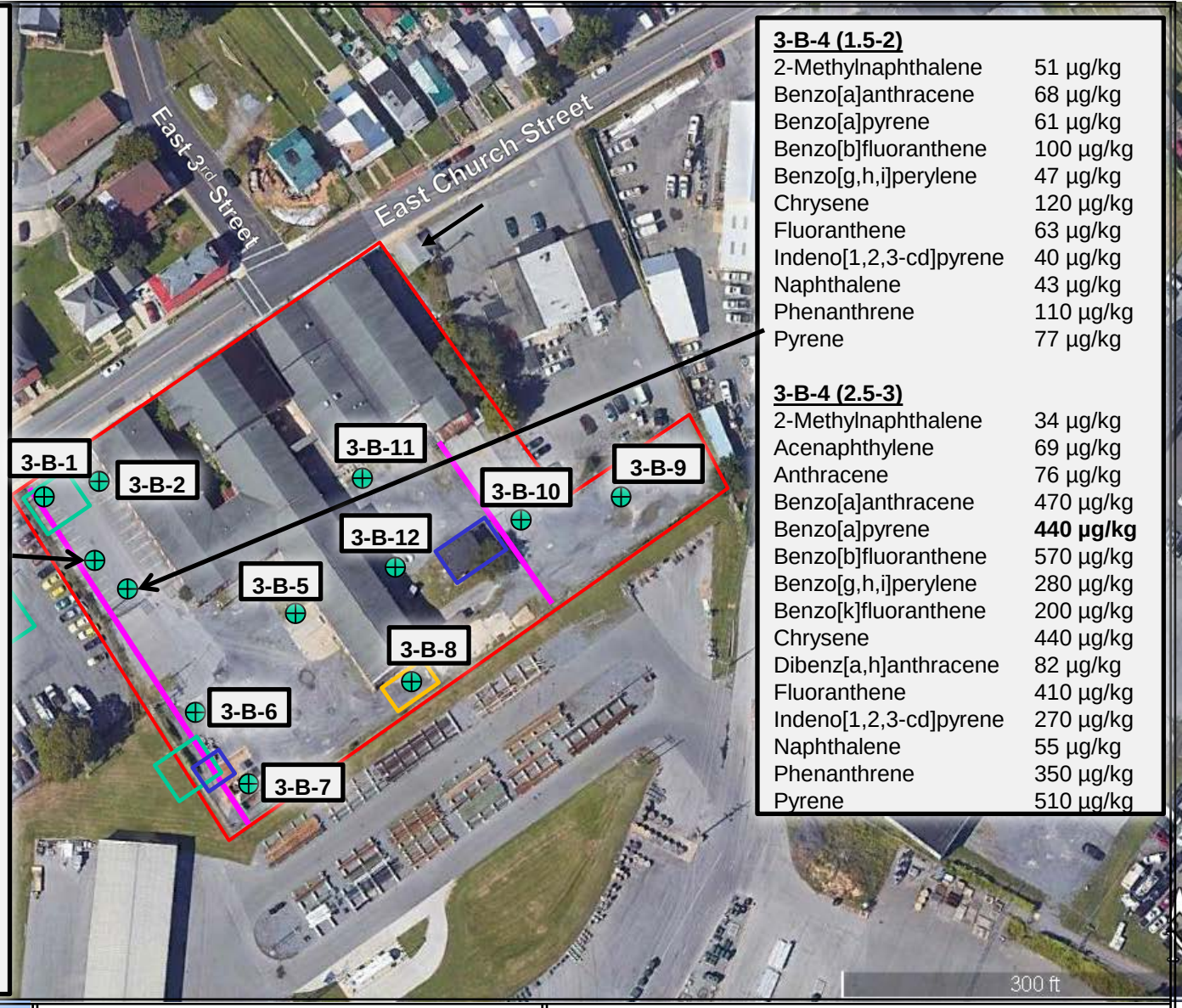
Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB

3-B-3 (1-1.5)

2-Methylnaphthalene	550 µg/kg
Acenaphthene	150 µg/kg
Acenaphthylene	1,200 µg/kg
Anthracene	1,400 µg/kg
Benzo[a]anthracene	**8,700 µg/kg**
Benzo[a]pyrene	**9,700 µg/kg**
Benzo[b]fluoranthene	**11,000 µg/kg**
Benzo[g,h,i]perylene	3,900 µg/kg
Benzo[k]fluoranthene	3,900 µg/kg
Chrysene	7,900 µg/kg
Dibenz[a,h]anthracene	**1,100 µg/kg**
Fluoranthene	16,000 µg/kg
Fluorene	340 µg/kg
Indeno[1,2,3-cd]pyrene	**4,900 µg/kg**
Naphthalene	1,600 µg/kg
Phenanthrene	4,300 µg/kg
Pyrene	14,000 µg/kg

3-B-3 (3.5-4)

2-Methylnaphthalene	380 µg/kg
Acenaphthene	93 µg/kg
Acenaphthylene	1,600 µg/kg
Anthracene	710 µg/kg
Benzo[a]anthracene	**4,300 µg/kg**
Benzo[a]pyrene	**4,300 µg/kg**
Benzo[b]fluoranthene	**5,700 µg/kg**
Benzo[g,h,i]perylene	2,300 µg/kg
Benzo[k]fluoranthene	1,500 µg/kg
Chrysene	4,400 µg/kg
Dibenz[a,h]anthracene	**530 µg/kg**
Fluoranthene	6,900 µg/kg
Fluorene	330 µg/kg
Indeno[1,2,3-cd]pyrene	**2,500 µg/kg**
Naphthalene	880 µg/kg
Phenanthrene	2,100 µg/kg
Pyrene	6,800 µg/kg



3-B-4 (1.5-2)

2-Methylnaphthalene	51 µg/kg
Benzo[a]anthracene	68 µg/kg
Benzo[a]pyrene	61 µg/kg
Benzo[b]fluoranthene	100 µg/kg
Benzo[g,h,i]perylene	47 µg/kg
Chrysene	120 µg/kg
Fluoranthene	63 µg/kg
Indeno[1,2,3-cd]pyrene	40 µg/kg
Naphthalene	43 µg/kg
Phenanthrene	110 µg/kg
Pyrene	77 µg/kg

3-B-4 (2.5-3)

2-Methylnaphthalene	34 µg/kg
Acenaphthylene	69 µg/kg
Anthracene	76 µg/kg
Benzo[a]anthracene	470 µg/kg
Benzo[a]pyrene	**440 µg/kg**
Benzo[b]fluoranthene	570 µg/kg
Benzo[g,h,i]perylene	280 µg/kg
Benzo[k]fluoranthene	200 µg/kg
Chrysene	440 µg/kg
Dibenz[a,h]anthracene	82 µg/kg
Fluoranthene	410 µg/kg
Indeno[1,2,3-cd]pyrene	270 µg/kg
Naphthalene	55 µg/kg
Phenanthrene	350 µg/kg
Pyrene	510 µg/kg

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Legend
- = Site Boundary
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- = Aerosol Can/Chemical Storage Area
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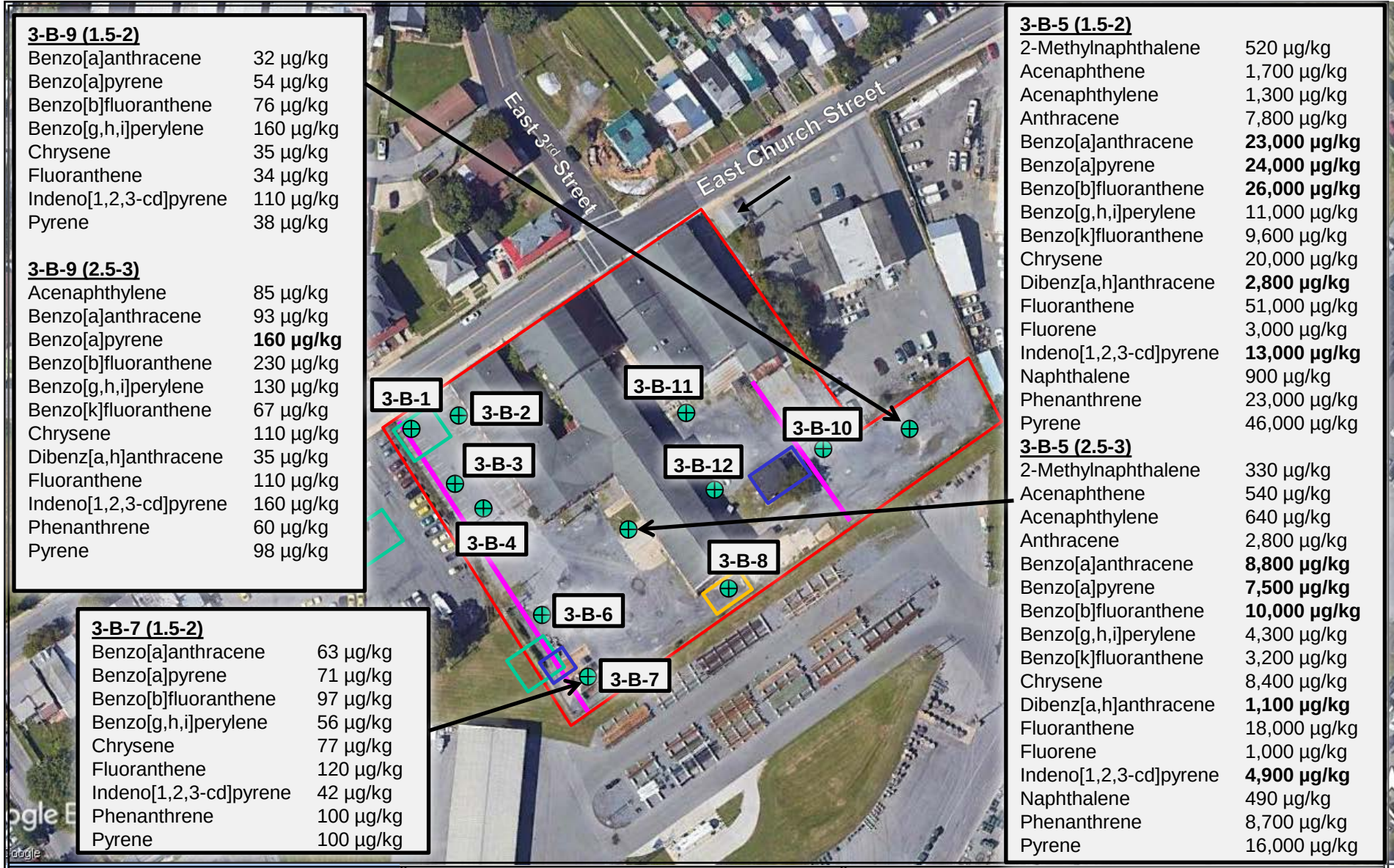
- = Former Railroad Spur
- = Soil Boring Location

N

Figure 12b – PAH Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-9 (1.5-2)

Benzo[a]anthracene	32 µg/kg
Benzo[a]pyrene	54 µg/kg
Benzo[b]fluoranthene	76 µg/kg
Benzo[g,h,i]perylene	160 µg/kg
Chrysene	35 µg/kg
Fluoranthene	34 µg/kg
Indeno[1,2,3-cd]pyrene	110 µg/kg
Pyrene	38 µg/kg

3-B-9 (2.5-3)

Acenaphthylene	85 µg/kg
Benzo[a]anthracene	93 µg/kg
Benzo[a]pyrene	**160 µg/kg**
Benzo[b]fluoranthene	230 µg/kg
Benzo[g,h,i]perylene	130 µg/kg
Benzo[k]fluoranthene	67 µg/kg
Chrysene	110 µg/kg
Dibenz[a,h]anthracene	35 µg/kg
Fluoranthene	110 µg/kg
Indeno[1,2,3-cd]pyrene	160 µg/kg
Phenanthrene	60 µg/kg
Pyrene	98 µg/kg

3-B-7 (1.5-2)

Benzo[a]anthracene	63 µg/kg
Benzo[a]pyrene	71 µg/kg
Benzo[b]fluoranthene	97 µg/kg
Benzo[g,h,i]perylene	56 µg/kg
Chrysene	77 µg/kg
Fluoranthene	120 µg/kg
Indeno[1,2,3-cd]pyrene	42 µg/kg
Phenanthrene	100 µg/kg
Pyrene	100 µg/kg

3-B-5 (1.5-2)

2-Methylnaphthalene	520 µg/kg
Acenaphthene	1,700 µg/kg
Acenaphthylene	1,300 µg/kg
Anthracene	7,800 µg/kg
Benzo[a]anthracene	**23,000 µg/kg**
Benzo[a]pyrene	**24,000 µg/kg**
Benzo[b]fluoranthene	**26,000 µg/kg**
Benzo[g,h,i]perylene	11,000 µg/kg
Benzo[k]fluoranthene	9,600 µg/kg
Chrysene	20,000 µg/kg
Dibenz[a,h]anthracene	**2,800 µg/kg**
Fluoranthene	51,000 µg/kg
Fluorene	3,000 µg/kg
Indeno[1,2,3-cd]pyrene	**13,000 µg/kg**
Naphthalene	900 µg/kg
Phenanthrene	23,000 µg/kg
Pyrene	46,000 µg/kg

3-B-5 (2.5-3)

2-Methylnaphthalene	330 µg/kg
Acenaphthene	540 µg/kg
Acenaphthylene	640 µg/kg
Anthracene	2,800 µg/kg
Benzo[a]anthracene	**8,800 µg/kg**
Benzo[a]pyrene	**7,500 µg/kg**
Benzo[b]fluoranthene	**10,000 µg/kg**
Benzo[g,h,i]perylene	4,300 µg/kg
Benzo[k]fluoranthene	3,200 µg/kg
Chrysene	8,400 µg/kg
Dibenz[a,h]anthracene	**1,100 µg/kg**
Fluoranthene	18,000 µg/kg
Fluorene	1,000 µg/kg
Indeno[1,2,3-cd]pyrene	**4,900 µg/kg**
Naphthalene	490 µg/kg
Phenanthrene	8,700 µg/kg
Pyrene	16,000 µg/kg

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= Former Railroad Spur
= Soil Boring Location

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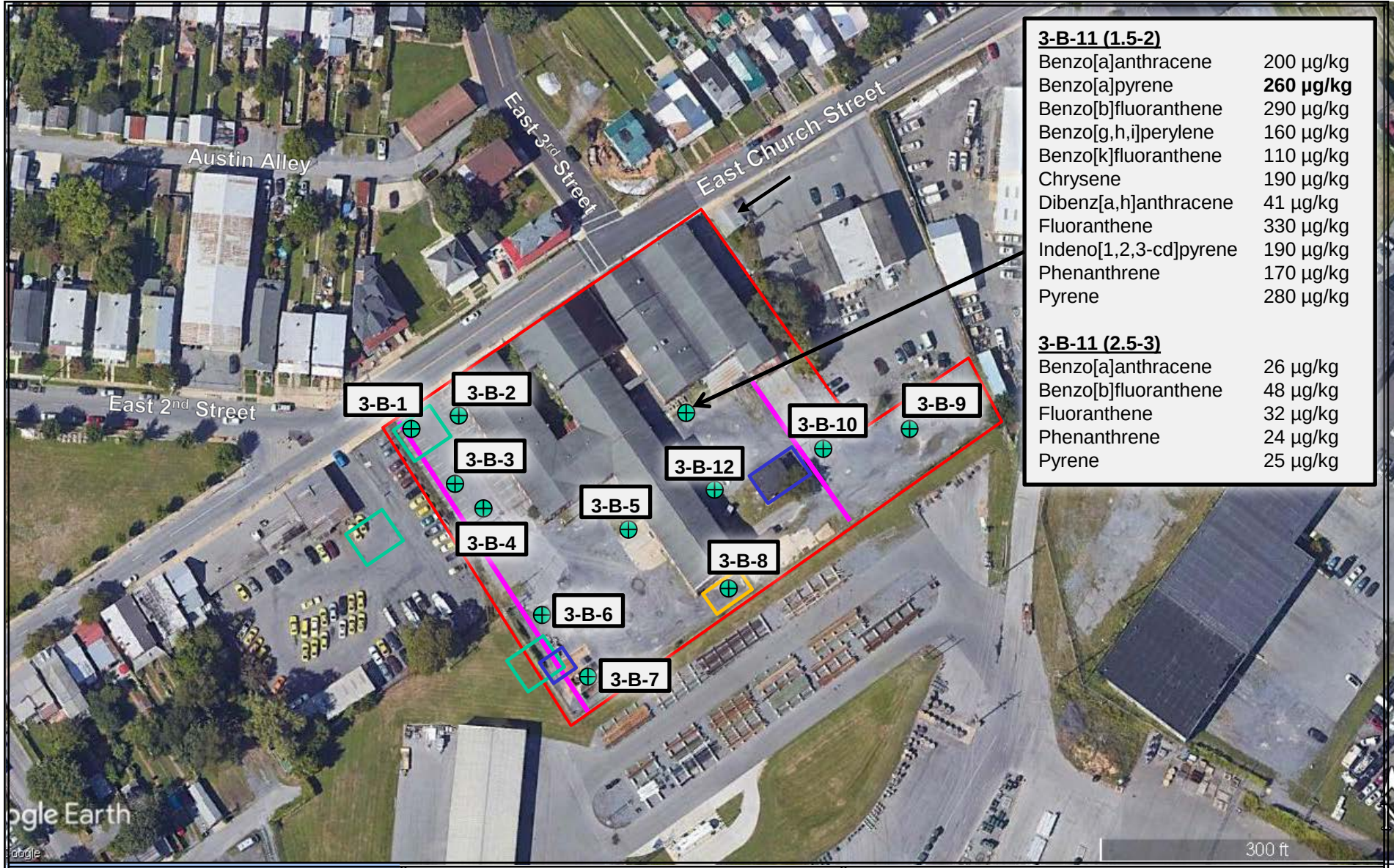
Figure 12c – PAH Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-11 (1.5-2)

Benzo[a]anthracene	200 µg/kg
Benzo[a]pyrene	**260 µg/kg**
Benzo[b]fluoranthene	290 µg/kg
Benzo[g,h,i]perylene	160 µg/kg
Benzo[k]fluoranthene	110 µg/kg
Chrysene	190 µg/kg
Dibenz[a,h]anthracene	41 µg/kg
Fluoranthene	330 µg/kg
Indeno[1,2,3-cd]pyrene	190 µg/kg
Phenanthrene	170 µg/kg
Pyrene	280 µg/kg

3-B-11 (2.5-3)

Benzo[a]anthracene	26 µg/kg
Benzo[b]fluoranthene	48 µg/kg
Fluoranthene	32 µg/kg
Phenanthrene	24 µg/kg
Pyrene	25 µg/kg

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Figure 12d – PAH Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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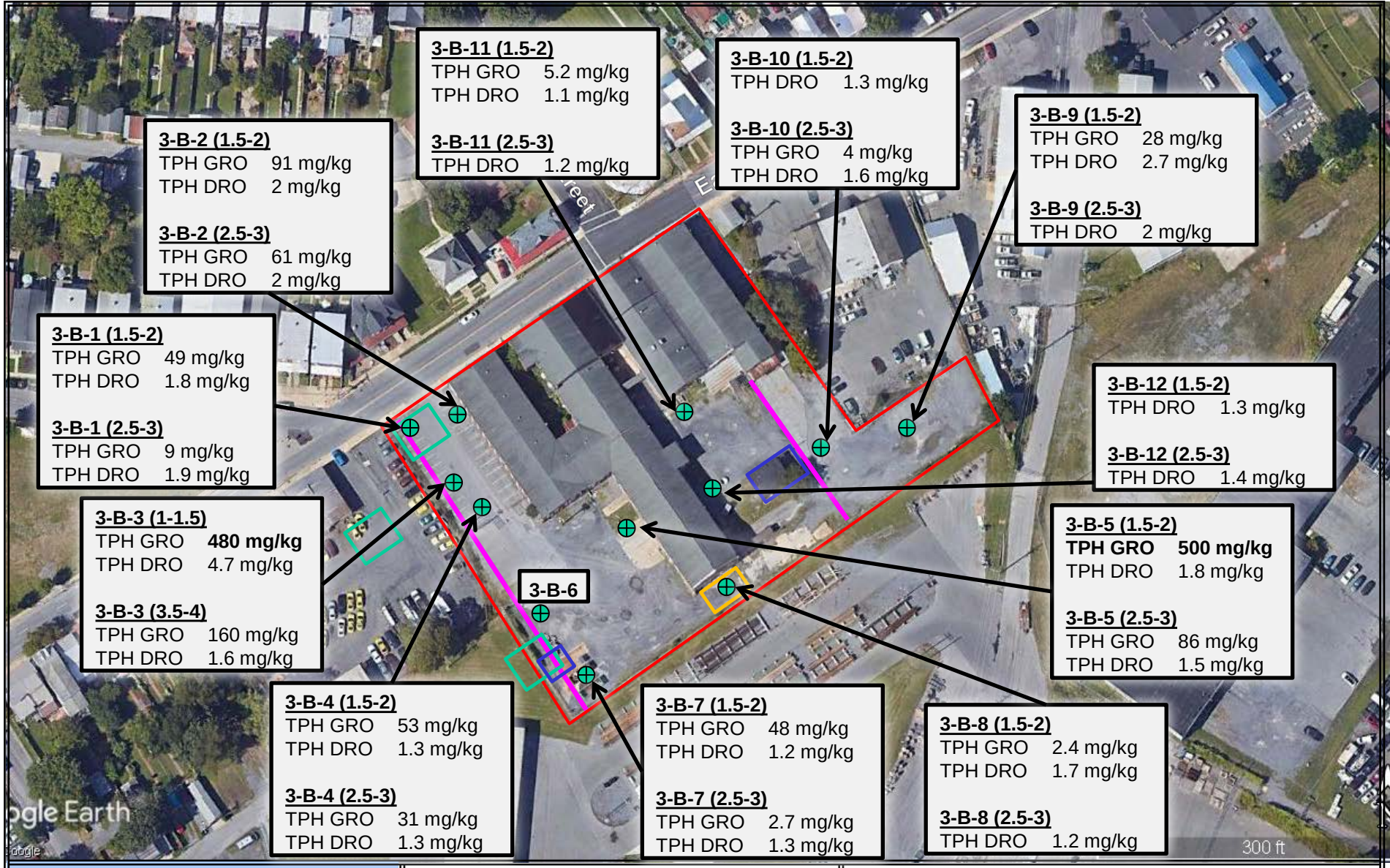

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Legend
= Site Boundary
= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
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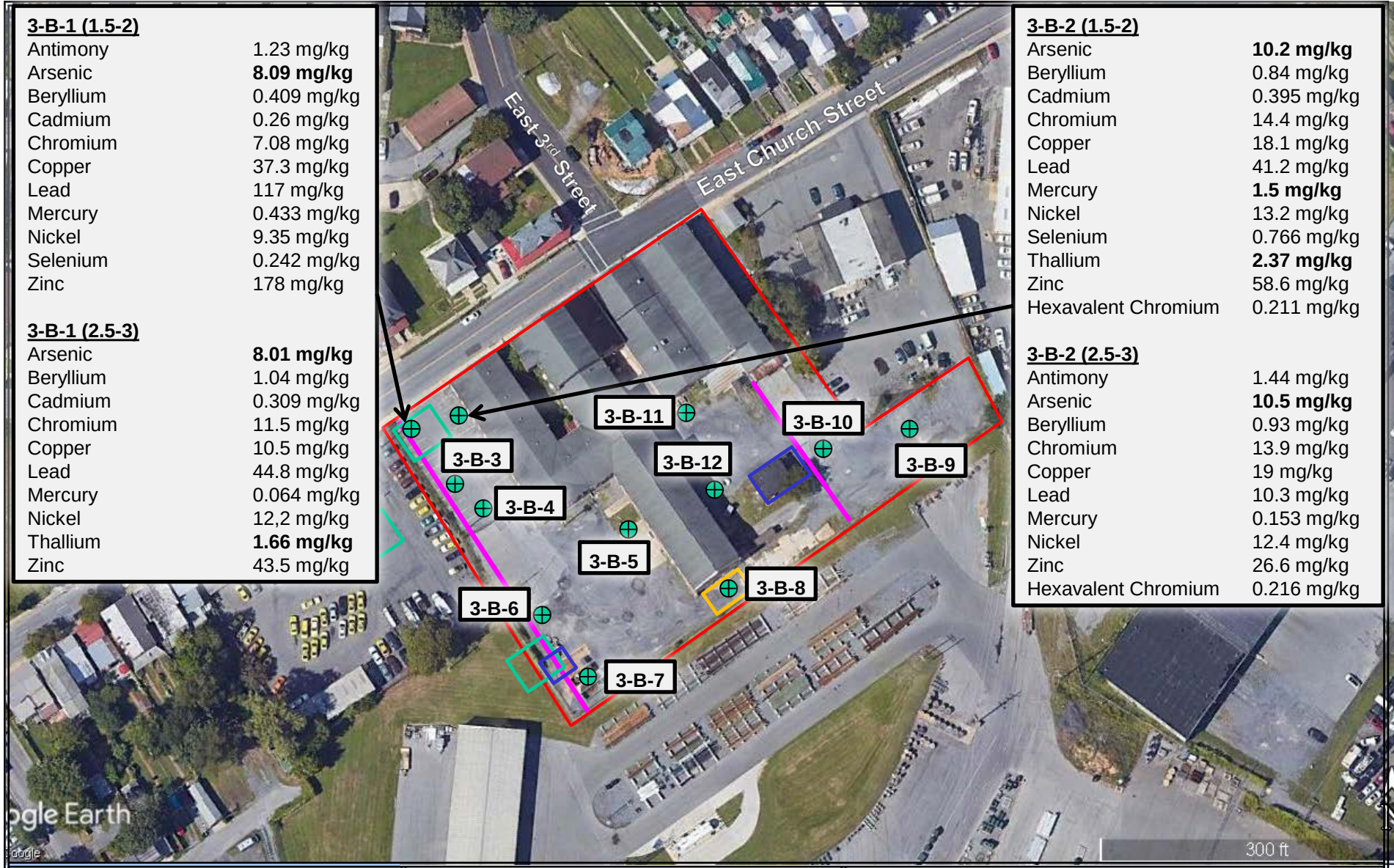
N

Figure 13 – TPH Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



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Legend
= Site Boundary
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Figure 14a – Metals Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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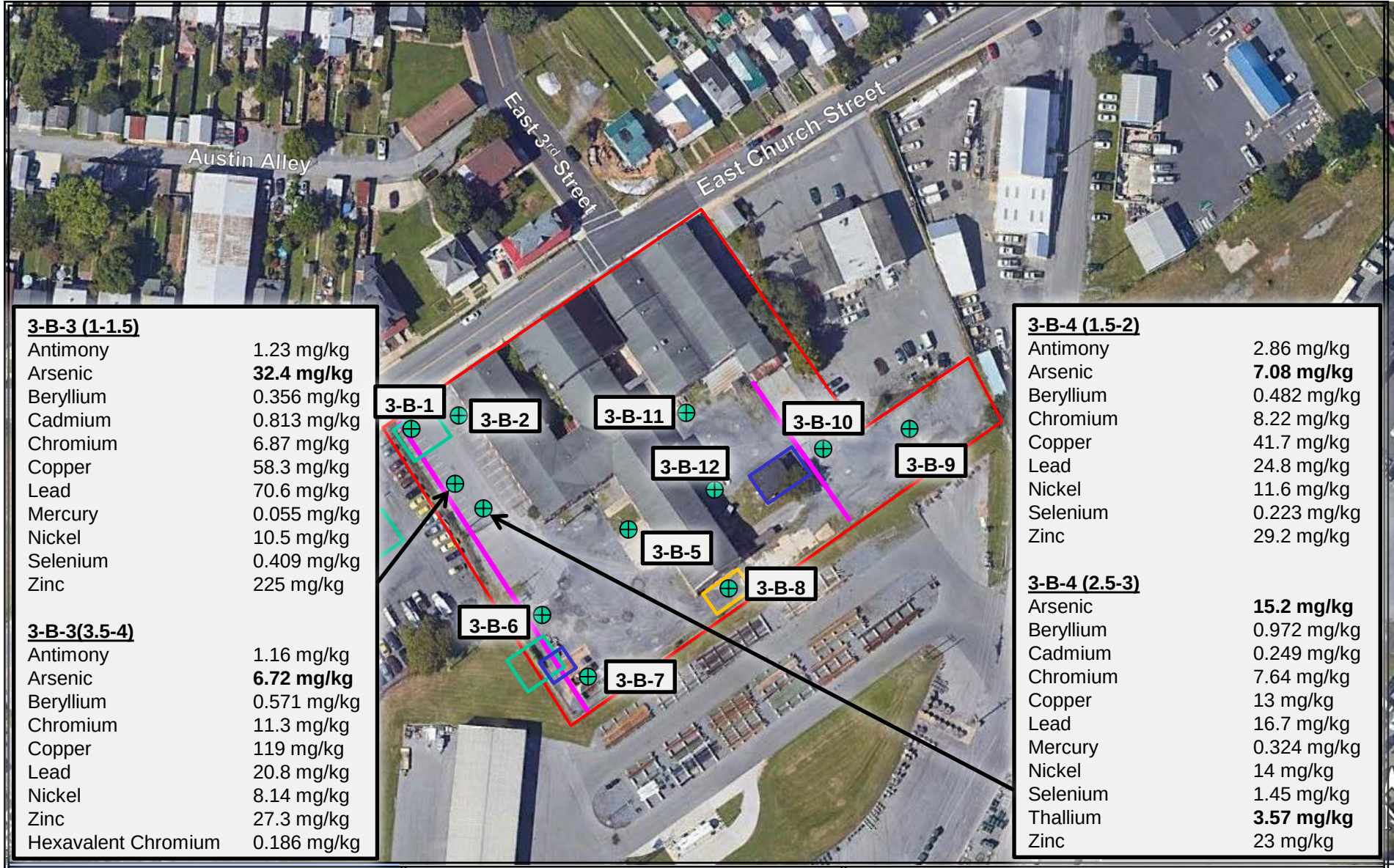

3-B-3 (1-1.5)

Antimony	1.23 mg/kg
Arsenic	**32.4 mg/kg**
Beryllium	0.356 mg/kg
Cadmium	0.813 mg/kg
Chromium	6.87 mg/kg
Copper	58.3 mg/kg
Lead	70.6 mg/kg
Mercury	0.055 mg/kg
Nickel	10.5 mg/kg
Selenium	0.409 mg/kg
Zinc	225 mg/kg

3-B-3(3.5-4)

Antimony	1.16 mg/kg
Arsenic	**6.72 mg/kg**
Beryllium	0.571 mg/kg
Chromium	11.3 mg/kg
Copper	119 mg/kg
Lead	20.8 mg/kg
Nickel	8.14 mg/kg
Zinc	27.3 mg/kg
Hexavalent Chromium	0.186 mg/kg

3-B-4 (1.5-2)

Antimony	2.86 mg/kg
Arsenic	**7.08 mg/kg**
Beryllium	0.482 mg/kg
Chromium	8.22 mg/kg
Copper	41.7 mg/kg
Lead	24.8 mg/kg
Nickel	11.6 mg/kg
Selenium	0.223 mg/kg
Zinc	29.2 mg/kg

3-B-4 (2.5-3)

Arsenic	**15.2 mg/kg**
Beryllium	0.972 mg/kg
Cadmium	0.249 mg/kg
Chromium	7.64 mg/kg
Copper	13 mg/kg
Lead	16.7 mg/kg
Mercury	0.324 mg/kg
Nickel	14 mg/kg
Selenium	1.45 mg/kg
Thallium	**3.57 mg/kg**
Zinc	23 mg/kg

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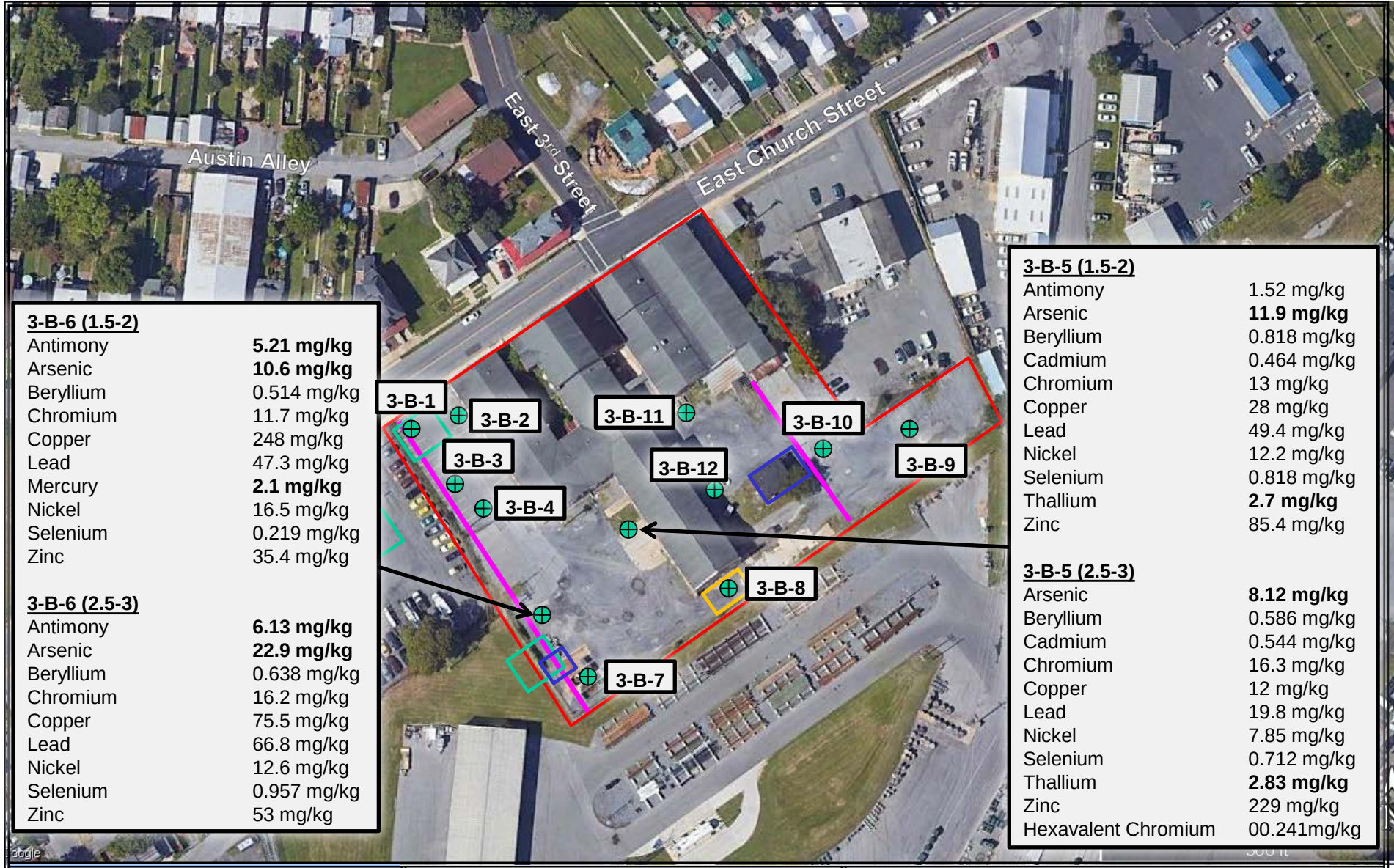
Figure 14b – Metals Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-6 (1.5-2)

Antimony	**5.21 mg/kg**
Arsenic	**10.6 mg/kg**
Beryllium	0.514 mg/kg
Chromium	11.7 mg/kg
Copper	248 mg/kg
Lead	47.3 mg/kg
Mercury	**2.1 mg/kg**
Nickel	16.5 mg/kg
Selenium	0.219 mg/kg
Zinc	35.4 mg/kg

3-B-6 (2.5-3)

Antimony	**6.13 mg/kg**
Arsenic	**22.9 mg/kg**
Beryllium	0.638 mg/kg
Chromium	16.2 mg/kg
Copper	75.5 mg/kg
Lead	66.8 mg/kg
Nickel	12.6 mg/kg
Selenium	0.957 mg/kg
Zinc	53 mg/kg

3-B-5 (1.5-2)

Antimony	1.52 mg/kg
Arsenic	**11.9 mg/kg**
Beryllium	0.818 mg/kg
Cadmium	0.464 mg/kg
Chromium	13 mg/kg
Copper	28 mg/kg
Lead	49.4 mg/kg
Nickel	12.2 mg/kg
Selenium	0.818 mg/kg
Thallium	**2.7 mg/kg**
Zinc	85.4 mg/kg

3-B-5 (2.5-3)

Arsenic	**8.12 mg/kg**
Beryllium	0.586 mg/kg
Cadmium	0.544 mg/kg
Chromium	16.3 mg/kg
Copper	12 mg/kg
Lead	19.8 mg/kg
Nickel	7.85 mg/kg
Selenium	0.712 mg/kg
Thallium	**2.83 mg/kg**
Zinc	229 mg/kg
Hexavalent Chromium	00.241mg/kg

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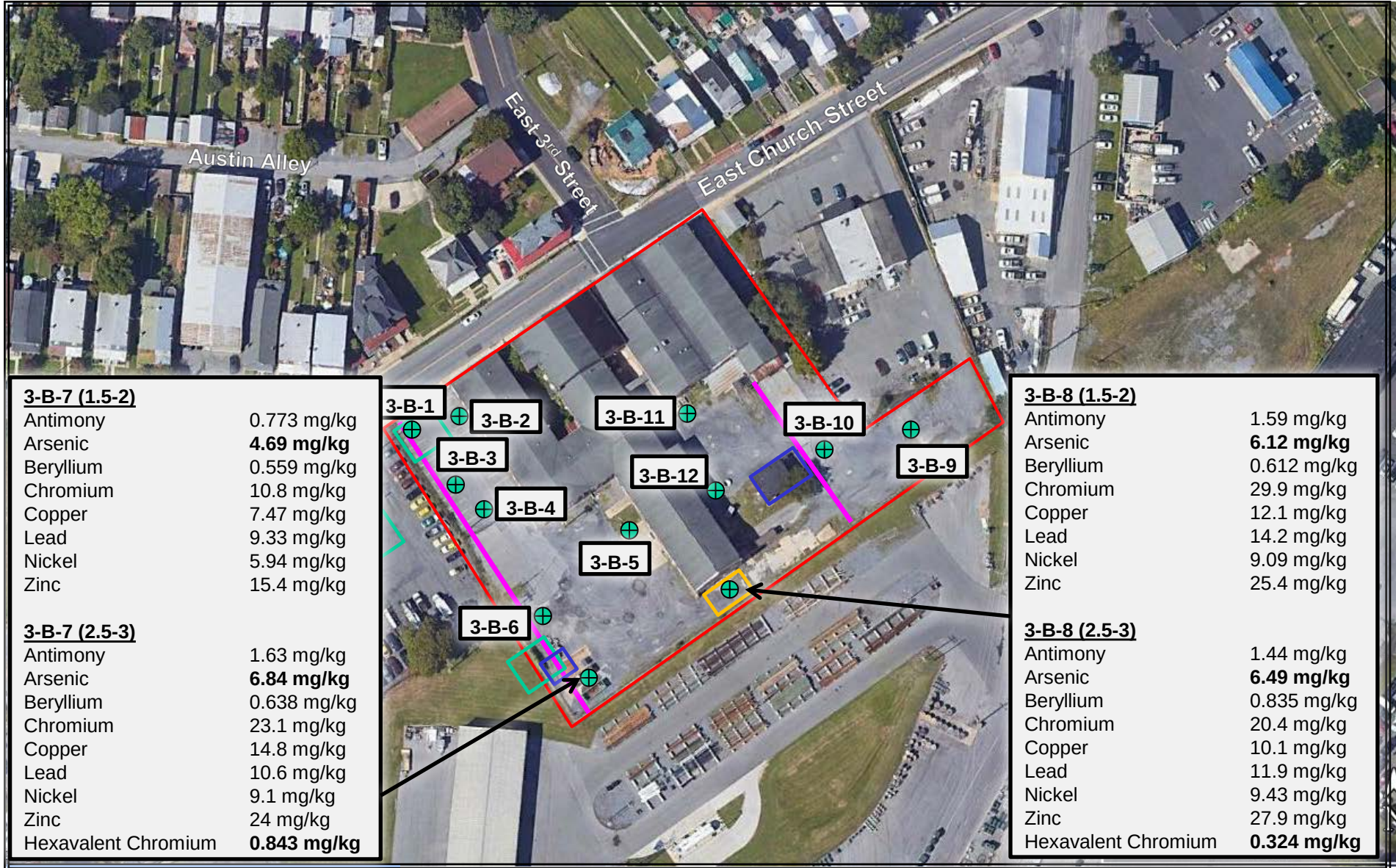
Figure 14c – Metals Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-7 (1.5-2)

Antimony	0.773 mg/kg
Arsenic	**4.69 mg/kg**
Beryllium	0.559 mg/kg
Chromium	10.8 mg/kg
Copper	7.47 mg/kg
Lead	9.33 mg/kg
Nickel	5.94 mg/kg
Zinc	15.4 mg/kg

3-B-7 (2.5-3)

Antimony	1.63 mg/kg
Arsenic	**6.84 mg/kg**
Beryllium	0.638 mg/kg
Chromium	23.1 mg/kg
Copper	14.8 mg/kg
Lead	10.6 mg/kg
Nickel	9.1 mg/kg
Zinc	24 mg/kg
Hexavalent Chromium	**0.843 mg/kg**

3-B-8 (1.5-2)

Antimony	1.59 mg/kg
Arsenic	**6.12 mg/kg**
Beryllium	0.612 mg/kg
Chromium	29.9 mg/kg
Copper	12.1 mg/kg
Lead	14.2 mg/kg
Nickel	9.09 mg/kg
Zinc	25.4 mg/kg

3-B-8 (2.5-3)

Antimony	1.44 mg/kg
Arsenic	**6.49 mg/kg**
Beryllium	0.835 mg/kg
Chromium	20.4 mg/kg
Copper	10.1 mg/kg
Lead	11.9 mg/kg
Nickel	9.43 mg/kg
Zinc	27.9 mg/kg
Hexavalent Chromium	**0.324 mg/kg**

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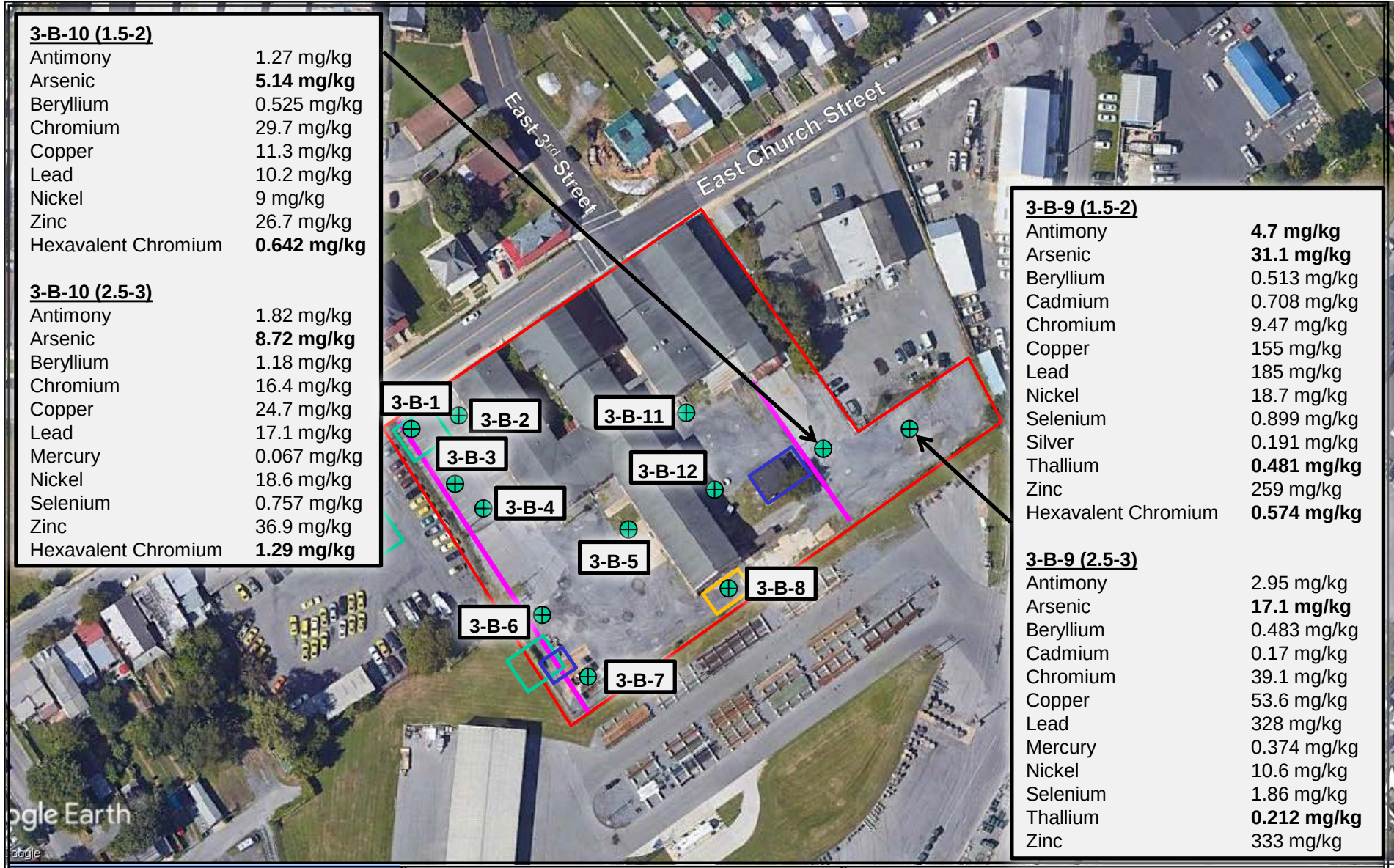
= Soil Boring Location

N

Figure 14d – Metals Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-10 (1.5-2)

Antimony	1.27 mg/kg
Arsenic	**5.14 mg/kg**
Beryllium	0.525 mg/kg
Chromium	29.7 mg/kg
Copper	11.3 mg/kg
Lead	10.2 mg/kg
Nickel	9 mg/kg
Zinc	26.7 mg/kg
Hexavalent Chromium	**0.642 mg/kg**

3-B-10 (2.5-3)

Antimony	1.82 mg/kg
Arsenic	**8.72 mg/kg**
Beryllium	1.18 mg/kg
Chromium	16.4 mg/kg
Copper	24.7 mg/kg
Lead	17.1 mg/kg
Mercury	0.067 mg/kg
Nickel	18.6 mg/kg
Selenium	0.757 mg/kg
Zinc	36.9 mg/kg
Hexavalent Chromium	**1.29 mg/kg**

3-B-9 (1.5-2)

Antimony	**4.7 mg/kg**
Arsenic	**31.1 mg/kg**
Beryllium	0.513 mg/kg
Cadmium	0.708 mg/kg
Chromium	9.47 mg/kg
Copper	155 mg/kg
Lead	185 mg/kg
Nickel	18.7 mg/kg
Selenium	0.899 mg/kg
Silver	0.191 mg/kg
Thallium	**0.481 mg/kg**
Zinc	259 mg/kg
Hexavalent Chromium	**0.574 mg/kg**

3-B-9 (2.5-3)

Antimony	2.95 mg/kg
Arsenic	**17.1 mg/kg**
Beryllium	0.483 mg/kg
Cadmium	0.17 mg/kg
Chromium	39.1 mg/kg
Copper	53.6 mg/kg
Lead	328 mg/kg
Mercury	0.374 mg/kg
Nickel	10.6 mg/kg
Selenium	1.86 mg/kg
Thallium	**0.212 mg/kg**
Zinc	333 mg/kg

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Legend
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= Aerosol Can/Chemical Storage Area
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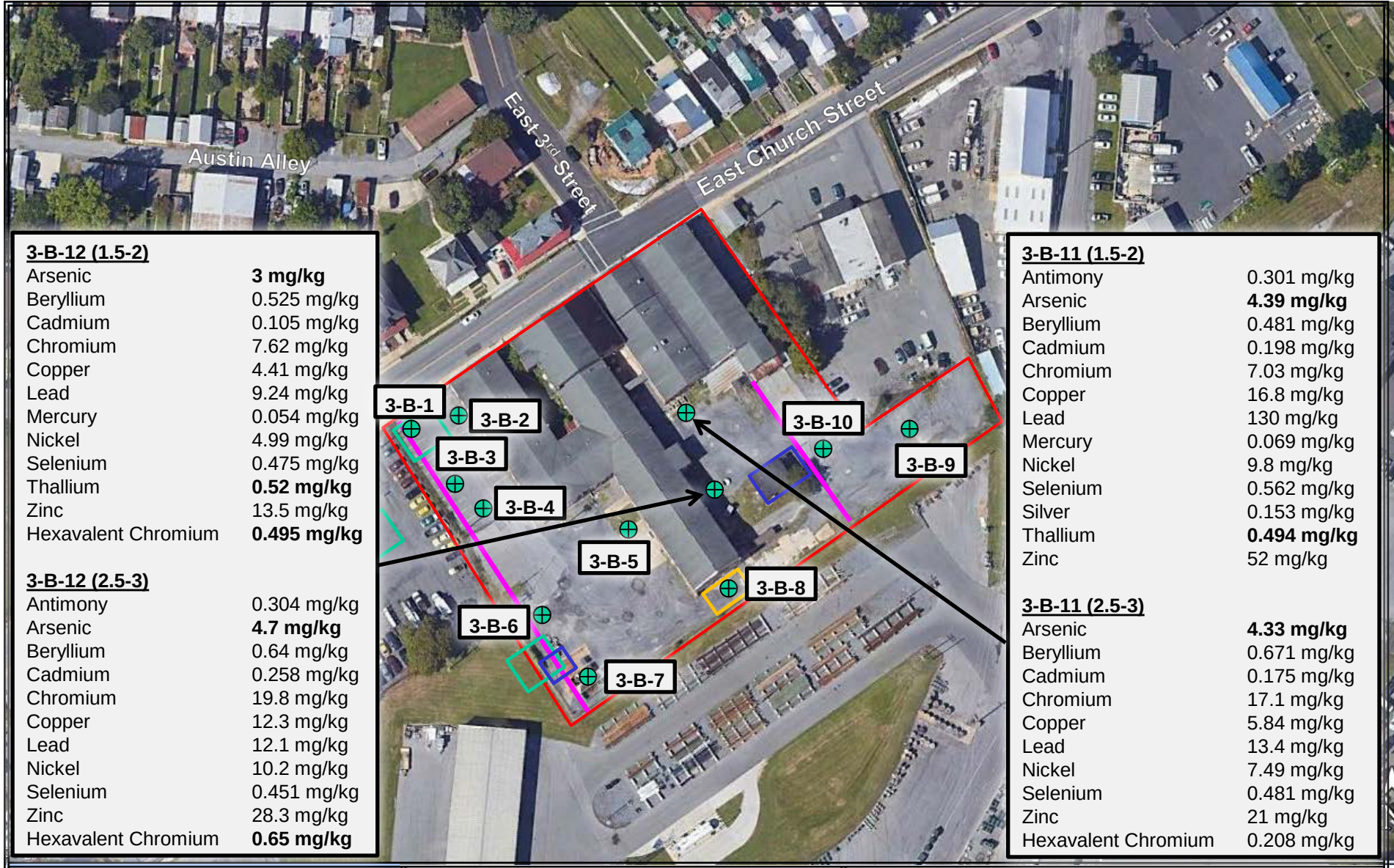
= Former Railroad Spur
= Soil Boring Location

N

Figure 14e – Metals Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-B-12 (1.5-2)

Arsenic	**3 mg/kg**
Beryllium	0.525 mg/kg
Cadmium	0.105 mg/kg
Chromium	7.62 mg/kg
Copper	4.41 mg/kg
Lead	9.24 mg/kg
Mercury	0.054 mg/kg
Nickel	4.99 mg/kg
Selenium	0.475 mg/kg
Thallium	**0.52 mg/kg**
Zinc	13.5 mg/kg
Hexavalent Chromium	**0.495 mg/kg**

3-B-12 (2.5-3)

Antimony	0.304 mg/kg
Arsenic	**4.7 mg/kg**
Beryllium	0.64 mg/kg
Cadmium	0.258 mg/kg
Chromium	19.8 mg/kg
Copper	12.3 mg/kg
Lead	12.1 mg/kg
Nickel	10.2 mg/kg
Selenium	0.451 mg/kg
Zinc	28.3 mg/kg
Hexavalent Chromium	**0.65 mg/kg**

3-B-11 (1.5-2)

Antimony	0.301 mg/kg
Arsenic	**4.39 mg/kg**
Beryllium	0.481 mg/kg
Cadmium	0.198 mg/kg
Chromium	7.03 mg/kg
Copper	16.8 mg/kg
Lead	130 mg/kg
Mercury	0.069 mg/kg
Nickel	9.8 mg/kg
Selenium	0.562 mg/kg
Silver	0.153 mg/kg
Thallium	**0.494 mg/kg**
Zinc	52 mg/kg

3-B-11 (2.5-3)

Arsenic	**4.33 mg/kg**
Beryllium	0.671 mg/kg
Cadmium	0.175 mg/kg
Chromium	17.1 mg/kg
Copper	5.84 mg/kg
Lead	13.4 mg/kg
Nickel	7.49 mg/kg
Selenium	0.481 mg/kg
Zinc	21 mg/kg
Hexavalent Chromium	0.208 mg/kg

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Legend
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= Former Railroad Spur
= Soil Boring Location

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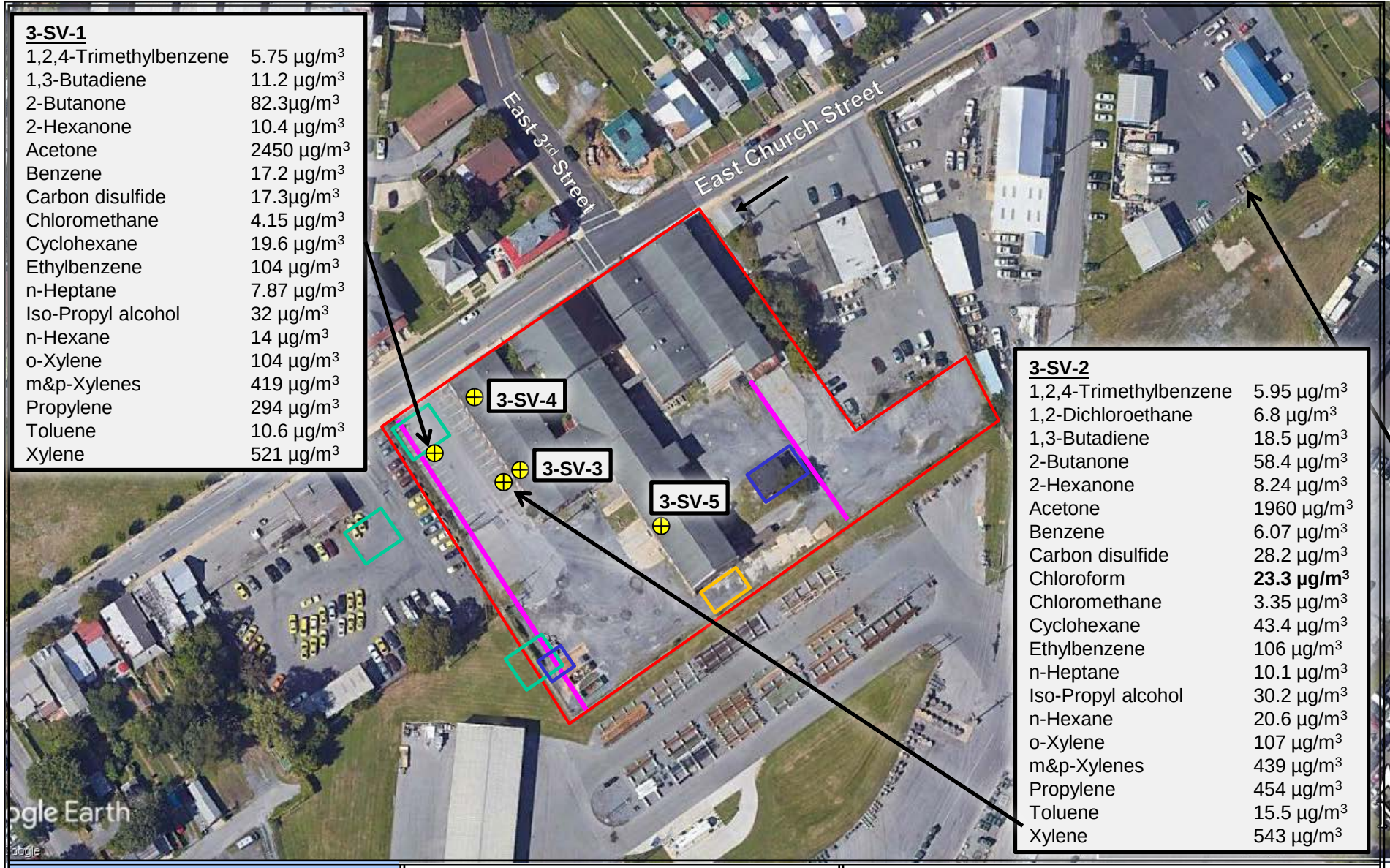
Figure 14f – Metals Soil Sample Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-SV-1

1,2,4-Trimethylbenzene	5.75 µg/m³
1,3-Butadiene	11.2 µg/m³
2-Butanone	82.3µg/m³
2-Hexanone	10.4 µg/m³
Acetone	2450 µg/m³
Benzene	17.2 µg/m³
Carbon disulfide	17.3µg/m³
Chloromethane	4.15 µg/m³
Cyclohexane	19.6 µg/m³
Ethylbenzene	104 µg/m³
n-Heptane	7.87 µg/m³
Iso-Propyl alcohol	32 µg/m³
n-Hexane	14 µg/m³
o-Xylene	104 µg/m³
m&p-Xylenes	419 µg/m³
Propylene	294 µg/m³
Toluene	10.6 µg/m³
Xylene	521 µg/m³

3-SV-2

1,2,4-Trimethylbenzene	5.95 µg/m³
1,2-Dichloroethane	6.8 µg/m³
1,3-Butadiene	18.5 µg/m³
2-Butanone	58.4 µg/m³
2-Hexanone	8.24 µg/m³
Acetone	1960 µg/m³
Benzene	6.07 µg/m³
Carbon disulfide	28.2 µg/m³
Chloroform	**23.3 µg/m³**
Chloromethane	3.35 µg/m³
Cyclohexane	43.4 µg/m³
Ethylbenzene	106 µg/m³
n-Heptane	10.1 µg/m³
Iso-Propyl alcohol	30.2 µg/m³
n-Hexane	20.6 µg/m³
o-Xylene	107 µg/m³
m&p-Xylenes	439 µg/m³
Propylene	454 µg/m³
Toluene	15.5 µg/m³
Xylene	543 µg/m³

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Legend
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= Soil Vapor Point Location

N

Figure 15a – Soil Vapor Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
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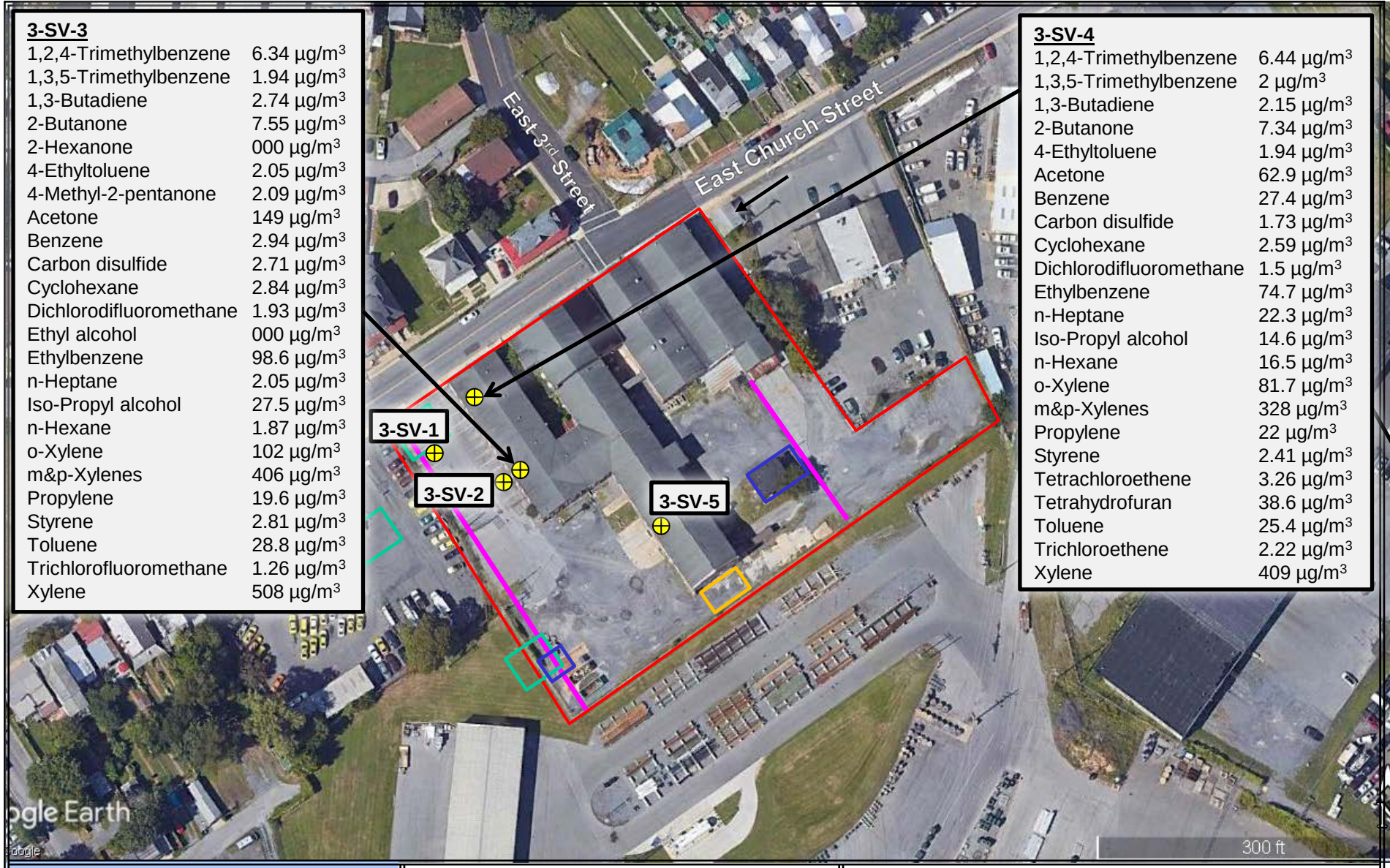

3-SV-3

1,2,4-Trimethylbenzene	6.34 µg/m³
1,3,5-Trimethylbenzene	1.94 µg/m³
1,3-Butadiene	2.74 µg/m³
2-Butanone	7.55 µg/m³
2-Hexanone	000 µg/m³
4-Ethyltoluene	2.05 µg/m³
4-Methyl-2-pentanone	2.09 µg/m³
Acetone	149 µg/m³
Benzene	2.94 µg/m³
Carbon disulfide	2.71 µg/m³
Cyclohexane	2.84 µg/m³
Dichlorodifluoromethane	1.93 µg/m³
Ethyl alcohol	000 µg/m³
Ethylbenzene	98.6 µg/m³
n-Heptane	2.05 µg/m³
Iso-Propyl alcohol	27.5 µg/m³
n-Hexane	1.87 µg/m³
o-Xylene	102 µg/m³
m&p-Xylenes	406 µg/m³
Propylene	19.6 µg/m³
Styrene	2.81 µg/m³
Toluene	28.8 µg/m³
Trichlorofluoromethane	1.26 µg/m³
Xylene	508 µg/m³

3-SV-4

1,2,4-Trimethylbenzene	6.44 µg/m³
1,3,5-Trimethylbenzene	2 µg/m³
1,3-Butadiene	2.15 µg/m³
2-Butanone	7.34 µg/m³
4-Ethyltoluene	1.94 µg/m³
Acetone	62.9 µg/m³
Benzene	27.4 µg/m³
Carbon disulfide	1.73 µg/m³
Cyclohexane	2.59 µg/m³
Dichlorodifluoromethane	1.5 µg/m³
Ethylbenzene	74.7 µg/m³
n-Heptane	22.3 µg/m³
Iso-Propyl alcohol	14.6 µg/m³
n-Hexane	16.5 µg/m³
o-Xylene	81.7 µg/m³
m&p-Xylenes	328 µg/m³
Propylene	22 µg/m³
Styrene	2.41 µg/m³
Tetrachloroethene	3.26 µg/m³
Tetrahydrofuran	38.6 µg/m³
Toluene	25.4 µg/m³
Trichloroethene	2.22 µg/m³
Xylene	409 µg/m³

Advantage Environmental Consultants, LLC
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Phone: 301-776-0500 Fax: 301-776-1123

Legend
= Site Boundary
= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Soil Vapor Point Location

N

Figure 15b – Soil Vapor Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB

3-SV-5

1,2,4-Trimethylbenzene	6.1 µg/m³
1,3,5-Trimethylbenzene	1.93 µg/m³
2-Butanone	20.8 µg/m³
4-Ethyltoluene	1.77 µg/m³
4-Methyl-2-pentanone	4.96 µg/m³
Acetone	180 µg/m³
Benzene	0.661 µg/m³
Carbon disulfide	7.04 µg/m³
Cyclohexane	0.916 µg/m³
Dichlorodifluoromethane	1.96 µg/m³
Ethyl alcohol	59.7 µg/m³
Ethylbenzene	72.5 µg/m³
n-Heptane	1.09 µg/m³
Iso-Propyl alcohol	62.7 µg/m³
n-Hexane	1.2 µg/m³
o-Xylene	80.4 µg/m³
m&p-Xylenes	319 µg/m³
Propylene	1.77 µg/m³
Styrene	2.45 µg/m³
Tetrachloroethene	2.69 µg/m³
Tetrahydrofuran	3.27 µg/m³
Toluene	27.2 µg/m³
Trichlorofluoromethane	1.15 µg/m³
Xylene	399 µg/m³

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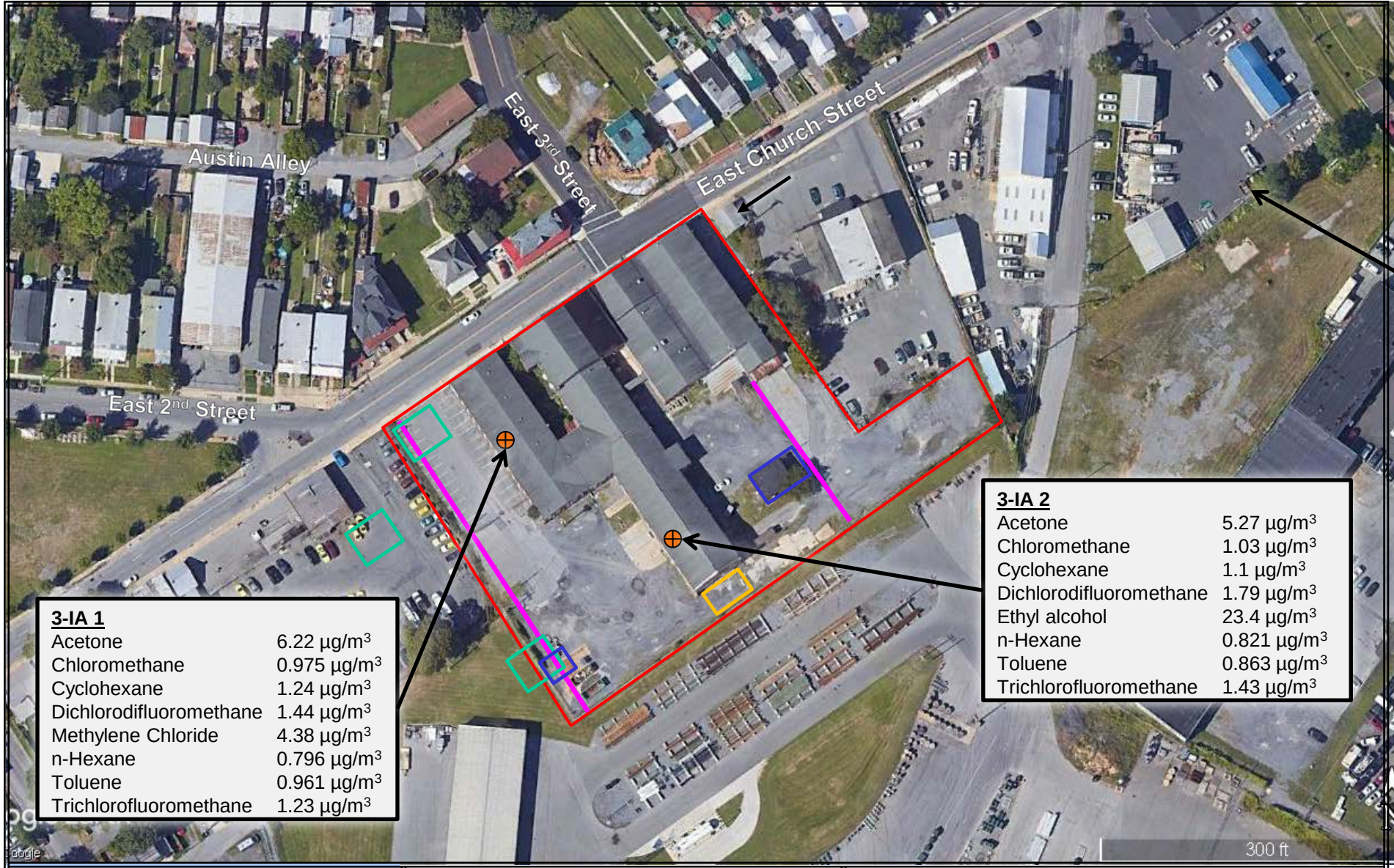
Legend
= Site Boundary
= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Soil Vapor Point Location

N

Figure 15c – Soil Vapor Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB



3-IA 1

Acetone	6.22 µg/m³
Chloromethane	0.975 µg/m³
Cyclohexane	1.24 µg/m³
Dichlorodifluoromethane	1.44 µg/m³
Methylene Chloride	4.38 µg/m³
n-Hexane	0.796 µg/m³
Toluene	0.961 µg/m³
Trichlorofluoromethane	1.23 µg/m³

3-IA 2

Acetone	5.27 µg/m³
Chloromethane	1.03 µg/m³
Cyclohexane	1.1 µg/m³
Dichlorodifluoromethane	1.79 µg/m³
Ethyl alcohol	23.4 µg/m³
n-Hexane	0.821 µg/m³
Toluene	0.863 µg/m³
Trichlorofluoromethane	1.43 µg/m³

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Legend
= Site Boundary
= Former Fuel Oil USTs
= Aerosol Can/Chemical Storage Area
= Kerosene Spill
= Former Railroad Spur
= Indoor Air Sample Location

N

Figure 16 – Indoor Air Results (July 23, 2019)
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB

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Legend

= Site Boundary

= Excavation Restriction Area

N

Figure 17 – Proposed Excavation Restriction Area
Ox Fibre Apartments
400 East Church Street
Frederick, Maryland 21701

Work Order No.:	Report Date:	Drawn By:
20-021	2/2020	MAB

APPENDIX B

ADMINISTRATIVE REQUIREMENTS

Written Agreement
Maryland Department of the Environment
Voluntary Cleanup Program
Response Action Plan

Property Location: 400 East Church Street
Frederick, Maryland 21701

Participant Address: 400 Church Owner LLC
1888 Main Street, Suite C163
Madison, Mississippi 39110

If the response action plan is approved by the Maryland Department of the Environment, the participant agrees, subject to the withdrawal provisions of Section 7-512 of the Environment Article, to comply with the provisions of the response action plan. Participant understands that if he fails to implement and complete the requirements of the approved plan and schedule, the Maryland Department of the Environment may reach an agreement with the participant to revise the schedule of completion in the approved response action plan or, if an agreement cannot be reached, the Department may withdraw approval of the plan.

Printed Name: Mr. Timothy McCarty Title: Vice President

Signature _____

Date 6/10/2020

Certified Statement for County and Municipal Zoning Requirements
Maryland Department of the Environment
Voluntary Cleanup Program
Response Action Plan

Property Location: 400 East Church Street
Frederick, Maryland 21701

Participant Address: 400 Church owner LLC
1888 Main Street, Suite C163
Madison, Mississippi 39110

The participant hereby certifies that the property meets all applicable county and municipal zoning requirements.

The participant acknowledges that there are significant penalties for falsifying any information required by MDE under Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland, and that this certification is required to be included in a response action plan for the Voluntary Cleanup Program pursuant to Title 7, Subtitle 5 of the Environment Article, Annotated Code of Maryland.

Printed Name: Mr. Timothy McCarty Title: Vice President

Signature _____

Date 6/10/2020