BURGESS & NIPLE

5085 Reed Road | Columbus, OH 43220 | 614.459.2050

Mr. Ben Kessler, Mayor
City of Bexley
2242 East Main Street
Bexley, OH 43209

Re: Limited Phase II Property Assessment and Recreational Standard Calculation
Sheridan Avenue Property
Bexley, Ohio

September 26, 2016

Dear Mayor. Kessler:

Burgess & Niple, Inc. (B&N) completed a limited Phase II Property Assessment (PA) and calculated property-specific recreational standards in conformance with the Ohio Environmental Protection Agency's (EPA's) Voluntary Action Program (VAP) for the City of Bexley (City) Sheridan Avenue (Property), located south of Charles Street, north of Livingston Avenue, east of Alum Creek, and west of Sheridan Avenue, Bexley, Ohio. The site is presented on **Figure 1**.

The limited Phase II PA was performed to evaluate soils on the Property in anticipation of converting the vacant property to a park, which includes ball fields and potential community gardens. As requested, property-specific direct contact soil standards were calculated for recreational land use following Ohio EPA VAP *Support Document for the Development of Generic Numerical Standards and Risk Assessment Procedures* (May 2016). It should be noted that the City is not currently entering the VAP program, but the investigation followed acceptable agency protocol in the event the City choses to enter the program. The following summarizes the findings of the limited Phase II PA and Human Health Risk Evaluation (HHRE).

I. LIMITED PHASE II PA

B&N completed a limited Phase II PA on August 9, 2016. A direct push sampling unit was used to collect soil samples for analytical testing. During the Phase II PA, Wright's Drilling of Mount Sterling, Ohio, advanced 25 direct push soil borings throughout the Property within the recreational land use point of compliance (POC) (0 to 2 feet below ground surface [bgs]). All direct push soil boring activities were field-directed by a B&N geologist. Soils were submitted to ALS, a VAP-certified laboratory, for analysis of all or a combination of the following:

- Heavy metals – in particular, arsenic, cadmium, and lead (Methods 6010 B, 7470A);
- Volatile organic compounds (VOCs) (Method 8260A/C), and
- Polynuclear aromatic hydrocarbons (PAHs) (Method 8270C).

Direct push soil samples were collected in a large-bore, steel soil core sampler (4- or 5-foot-long by 2-inch diameter) attached to 1-inch-outside-diameter (OD) steel rods. The soil core sampler was lined with a new disposable acetate coring tube before collection of each soil sample. The sampler was driven into the ground by the static weight of the carrier vehicle and hydraulic hammer percussion to a depth of 2 feet bgs.

Upon opening the coring tube, the geologic description of the samples was recorded on boring log sheets (**Attachment 1**). Soil samples were collected in 2-foot intervals for both laboratory and headspace analysis. Each sample was collected using clean surgical latex or nitrile gloves that were discarded after collection of each sample. Soil samples collected from each soil interval was placed in sample jars provided by the laboratory. In addition, a small portion of each soil interval was separately placed into a plastic zippered bag, sealed, and allowed to warm to ambient temperature for headspace screening. A calibrated photoionization detector (PID) was used to screen the samples. The relative response of the PID was among one of the ways used to determine which soil samples were submitted to the VAP-certified laboratory for analysis of VOCs.

A new acetate coring tube/liner was inserted into the soil sampler for each sampling interval during the advancement of the boring. Acetate liners were not reused. The soil sampler was decontaminated between borings. Parts were washed in a soap and water solution, using a brush to remove any adhered particles. After washing, parts were rinsed thoroughly with clean water and allowed to dry.

Upon completion of the borehole, the borehole was properly abandoned. Bentonite chips were poured into the borehole to ground surface and hydrated.

A. Soil Description

The majority of the soils sampled at the Property consisted of dry, brown to gray silty sand/sandy silt fill with varying amounts of sand and gravel. Some clayey fill was also noted in the east central portion of the property. Brick slag, cinders, and glass fragments were encountered as part of the fill material. Fill material was encountered across the entire property.

B. Analytical Results

Current results of the soil sampling indicate exceedances of VAP residential land use standards for arsenic, lead, benzo(a)anthracene, benzo(a)pyrene, and dibenzo(a,h)anthracene. **Table 1** presents the soil analytical results compared with VAP standards. **Attachment 2** presents the laboratory analytical reports. The future plans for the property is to be recreational, however, VAP does not have established generic recreational land use standards. As such, recreational standards were calculated following Ohio EPA VAP protocol outlined in the *Support Document for the Development of Generic Numerical Standards and Risk Assessment Procedures* (May 2016).

II. APPLICABLE STANDARDS

Recreational standards were developed for the chemicals of concern (COCs) detected at the Property since the VAP has not promulgated recreational standards.

A. Identification of Pathways

Exposure to contaminants in soil, sediment, groundwater, and/or surface water can occur at the Property by dermal contact, ingestion, or inhalation either in outdoor air as particulates or indoor air as vapor. At the request of the City, only the direct contact of soils pathway was evaluated. The following media and/or pathways were not evaluated as part of this investigation:

1. Soils below the 2-foot recreational POC were not collected either for description or laboratory analysis. Therefore, the construction/excavation worker 10-foot POC was not investigated.

2. Although Alum Creek is located adjacent to the Property, sediment and surface water were not evaluated.

3. Although cadmium had previously been detected in a grab groundwater sample above a historical VAP unrestricted potable use standard (UPUS), borings were not advanced deep enough to encounter groundwater. Therefore, groundwater samples were not collected as part of this limited Phase II PA.

4. Vapor intrusion, as the result of volatile COCs in soils or groundwater to indoor air, was considered an incomplete pathway as enclosed structures are not located within the Identified Areas (IAs) at this time. It was assumed that no enclosed structures would be built in the IAs in the future.

5. As such, only soil direct contact was considered a complete pathway for the 0- to 2-foot bgs soils. Direct contact of soil includes dermal contact, ingestion, and inhalation of soil particulates.

B. Risk Characterization

Using equations provided in the *Support Document for the Development of Generic Numerical Standards and Risk Assessment Procedures* (Ohio EPA, May 2016), and chemical-specific information provided on the Ohio EPA *Chemical Information Database and Applicable Regulatory Standards* (*CIDARS* - May 2016), recreational standards were calculated for an adult and child recreational visitor. The following table presents the differences in exposure parameters between a residential scenario and recreational scenario.

Name	Adult Residential	Child Residential	Adult Recreational	Child Recreational
Adherence Factor (mg/cm^3)	0.07	0.2	0.07	0.2
Averaging Time (days)				
• *noncarcinogen*	10,950	2,190	10,950	2,190
• *carcinogen*	25,550	25,550	25,550	25,550
Body Weight (kg)	70	15	70	15
Exposure Duration (years)	30	6	30	6
Exposure Frequency (days/year)	350	350	90	90
Exposure Time (hours/day)	8	8	8	8
Exposure Time (hours/day)	0.25	0.33	0.25	0.25
Ingestion Rate (soils- mg/day)	100	200	100	200
Inhalation Rate (m^3/hour)	0.9	0.66	0.9	0.66
Dermal Permeability Constant	0.1	0.1	0.1	0.1
Skin Area (cm^2)				
• *soil dermal contact*	5,700	2,800	5,700	2,800
• *water dermal contact*	20,000	8,000	20,000	8,000
Conversion Factor (Soil)	1.00E-06	1.00E-06	1.00E-06	1.00E-06
Fraction Ingested	1	1	1	1
Exposure Frequency (events/day)	1	1	1	1

Although several exposure parameters remain the same for the two scenarios, such as the body weight and averaging times, the exposure frequency is very different between the residential and recreational scenarios. In addition, an age-dependent adjustment is also made for several of the factors when calculating the carcinogenic portion of the standards.

Using the above receptor and scenario-specific exposure factors, direct contact soil standards for recreational land use were calculated. **Attachment 3** contains the recreational standards calculations.

C. Soil Analytical Results

Soil results were compared with the calculated recreational standards. The following summarizes the recreational standard exceedances.

1. Heavy Metals – Five of the 25 soil samples submitted for analysis of lead exceed the calculated recreational standard (550 milligrams per kilogram [mg/kg]). These include SB-1 (0-2) at 1,000 mg/kg, SB-3 (0-2) at 930 mg/kg, SB-6 (0-2) at 680 mg/kg, SB-10 (0-2) at 2,900 mg/kg, and SB-14 (0-2) at 1,400 mg/kg. No detected concentrations exceed the recreational standard for arsenic (47 mg/kg) or cadmium (60 mg/kg).

2. PAHs – Nine of the 25 soil samples were submitted for analysis of PAHs. Two of the samples exceed the calculated recreational standard of 4.80 mg/kg. These included SB-6 (0-2) at 4.9 mg/kg and SB-20 (0-2) at 13 mg/kg. Although a variety of PAHs were detected in the soil samples, no other PAHs exceed the calculated recreational standards.

3. VOCs – Nine of the 25 soil samples were submitted for VOCs analyses. No VOCs were detected in any of the samples submitted.

Although individual soil concentrations can be compared to applicable standards, individual soil results do not represent the true risk to a receptor at the Property. It is unreasonable to assume that a person at the site would be exposed to the highest concentration at the site during the entire duration they are on the site. Instead, the U.S. EPA recommends using an average concentration to represent, ". . . a reasonable estimate of the concentration likely to be contacted over time," (U.S. EPA 1989). Ohio Administrative Code(OAC) 3745-300-07(F)(5) allows for the use of a representative concentration by calculating the 95 percent upper confidence level (UCL) of the arithmetic mean of a data set. The 95 percent UCL is a conservative estimation of an average concentration due to ". . . the uncertainty associated with estimating a true average concentration," (U.S. EPA 1992). The data set must contain enough samples to derive a frequency and distribution that can reliably estimate the 95 percent UCL.

Individual soil results were initially compared with the calculated recreational standard, as noted above. The 95 percent UCL was also calculated for each COC which exceeded applicable recreational standards and the 95 percent UCL was then compared to the calculated recreational standard. As stated above, the 95 percent UCL provides a single value that represents a conservative average of the concentration in soils at the Property. The 95 percent UCL value is then compared with the applicable standards. If the calculated 95 percent UCL is less than the applicable standard, all soil data for that COC is considered to meet the standards, even though one or two individual samples may exceed.

The calculated 95 percent UCL for lead was 664 mg/kg, above the calculated recreational standard of 550 mg/kg. The calculated 95 percent UCL for benzo(a)pyrene was 7.63 mg/kg, above the calculated recreational standard of 4.80 mg/kg. ProUCL© calculations are presented in **Attachment 4**. Since these did not meet applicable standards, additional work will be needed to meet applicable standards.

1. Derivation of a Recreational Standard for Lead

Due to the difference in uptake by a receptor of lead as opposed to the other COCs at the Property, the calculation of a direct contact lead standard is different than the other chemicals detected at the property.

U.S. EPA and Ohio EPA calculate risk from lead exposure using two models that will calculate a blood lead level (BLL). One model is used for children, the Integrated Exposure Uptake Biokinetic Model for Lead in Children (IEUBK) and the Adult Lead Model (ALM). Both of these models are available at the U.S. EPA website (http://www.epa.gov/superfund/lead/products.htm). It should be noted that the IEUBK model is for children 0 to 84 months, or 6 years. Since children are the most sensitive receptor population using the ballfields on a regular basis, the IEUBK was considered applicable and would be most protective of the receptors at the ballfield.

a. Child Lead Model (IEUBK)

Utilizing the *User's Guide for the Integrated Exposure Uptake Biokinetic Model for Lead in Children* (EPA 9285.7-42, May 2007), the IEUBK was used to calculate a recreational standard. The IEUBK model is used to predict blood level concentrations in children (0 to 84 months) when exposed to lead from several sources (soil, dust, water, air, and dietary/food uptake) and several routes of exposure (inhalation, ingestion, dermal contact). The model calculates a plausible lead concentration centered around the geometric mean (GM) lead concentration. The GM lead concentration is predicted from available information about the children's exposure to lead. From this distribution, the model estimates the risk/probability that a child's BLL will exceed a certain level of concern, typically 10 micrograms per deciliter (µg/dl). U.S. EPA recommends the probability to not exceed a 5 percent chance for BLLs in children that exceed the 10 µg/dl.

However, the IEUBK model assumes lead risks are continuous and chronic. To account for exposures that are not continuous but intermittent, such as those at a park, the methods described in *Assessing Intermittent or Variable Exposures at Lead Sites* (EPA-540-R-03-008), were used to modify the IEUBK model to account for exposure at a park or playground. This document describes a time-weighting approach to account for exposure to a receptor at more than one location and varying intensities of exposure. The model can be used when there are exposures to a child at a primary location (the residence) and a secondary location (a park) where the exposure to lead at the secondary location is greater than the exposure concentration at the residence. This is the approach that was used to calculate a recreational standard for lead. Since only lead concentrations at the Property (secondary site) are known, default assumptions of the IEUBK model were used in conjunction with the time-weighted soil concentrations at the Property. Only the soil lead concentration

was altered in the model. Although the guidance document calculates a time-weighted concentration for indoor air dusts as the result of outdoor soils, the multiple source analysis (MSA) which calculates an indoor dust concentration based on the outdoor concentration was used instead. The MSA concentration was slightly greater than the calculated time-weighted indoor dust concentration. All other default assumptions (exposure to lead in food, water, and air) remained default values.

The model's default soil concentration is 200 mg/kg and was assumed to be the concentration at the primary location (residence). In addition, it was assumed that the child would also be exposed to a concentration at the Sheridan Avenue property. Time-weighted exposure calculations were used to derive an average value for the two locations (primary and secondary). In this approach, a weighted value is assigned to a medium, soil, which reflects the fraction of outdoor exposure to primary or secondary site soil. The time-weighting factor should be based on the smallest time period in which the exposure repeats. Recreational exposure is typically expressed as 90 days per year. Using the smallest time period spread over the course of a year, 90 days is approximately 2 days per week (2 days/7 days). **Table 2** presents the calculated concentrations of the time weighted exposure calculation based on 0 through 4 days per 7 days exposure at the park. **Attachment 5** contains the equations used for the time-weighting calculation. The time-weighted soil concentrations were then used in the IEUBK model. **Table 2** also presents the GM blood lead concentration and the percent of children which may result in a BLL above the 10 µg/dl. **Attachment 5** also contains the graphical output of the IEUBK model for each of the model runs (exposure durations of 0 through 4 days per 7 days at the park).

Using a value of 550 mg/kg for the Sheridan Avenue lead concentration, the IEUBK model was calculated. The 550 mg/kg is an accepted Ohio EPA recreational standard for lead (via a generic non-site-specific phone conversation with Ms. Audrey Rush, DERR risk assessor, October 12, 2012). Results indicate that the assumed exposure duration of 2 days per week meets the risk-based standards of less than 5 percent of receptors exceeding BLLs of 10 µg/dl. To verify that the 550 mg/kg would be a conservative recreational standard, the IEUBK model was calculated under recreational conditions of 2 days per week, and up to 4 days per week (assuming the child receptor may have sport practices at the ballfield). Results of all scenarios were below the 5 percent BLL of 10 µg/dl; therefore, 550 mg/kg was used as the recreational standard for the Property.

b. Adult Lead Model (ALM)

Although the child receptor is considered to be the most sensitive population, the ALM for adults was also used to verify the calculated recreational standard of 550 mg/kg for lead would be protective of the adult receptor population. The ALM models BLLs in a non-residential setting. It focuses on estimating fetal BLLs in women exposed to lead in contaminated soils. Ohio EPA has modified the U.S. EPA ALM spreadsheet to include a total ingestion rate (of outdoor soil and indoor dust). As such, to be more conservative and to comply with VAP standards and methodology, the Ohio EPA modified ALM spreadsheet was used to verify the

previously calculated recreational standard. The lead concentration of 550 mg/kg, and increased ingestion rate of 0.1 grams per day (g/day), the exposure frequency of 90 days per year, and the averaging time of 365 days per year were used in the ALM to determine if the calculated recreational standard is also protective of adults at the ballfields. **Attachment 5** contains the ALM spreadsheet. The spreadsheets show the probability of a fetus BLL above 10 µg/dl ranging from 0.1 percent to 3.1 percent, with the GM fetus BLL ranging from 3.9 µg/dl to 8.3 µg/dl, which is below the 10 µg/dl allowable BLL. This would indicate that the 550 mg/kg lead concentration used for a recreational standard is also protective of adults at the Property.

D. Recreational Standards

Table 3 presents the calculated recreational standards for both the adult and child recreational receptor. The final recreational single chemical generic direct contact standard is the lower of the two values. **Table 1** includes the recreational standard along with the applicable VAP standards and the detected soil concentrations.

III. CONCLUSIONS

Based on the soil analytical results, lead and benzo(a)pyrene are above the calculated recreational standard, 550 mg/kg and 4.80 mg/kg, respectively, in various soil samples. In addition, calculation of the 95 percent UCL for both lead (664 mg/kg) and benzo(a)pyrene (7.63 mg/kg) also exceed the calculated recreational standards (550 mg/kg and 4.80 mg/kg, respectively). To meet the recreational standards, it is recommended that the Property undergo some type of remediation prior to development of the site as a park. Remedial options could include, but are not limited to, the following:

A. Selectively remove soil which exceed recreational standards to a minimum of 2 feet bgs and replace removed soils with clean fill material which meet the calculated recreational standard. This would require collection of confirmation samples to ensure that soils remaining at the edge of the excavation meet applicable standards and the sampling of clean fill brought to the Property (recreational).

B. Placement of a minimum of 2 feet of clean fill material which meet the calculated recreational standards above impacted soils.

C. Placement of an engineering control over the areas that contain recreational soil exceedances which will prohibit direct contact of the impacted underlying soils by potential receptors. It is recommended that if an engineering control is used to mitigate direct contact, an operations and maintenance plan (O&M Plan) should be completed to insure that the measure continues to mitigate the direct contact pathway. This could include annual inspections of the engineering control and measures to repair or replace the engineering control if the need arises.

It is currently not the intention of the City to address the site under the VAP; however remedial options discussed above are measures previously acceptable to the Ohio EPA for impacted soils.

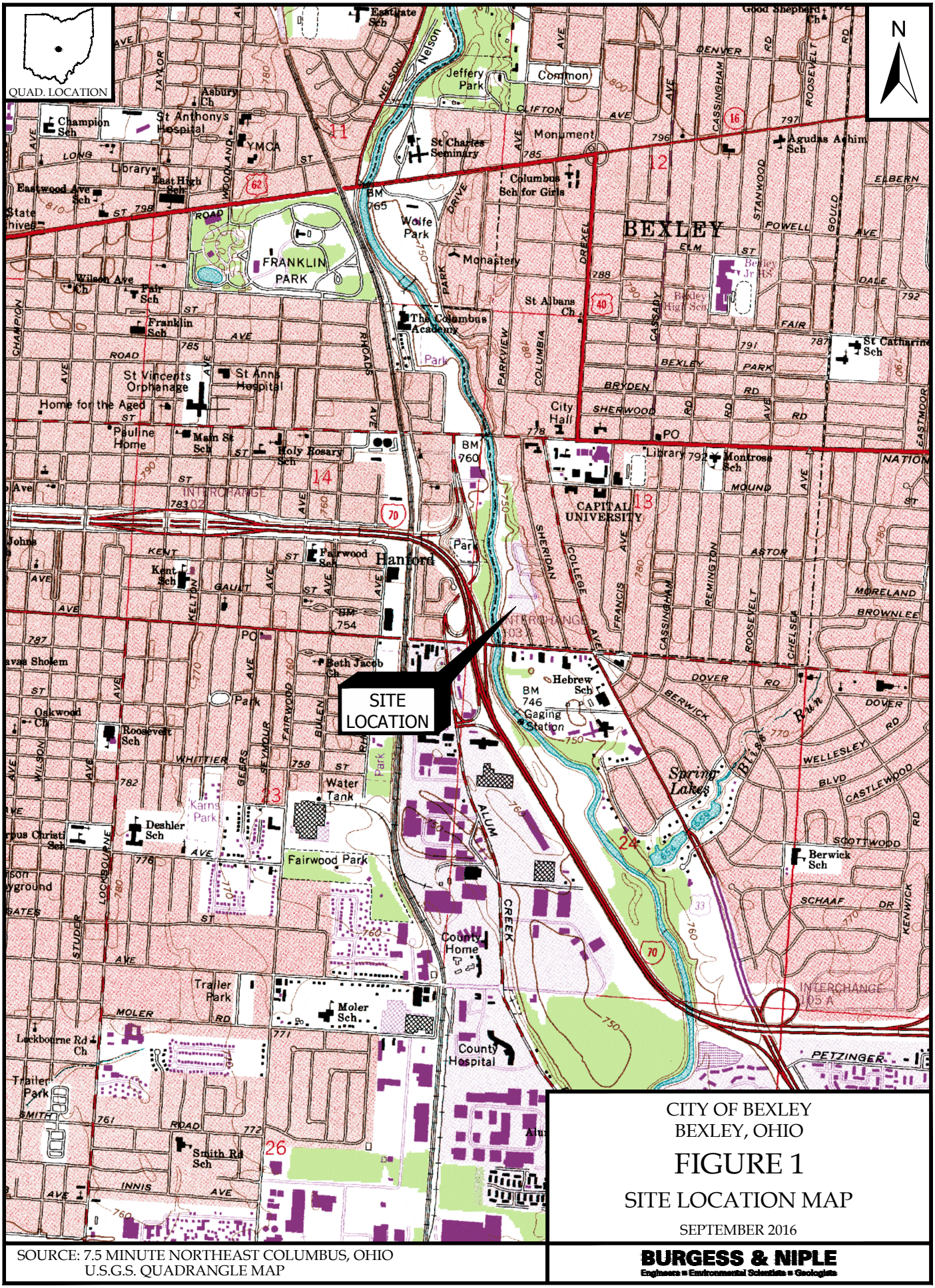
B&N appreciates the opportunity to work with you on this project. Please do not hesitate to contact us with any questions or concerns you may have regarding the limited Phase II PA.

Respectfully,

Julie A. Carpenter
Risk Assessor, CPG

JAC:cmc
Attachments

FIGURES



CITY OF BEXLEY
BEXLEY, OHIO

FIGURE 1

SITE LOCATION MAP

SEPTEMBER 2016

SOURCE: 7.5 MINUTE NORTHEAST COLUMBUS, OHIO
U.S.G.S. QUADRANGLE MAP

BURGESS & NIPLE
Engineers ▪ Environmental Scientists ▪ Geologists

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CITY OF BEXLEY
BEXLEY, OHIO

FIGURE 2

BORING LOCATION MAP

SEPTEMBER 2016

BURGESS & NIPLE
Engineers ▪ Environmental Scientists ▪ Geologists

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	Recreational Standard	Construction Standard	SB-4 (0-2) 8/9/2016
Lead	550	**400**	**420**

	Recreational Standard	Construction Standard	SB-13 (0-2) 8/9/2016
Lead	550	**400**	**470**

	Recreational Standard	Construction Standard	SB-14 (0-2) 8/9/2016
Lead	550	400	**1400**

	Recreational Standard	Construction Standard	SB-1 (0-2) 8/9/2016
Lead	**550**	**400**	**1,000**
Benzo(a)pyrene	4.8	5.8	3.3

	Recreational Standard	Construction Standard	SB-12 (0-2) 8/9/2016
Lead	550	**400**	**420**

	Recreational Standard	Construction Standard	SB-3 (0-2) 8/9/2016
Lead	**550**	**400**	**930**

	Recreational Standard	Construction Standard	SB-6 (0-2) 8/9/2016
Lead	**550**	**400**	**680**
Benzo(a)pyrene	**4.8**	5.8	**4.9**

	Recreational Standard	Construction Standard	SB-20 (0-2) 8/9/2016
Benzo(a)pyrene	4.8	5.8	**13**

	Recreational Standard	Construction Standard	SB-10 (0-2) 8/9/2016
Lead	550	400	**2,900**

CHARLES STREET

VILLAGE CREEK DR.

SHERIDAN AVE.

MAYFIELD PL.

FERNDALE PL.

SB-1 SB-2 SB-3 SB-4 SB-5 SB-6 SB-7 SB-8 SB-9 SB-10 SB-11 SB-12 SB-13 SB-14 SB-15 SB-16 SB-17 SB-18 SB-19 SB-20 SB-21 SB-22 SB-23 SB-24 SB-25

N

CITY OF BEXLEY
BEXLEY, OHIO

FIGURE 3

SOIL EXCEEDANCES

SEPTEMBER 2016

BURGESS & NIPLE
Engineers ▪ Environmental Scientists ▪ Geologists

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TABLES

Table 1
Soil Analytical Data
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

	Units	Calculated Recreational	VAP SCGDCSS[A] Commercial	VAP SCGDCSS[A] Construction	SB-1 (0-2) 8/9/2016	SB-2 (0-2) 8/9/2016	SB-3 (0-2) 8/9/2016	SB-4 (0-2) 8/9/2016	SB-5 (0-2) 8/9/2016	SB-6 (0-2) 8/9/2016	SB-7 (0-2) 8/9/2016	SB-8 (0-2) 8/9/2016	SB-9 (0-2) 8/9/2016	SB-10 (0-2) 8/9/2016
Heavy Metals														
Arsenic	mg/kg	47	77	690	**30**	**22**	**33**	**23**	**13**	**23**	**28**	**16**	**26**	**35**
Cadmium	mg/kg	600	2,600	1,000	5.6	< 1.2	7.6	< 1.1	< 1.1	< 1.2	1.4	< 1.2	< 1.2	3.3
Lead	mg/kg	**550**	**800**	**400**	**1,000**	99	**930**	**420**	140	**680**	350	94	75	**2,900**
Poly-Nuclear Aromatic Hydrocarbons														
1-Methylnaphthalene	mg/kg	1,700	1,500	31,000	0.45	--	--	--	< 0.22	< 0.25	--	--	--	< 0.24
2-Methylnaphthalene	mg/kg	1,800	6,000	5,200	0.44	--	--	--	< 0.22	< 0.25	--	--	--	< 0.24
Acenaphthene	mg/kg	26,000	90,000	780,000	0.46	--	--	--	< 0.22	0.64	--	--	--	< 0.24
Acenaphthylene	mg/kg	36,500	90,000	780,000	0.56	--	--	--	< 0.22	0.34	--	--	--	< 0.24
Anthracene	mg/kg	130,000	450,000	1,000,000	1.5	--	--	--	0.33	2.8	--	--	--	0.33
Benzo(a)anthracene	mg/kg	48	58	1,200	3.5	--	--	--	1.1	5.3	--	--	--	1.2
Benzo(a)pyrene	mg/kg	**4.80**	**5.80**	120	**3.3**	--	--	--	1.1	**4.9**	--	--	--	**1.3**
Benzo(b)fluoranthene	mg/kg	48	58	1,200	3.3	--	--	--	1.2	5.3	--	--	--	1.3
Benzo(ghi)perylene	mg/kg	18,000	45,000	390,000	1.8	--	--	--	0.65	2.4	--	--	--	1.1
Benzo(k)fluoranthene	mg/kg	480	580	12,000	2.5	--	--	--	0.87	4.8	--	--	--	1
Carbazole	mg/kg	1,900	2,500	50,000	0.66	--	--	--	< 0.22	0.72	--	--	--	< 0.24
Chrysene	mg/kg	4,800	5,800	120,000	3.5	--	--	--	1.3	5.3	--	--	--	1.3
Dibenzo(a,h)anthracene	mg/kg	4.80	5.80	120	0.55	--	--	--	< 0.22	0.87	--	--	--	< 0.24
Dibenzofuran	mg/kg	600	4,100	2,100	0.56	--	--	--	< 0.22	0.5	--	--	--	< 0.24
Fluoranthene	mg/kg	18,000	60,000	160,000	8.5	--	--	--	2.7	13	--	--	--	2.9
Fluorene	mg/kg	18,000	60,000	520,000	0.78	--	--	--	< 0.22	0.86	--	--	--	< 0.24
Indeno(1,2,3-cd)pyrene	mg/kg	48	58	1,200	2.1	--	--	--	0.77	3.1	--	--	--	0.88
Naphthalene	mg/kg	1,000	450	560	0.51	--	--	--	< 0.22	< 0.25	--	--	--	< 0.24
Phenanthrene	mg/kg	130,000	450,000	1,000,000	7	--	--	--	1.4	7.7	--	--	--	1.5
Pyrene	mg/kg	13,000	45,000	390,000	7.3	--	--	--	2.3	10	--	--	--	2.1
Volatile Organic Compounds (VOCs)														
No VOCs detected above laboratory detection limits.														

Italics - Supplemental Criteria

SCGDSS - Single chemical generic direct contact soil standard.
Bold - Exceeds Standard

Table 1
Soil Analytical Data
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

	Units	Calculated Recreational	VAP SCGDCSS[A] Commercial	VAP SCGDCSS[A] Construction	SB-11 (0-2) 8/9/2016	SB-12 (0-2) 8/9/2016	SB-13 (0-2) 8/9/2016	SB-14 (0-2) 8/9/2016	SB-15 (0-2) 8/9/2016	SB-16 (0-2) 8/9/2016	SB-17 (0-2) 8/9/2016	SB-18 (0-2) 8/9/2016	SB-19 (0-2) 8/9/2016	SB-20 (0-2) 8/9/2016
Heavy Metals														
Arsenic	mg/kg	47	77	690	**15**	**33**	**24**	**31**	**17**	**18**	**26**	**24**	**22**	**17**
Cadmium	mg/kg	600	2,600	1,000	< 1.1	< 1.1	< 1.2	1.3	< 1.3	< 1.1	< 1.2	< 1.2	< 1.2	< 1.1
Lead	mg/kg	**550**	**800**	**400**	21	**420**	**470**	**1,400**	98	16	20	22	85	79
Poly-Nuclear Aromatic Hydrocarbons														
1-Methylnaphthalene	mg/kg	1,700	1,500	31,000	--	--	0.38	--	< 0.27	--	--	--	--	0.28
2-Methylnaphthalene	mg/kg	1,800	6,000	5,200	--	--	0.35	--	< 0.27	--	--	--	--	< 0.22
Acenaphthene	mg/kg	26,000	90,000	780,000	--	--	0.53	--	< 0.27	--	--	--	--	2.7
Acenaphthylene	mg/kg	36,500	90,000	780,000	--	--	< 0.25	--	< 0.27	--	--	--	--	< 0.22
Anthracene	mg/kg	130,000	450,000	1,000,000	--	--	1	--	< 0.27	--	--	--	--	9.2
Benzo(a)anthracene	mg/kg	48	58	1,200	--	--	2.4	--	0.61	--	--	--	--	**15**
Benzo(a)pyrene	mg/kg	**4.80**	**5.80**	120	--	--	**2.5**	--	0.58	--	--	--	--	**13**
Benzo(b)fluoranthene	mg/kg	48	58	1,200	--	--	2.8	--	0.62	--	--	--	--	12
Benzo(ghi)perylene	mg/kg	18,000	45,000	390,000	--	--	1.3	--	0.36	--	--	--	--	6.7
Benzo(k)fluoranthene	mg/kg	480	580	12,000	--	--	1.8	--	0.49	--	--	--	--	11
Carbazole	mg/kg	1,900	2,500	50,000	--	--	0.54	--	< 0.27	--	--	--	--	1.4
Chrysene	mg/kg	4,800	5,800	120,000	--	--	3.1	--	0.65	--	--	--	--	14
Dibenzo(a,h)anthracene	mg/kg	4.80	5.80	120	--	--	0.33	--	< 0.27	--	--	--	--	**2.1**
Dibenzofuran	mg/kg	600	4,100	2,100	--	--	0.41	--	< 0.27	--	--	--	--	2
Fluoranthene	mg/kg	18,000	60,000	160,000	--	--	7.5	--	1.2	--	--	--	--	40
Fluorene	mg/kg	18,000	60,000	520,000	--	--	0.44	--	< 0.27	--	--	--	--	3.3
Indeno(1,2,3-cd)pyrene	mg/kg	48	58	1,200	--	--	1.6	--	0.38	--	--	--	--	8.2
Naphthalene	mg/kg	1,000	450	560	--	--	0.42	--	< 0.27	--	--	--	--	0.26
Phenanthrene	mg/kg	130,000	450,000	1,000,000	--	--	5.5	--	0.51	--	--	--	--	31
Pyrene	mg/kg	13,000	45,000	390,000	--	--	6	--	1	--	--	--	--	32
Volatile Organic Compounds (VOCs)														
No VOCs detected above laboratory detection limits.														

Italics - Supplemental Criteria

SCGDSS - Single chemical generic direct contact soil standard.
Bold - Exceeds Standard

Table 1
Soil Analytical Data
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

	Units	Calculated Recreational	VAP SCGDCSS[A] Commercial	VAP SCGDCSS[A] Construction	SB-21 (0-2) 8/9/2016	SB-22 (0-2) 8/9/2016	SB-23 (0-2) 8/9/2016	SB-24 (0-2) 8/9/2016	SB-25 (0-2) 8/9/2016
Heavy Metals									
Arsenic	mg/kg	47	77	690	**27**	**19**	**15**	**22**	**19**
Cadmium	mg/kg	600	2,600	1,000	< 1.2	< 1.1	< 1.1	< 1.2	< 1.1
Lead	mg/kg	**550**	**800**	**400**	88	190	110	31	180
Poly-Nuclear Aromatic Hydrocarbons									
1-Methylnaphthalene	mg/kg	1,700	1,500	31,000	--	--	--	< 0.25	< 0.23
2-Methylnaphthalene	mg/kg	1,800	6,000	5,200	--	--	--	< 0.25	< 0.23
Acenaphthene	mg/kg	26,000	90,000	780,000	--	--	--	< 0.25	0.41
Acenaphthylene	mg/kg	36,500	90,000	780,000	--	--	--	< 0.25	< 0.23
Anthracene	mg/kg	130,000	450,000	1,000,000	--	--	--	0.61	1.3
Benzo(a)anthracene	mg/kg	48	58	1,200	--	--	--	2.1	2.7
Benzo(a)pyrene	mg/kg	**4.80**	**5.80**	120	--	--	--	**2.3**	**2.6**
Benzo(b)fluoranthene	mg/kg	48	58	1,200	--	--	--	2.8	3.1
Benzo(ghi)perylene	mg/kg	18,000	45,000	390,000	--	--	--	1.1	1.2
Benzo(k)fluoranthene	mg/kg	480	580	12,000	--	--	--	1	1
Carbazole	mg/kg	1,900	2,500	50,000	--	--	--	< 0.25	0.37
Chrysene	mg/kg	4,800	5,800	120,000	--	--	--	2.2	2.7
Dibenzo(a,h)anthracene	mg/kg	4.80	5.80	120	--	--	--	0.3	0.35
Dibenzofuran	mg/kg	600	4,100	2,100	--	--	--	< 0.25	0.31
Fluoranthene	mg/kg	18,000	60,000	160,000	--	--	--	4.9	5.9
Fluorene	mg/kg	18,000	60,000	520,000	--	--	--	< 0.25	0.38
Indeno(1,2,3-cd)pyrene	mg/kg	48	58	1,200	--	--	--	1.4	1.6
Naphthalene	mg/kg	1,000	450	560	--	--	--	< 0.25	< 0.23
Phenanthrene	mg/kg	130,000	450,000	1,000,000	--	--	--	2.9	4.4
Pyrene	mg/kg	13,000	45,000	390,000	--	--	--	4.2	4.9
Volatile Organic Compounds (VOCs)									
No VOCs detected above laboratory detection limits.									

Italics - Supplemental Criteria

SCGDSS - Single chemical generic direct contact soil standard.
Bold - Exceeds Standard

Table 2
Derivation of Recreational Standard for Lead
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Time-Weighted Concentration Using 550 mg/kg

Exposure Scenario	PbS* (mg/kg)	PbD** (mg/kg)	GM PbB (ug/dl)	P10 %
0 site visits per week	200	150	2.7	0.3
1 site visit per week	250	185	3.2	0.7
2 site visits per week	300	220	3.6	1.5
3 site visits per week	350	255	4.1	2.7
4 site visits per week	400	290	4.5	4.3

* PbS - weighted soil lead concentration; residential assumed 200 mg/kg, park 550 mg/kg
** PbD - concentration of lead in indoor dusts attributable to outdoor soil lead concentrations
GM- PbB - geometric mean blood lead concentration
P10 % - percent of children likely to have a BLL - should not exceed 5-percent

Table 3
VAP Human Health Risk Assessment
Single Chemical Generic Direct Contact Soil Standard
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Chemical of Concern	Single-Chemical Noncarcinogenic Endpoint (mg/kg)	Single-Chemical Carcinogenic Endpoint (mg/kg)	Soil Saturation Concentration (mg/kg)	Single-Chemical Direct Contact Standard for Recreational Land Use (mg/kg)
Arsenic	266.20	47.64	NA	47.00
Cadmium	603.47	149,879.33	NA	600.00
Lead	NA	NA	NA	550.00
1-Methylnaphthalene	31,219.45	1,713.12	NA	1,700.00
2-Methylnaphthalene	1,783.97	NA	NA	1,800.00
Acenaphthene	26,759.53	NA	NA	26,000.00
Acenaphthylene	36,500.00	NA	NA	36,500.00
Anthracene	133,797.65	NA	NA	130,000.00
Benzo(a)anthracene	NA	48.12	NA	48.00
Benzo(a)pyrene	NA	4.82	NA	4.80
Benzo(b)fluoranthene	NA	48.24	NA	48.00
Benzo(g,h,i)perylene	18,250.00	NA	NA	18,000.00
Benzo(k)fluoranthene	NA	480.98	NA	480.00
Carbazole	NA	1,887.99	NA	1,900.00
Chrysene	NA	4,774.50	NA	4,800.00
Dibenz(a,h)anthracene	NA	4.82	NA	4.80
Dibenzofuran	608.33	NA	NA	600.00
Fluoranthene	17,839.69	NA	NA	18,000.00
Fluorene	17,839.69	NA	NA	18,000.00
Indeno(1,2,3-c,d)pyrene	NA	48.24	NA	48.00
Naphthalene	3,050.02	1,060.26	NA	1,000.00
Phenanthrene	133,797.65	NA	NA	130,000.00
Pyrene	13,379.77	NA	NA	13,000.00

ATTACHMENT 1

BORING LOG SHEETS

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-1**

Total Depth 4 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 8:26 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 8:27 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright
Sampling Methods:	Soil probe
Drill Rig Type:	AMS Power probe 9630
X / Y Coordinates:	North: East:
Casing Type and Diameter:	
Hammer Weight:	Drop:
Location Description:	

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.1) Grass, roots, twigs.	0-4 ft		3.5 ft.	17.8
				(0.1-0.2) Topsoil, dry.				
				(0.2-2.0) Dark brown silty SAND (SM), trace white paper, trace yellow brown to				
2				orange brick fragments, trace black slag, trace fine gravel, trace clay, dry, weak,				
				soft (FILL), trace glass.				1.0
				(2.0-4.0) SAA (FILL), brown silty clay (ML), few black slag, trace sand, trace				
				fine gravel, trace black cinders, trace orange brick fragments.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-2**

Total Depth 4 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 8:37	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 8:38	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North: East:		
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.2) Brown TOPSOIL with grass roots, dry, crumbles	0-4 ft		3.4 ft.	0.0
				(0.2-2.0) Brown silty SAND (SM)with some black cinders/slag, trace gravel,				
				trace orange brick fragments (FILL), dry, weak, trace clay, trace green and white glass.				
2								
				(2.0-2.4) SAA (FILL).				0.0
				(2.4-4.0) SAA (FILL), brown silty CLAY (ML), with trace black slag, trace orange				
				brick fragments, trace white glass, dry, hard.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-3**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 8:55 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 8:56 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-2.0) Gray brown silty SAND (SM)with few cinders, trace slag, trace gravel, trace white /clear glass, dry, weak.	0-2 ft		1.3 ft.	0.0
2								
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-4**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 9:04 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 9:05 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe	Date	Time	Depth to Water	Notes
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-2.0) Brown SAND (FILL), dry, weak, fine trace gravel, yellow brick, silt, trace orange glass, little silt.	0-2 ft		1.7 ft.	0.0
2								
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-5**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 9:14 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 9:15 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe	Date	Time	Depth to Water	Notes
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-1.7) Gray gravelly SAND (SW), few black staining, fine sand, fine to coarse gravel, trace clay (FILL), dry, weak.	0-2 ft		1.9 ft.	0.0
2				(1.7-2.0) Very dark brown gray to black silty CLAY (ML) with black slag, trace gravel, trace glass, few fine sand.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-6**

Total Depth 4 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 9:50 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 9:51 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.5) Brown TOPSOIL, dry weak, trace grass roots	0-4 ft		3.3 ft.	0.0
				(0.5-1.2) Brown SAND (FILL), few gravel, trace slag, dry, loose.				
2				(1.2-3.0) Dark brown silty CLAY (ML), slightly moist, firm, few black slag, trace cinders, trace red to orange brick, trace gravel, trace white glass, trace white plastic.				
				(3.0-3.2) SAA				
4				(3.2-3.5) Brown gravelly SAND (FILL), dry weak, poorly sorted, fine to coarse.				
				(3.5-4.0) Brown slag and sand (FILL), compact, very moist. Poorly sorted, mostly slag, trace black colored slag, trace gravel, trace cinders, trace white plastic.				
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-7**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 9:55 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 9:56 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright
Sampling Methods:	Soil probe
Drill Rig Type:	AMS Power probe 9630
X / Y Coordinates:	North: East:
Casing Type and Diameter:	
Hammer Weight:	Drop:
Location Description:	

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.2) Brown TOPSOIL with fine gravel (FILL), dry, weak, few fine sand grass roots.	0-2 ft		1.5 ft.	0.0
2				(0.2-2.0) Dark brown to black sandy CLAY (SC) with black slag and cinders, trace gravel, trace white glass, trace orange, slightly moist, trace silt.				
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-8**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 10:00 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 10:01 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright
Sampling Methods:	Soil probe
Drill Rig Type:	AMS Power probe 9630
X / Y Coordinates:	North: East:
Casing Type and Diameter:	
Hammer Weight:	Drop:
Location Description:	

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)	Date	Time	Depth to Water	Notes
0	Stick-up =			(0.0-0.4) Brown gray sand and gravel FILL, dry, loose, poorly sorted, fine to very coarse sand, fine to coarse gravel.	0-2 ft		1.2 ft.	0.0				
2				(0.4-2.0) Dark brown silty clay (FILL), slightly moist, hard, trace black slag/cinders, trace gravel, trace fine sand, trace white glass, trace orange brick.								
4												
6												
8												
10												
12												
14												
16												

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-9**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 10:05	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 10:06	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North: East:		
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.2) Gray coarse gravel, trace sand (FILL), dry, loose	0-2 ft		2.0 ft.	0.0
				(0.2-1.0) Brown sandy, silty, CLAY (FILL), dry, hard, few very coarse sand, trace				
2				shale fragments, trace gravel.				
				(1.0-1.7) Brown gravelly SAND (FILL), dry, loose, poorly sorted.				
				(1.7-2.0) Dark brown sandy silty CLAY (FILL), dry, soft, some black cinders/slag.				
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-10**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 10:10 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 10:11 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe	Date	Time	Depth to Water	Notes
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.7) Brown sandy GRAVEL (FILL), dry, loose, poorly sorted, cine to very coarse, coarse gravel	0-2 ft		1.7 ft.	0.0
2				(0.7-2.0) Dark brown sandy slag with few clay (FILL), dry, weak, trace orange glass.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-11**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 10:20	Date:	8/9/2016
Project No.:	55064	Complete Drilling:	Time: 10:21	Date:	8/9/2016
Logged By:	M. Akins	Start Installation:	Time:	Date:	
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time:	Date:	

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North:	East:			
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.4) Brown sand and gravel with silt (FILL), dry, loose	0-2 ft			0.0
				(0.4-2.0) Brown silty CLAY (FILL), dry, hard, few black staining, trace gravel, trace sand, trace roots.				
2								
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-12**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 10:30	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 10:31	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-2.0) Brown, dark brown SAND (FILL), trace plastic, trace gravel, trace orange brick, fine to coarse sand, trace slag.	0-2 ft		2.0 ft.	0.0
2								
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-13**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 10:50 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 10:51 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-2.0) Dark brown to black sand and cinders with slag (FILL), trace white glass, trace gravel, trace brown glass.	0-2 ft		1.5 ft.	0.0
2								
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-14**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 12:03	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 12:04	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North:	East:	
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.2) Brown gray sand (FILL), dry, loose, well sorted, very fine, trace gravel, trace wood, trace white/clear glass.	0-2 ft		1.7 ft.	0.0
2								
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-15**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 12:12	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 12:13	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North: East:		
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Date	Time	Depth to Water	Notes
0	Stick-up =			(0.0-0.3) Brown sand and gravel (FILL), dry, loose, very fine sand, coarse gravel.				
				(0.3-0.6) Dark brown to black slag, sand, and clay (FILL), moist, very soft/loose.				
				(0.6-2.0) Very dark brown silty clay (FILL), slightly moist, hard, few cinders/slag,				
2				trace gravel, wood piece at end of show, trace red brick.				
4								
6								
8								
10								
12								
14								
16								

Drilling Observations			
Interval	Blow Counts	Recovery	Field Screening (ppm)
0-2 ft		1.3 ft.	0.0

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-16**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 12:35	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 12:36	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North:	East:	
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.3) Brown sand and gravel with wilt (FILL), dry, loose.	0-2 ft		2.0 ft.	0.0
				(0.3-0.6) Brown silty CLAY (CL) moist, very soft, low plasticity, trace sand and gravel.				
2				(0.6-2.0) SAA (CL) with few fine sand, dry, crumbles.				
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-17**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 12:48	Date:	8/9/2016
Project No.:	55064	Complete Drilling:	Time: 12:49	Date:	8/9/2016
Logged By:	M. Akins	Start Installation:	Time:	Date:	
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time:	Date:	

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North:	East:			
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-1.1) Brown silty sandy TOPSOIL with trace black cinders at 0.7' (FILL).	0-2 ft		1.9 ft.	0.0
2				(1.1-2.0) Yellow brown silty CLAY (CL), dry, very hard, trace sand, trace gravel, trace limestone rock fragment.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-18**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 12:57	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 12:58	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North: East:		
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.6) Brown silty sand (FILL), dry, loose, very fine sand, trace gravel.	0-2 ft		1.8 ft.	0.0
				(0.6-2.0) Yellow brown silty CLAY (CL)dry, hard, low plasticity, trace sand, trace gravel.				
2								
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-19**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 1:07 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 1:08 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.3) Very dark brown silty sand (FILL), dry, weak, trace wood chips, trace grass roots.	0-2 ft		1.8 ft.	0.0
2				(0.3-1.7) Very dark gray silty clay (FILL), dry, hard, trace sand, trace gravel, trace roots.				
4				(1.7-2.0) Black and orange brown slag/cinders (FILL) with few fine sand, dry, loose.				
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-20**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 1:37	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 1:38	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright
Sampling Methods:	Soil probe
Drill Rig Type:	AMS Power probe 9630
X / Y Coordinates:	North: East:
Casing Type and Diameter:	
Hammer Weight:	Drop:
Location Description:	

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)	Date	Time	Depth to Water	Notes
0	Stick-up =			(0.0-1.7) Brown sandy silty clay (FILL), dry, no plasticity, some very fine sand, trace gravel, trace roots.	0-2 ft		1.8 ft.	0.0				
2				(1.7-2.0) Orange brown sandy cinders/slag (FILL) dry, loose, some black staining.								
4												
6												
8												
10												
12												
14												
16												

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-21**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 1:45	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 1:46	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-1.4) Yellow brown silty clay (FILL), slightly moist, soft, low plasticity, trace sand, trace gravel.	0-2 ft		1.5 ft.	0.0
2				(1.4-2.0) Black cinders and slag (FILL), slightly moist, very soft, trace clay, trace sand, trace gravel.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-22**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 1:48 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 1:49 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-1.7) Brown silty sand (FILL), dry, loose, very fine, little silt, trace gravel.	0-2 ft		2.0 ft.	0.0
2				(1.7-2.0) Dark gray sand (FILL), dry, loose, some crushed slag/cinders, trace clear glass.				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-23**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 1:56	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 1:57	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:
Driller's Name:	Densil and Brian Wright		
Sampling Methods:	Soil probe		
Drill Rig Type:	AMS Power probe 9630		
X / Y Coordinates:	North:	East:	
Casing Type and Diameter:			
Hammer Weight:	Drop:		
Location Description:			

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-1.8) Brown silty sandy TOPSOIL, dry, loose, trace roots.	0-2 ft		1.8 ft.	0.0
2				(1.8-2.0) Brown silty CLAY (CL), slightly moist, hard, trace sand and gravel.				
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-24**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling:	Time: 2:00 Date: 8/9/2016
Project No.:	55064	Complete Drilling:	Time: 2:01 Date: 8/9/2016
Logged By:	M. Akins	Start Installation:	Time: Date:
Drilling Contractor:	Wright's Drilling	Complete Installation:	Time: Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

		Date	Time	Depth to Water	Notes
Driller's Name:	Densil and Brian Wright				
Sampling Methods:	Soil probe				
Drill Rig Type:	AMS Power probe 9630				
X / Y Coordinates:	North: East:				
Casing Type and Diameter:					
Hammer Weight:	Drop:				
Location Description:					

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.5) Brown sandy silty CLAY (FILL), dry, firm, trace roots, trace cine gravel.	0-2 ft		1.8 ft.	0.0
				(0.4-1.4) Dark brown sandy silty clay (FILL), dry, hard, little sand, trace gravel, trace plastic, trace cinders.				
2				(1.4-2.0) Very dark brown and black silty CLAY (CL), moist, very soft, low plasticity, trace organics (wood/roots).				
4								
6								
8								
10								
12								
14								
16								

LOCATION SKETCH

(NOT TO SCALE)

WELL NO. **SB-25**

Total Depth 2 feet

Sheet 1 of 1

BURGESS & NIPLE

Project:	**Sheridan Avenue Property - Bexley, Ohio**	Start Drilling: Time: 2:05	Date: 8/9/2016
Project No.:	55064	Complete Drilling: Time: 2:06	Date: 8/9/2016
Logged By:	M. Akins	Start Installation: Time:	Date:
Drilling Contractor:	Wright's Drilling	Complete Installation: Time:	Date:

Ground Surface Elevation:

Top of Casing Elevation:

Elevation Units: feet above mean sea level

Driller's Name:	Densil and Brian Wright
Sampling Methods:	Soil probe
Drill Rig Type:	AMS Power probe 9630
X / Y Coordinates:	North: East:
Casing Type and Diameter:	
Hammer Weight:	Drop:
Location Description:	

Depth in Feet	Well Installation Notes	Well / Boring Description	General Geologic Log	Sample Description	Drilling Observations: Interval	Blow Counts	Recovery	Field Screening (ppm)
0	Stick-up =			(0.0-0.4) Brown sandy TOPSOIL (FILL), dry, loose, trace roots.	0-2 ft		2.0 ft.	0.0
				(0.4-2.0) Dark brown silty clay (FILL), slightly moist, hard, low plasticity, trace sand, trace gravel, trace black staining with cinders and slag.				
2								
4								
6								
8								
10								
12								
14								
16								

Date	Time	Depth to Water	Notes

ATTACHMENT 2

LABORATORY ANALYTICAL REPORTS

18-Aug-2016

Julie Carpenter
Burgess & Niple Environmental, Inc.
5085 Reed Rd.
Columbus, OH 43220

Tel: 614-459-2050
Fax: (614) 459-1385

Re: Sheridan Ave. Property - Bexley, Ohio Work Order: **1608457**

Dear Julie,

ALS Environmental received 25 samples on 11-Aug-2016 01:18 PM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 67.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chris Gibson

Electronically approved by: Chris Gibson

Chris Gibson
Project Manager

ALS Environmental

Date: 18-Aug-16

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: **1608457**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1608457-01	SB-1 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-02	SB-2 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-03	SB-3 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-04	SB-4 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-05	SB-5 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-05	SB-5 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-06	SB-6 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-06	SB-6 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-07	SB-7 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-08	SB-8 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-09	SB-9 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-10	SB-10 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-10	SB-10 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-11	SB-11 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-12	SB-12 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-13	SB-13 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-13	SB-13 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-14	SB-14 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-15	SB-15 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-15	SB-15 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-16	SB-16 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-17	SB-17 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-18	SB-18 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-19	SB-19 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-20	SB-20 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-20	SB-20 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-21	SB-21 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-22	SB-22 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-23	SB-23 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-24	SB-24 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-24	SB-24 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-25	SB-25 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐
1608457-25	SB-25 (0-2)	Soil		8/9/2016	8/11/2016 13:18	☐

ALS Environmental

Date: 18-Aug-16

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457

Case Narrative

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

Batch 37713, Method 8270_PAH_S, Sample 1608457-22ams: Select matrix spike compounds are outside of quality control limits due to the sample matrix.

Batch 37713, Method 8270_PAH_S, Sample 1608457-22amsd: Select matrix spike compounds are outside of quality control limits due to the sample matrix.

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-1 (0-2)
Lab ID: 1608457-01
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**19**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**30**		**6.1**	**mg/Kg-dry**	1	8/15/2016 02:09 PM
Cadmium	**5.6**		**1.2**	**mg/Kg-dry**	1	8/15/2016 02:09 PM
Lead	**1,000**		**6.1**	**mg/Kg-dry**	1	8/15/2016 02:09 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/15/2016**	Analyst: **MRJ**
1-Methylnaphthalene	**0.45**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
2-Methylnaphthalene	**0.44**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Acenaphthene	**0.46**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Acenaphthylene	**0.56**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Anthracene	**1.5**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Benzo(a)anthracene	**3.5**		**0.12**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Benzo(a)pyrene	**3.3**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Benzo(b)fluoranthene	**3.3**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Benzo(g,h,i)perylene	**1.8**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Benzo(k)fluoranthene	**2.5**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Carbazole	**0.66**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Chrysene	**3.5**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Dibenzo(a,h)anthracene	**0.55**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Dibenzofuran	**0.56**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Fluoranthene	**8.5**		**1.2**	**mg/Kg-dry**	5	8/16/2016 03:50 PM
Fluorene	**0.78**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Indeno(1,2,3-cd)pyrene	**2.1**		**0.12**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Naphthalene	**0.51**		**0.25**	**mg/Kg-dry**	1	8/15/2016 06:51 PM
Phenanthrene	**7.0**		**1.2**	**mg/Kg-dry**	5	8/16/2016 03:50 PM
Pyrene	**7.3**		**1.2**	**mg/Kg-dry**	5	8/16/2016 03:50 PM
Surr: 2-Fluorobiphenyl	*70.3*		*30-116*	*%REC*	1	8/15/2016 06:51 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,1,1-Trichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,1,2,2-Tetrachloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,1,2-Trichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,1-Dichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,1-Dichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,1-Dichloropropene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2,3-Trichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2,3-Trichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-1 (0-2)
Lab ID: 1608457-01
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2,4-Trimethylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2-Dibromo-3-chloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2-Dibromoethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2-Dichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2-Dichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,2-Dichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,3,5-Trimethylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,3-Dichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,3-Dichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
1,4-Dichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
2,2-Dichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
2-Butanone	ND		0.062	mg/Kg-dry	1	8/16/2016 06:35 PM
2-Chlorotoluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
2-Hexanone	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
4-Chlorotoluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
4-Methyl-2-pentanone	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Acetone	ND		0.062	mg/Kg-dry	1	8/16/2016 06:35 PM
Benzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Bromobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Bromochloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Bromodichloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Bromoform	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Bromomethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Carbon disulfide	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Carbon tetrachloride	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Chlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Chloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Chloroform	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Chloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
cis-1,2-Dichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
cis-1,3-Dichloropropene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Dibromochloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Dibromomethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Dichlorodifluoromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Ethylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Hexachlorobutadiene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Isopropylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
m,p-Xylene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Methyl tert-butyl ether	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-1 (0-2)
Lab ID: 1608457-01
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Naphthalene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
n-Butylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
n-Propylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
o-Xylene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
p-Isopropyltoluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
sec-Butylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Styrene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
tert-Butylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Tetrachloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Toluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
trans-1,2-Dichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
trans-1,3-Dichloropropene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Trichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Trichlorofluoromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Vinyl chloride	ND		0.0062	mg/Kg-dry	1	8/16/2016 06:35 PM
Xylenes, Total	ND		0.012	mg/Kg-dry	1	8/16/2016 06:35 PM
Surr: 4-Bromofluorobenzene	*106*		*62.7-159*	*%REC*	1	8/16/2016 06:35 PM
Surr: Dibromofluoromethane	*92.7*		*67.3-136*	*%REC*	1	8/16/2016 06:35 PM
Surr: Toluene-d8	*97.9*		*83-124*	*%REC*	1	8/16/2016 06:35 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-2 (0-2)
Lab ID: 1608457-02
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**17**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**22**		**6.0**	**mg/Kg-dry**	1	8/15/2016 02:12 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 02:12 PM
Lead	**99**		**6.0**	**mg/Kg-dry**	1	8/15/2016 02:12 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-3 (0-2)
Lab ID: 1608457-03
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**11**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**33**		**5.6**	**mg/Kg-dry**	1	8/15/2016 02:15 PM
Cadmium	**7.6**		**1.1**	**mg/Kg-dry**	1	8/15/2016 02:15 PM
Lead	**930**		**5.6**	**mg/Kg-dry**	1	8/15/2016 02:15 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client:	Burgess & Niple Environmental, Inc.		
Project:	Sheridan Ave. Property - Bexley, Ohio	**Work Order:**	1608457
Sample ID:	SB-4 (0-2)	**Lab ID:**	1608457-04
Collection Date:	8/9/2016	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**9.0**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**23**		**5.3**	**mg/Kg-dry**	1	8/15/2016 02:18 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 02:18 PM
Lead	**420**		**5.3**	**mg/Kg-dry**	1	8/15/2016 02:18 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-5 (0-2)
Lab ID: 1608457-05
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**11**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**13**		**5.5**	**mg/Kg-dry**	1	8/15/2016 02:32 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 02:32 PM
Lead	**140**		**5.5**	**mg/Kg-dry**	1	8/15/2016 02:32 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/15/2016**	Analyst: **MRJ**
1-Methylnaphthalene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
2-Methylnaphthalene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Acenaphthene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Acenaphthylene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Anthracene	**0.33**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Benzo(a)anthracene	**1.1**		**0.11**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Benzo(a)pyrene	**1.1**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Benzo(b)fluoranthene	**1.2**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Benzo(g,h,i)perylene	**0.65**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Benzo(k)fluoranthene	**0.87**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Carbazole	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Chrysene	**1.3**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Dibenzo(a,h)anthracene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Dibenzofuran	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Fluoranthene	**2.7**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Fluorene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Indeno(1,2,3-cd)pyrene	**0.77**		**0.11**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Naphthalene	ND		0.22	mg/Kg-dry	1	8/15/2016 08:44 PM
Phenanthrene	**1.4**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Pyrene	**2.3**		**0.22**	**mg/Kg-dry**	1	8/15/2016 08:44 PM
Surr: 2-Fluorobiphenyl	*77.9*		*30-116*	*%REC*	1	8/15/2016 08:44 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,1,1-Trichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,1,2,2-Tetrachloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,1,2-Trichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,1-Dichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,1-Dichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,1-Dichloropropene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2,3-Trichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2,3-Trichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-5 (0-2)
Lab ID: 1608457-05
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2,4-Trimethylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2-Dibromo-3-chloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2-Dibromoethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2-Dichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2-Dichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,2-Dichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,3,5-Trimethylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,3-Dichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,3-Dichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
1,4-Dichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
2,2-Dichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
2-Butanone	ND		0.056	mg/Kg-dry	1	8/16/2016 07:06 PM
2-Chlorotoluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
2-Hexanone	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
4-Chlorotoluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
4-Methyl-2-pentanone	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Acetone	ND		0.056	mg/Kg-dry	1	8/16/2016 07:06 PM
Benzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Bromobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Bromochloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Bromodichloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Bromoform	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Bromomethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Carbon disulfide	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Carbon tetrachloride	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Chlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Chloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Chloroform	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Chloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
cis-1,2-Dichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
cis-1,3-Dichloropropene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Dibromochloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Dibromomethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Dichlorodifluoromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Ethylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Hexachlorobutadiene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Isopropylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
m,p-Xylene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Methyl tert-butyl ether	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-5 (0-2)
Lab ID: 1608457-05
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Naphthalene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
n-Butylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
n-Propylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
o-Xylene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
p-Isopropyltoluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
sec-Butylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Styrene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
tert-Butylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Tetrachloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Toluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
trans-1,2-Dichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
trans-1,3-Dichloropropene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Trichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Trichlorofluoromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Vinyl chloride	ND		0.0056	mg/Kg-dry	1	8/16/2016 07:06 PM
Xylenes, Total	ND		0.011	mg/Kg-dry	1	8/16/2016 07:06 PM
Surr: 4-Bromofluorobenzene	*109*		*62.7-159*	*%REC*	1	8/16/2016 07:06 PM
Surr: Dibromofluoromethane	*93.4*		*67.3-136*	*%REC*	1	8/16/2016 07:06 PM
Surr: Toluene-d8	*101*		*83-124*	*%REC*	1	8/16/2016 07:06 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-6 (0-2)
Lab ID: 1608457-06
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**21**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**23**		**6.2**	**mg/Kg-dry**	1	8/15/2016 02:35 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 02:35 PM
Lead	**680**		**6.2**	**mg/Kg-dry**	1	8/15/2016 02:35 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/15/2016**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.25	mg/Kg-dry	1	8/16/2016 05:44 PM
2-Methylnaphthalene	ND		0.25	mg/Kg-dry	1	8/16/2016 05:44 PM
Acenaphthene	**0.64**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Acenaphthylene	**0.34**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Anthracene	**2.8**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Benzo(a)anthracene	**5.3**		**0.63**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Benzo(a)pyrene	**4.9**		**1.3**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Benzo(b)fluoranthene	**5.3**		**1.3**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Benzo(g,h,i)perylene	**2.4**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Benzo(k)fluoranthene	**4.8**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Carbazole	**0.72**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Chrysene	**5.3**		**1.3**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Dibenzo(a,h)anthracene	**0.87**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Dibenzofuran	**0.50**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Fluoranthene	**13**		**1.3**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Fluorene	**0.86**		**0.25**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Indeno(1,2,3-cd)pyrene	**3.1**		**0.13**	**mg/Kg-dry**	1	8/16/2016 05:44 PM
Naphthalene	ND		0.25	mg/Kg-dry	1	8/16/2016 05:44 PM
Phenanthrene	**7.7**		**1.3**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Pyrene	**10**		**1.3**	**mg/Kg-dry**	5	8/17/2016 12:38 PM
Surr: 2-Fluorobiphenyl	*72.3*		*30-116*	*%REC*	1	8/16/2016 05:44 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,1,1-Trichloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,1,2,2-Tetrachloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,1,2-Trichloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,1-Dichloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,1-Dichloroethene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,1-Dichloropropene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2,3-Trichlorobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2,3-Trichloropropane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-6 (0-2)
Lab ID: 1608457-06
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2,4-Trimethylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2-Dibromo-3-chloropropane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2-Dibromoethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2-Dichlorobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2-Dichloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,2-Dichloropropane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,3,5-Trimethylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,3-Dichlorobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,3-Dichloropropane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
1,4-Dichlorobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
2,2-Dichloropropane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
2-Butanone	ND		0.063	mg/Kg-dry	1	8/16/2016 07:36 PM
2-Chlorotoluene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
2-Hexanone	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
4-Chlorotoluene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
4-Methyl-2-pentanone	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Acetone	ND		0.063	mg/Kg-dry	1	8/16/2016 07:36 PM
Benzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Bromobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Bromochloromethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Bromodichloromethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Bromoform	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Bromomethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Carbon disulfide	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Carbon tetrachloride	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Chlorobenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Chloroethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Chloroform	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Chloromethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
cis-1,2-Dichloroethene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
cis-1,3-Dichloropropene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Dibromochloromethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Dibromomethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Dichlorodifluoromethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Ethylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Hexachlorobutadiene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Isopropylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
m,p-Xylene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Methyl tert-butyl ether	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-6 (0-2)
Lab ID: 1608457-06
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Naphthalene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
n-Butylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
n-Propylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
o-Xylene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
p-Isopropyltoluene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
sec-Butylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Styrene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
tert-Butylbenzene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Tetrachloroethene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Toluene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
trans-1,2-Dichloroethene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
trans-1,3-Dichloropropene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Trichloroethene	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Trichlorofluoromethane	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Vinyl chloride	ND		0.0063	mg/Kg-dry	1	8/16/2016 07:36 PM
Xylenes, Total	ND		0.013	mg/Kg-dry	1	8/16/2016 07:36 PM
Surr: 4-Bromofluorobenzene	*111*		*62.7-159*	*%REC*	1	8/16/2016 07:36 PM
Surr: Dibromofluoromethane	*98.5*		*67.3-136*	*%REC*	1	8/16/2016 07:36 PM
Surr: Toluene-d8	*103*		*83-124*	*%REC*	1	8/16/2016 07:36 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-7 (0-2)
Lab ID: 1608457-07
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**15**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**28**		**5.8**	**mg/Kg-dry**	1	8/15/2016 02:38 PM
Cadmium	**1.4**		**1.2**	**mg/Kg-dry**	1	8/15/2016 02:38 PM
Lead	**350**		**5.8**	**mg/Kg-dry**	1	8/15/2016 02:38 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-8 (0-2)
Lab ID: 1608457-08
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**19**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**16**		**6.1**	**mg/Kg-dry**	1	8/15/2016 02:41 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 02:41 PM
Lead	**94**		**6.1**	**mg/Kg-dry**	1	8/15/2016 02:41 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client:	Burgess & Niple Environmental, Inc.		
Project:	Sheridan Ave. Property - Bexley, Ohio	**Work Order:**	1608457
Sample ID:	SB-9 (0-2)	**Lab ID:**	1608457-09
Collection Date:	8/9/2016	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**17**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**26**		**5.9**	**mg/Kg-dry**	1	8/15/2016 02:44 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 02:44 PM
Lead	**75**		**5.9**	**mg/Kg-dry**	1	8/15/2016 02:44 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-10 (0-2)
Lab ID: 1608457-10
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**16**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**35**		**5.9**	**mg/Kg-dry**	1	8/15/2016 02:47 PM
Cadmium	**3.3**		**1.2**	**mg/Kg-dry**	1	8/15/2016 02:47 PM
Lead	**2,900**		**5.9**	**mg/Kg-dry**	1	8/15/2016 02:47 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/15/2016**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
2-Methylnaphthalene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Acenaphthene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Acenaphthylene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Anthracene	**0.33**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Benzo(a)anthracene	**1.2**		**0.12**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Benzo(a)pyrene	**1.3**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Benzo(b)fluoranthene	**1.3**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Benzo(g,h,i)perylene	**1.1**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Benzo(k)fluoranthene	**1.0**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Carbazole	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Chrysene	**1.3**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Dibenzo(a,h)anthracene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Dibenzofuran	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Fluoranthene	**2.9**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Fluorene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Indeno(1,2,3-cd)pyrene	**0.88**		**0.12**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Naphthalene	ND		0.24	mg/Kg-dry	1	8/16/2016 01:57 PM
Phenanthrene	**1.5**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Pyrene	**2.1**		**0.24**	**mg/Kg-dry**	1	8/16/2016 01:57 PM
Surr: 2-Fluorobiphenyl	*55.1*		*30-116*	*%REC*	1	8/16/2016 01:57 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,1,1-Trichloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,1,2,2-Tetrachloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,1,2-Trichloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,1-Dichloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,1-Dichloroethene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,1-Dichloropropene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2,3-Trichlorobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2,3-Trichloropropane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-10 (0-2)
Lab ID: 1608457-10
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2,4-Trimethylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2-Dibromo-3-chloropropane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2-Dibromoethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2-Dichlorobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2-Dichloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,2-Dichloropropane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,3,5-Trimethylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,3-Dichlorobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,3-Dichloropropane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
1,4-Dichlorobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
2,2-Dichloropropane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
2-Butanone	ND		0.060	mg/Kg-dry	1	8/16/2016 07:37 AM
2-Chlorotoluene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
2-Hexanone	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
4-Chlorotoluene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
4-Methyl-2-pentanone	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Acetone	ND		0.060	mg/Kg-dry	1	8/16/2016 07:37 AM
Benzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Bromobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Bromochloromethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Bromodichloromethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Bromoform	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Bromomethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Carbon disulfide	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Carbon tetrachloride	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Chlorobenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Chloroethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Chloroform	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Chloromethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
cis-1,2-Dichloroethene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
cis-1,3-Dichloropropene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Dibromochloromethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Dibromomethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Dichlorodifluoromethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Ethylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Hexachlorobutadiene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Isopropylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
m,p-Xylene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Methyl tert-butyl ether	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-10 (0-2)
Lab ID: 1608457-10
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Naphthalene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
n-Butylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
n-Propylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
o-Xylene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
p-Isopropyltoluene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
sec-Butylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Styrene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
tert-Butylbenzene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Tetrachloroethene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Toluene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
trans-1,2-Dichloroethene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
trans-1,3-Dichloropropene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Trichloroethene	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Trichlorofluoromethane	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Vinyl chloride	ND		0.0060	mg/Kg-dry	1	8/16/2016 07:37 AM
Xylenes, Total	ND		0.012	mg/Kg-dry	1	8/16/2016 07:37 AM
Surr: 4-Bromofluorobenzene	*121*		*62.7-159*	*%REC*	1	8/16/2016 07:37 AM
Surr: Dibromofluoromethane	*109*		*67.3-136*	*%REC*	1	8/16/2016 07:37 AM
Surr: Toluene-d8	*103*		*83-124*	*%REC*	1	8/16/2016 07:37 AM

Note:

ALS Environmental

Date: *18-Aug-16*

Client:	Burgess & Niple Environmental, Inc.		
Project:	Sheridan Ave. Property - Bexley, Ohio	**Work Order:**	1608457
Sample ID:	SB-11 (0-2)	**Lab ID:**	1608457-11
Collection Date:	8/9/2016	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**9.8**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**15**		**5.4**	**mg/Kg-dry**	1	8/15/2016 02:51 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 02:51 PM
Lead	**21**		**5.4**	**mg/Kg-dry**	1	8/15/2016 02:51 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-12 (0-2)
Lab ID: 1608457-12
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**9.0**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**33**		**5.4**	**mg/Kg-dry**	1	8/15/2016 02:54 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 02:54 PM
Lead	**420**		**5.4**	**mg/Kg-dry**	1	8/15/2016 02:54 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-13 (0-2)
Lab ID: 1608457-13
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**19**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**24**		**6.2**	**mg/Kg-dry**	1	8/15/2016 02:57 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 02:57 PM
Lead	**470**		**6.2**	**mg/Kg-dry**	1	8/15/2016 02:57 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/15/2016**	Analyst: **JCL**
1-Methylnaphthalene	**0.38**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
2-Methylnaphthalene	**0.35**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Acenaphthene	**0.53**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Acenaphthylene	ND		0.25	mg/Kg-dry	1	8/16/2016 03:22 PM
Anthracene	**1.0**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Benzo(a)anthracene	**2.4**		**0.12**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Benzo(a)pyrene	**2.5**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Benzo(b)fluoranthene	**2.8**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Benzo(g,h,i)perylene	**1.3**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Benzo(k)fluoranthene	**1.8**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Carbazole	**0.54**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Chrysene	**3.1**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Dibenzo(a,h)anthracene	**0.33**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Dibenzofuran	**0.41**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Fluoranthene	**7.5**		**1.2**	**mg/Kg-dry**	5	8/17/2016 01:33 PM
Fluorene	**0.44**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Indeno(1,2,3-cd)pyrene	**1.6**		**0.12**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Naphthalene	**0.42**		**0.25**	**mg/Kg-dry**	1	8/16/2016 03:22 PM
Phenanthrene	**5.5**		**1.2**	**mg/Kg-dry**	5	8/17/2016 01:33 PM
Pyrene	**6.0**		**1.2**	**mg/Kg-dry**	5	8/17/2016 01:33 PM
Surr: 2-Fluorobiphenyl	*59.6*		*30-116*	*%REC*	1	8/16/2016 03:22 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,1,1-Trichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,1,2,2-Tetrachloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,1,2-Trichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,1-Dichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,1-Dichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,1-Dichloropropene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2,3-Trichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2,3-Trichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-13 (0-2)
Lab ID: 1608457-13
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2,4-Trimethylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2-Dibromo-3-chloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2-Dibromoethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2-Dichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2-Dichloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,2-Dichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,3,5-Trimethylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,3-Dichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,3-Dichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
1,4-Dichlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
2,2-Dichloropropane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
2-Butanone	ND		0.062	mg/Kg-dry	1	8/16/2016 04:01 PM
2-Chlorotoluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
2-Hexanone	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
4-Chlorotoluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
4-Methyl-2-pentanone	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Acetone	ND		0.062	mg/Kg-dry	1	8/16/2016 04:01 PM
Benzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Bromobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Bromochloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Bromodichloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Bromoform	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Bromomethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Carbon disulfide	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Carbon tetrachloride	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Chlorobenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Chloroethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Chloroform	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Chloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
cis-1,2-Dichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
cis-1,3-Dichloropropene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Dibromochloromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Dibromomethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Dichlorodifluoromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Ethylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Hexachlorobutadiene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Isopropylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
m,p-Xylene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Methyl tert-butyl ether	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-13 (0-2)
Lab ID: 1608457-13
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Naphthalene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
n-Butylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
n-Propylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
o-Xylene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
p-Isopropyltoluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
sec-Butylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Styrene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
tert-Butylbenzene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Tetrachloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Toluene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
trans-1,2-Dichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
trans-1,3-Dichloropropene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Trichloroethene	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Trichlorofluoromethane	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Vinyl chloride	ND		0.0062	mg/Kg-dry	1	8/16/2016 04:01 PM
Xylenes, Total	ND		0.012	mg/Kg-dry	1	8/16/2016 04:01 PM
Surr: 4-Bromofluorobenzene	*109*		*62.7-159*	*%REC*	1	8/16/2016 04:01 PM
Surr: Dibromofluoromethane	*87.9*		*67.3-136*	*%REC*	1	8/16/2016 04:01 PM
Surr: Toluene-d8	*99.2*		*83-124*	*%REC*	1	8/16/2016 04:01 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-14 (0-2)
Lab ID: 1608457-14
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**7.8**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**31**		**5.4**	**mg/Kg-dry**	1	8/15/2016 03:00 PM
Cadmium	**1.3**		**1.1**	**mg/Kg-dry**	1	8/15/2016 03:00 PM
Lead	**1,400**		**5.4**	**mg/Kg-dry**	1	8/15/2016 03:00 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-15 (0-2)
Lab ID: 1608457-15
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**26**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**17**		**6.7**	**mg/Kg-dry**	1	8/15/2016 03:09 PM
Cadmium	ND		1.3	mg/Kg-dry	1	8/15/2016 03:09 PM
Lead	**98**		**6.7**	**mg/Kg-dry**	1	8/15/2016 03:09 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/16/2016**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
2-Methylnaphthalene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Acenaphthene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Acenaphthylene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Anthracene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Benzo(a)anthracene	**0.61**		**0.13**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Benzo(a)pyrene	**0.58**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Benzo(b)fluoranthene	**0.62**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Benzo(g,h,i)perylene	**0.36**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Benzo(k)fluoranthene	**0.49**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Carbazole	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Chrysene	**0.65**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Dibenzo(a,h)anthracene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Dibenzofuran	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Fluoranthene	**1.2**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Fluorene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Indeno(1,2,3-cd)pyrene	**0.38**		**0.13**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Naphthalene	ND		0.27	mg/Kg-dry	1	8/16/2016 06:40 PM
Phenanthrene	**0.51**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Pyrene	**1.0**		**0.27**	**mg/Kg-dry**	1	8/16/2016 06:40 PM
Surr: 2-Fluorobiphenyl	*64.8*		*30-116*	*%REC*	1	8/16/2016 06:40 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,1,1-Trichloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,1,2,2-Tetrachloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,1,2-Trichloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,1-Dichloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,1-Dichloroethene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,1-Dichloropropene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2,3-Trichlorobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2,3-Trichloropropane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-15 (0-2)
Lab ID: 1608457-15
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2,4-Trimethylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2-Dibromo-3-chloropropane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2-Dibromoethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2-Dichlorobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2-Dichloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,2-Dichloropropane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,3,5-Trimethylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,3-Dichlorobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,3-Dichloropropane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
1,4-Dichlorobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
2,2-Dichloropropane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
2-Butanone	ND		0.067	mg/Kg-dry	1	8/16/2016 04:32 PM
2-Chlorotoluene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
2-Hexanone	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
4-Chlorotoluene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
4-Methyl-2-pentanone	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Acetone	ND		0.067	mg/Kg-dry	1	8/16/2016 04:32 PM
Benzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Bromobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Bromochloromethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Bromodichloromethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Bromoform	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Bromomethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Carbon disulfide	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Carbon tetrachloride	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Chlorobenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Chloroethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Chloroform	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Chloromethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
cis-1,2-Dichloroethene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
cis-1,3-Dichloropropene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Dibromochloromethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Dibromomethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Dichlorodifluoromethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Ethylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Hexachlorobutadiene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Isopropylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
m,p-Xylene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Methyl tert-butyl ether	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-15 (0-2)
Lab ID: 1608457-15
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Naphthalene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
n-Butylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
n-Propylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
o-Xylene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
p-Isopropyltoluene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
sec-Butylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Styrene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
tert-Butylbenzene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Tetrachloroethene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Toluene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
trans-1,2-Dichloroethene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
trans-1,3-Dichloropropene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Trichloroethene	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Trichlorofluoromethane	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Vinyl chloride	ND		0.0067	mg/Kg-dry	1	8/16/2016 04:32 PM
Xylenes, Total	ND		0.013	mg/Kg-dry	1	8/16/2016 04:32 PM
Surr: 4-Bromofluorobenzene	*106*		*62.7-159*	*%REC*	1	8/16/2016 04:32 PM
Surr: Dibromofluoromethane	*90.7*		*67.3-136*	*%REC*	1	8/16/2016 04:32 PM
Surr: Toluene-d8	*96.6*		*83-124*	*%REC*	1	8/16/2016 04:32 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-16 (0-2)
Lab ID: 1608457-16
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**12**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**18**		**5.6**	**mg/Kg-dry**	1	8/15/2016 03:12 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 03:12 PM
Lead	**16**		**5.6**	**mg/Kg-dry**	1	8/15/2016 03:12 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-17 (0-2)
Lab ID: 1608457-17
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**14**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**26**		**5.8**	**mg/Kg-dry**	1	8/15/2016 03:15 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 03:15 PM
Lead	**20**		**5.8**	**mg/Kg-dry**	1	8/15/2016 03:15 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-18 (0-2)
Lab ID: 1608457-18
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**15**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**24**		**5.8**	**mg/Kg-dry**	1	8/15/2016 03:18 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 03:18 PM
Lead	**22**		**5.8**	**mg/Kg-dry**	1	8/15/2016 03:18 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-19 (0-2)
Lab ID: 1608457-19
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**19**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**22**		**6.1**	**mg/Kg-dry**	1	8/15/2016 03:21 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 03:21 PM
Lead	**85**		**6.1**	**mg/Kg-dry**	1	8/15/2016 03:21 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-20 (0-2)
Lab ID: 1608457-20
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**11**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/12/2016**	Analyst: **SRL**
Arsenic	**17**		**5.6**	**mg/Kg-dry**	1	8/15/2016 03:24 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 03:24 PM
Lead	**79**		**5.6**	**mg/Kg-dry**	1	8/15/2016 03:24 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/16/2016**	Analyst: **JCL**
1-Methylnaphthalene	**0.28**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
2-Methylnaphthalene	ND		0.22	mg/Kg-dry	1	8/16/2016 08:58 PM
Acenaphthene	**2.7**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
Acenaphthylene	ND		0.22	mg/Kg-dry	1	8/16/2016 08:58 PM
Anthracene	**9.2**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Benzo(a)anthracene	**15**		**2.2**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Benzo(a)pyrene	**13**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Benzo(b)fluoranthene	**12**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Benzo(g,h,i)perylene	**6.7**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Benzo(k)fluoranthene	**11**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Carbazole	**1.4**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
Chrysene	**14**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Dibenzo(a,h)anthracene	**2.1**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
Dibenzofuran	**2.0**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
Fluoranthene	**40**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Fluorene	**3.3**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
Indeno(1,2,3-cd)pyrene	**8.2**		**2.2**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Naphthalene	**0.26**		**0.22**	**mg/Kg-dry**	1	8/16/2016 08:58 PM
Phenanthrene	**31**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Pyrene	**32**		**4.5**	**mg/Kg-dry**	20	8/17/2016 02:29 PM
Surr: 2-Fluorobiphenyl	*76.6*		*30-116*	*%REC*	1	8/16/2016 08:58 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,1,1-Trichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,1,2,2-Tetrachloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,1,2-Trichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,1-Dichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,1-Dichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,1-Dichloropropene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2,3-Trichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2,3-Trichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-20 (0-2)
Lab ID: 1608457-20
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2,4-Trimethylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2-Dibromo-3-chloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2-Dibromoethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2-Dichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2-Dichloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,2-Dichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,3,5-Trimethylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,3-Dichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,3-Dichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
1,4-Dichlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
2,2-Dichloropropane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
2-Butanone	ND		0.056	mg/Kg-dry	1	8/16/2016 05:03 PM
2-Chlorotoluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
2-Hexanone	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
4-Chlorotoluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
4-Methyl-2-pentanone	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Acetone	ND		0.056	mg/Kg-dry	1	8/16/2016 05:03 PM
Benzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Bromobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Bromochloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Bromodichloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Bromoform	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Bromomethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Carbon disulfide	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Carbon tetrachloride	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Chlorobenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Chloroethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Chloroform	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Chloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
cis-1,2-Dichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
cis-1,3-Dichloropropene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Dibromochloromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Dibromomethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Dichlorodifluoromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Ethylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Hexachlorobutadiene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Isopropylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
m,p-Xylene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Methyl tert-butyl ether	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-20 (0-2)
Lab ID: 1608457-20
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Naphthalene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
n-Butylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
n-Propylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
o-Xylene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
p-Isopropyltoluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
sec-Butylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Styrene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
tert-Butylbenzene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Tetrachloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Toluene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
trans-1,2-Dichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
trans-1,3-Dichloropropene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Trichloroethene	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Trichlorofluoromethane	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Vinyl chloride	ND		0.0056	mg/Kg-dry	1	8/16/2016 05:03 PM
Xylenes, Total	ND		0.011	mg/Kg-dry	1	8/16/2016 05:03 PM
Surr: 4-Bromofluorobenzene	*112*		*62.7-159*	*%REC*	1	8/16/2016 05:03 PM
Surr: Dibromofluoromethane	*89.4*		*67.3-136*	*%REC*	1	8/16/2016 05:03 PM
Surr: Toluene-d8	*99.4*		*83-124*	*%REC*	1	8/16/2016 05:03 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client:	Burgess & Niple Environmental, Inc.		
Project:	Sheridan Ave. Property - Bexley, Ohio	**Work Order:**	1608457
Sample ID:	SB-21 (0-2)	**Lab ID:**	1608457-21
Collection Date:	8/9/2016	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**17**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/15/2016**	Analyst: **SRL**
Arsenic	**27**		**5.9**	**mg/Kg-dry**	1	8/15/2016 03:36 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 03:36 PM
Lead	**88**		**5.9**	**mg/Kg-dry**	1	8/15/2016 03:36 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-22 (0-2)
Lab ID: 1608457-22
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**10**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/15/2016**	Analyst: **SRL**
Arsenic	**19**		**5.5**	**mg/Kg-dry**	1	8/15/2016 03:45 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 03:45 PM
Lead	**190**		**5.5**	**mg/Kg-dry**	1	8/15/2016 03:45 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client:	Burgess & Niple Environmental, Inc.		
Project:	Sheridan Ave. Property - Bexley, Ohio	**Work Order:**	1608457
Sample ID:	SB-23 (0-2)	**Lab ID:**	1608457-23
Collection Date:	8/9/2016	**Matrix:**	SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**9.6**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/15/2016**	Analyst: **SRL**
Arsenic	**15**		**5.5**	**mg/Kg-dry**	1	8/15/2016 03:48 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 03:48 PM
Lead	**110**		**5.5**	**mg/Kg-dry**	1	8/15/2016 03:48 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-24 (0-2)
Lab ID: 1608457-24
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**19**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/15/2016**	Analyst: **SRL**
Arsenic	**22**		**6.0**	**mg/Kg-dry**	1	8/15/2016 03:51 PM
Cadmium	ND		1.2	mg/Kg-dry	1	8/15/2016 03:51 PM
Lead	**31**		**6.0**	**mg/Kg-dry**	1	8/15/2016 03:51 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/16/2016**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
2-Methylnaphthalene	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Acenaphthene	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Acenaphthylene	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Anthracene	**0.61**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Benzo(a)anthracene	**2.1**		**0.12**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Benzo(a)pyrene	**2.3**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Benzo(b)fluoranthene	**2.8**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Benzo(g,h,i)perylene	**1.1**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Benzo(k)fluoranthene	**1.0**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Carbazole	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Chrysene	**2.2**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Dibenzo(a,h)anthracene	**0.30**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Dibenzofuran	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Fluoranthene	**4.9**		**1.2**	**mg/Kg-dry**	5	8/17/2016 03:54 PM
Fluorene	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Indeno(1,2,3-cd)pyrene	**1.4**		**0.12**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Naphthalene	ND		0.25	mg/Kg-dry	1	8/16/2016 10:10 PM
Phenanthrene	**2.9**		**0.25**	**mg/Kg-dry**	1	8/16/2016 10:10 PM
Pyrene	**4.2**		**1.2**	**mg/Kg-dry**	5	8/17/2016 03:54 PM
Surr: 2-Fluorobiphenyl	*83.8*		*30-116*	*%REC*	1	8/16/2016 10:10 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,1,1-Trichloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,1,2,2-Tetrachloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,1,2-Trichloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,1-Dichloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,1-Dichloroethene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,1-Dichloropropene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2,3-Trichlorobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2,3-Trichloropropane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-24 (0-2)
Lab ID: 1608457-24
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2,4-Trimethylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2-Dibromo-3-chloropropane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2-Dibromoethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2-Dichlorobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2-Dichloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,2-Dichloropropane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,3,5-Trimethylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,3-Dichlorobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,3-Dichloropropane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
1,4-Dichlorobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
2,2-Dichloropropane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
2-Butanone	ND		0.061	mg/Kg-dry	1	8/16/2016 05:34 PM
2-Chlorotoluene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
2-Hexanone	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
4-Chlorotoluene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
4-Methyl-2-pentanone	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Acetone	ND		0.061	mg/Kg-dry	1	8/16/2016 05:34 PM
Benzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Bromobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Bromochloromethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Bromodichloromethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Bromoform	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Bromomethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Carbon disulfide	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Carbon tetrachloride	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Chlorobenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Chloroethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Chloroform	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Chloromethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
cis-1,2-Dichloroethene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
cis-1,3-Dichloropropene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Dibromochloromethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Dibromomethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Dichlorodifluoromethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Ethylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Hexachlorobutadiene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Isopropylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
m,p-Xylene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Methyl tert-butyl ether	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-24 (0-2)
Lab ID: 1608457-24
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Naphthalene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
n-Butylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
n-Propylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
o-Xylene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
p-Isopropyltoluene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
sec-Butylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Styrene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
tert-Butylbenzene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Tetrachloroethene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Toluene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
trans-1,2-Dichloroethene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
trans-1,3-Dichloropropene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Trichloroethene	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Trichlorofluoromethane	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Vinyl chloride	ND		0.0061	mg/Kg-dry	1	8/16/2016 05:34 PM
Xylenes, Total	ND		0.012	mg/Kg-dry	1	8/16/2016 05:34 PM
Surr: 4-Bromofluorobenzene	*106*		*62.7-159*	*%REC*	1	8/16/2016 05:34 PM
Surr: Dibromofluoromethane	*91.6*		*67.3-136*	*%REC*	1	8/16/2016 05:34 PM
Surr: Toluene-d8	*97.0*		*83-124*	*%REC*	1	8/16/2016 05:34 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-25 (0-2)
Lab ID: 1608457-25
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
MOISTURE			**SM2540B**		Prep Date: **8/15/2016**	Analyst: **rmb**
Moisture	**14**			**% of sample**	1	8/15/2016
METALS BY ICP			**SW6010B**		Prep Date: **8/15/2016**	Analyst: **SRL**
Arsenic	**19**		**5.6**	**mg/Kg-dry**	1	8/15/2016 03:54 PM
Cadmium	ND		1.1	mg/Kg-dry	1	8/15/2016 03:54 PM
Lead	**180**		**5.6**	**mg/Kg-dry**	1	8/15/2016 03:54 PM
PAH COMPOUNDS			**SW8270C**		Prep Date: **8/16/2016**	Analyst: **JCL**
1-Methylnaphthalene	ND		0.23	mg/Kg-dry	1	8/16/2016 10:34 PM
2-Methylnaphthalene	ND		0.23	mg/Kg-dry	1	8/16/2016 10:34 PM
Acenaphthene	**0.41**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Acenaphthylene	ND		0.23	mg/Kg-dry	1	8/16/2016 10:34 PM
Anthracene	**1.3**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Benzo(a)anthracene	**2.7**		**0.12**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Benzo(a)pyrene	**2.6**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Benzo(b)fluoranthene	**3.1**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Benzo(g,h,i)perylene	**1.2**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Benzo(k)fluoranthene	**1.0**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Carbazole	**0.37**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Chrysene	**2.7**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Dibenzo(a,h)anthracene	**0.35**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Dibenzofuran	**0.31**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Fluoranthene	**5.9**		**1.2**	**mg/Kg-dry**	5	8/17/2016 04:23 PM
Fluorene	**0.38**		**0.23**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Indeno(1,2,3-cd)pyrene	**1.6**		**0.12**	**mg/Kg-dry**	1	8/16/2016 10:34 PM
Naphthalene	ND		0.23	mg/Kg-dry	1	8/16/2016 10:34 PM
Phenanthrene	**4.4**		**1.2**	**mg/Kg-dry**	5	8/17/2016 04:23 PM
Pyrene	**4.9**		**1.2**	**mg/Kg-dry**	5	8/17/2016 04:23 PM
Surr: 2-Fluorobiphenyl	*83.9*		*30-116*	*%REC*	1	8/16/2016 10:34 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,1,1-Trichloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,1,2,2-Tetrachloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,1,2-Trichloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,1-Dichloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,1-Dichloroethene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,1-Dichloropropene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2,3-Trichlorobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2,3-Trichloropropane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-25 (0-2)
Lab ID: 1608457-25
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
1,2,4-Trichlorobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2,4-Trimethylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2-Dibromo-3-chloropropane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2-Dibromoethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2-Dichlorobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2-Dichloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,2-Dichloropropane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,3,5-Trimethylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,3-Dichlorobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,3-Dichloropropane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
1,4-Dichlorobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
2,2-Dichloropropane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
2-Butanone	ND		0.058	mg/Kg-dry	1	8/16/2016 06:04 PM
2-Chlorotoluene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
2-Hexanone	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
4-Chlorotoluene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
4-Methyl-2-pentanone	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Acetone	ND		0.058	mg/Kg-dry	1	8/16/2016 06:04 PM
Benzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Bromobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Bromochloromethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Bromodichloromethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Bromoform	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Bromomethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Carbon disulfide	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Carbon tetrachloride	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Chlorobenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Chloroethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Chloroform	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Chloromethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
cis-1,2-Dichloroethene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
cis-1,3-Dichloropropene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Dibromochloromethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Dibromomethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Dichlorodifluoromethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Ethylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Hexachlorobutadiene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Isopropylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
m,p-Xylene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Methyl tert-butyl ether	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM

Note:

ALS Environmental

Date: *18-Aug-16*

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
Work Order: 1608457
Sample ID: SB-25 (0-2)
Lab ID: 1608457-25
Collection Date: 8/9/2016
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Methylene chloride	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Naphthalene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
n-Butylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
n-Propylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
o-Xylene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
p-Isopropyltoluene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
sec-Butylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Styrene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
tert-Butylbenzene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Tetrachloroethene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Toluene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
trans-1,2-Dichloroethene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
trans-1,3-Dichloropropene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Trichloroethene	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Trichlorofluoromethane	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Vinyl chloride	ND		0.0058	mg/Kg-dry	1	8/16/2016 06:04 PM
Xylenes, Total	ND		0.012	mg/Kg-dry	1	8/16/2016 06:04 PM
Surr: 4-Bromofluorobenzene	*105*		*62.7-159*	*%REC*	1	8/16/2016 06:04 PM
Surr: Dibromofluoromethane	*92.8*		*67.3-136*	*%REC*	1	8/16/2016 06:04 PM
Surr: Toluene-d8	*97.4*		*83-124*	*%REC*	1	8/16/2016 06:04 PM

Note:

QC BATCH REPORT

Batch ID: **37664** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID: **mblk-37664-37664** Units: **mg/Kg** Analysis Date: **8/15/2016 02:00 PM**

Client ID: Run ID: **ICP3_160815C** SeqNo: **1336675** Prep Date: **8/12/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	5.0								
Cadmium	ND	1.0								
Lead	ND	5.0								

LCS Sample ID: **lcs-37664-37664** Units: **mg/Kg** Analysis Date: **8/15/2016 02:03 PM**

Client ID: Run ID: **ICP3_160815C** SeqNo: **1336676** Prep Date: **8/12/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	103.3	5.0	100	0	103	80-120	0			
Cadmium	104.2	1.0	100	0	104	80-120	0			
Lead	106.2	5.0	100	0	106	80-120	0			

LCSD Sample ID: **lcsd-37664-37664** Units: **mg/Kg** Analysis Date: **8/15/2016 02:06 PM**

Client ID: Run ID: **ICP3_160815C** SeqNo: **1336677** Prep Date: **8/12/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	104.2	5.0	100	0	104	80-120	103.3	0.867	20	
Cadmium	105.1	1.0	100	0	105	80-120	104.2	0.86	20	
Lead	107	5.0	100	0	107	80-120	106.2	0.75	20	

MS Sample ID: **1608457-04a ms** Units: **mg/Kg** Analysis Date: **8/15/2016 02:21 PM**

Client ID: **SB-4 (0-2)** Run ID: **ICP3_160815C** SeqNo: **1336682** Prep Date: **8/12/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	115.8	4.9	97.14	21.28	97.3	75-125	0			
Cadmium	96.83	0.97	97.14	0.7444	98.9	75-125	0			
Lead	260.6	4.9	97.14	384.4	-127	69.3-107	0			S

MSD Sample ID: **1608457-04a msd** Units: **mg/Kg** Analysis Date: **8/15/2016 02:23 PM**

Client ID: **SB-4 (0-2)** Run ID: **ICP3_160815C** SeqNo: **1336683** Prep Date: **8/12/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	118.3	5.0	99.07	21.28	97.9	75-125	115.8	2.13	20	
Cadmium	98.97	0.99	99.07	0.7444	99.1	75-125	96.83	2.18	20	
Lead	438.7	5.0	99.07	384.4	54.8	69.3-107	260.6	50.9	20	SR

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **37664** Instrument ID **ICP3** Method: **SW6010B**

The following samples were analyzed in this batch:

1608457-01a	1608457-02a	1608457-03a
1608457-04a	1608457-05a	1608457-06a
1608457-07a	1608457-08a	1608457-09a
1608457-10a	1608457-11a	1608457-12a
1608457-13a	1608457-14a	1608457-15a
1608457-16a	1608457-17a	1608457-18a
1608457-19a	1608457-20a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **37697** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID: **mblk-37697-37697** Units: **mg/Kg** Analysis Date: **8/15/2016 03:27 PM**
Client ID: Run ID: **ICP3_160815C** SeqNo: **1336700** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	5.0								
Cadmium	ND	1.0								
Lead	ND	5.0								

LCS Sample ID: **lcs-37697-37697** Units: **mg/Kg** Analysis Date: **8/15/2016 03:30 PM**
Client ID: Run ID: **ICP3_160815C** SeqNo: **1336701** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	96.61	5.0	100	0	96.6	80-120	0			
Cadmium	96.69	1.0	100	0	96.7	80-120	0			
Lead	98.47	5.0	100	0	98.5	80-120	0			

LCSD Sample ID: **lcsd-37697-37697** Units: **mg/Kg** Analysis Date: **8/15/2016 03:33 PM**
Client ID: Run ID: **ICP3_160815C** SeqNo: **1336702** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	96.85	5.0	100	0	96.8	80-120	96.61	0.248	20	
Cadmium	96.88	1.0	100	0	96.9	80-120	96.69	0.196	20	
Lead	98.48	5.0	100	0	98.5	80-120	98.47	0.0102	20	

MS Sample ID: **1608457-25a ms** Units: **mg/Kg** Analysis Date: **8/15/2016 03:57 PM**
Client ID: **SB-25 (0-2)** Run ID: **ICP3_160815C** SeqNo: **1336708** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	112.8	4.9	97.35	16.24	99.2	75-125	0			
Cadmium	94.14	0.97	97.35	0.5529	96.1	75-125	0			
Lead	229.1	4.9	97.35	153.1	78	69.3-107	0			

MSD Sample ID: **1608457-25a msd** Units: **mg/Kg** Analysis Date: **8/15/2016 04:00 PM**
Client ID: **SB-25 (0-2)** Run ID: **ICP3_160815C** SeqNo: **1336709** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	114	5.0	99.03	16.24	98.7	75-125	112.8	1.02	20	
Cadmium	96.62	0.99	99.03	0.5529	97	75-125	94.14	2.6	20	
Lead	202.7	5.0	99.03	153.1	50.1	69.3-107	229.1	12.2	20	S

The following samples were analyzed in this batch:

1608457-21a	1608457-22a	1608457-23a
1608457-24a	1608457-25a	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **37692** Instrument ID **SVMS2** Method: **SW8270C**

MBLK Sample ID: **MBLK-37692-37692** Units: **µg/Kg** Analysis Date: **8/15/2016 01:39 PM**
Client ID: Run ID: **SVMS2_160815A** SeqNo: **1336911** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	200								
2-Methylnaphthalene	ND	200								
Acenaphthene	ND	200								
Acenaphthylene	ND	200								
Anthracene	ND	200								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	200								
Benzo(b)fluoranthene	ND	200								
Benzo(g,h,i)perylene	ND	200								
Benzo(k)fluoranthene	ND	200								
Carbazole	ND	200								
Chrysene	ND	200								
Dibenzo(a,h)anthracene	ND	200								
Dibenzofuran	ND	200								
Fluoranthene	ND	200								
Fluorene	ND	200								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	200								
Phenanthrene	ND	200								
Pyrene	ND	200								
Surr: 2-Fluorobiphenyl	2489	0	*3330*	0	*74.8*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **37692** Instrument ID **SVMS2** Method: **SW8270C**

LCS Sample ID: **LCS-37692-37692** Units: **µg/Kg** Analysis Date: **8/15/2016 02:06 PM**
Client ID: Run ID: **SVMS2_160815A** SeqNo: **1336912** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2601	200	3330	0	78.1	52-119	0			
Acenaphthylene	3119	200	3330	0	93.7	46-118	0			
Anthracene	2716	200	3330	0	81.6	56-109	0			
Benzo(a)anthracene	2638	100	3330	0	79.2	48-121	0			
Benzo(a)pyrene	2895	200	3330	0	86.9	62-111	0			
Benzo(b)fluoranthene	2931	200	3330	0	88	44-115	0			
Benzo(g,h,i)perylene	2445	200	3330	0	73.4	47.9-113	0			
Benzo(k)fluoranthene	2628	200	3330	0	78.9	61-121	0			
Chrysene	2542	200	3330	0	76.3	55.5-100	0			
Dibenzo(a,h)anthracene	2609	200	3330	0	78.3	56-119	0			
Fluoranthene	2855	200	3330	0	85.7	63-120	0			
Fluorene	2729	200	3330	0	82	56.3-103	0			
Indeno(1,2,3-cd)pyrene	2622	100	3330	0	78.7	48.7-108	0			
Naphthalene	2422	200	3330	0	72.7	50-106	0			
Phenanthrene	2633	200	3330	0	79.1	59-109	0			
Pyrene	2813	200	3330	0	84.5	55-117	0			
Surr: 2-Fluorobiphenyl	2685	0	*3330*	0	*80.6*	*30-116*	0			

MS Sample ID: **1608508-02AMS** Units: **µg/Kg** Analysis Date: **8/15/2016 02:34 PM**
Client ID: Run ID: **SVMS2_160815A** SeqNo: **1336913** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2655	200	3328	0	79.8	44-108	0			
Acenaphthylene	3171	200	3328	0	95.3	54-116	0			
Anthracene	2859	200	3328	0	85.9	51-106	0			
Benzo(a)anthracene	2763	100	3328	0	83	47-114	0			
Benzo(a)pyrene	3029	200	3328	0	91	55-106	0			
Benzo(b)fluoranthene	3054	200	3328	0	91.8	40-106	0			
Benzo(g,h,i)perylene	2596	200	3328	0	78	49-113	0			
Benzo(k)fluoranthene	2700	200	3328	0	81.1	57-119	0			
Chrysene	2616	200	3328	0	78.6	52-107	0			
Dibenzo(a,h)anthracene	2721	200	3328	0	81.8	46-116	0			
Fluoranthene	3078	200	3328	0	92.5	52-120	0			
Fluorene	2777	200	3328	0	83.4	53-107	0			
Indeno(1,2,3-cd)pyrene	2786	100	3328	0	83.7	51-107	0			
Naphthalene	2496	200	3328	0	75	18.2-126	0			
Phenanthrene	2718	200	3328	0	81.7	52-105	0			
Pyrene	2955	200	3328	0	88.8	51-111	0			
Surr: 2-Fluorobiphenyl	2700	0	*3328*	0	*81.1*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **37692** Instrument ID **SVMS2** Method: **SW8270C**

MSD Sample ID: **1608508-02AMSD** Units: **µg/Kg** Analysis Date: **8/15/2016 03:02 PM**
Client ID: Run ID: **SVMS2_160815A** SeqNo: **1336914** Prep Date: **8/15/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2570	200	3323	0	77.3	44-108	2655	3.27	20	
Acenaphthylene	3072	200	3323	0	92.4	54-116	3171	3.16	20	
Anthracene	2667	200	3323	0	80.3	51-106	2859	6.93	24	
Benzo(a)anthracene	2605	100	3323	0	78.4	47-114	2763	5.91	21	
Benzo(a)pyrene	2846	200	3323	0	85.6	55-106	3029	6.21	20	
Benzo(b)fluoranthene	2919	200	3323	0	87.8	40-106	3054	4.53	20	
Benzo(g,h,i)perylene	2518	200	3323	0	75.8	49-113	2596	3.02	20	
Benzo(k)fluoranthene	2527	200	3323	0	76	57-119	2700	6.63	24	
Chrysene	2476	200	3323	0	74.5	52-107	2616	5.47	19	
Dibenzo(a,h)anthracene	2659	200	3323	0	80	46-116	2721	2.31	20	
Fluoranthene	2840	200	3323	0	85.5	52-120	3078	8.03	20	
Fluorene	2659	200	3323	0	80	53-107	2777	4.35	20	
Indeno(1,2,3-cd)pyrene	2651	100	3323	0	79.8	51-107	2786	4.98	20	
Naphthalene	2353	200	3323	0	70.8	18.2-126	2496	5.93	20	
Phenanthrene	2574	200	3323	0	77.5	52-105	2718	5.44	20	
Pyrene	2727	200	3323	0	82.1	51-111	2955	8.03	20	
Surr: 2-Fluorobiphenyl	2759	0	*3323*	0	*83*	*30-116*	2700	*2.16*		

The following samples were analyzed in this batch:

1608457-01A	1608457-02A	1608457-03A
1608457-04A	1608457-05A	1608457-06A
1608457-07A	1608457-08A	1608457-09A
1608457-10A	1608457-11A	1608457-12A
1608457-13A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **37713** Instrument ID **SVMS1** Method: **SW8270C**

mblk Sample ID: **mblk-37713-37713** Units: **µg/Kg** Analysis Date: **8/16/2016 05:15 PM**
Client ID: Run ID: **SVMS1_160816A** SeqNo: **1337728** Prep Date: **8/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	100								
2-Methylnaphthalene	ND	100								
Acenaphthene	ND	100								
Acenaphthylene	ND	100								
Anthracene	ND	100								
Benzo(a)anthracene	ND	100								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	100								
Benzo(g,h,i)perylene	ND	100								
Benzo(k)fluoranthene	ND	100								
Carbazole	ND	100								
Chrysene	ND	100								
Dibenzo(a,h)anthracene	ND	10								
Dibenzofuran	ND	100								
Fluoranthene	ND	100								
Fluorene	ND	100								
Indeno(1,2,3-cd)pyrene	ND	100								
Naphthalene	ND	100								
Phenanthrene	ND	100								
Pyrene	ND	100								
Surr: 2-Fluorobiphenyl	2945	0	*3330*	0	*88.4*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **37713** Instrument ID **SVMS1** Method: **SW8270C**

LCS Sample ID: **LCS-37713-37713** Units: **µg/Kg** Analysis Date: **8/17/2016 04:51 PM**
Client ID: Run ID: **SVMS2_160817A** SeqNo: **1338629** Prep Date: **8/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	2675	200	3330	0	80.3	52-119	0			
Acenaphthylene	3143	200	3330	0	94.4	46-118	0			
Anthracene	2752	200	3330	0	82.6	56-109	0			
Benzo(a)anthracene	2738	100	3330	0	82.2	48-121	0			
Benzo(a)pyrene	3002	200	3330	0	90.2	62-111	0			
Benzo(b)fluoranthene	3061	200	3330	0	91.9	44-115	0			
Benzo(g,h,i)perylene	2571	200	3330	0	77.2	47.9-113	0			
Benzo(k)fluoranthene	2717	200	3330	0	81.6	61-121	0			
Chrysene	2622	200	3330	0	78.7	55.5-100	0			
Dibenzo(a,h)anthracene	2797	200	3330	0	84	56-119	0			
Fluoranthene	2984	200	3330	0	89.6	63-120	0			
Fluorene	2724	200	3330	0	81.8	56.3-103	0			
Indeno(1,2,3-cd)pyrene	2784	100	3330	0	83.6	48.7-108	0			
Naphthalene	2483	200	3330	0	74.6	50-106	0			
Phenanthrene	2629	200	3330	0	79	59-109	0			
Pyrene	2923	200	3330	0	87.8	55-117	0			
Surr: 2-Fluorobiphenyl	2764	0	*3330*	0	*83*	*30-116*	0			

MS Sample ID: **1608457-22ams** Units: **µg/Kg** Analysis Date: **8/16/2016 06:04 PM**
Client ID: **SB-22 (0-2)** Run ID: **SVMS1_160816A** SeqNo: **1337730** Prep Date: **8/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	3132	200	3323	488	79.6	44-108	0			
Acenaphthylene	3829	200	3323	101.2	112	54-116	0			
Anthracene	4364	200	3323	2029	70.3	51-106	0			E
Benzo(a)anthracene	4782	100	3323	3949	25.1	47-114	0			SE
Benzo(a)pyrene	5406	200	3323	3385	60.8	55-106	0			E
Benzo(b)fluoranthene	5257	200	3323	3467	53.9	40-106	0			E
Benzo(g,h,i)perylene	4389	200	3323	1381	90.5	49-113	0			E
Benzo(k)fluoranthene	4035	200	3323	2571	44.1	57-119	0			SE
Chrysene	4882	200	3323	3961	27.7	52-107	0			SE
Dibenzo(a,h)anthracene	3508	200	3323	350.2	95	46-116	0			
Fluoranthene	10850	200	3323	8041	84.4	52-120	0			E
Fluorene	3792	200	3323	620.5	95.4	53-107	0			
Indeno(1,2,3-cd)pyrene	4710	100	3323	1689	90.9	51-107	0			E
Naphthalene	3055	200	3323	236.4	84.8	18.2-126	0			
Phenanthrene	7727	200	3323	6196	46.1	52-105	0			SE
Pyrene	9550	200	3323	6785	83.2	51-111	0			E
Surr: 2-Fluorobiphenyl	2993	0	*3323*	0	*90.1*	*30-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **37713** Instrument ID **SVMS1** Method: **SW8270C**

MSD Sample ID: **1608457-22amsd** Units: **µg/Kg** Analysis Date: **8/16/2016 06:29 PM**
Client ID: **SB-22 (0-2)** Run ID: **SVMS1_160816A** SeqNo: **1337731** Prep Date: **8/16/2016** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Acenaphthene	3552	200	3323	488	92.2	44-108	3132	12.6	20	
Acenaphthylene	3721	200	3323	101.2	109	54-116	3829	2.86	20	
Anthracene	5738	200	3323	2029	112	51-106	4364	27.2	24	SRE
Benzo(a)anthracene	5391	100	3323	3949	43.4	47-114	4782	12	21	SE
Benzo(a)pyrene	6098	200	3323	3385	81.6	55-106	5406	12	20	E
Benzo(b)fluoranthene	5934	200	3323	3467	74.2	40-106	5257	12.1	20	E
Benzo(g,h,i)perylene	4405	200	3323	1381	91	49-113	4389	0.363	20	E
Benzo(k)fluoranthene	4315	200	3323	2571	52.5	57-119	4035	6.73	24	SE
Chrysene	5599	200	3323	3961	49.3	52-107	4882	13.7	19	SE
Dibenzo(a,h)anthracene	3382	200	3323	350.2	91.2	46-116	3508	3.67	20	
Fluoranthene	12560	200	3323	8041	136	52-120	10850	14.6	20	SE
Fluorene	4136	200	3323	620.5	106	53-107	3792	8.69	20	E
Indeno(1,2,3-cd)pyrene	5085	100	3323	1689	102	51-107	4710	7.66	20	E
Naphthalene	3172	200	3323	236.4	88.3	18.2-126	3055	3.74	20	
Phenanthrene	10900	200	3323	6196	142	52-105	7727	34.1	20	SRE
Pyrene	11690	200	3323	6785	148	51-111	9550	20.2	20	SRE
Surr: 2-Fluorobiphenyl	3054	0	*3323*	0	*91.9*	*30-116*	2993	*2*		

The following samples were analyzed in this batch:

1608457-14A	1608457-15A	1608457-16A
1608457-17A	1608457-18A	1608457-19A
1608457-20A	1608457-21A	1608457-22A
1608457-23a	1608457-24A	1608457-25A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R131903** Instrument ID **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R131903** Units: **µg/Kg** Analysis Date: **8/16/2016 01:29 AM**
Client ID: Run ID: **VMS2_160815B** SeqNo: **1336867** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R131903** Instrument ID **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	10					
Surr: 4-Bromofluorobenzene	55.53	0	*50*	0	*111*	*62.7-159*	0
Surr: Dibromofluoromethane	50.03	0	*50*	0	*100*	*67.3-136*	0
Surr: Toluene-d8	49.71	0	*50*	0	*99.4*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **R131903** Instrument ID **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R131903** Units: **µg/Kg** Analysis Date: **8/16/2016 01:59 AM**
Client ID: Run ID: **VMS2_160815B** SeqNo: **1336868** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.04	5.0	50	0	98.1	53.6-149	0			
1,1-Dichloroethene	55.41	5.0	50	0	111	38.8-176	0			
1,2-Dichloroethane	52.11	5.0	50	0	104	54.4-145	0			
1,3-Dichlorobenzene	47.1	5.0	50	0	94.2	54.2-137	0			
1,4-Dichlorobenzene	48.19	5.0	50	0	96.4	52.8-135	0			
Benzene	44.71	5.0	50	0	89.4	56-148	0			
Carbon tetrachloride	47.96	5.0	50	0	95.9	51.9-151	0			
Chlorobenzene	48.63	5.0	50	0	97.3	55.4-137	0			
Chloroform	48.35	5.0	50	0	96.7	51.1-147	0			
cis-1,2-Dichloroethene	50.14	5.0	50	0	100	47.6-149	0			
Ethylbenzene	46.93	5.0	50	0	93.9	55.8-142	0			
m,p-Xylene	92.64	5.0	100	0	92.6	57.6-141	0			
Styrene	47.5	5.0	50	0	95	59.6-143	0			
Tetrachloroethene	51.01	5.0	50	0	102	56.2-160	0			
Toluene	47.2	5.0	50	0	94.4	56-143	0			
Trichloroethene	46.65	5.0	50	0	93.3	56.5-143	0			
Surr: 4-Bromofluorobenzene	53.82	0	*50*	0	*108*	*62.7-159*	0			
Surr: Dibromofluoromethane	52.93	0	*50*	0	*106*	*67.3-136*	0			
Surr: Toluene-d8	51.17	0	*50*	0	*102*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R131903** Instrument ID **VMS2** Method: **SW8260B**

MS Sample ID: **1608249-01A MS** Units: **µg/Kg** Analysis Date: **8/16/2016 06:34 AM**
Client ID: Run ID: **VMS2_160815B** SeqNo: **1336874** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	48.82	5.0	50	0	97.6	66.9-140	0			
1,1-Dichloroethene	65.71	5.0	50	0	131	41.4-161	0			
1,2-Dichloroethane	49.1	5.0	50	0	98.2	58.9-137	0			
1,3-Dichlorobenzene	43.74	5.0	50	0	87.5	56.3-126	0			
1,4-Dichlorobenzene	43.35	5.0	50	0	86.7	58.3-122	0			
Benzene	42.4	5.0	50	0	84.8	35.8-162	0			
Carbon tetrachloride	44.83	5.0	50	0	89.7	53.2-137	0			
Chlorobenzene	44.07	5.0	50	0	88.1	65.6-137	0			
Chloroform	48.38	5.0	50	0	96.8	58-130	0			
cis-1,2-Dichloroethene	47.05	5.0	50	0	94.1	52.9-138	0			
Ethylbenzene	44.64	5.0	50	0	89.3	57.5-134	0			
m,p-Xylene	89.2	5.0	100	0	89.2	56.4-135	0			
Styrene	46.27	5.0	50	0	92.5	60.9-135	0			
Tetrachloroethene	37.73	5.0	50	0	75.5	52.1-160	0			
Toluene	44.45	5.0	50	0	88.9	67.7-135	0			
Trichloroethene	41.94	5.0	50	0	83.9	56.5-136	0			
Surr: 4-Bromofluorobenzene	53.79	0	*50*	0	*108*	*62.7-159*	0			
Surr: Dibromofluoromethane	53.63	0	*50*	0	*107*	*67.3-136*	0			
Surr: Toluene-d8	52.1	0	*50*	0	*104*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **R131903** Instrument ID **VMS2** Method: **SW8260B**

MSD Sample ID: **1608249-01A MSD** Units: **µg/Kg** Analysis Date: **8/16/2016 07:05 AM**
Client ID: Run ID: **VMS2_160815B** SeqNo: **1336875** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.1	5.0	50	0	94.2	66.9-140	48.82	3.59	31.2	
1,1-Dichloroethene	67.37	5.0	50	0	135	41.4-161	65.71	2.49	38.1	
1,2-Dichloroethane	48.29	5.0	50	0	96.6	58.9-137	49.1	1.66	26.2	
1,3-Dichlorobenzene	44.33	5.0	50	0	88.7	56.3-126	43.74	1.34	21	
1,4-Dichlorobenzene	44.07	5.0	50	0	88.1	58.3-122	43.35	1.65	28.7	
Benzene	41.11	5.0	50	0	82.2	35.8-162	42.4	3.09	23.6	
Carbon tetrachloride	45.53	5.0	50	0	91.1	53.2-137	44.83	1.55	32.3	
Chlorobenzene	43.24	5.0	50	0	86.5	65.6-137	44.07	1.9	20	
Chloroform	48	5.0	50	0	96	58-130	48.38	0.789	28.2	
cis-1,2-Dichloroethene	47.78	5.0	50	0	95.6	52.9-138	47.05	1.54	23.7	
Ethylbenzene	44.48	5.0	50	0	89	57.5-134	44.64	0.359	24.9	
m,p-Xylene	90.42	5.0	100	0	90.4	56.4-135	89.2	1.36	25.1	
Styrene	45.87	5.0	50	0	91.7	60.9-135	46.27	0.868	22.8	
Tetrachloroethene	40.77	5.0	50	0	81.5	52.1-160	37.73	7.75	24.7	
Toluene	42.99	5.0	50	0	86	67.7-135	44.45	3.34	20	
Trichloroethene	41.45	5.0	50	0	82.9	56.5-136	41.94	1.18	20	
Surr: 4-Bromofluorobenzene	53.89	0	*50*	0	*108*	*62.7-159*	53.79	*0.186*		
Surr: Dibromofluoromethane	51.77	0	*50*	0	*104*	*67.3-136*	53.63	*3.53*		
Surr: Toluene-d8	50.94	0	*50*	0	*102*	*83-124*	52.1	*2.25*		

The following samples were analyzed in this batch: 1608457-10B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R131923** Instrument ID **VMS2** Method: **SW8260B**

MBLK Sample ID: **MBLK-R131923** Units: **µg/Kg** Analysis Date: **8/16/2016 11:56 AM**
Client ID: Run ID: **VMS2_160816A** SeqNo: **1337237** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Batch ID: **R131923** Instrument ID **VMS2** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	5.0					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	10					
Surr: 4-Bromofluorobenzene	54.67	0	*50*	0	*109*	*62.7-159*	0
Surr: Dibromofluoromethane	47.53	0	*50*	0	*95.1*	*67.3-136*	0
Surr: Toluene-d8	50.79	0	*50*	0	*102*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **R131923** Instrument ID **VMS2** Method: **SW8260B**

LCS Sample ID: **LCS-R131923** Units: **µg/Kg** Analysis Date: **8/16/2016 12:27 PM**
Client ID: Run ID: **VMS2_160816A** SeqNo: **1337238** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	45.19	5.0	50	0	90.4	53.6-149	0			
1,1-Dichloroethene	38.07	5.0	50	0	76.1	38.8-176	0			
1,2-Dichloroethane	45.97	5.0	50	0	91.9	54.4-145	0			
1,3-Dichlorobenzene	44.02	5.0	50	0	88	54.2-137	0			
1,4-Dichlorobenzene	45.33	5.0	50	0	90.7	52.8-135	0			
Benzene	43.32	5.0	50	0	86.6	56-148	0			
Carbon tetrachloride	43.55	5.0	50	0	87.1	51.9-151	0			
Chlorobenzene	46.16	5.0	50	0	92.3	55.4-137	0			
Chloroform	45.04	5.0	50	0	90.1	51.1-147	0			
cis-1,2-Dichloroethene	42	5.0	50	0	84	47.6-149	0			
Ethylbenzene	44.97	5.0	50	0	89.9	55.8-142	0			
m,p-Xylene	89.85	5.0	100	0	89.8	57.6-141	0			
Styrene	46.55	5.0	50	0	93.1	59.6-143	0			
Tetrachloroethene	46.59	5.0	50	0	93.2	56.2-160	0			
Toluene	44.54	5.0	50	0	89.1	56-143	0			
Trichloroethene	44.04	5.0	50	0	88.1	56.5-143	0			
Surr: 4-Bromofluorobenzene	53.78	0	*50*	0	*108*	*62.7-159*	0			
Surr: Dibromofluoromethane	47.96	0	*50*	0	*95.9*	*67.3-136*	0			
Surr: Toluene-d8	50.62	0	*50*	0	*101*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **R131923** Instrument ID **VMS2** Method: **SW8260B**

MS Sample ID: **1608249-02A MS** Units: **µg/Kg** Analysis Date: **8/16/2016 01:59 PM**
Client ID: Run ID: **VMS2_160816A** SeqNo: **1337241** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	43.15	5.0	50	0	86.3	66.9-140	0			
1,1-Dichloroethene	29.3	5.0	50	0	58.6	41.4-161	0			
1,2-Dichloroethane	40.68	5.0	50	0	81.4	58.9-137	0			
1,3-Dichlorobenzene	40.29	5.0	50	0	80.6	56.3-126	0			
1,4-Dichlorobenzene	42.08	5.0	50	0	84.2	58.3-122	0			
Benzene	41.24	5.0	50	0	82.5	35.8-162	0			
Carbon tetrachloride	39.31	5.0	50	0	78.6	53.2-137	0			
Chlorobenzene	43.81	5.0	50	0	87.6	65.6-137	0			
Chloroform	40.31	5.0	50	0	80.6	58-130	0			
cis-1,2-Dichloroethene	36.83	5.0	50	0	73.7	52.9-138	0			
Ethylbenzene	43.32	5.0	50	0	86.6	57.5-134	0			
m,p-Xylene	84.29	5.0	100	0	84.3	56.4-135	0			
Styrene	44.59	5.0	50	0	89.2	60.9-135	0			
Tetrachloroethene	41.5	5.0	50	0	83	52.1-160	0			
Toluene	45.09	5.0	50	0	90.2	67.7-135	0			
Trichloroethene	42.93	5.0	50	0	85.9	56.5-136	0			
Surr: 4-Bromofluorobenzene	49.87	0	*50*	0	*99.7*	*62.7-159*	0			
Surr: Dibromofluoromethane	47.83	0	*50*	0	*95.7*	*67.3-136*	0			
Surr: Toluene-d8	53.35	0	*50*	0	*107*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Burgess & Niple Environmental, Inc.
Work Order: 1608457
Project: Sheridan Ave. Property - Bexley, Ohio

QC BATCH REPORT

Batch ID: **R131923** Instrument ID **VMS2** Method: **SW8260B**

MSD Sample ID: **1608249-02A MSD** Units: **µg/Kg** Analysis Date: **8/16/2016 02:29 PM**
Client ID: Run ID: **VMS2_160816A** SeqNo: **1337242** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	49.53	5.0	50	0	99.1	66.9-140	43.15	13.8	31.2	
1,1-Dichloroethene	23.65	5.0	50	0	47.3	41.4-161	29.3	21.3	38.1	
1,2-Dichloroethane	45.73	5.0	50	0	91.5	58.9-137	40.68	11.7	26.2	
1,3-Dichlorobenzene	49.26	5.0	50	0	98.5	56.3-126	40.29	20	21	
1,4-Dichlorobenzene	51.12	5.0	50	0	102	58.3-122	42.08	19.4	28.7	
Benzene	49	5.0	50	0	98	35.8-162	41.24	17.2	23.6	
Carbon tetrachloride	46.06	5.0	50	0	92.1	53.2-137	39.31	15.8	32.3	
Chlorobenzene	52.74	5.0	50	0	105	65.6-137	43.81	18.5	20	
Chloroform	46.63	5.0	50	0	93.3	58-130	40.31	14.5	28.2	
cis-1,2-Dichloroethene	40.72	5.0	50	0	81.4	52.9-138	36.83	10	23.7	
Ethylbenzene	50.62	5.0	50	0	101	57.5-134	43.32	15.5	24.9	
m,p-Xylene	100.8	5.0	100	0	101	56.4-135	84.29	17.8	25.1	
Styrene	51.26	5.0	50	0	103	60.9-135	44.59	13.9	22.8	
Tetrachloroethene	55.43	5.0	50	0	111	52.1-160	41.5	28.7	24.7	R
Toluene	49.86	5.0	50	0	99.7	67.7-135	45.09	10	20	
Trichloroethene	50.31	5.0	50	0	101	56.5-136	42.93	15.8	20	
Surr: 4-Bromofluorobenzene	52.79	0	*50*	0	*106*	*62.7-159*	49.87	*5.69*		
Surr: Dibromofluoromethane	45.25	0	*50*	0	*90.5*	*67.3-136*	47.83	*5.54*		
Surr: Toluene-d8	49.31	0	*50*	0	*98.6*	*83-124*	53.35	*7.87*		

The following samples were analyzed in this batch:

1608457-01B	1608457-05B	1608457-06B
1608457-13B	1608457-15B	1608457-20B
1608457-24B	1608457-25B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 18-Aug-16

Client: Burgess & Niple Environmental, Inc.
Project: Sheridan Ave. Property - Bexley, Ohio
WorkOrder: **1608457**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
mg/Kg-dry	

ALS Environmental

Sample Receipt Checklist

Client Name: **BURGESS-COLUMBUS** Date/Time Received: **11-Aug-16 13:18**

Work Order: **1608457** Received by: **LDF**

Checklist completed by Leeanna Fischer 11-Aug-16 Reviewed by: Chris Gibson 15-Aug-16
eSignature Date eSignature Date

Matrices:
Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	4.6		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ATTACHMENT 3

RECREATIONAL STANDARDS CALCULATIONS

Attachment 3
VAP Human Health Risk Assessment
Physical and Chemical Properties of Chemicals of Concern
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Chemical of Concern	CAS Number	MW (gm/mol)	Henry's Law (unitless)	Koc (L/kg)	Solubility (mg/L water)	Air Diffusivity	Water Diffusivity	Melting Point (C^o)	AF_{oral}	AF_{dermal}
Arsenic	7440-38-2	74.92	NA	NA	NA	NA	NA	-117.00	1.00	0.03
Cadmium	7440-43-9	112.41	NA	NA	NA	NA	NA	321.00	0.03	0.00
1-Methylnaphthalene	90-12-0	142.19	2.10E-02	2.53E+03	2.58E+01	5.28E-02	7.85E-06	34.00	1.00	0.13
2-Methylnaphthalene	91-57-6	142.20	2.12E-02	2.48E+03	2.46E+01	5.24E-02	7.78E-06	34.40	1.00	0.13
Acenaphthene	83-32-9	154.21	7.52E-03	5.03E+03	3.90E+00	5.06E-02	8.33E-06	93.40	1.00	0.13
Acenaphthylene	208-96-8	152.20	4.66E-03	5.03E+03	1.61E+01	4.50E-02	6.98E-06	92.50	1.00	0.13
Anthracene	120-12-7	178.24	2.27E-03	1.64E+04	4.34E-02	3.90E-02	7.85E-06	215.00	1.00	0.13
Benzo(a)anthracene	56-55-3	228.30	4.91E-04	1.77E+05	9.40E-03	5.09E-02	5.94E-06	84.00	1.00	0.13
Benzo(a)pyrene	50-32-8	252.32	1.87E-05	5.87E+05	1.62E-03	4.76E-02	5.56E-06	177.00	1.00	0.13
Benzo(b)fluoranthene	205-99-2	252.32	2.69E-05	5.99E+05	1.50E-03	4.76E-02	5.56E-06	168.00	1.00	0.13
Benzo(g,h,i)perylene	191-24-2	276.34	1.35E-05	1.95E+06	2.60E-04	4.48E-02	5.23E-06	278.00	1.00	0.13
Benzo(k)fluoranthene	207-08-9	252.32	2.39E-05	5.87E+05	8.00E-04	4.76E-02	5.56E-06	217.00	1.00	0.13
Carbazole	86-74-8	167.21	4.76E-06	3.39E+03	1.80E+00	4.17E-02	7.45E-06	245.00	1.00	0.10
Chrysene	218-01-9	228.30	2.14E-04	1.81E+05	2.00E-03	2.61E-02	6.75E-06	258.00	1.00	0.13
Dibenz(a,h)anthracene	53-70-3	278.36	5.76E-06	1.91E+06	2.49E-03	4.46E-02	5.21E-06	270.00	1.00	0.13
Dibenzofuran	132-64-9	168.20	8.70E-03	9.16E+03	3.10E+00	4.10E-02	7.38E-06	86.50	1.00	0.00
Fluoranthene	206-44-0	202.26	3.62E-04	5.55E+04	2.60E-01	2.76E-02	7.18E-06	108.00	1.00	0.13
Fluorene	86-73-7	166.22	3.93E-03	9.16E+03	1.69E+00	4.40E-02	7.89E-06	115.00	1.00	0.13
Indeno(1,2,3-c,d)pyrene	193-39-5	276.34	6.56E-05	3.47E+06	2.20E-05	4.48E-02	5.23E-06	164.00	1.00	0.13
Naphthalene	91-20-3	128.18	1.80E-02	1.54E+03	3.10E+01	6.05E-02	8.38E-06	80.20	1.00	0.13
Phenanthrene	85-01-8	178.24	1.73E-03	1.67E+04	1.15E+00	3.45E-02	6.69E-06	99.20	1.00	0.13
Pyrene	129-00-0	202.26	4.87E-04	5.43E+04	1.35E-01	2.78E-02	7.25E-06	151.00	1.00	0.13

Attachment 3
VAP Human Health Risk Assessment
Chemical Specific Reference Doses and Slope Factors
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Chemical of Concern	Reference Dose			Slope Factors and Inhalation Unit Risk Factor		
	Oral (mg/kg-day)	Inhalation (mg/m^3)	Dermal (mg/kg-day)	Oral $(mg/kg\text{-}day)^{-1}$	Inhalation $(mg/m^3)^{-1}$	Dermal $(mg/kg\text{-}day)^{-1}$
Arsenic	3.00E-04	1.00E-05	3.00E-04	1.50E+00	4.30E-03	1.50E+00
Cadmium	1.00E-03	1.00E-05	2.50E-05	NA	1.80E-03	NA
1-Methylnaphthalene	7.00E-02	NA	7.00E-02	2.90E-02	NA	NA
2-Methylnaphthalene	4.00E-03	NA	4.00E-03	NA	NA	NA
Acenaphthene	6.00E-02	NA	6.00E-02	NA	NA	NA
Acenaphthylene	6.00E-02	NA	NA	NA	NA	NA
Anthracene	3.00E-01	NA	3.00E-01	NA	NA	NA
Benzo(a)anthracene	NA	NA	NA	7.30E-01	1.40E-04	7.30E-01
Benzo(a)pyrene	NA	NA	NA	7.30E+00	1.10E-03	7.30E+00
Benzo(b)fluoranthene	NA	NA	NA	7.30E-01	1.10E-04	7.30E-01
Benzo(g,h,i)perylene	3.00E-02	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NA	NA	NA	7.30E-02	1.10E-04	7.30E-02
Carbazole	NA	NA	NA	2.00E-02	NA	2.00E-02
Chrysene	NA	NA	NA	7.30E-03	1.10E-05	7.30E-03
Dibenz(a,h)anthracene	NA	NA	NA	7.30E+00	1.20E-03	7.30E+00
Dibenzofuran	1.00E-03	NA	1.00E-03	NA	NA	NA
Fluoranthene	4.00E-02	NA	4.00E-02	NA	NA	NA
Fluorene	4.00E-02	NA	4.00E-02	NA	NA	NA
Indeno(1,2,3-c,d)pyrene	NA	NA	NA	7.30E-01	1.10E-04	7.30E-01
Naphthalene	2.00E-02	3.00E-03	2.00E-02	NA	3.40E-05	NA
Phenanthrene	3.00E-01	NA	3.00E-01	NA	NA	NA
Pyrene	3.00E-02	NA	3.00E-02	NA	NA	NA

Attachment 3
VAP Human Health Risk Assessment
Calculation of Apparent Diffusivity Factor
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

$$D_A = \frac{[((qa)^{10/3}DiH')+((qw)^{10/3}Dw)/n^2]}{R_bK_d+qw+q_aH'}$$

Where:

DA = Apparent diffusivity (cm^2/s)
qa = Air-filled soil porosity
Di = Diffusivity in air (cm^2/s)
H' = Dimensionless Henry's Law constant
qw = Water-filled soil porosity
Dw = Diffusivity in water (cm^2/s)
n = Total soil porosity
R_b = Dry soil bulk density
K_d = Soil-water partition coefficient (cm^3/g)

Chemical of Concern	Da (cm^2/s)	Dimensionless Henry's Law	Air Diffusivity	Water Diffusivity	K_d (cm2/g)
Arsenic	NA	NA	NA	NA	29
Cadmium	NA	NA	NA	NA	75
1-Methylnaphthalene	3.75E-06	2.10E-02	5.28E-02	7.85E-06	15.2
2-Methylnaphthalene	3.84E-06	2.12E-02	5.24E-02	7.78E-06	14.9
Acenaphthene	6.52E-07	7.52E-03	5.06E-02	8.33E-06	30.2
Acenaphthylene	3.60E-07	4.66E-03	4.50E-02	6.98E-06	30.2
Anthracene	4.72E-08	2.27E-03	3.90E-02	7.85E-06	98.2
Benzo(a)anthracene	1.26E-09	4.91E-04	5.09E-02	5.94E-06	1060
Benzo(a)pyrene	2.33E-11	1.87E-05	4.76E-02	5.56E-06	3520
Benzo(b)fluoranthene	2.84E-11	2.69E-05	4.76E-02	5.56E-06	3600
Benzo(g,h,i)perylene	5.57E-12	1.35E-05	4.48E-02	5.23E-06	11700
Benzo(k)fluoranthene	2.69E-11	2.39E-05	4.76E-02	5.56E-06	3520
Carbazole	1.06E-09	4.76E-06	4.17E-02	7.45E-06	55
Chrysene	3.08E-10	2.14E-04	2.61E-02	6.75E-06	1080
Dibenz(a,h)anthracene	4.09E-12	5.76E-06	4.46E-02	5.21E-06	11500
Dibenzofuran	2.02E-09	8.70E-03	4.10E-02	7.38E-06	9160
Fluoranthene	1.69E-09	3.62E-04	2.76E-02	7.18E-06	333
Fluorene	1.63E-07	3.93E-03	4.40E-02	7.89E-06	55
Indeno(1,2,3-c,d)pyrene	8.94E-12	6.56E-05	4.48E-02	5.23E-06	20800
Naphthalene	6.03E-06	1.80E-02	6.05E-02	8.38E-06	9.26
Phenanthrene	3.13E-08	1.73E-03	3.45E-02	6.69E-06	100
Pyrene	2.29E-09	4.87E-04	2.78E-02	7.25E-06	326

Attachment 3
VAP Human Health Risk Assessment
Calculation of Volatilization Factor
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

$$VF = (Q/C \times (3.14 \times D_A \times T)^{1/2}/(2 \times R_b \times D_A) \times 10^{-4}$$

Where:
VF = Volatilization factor (m^3/kg)
Q/C = Inverse of the mean concentration at center of square source (g/m2-s per kg/m3)
D_A = Apparent diffusivity (cm^2/s)
T = Exposure Interval (s) -
R_b = Dry soil bulk density (g/cm^3)

Chemical of Concern	Volatilization Factor
Arsenic	NA
Cadmium	NA
1-Methylnaphthalene	8.05E+04
2-Methylnaphthalene	7.96E+04
Acenaphthene	1.93E+05
Acenaphthylene	2.60E+05
Anthracene	7.18E+05
Benzo(a)anthracene	4.40E+06
Benzo(a)pyrene	3.23E+07
Benzo(b)fluoranthene	2.93E+07
Benzo(g,h,i)perylene	6.61E+07
Benzo(k)fluoranthene	3.00E+07
Carbazole	4.79E+06
Chrysene	8.88E+06
Dibenz(a,h)anthracene	7.71E+07
Dibenzofuran	3.47E+06
Fluoranthene	3.79E+06
Fluorene	3.86E+05
Indeno(1,2,3-c,d)pyrene	5.21E+07
Naphthalene	6.35E+04
Phenanthrene	8.81E+05
Pyrene	3.26E+06

Attachment 3
VAP Human Health Risk Assessment
Calculation of the Particulate Emission Factor
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

PEF (m^3/kg) = Q/C x 3600/0.036 x (1-V) x Um/Ut)3 x F(x)

			Default Values:
Where:	PEF =	Particulate emission factor (m^3/kg)	9.24E+08
	Q/C =	Inverse of Mean concentration at center of square	83.22
		source (g/m2-s per kg/m3)	0.5
	V =	Fraction of Vegetative Cover (unitless)	4.83
	U_m =	Mean annual windspeed (m/s)	11.32
	U_t =	Equivalent threshold value of windspeed at 7 m (m/s)	0.232
	F(x) =	Function dependent on Um/Ut (unitless)	

Chemical Of Concern	PEF (m^3/kg)
For all chemicals of concern	9.50E+08

Attachment 3
VAP Human Health Risk Assessment
Calculation of the Oral Intake Factor
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

IForal = (IR x EF x ED x FI x CF)/(BW x AT)

Where:
IForal = Ingestion intake factor (kg/kg-day)
EF = Exposure frequency (days/yr)
FI = Fraction soil ingested (unitless)
BW = Body weight (kg)
IR = Soil ingestion rate (mg/day)
ED = Exposure duration (yrs)
CF1 = Conversion factor (kg/mg)
AT = Averaging time (days)

Chemical of Concern	Iforal	
	Noncarcinogenic (kg/kg-day)	Carcinogenic (kg/kg-day)
For all chemicals of concern	1.64E-06	2.01E-07

Attachment 3
VAP Human Health Risk Assessment
Calculation of the Dermal Intake Factor
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

IFderm = (SA x EF x ED x AFx FDerm x $Derm_{absorp}$ x CF) / (BW x AT)

Where:
IFderm = Intake factor for dermal contact (kg/kg-day)
SA = Surface area (cm^2)
EF = Exposure frequency (days/yr)
ED = Exposure duration (yrs)
AF = Adherence factor (mg/cm^2)
FDerm = Fraction of contaminated soil contacted
$Derm_{absorp}$ = Dermal Absorption factor (unitless)
CF = Conversion factor (kg/mg)
BW = Body weight (kg)
AT = Averaging time (days)

Chemical of Concern	IFdermal	
	Noncarcinogenic (kg/kg-day)	Carcinogenic (kg/kg-day)
Arsenic	1.38E-07	1.91E-08
Cadmium	1.15E-10	1.59E-11
1-Methylnaphthalene	5.98E-07	8.26E-08
2-Methylnaphthalene	5.98E-07	8.26E-08
Acenaphthene	5.98E-07	8.26E-08
Acenaphthylene	5.98E-07	8.26E-08
Anthracene	5.98E-07	8.26E-08
Benzo(a)anthracene	5.98E-07	8.26E-08
Benzo(a)pyrene	5.98E-07	8.26E-08
Benzo(b)fluoranthene	5.98E-07	8.26E-08
Benzo(g,h,i)perylene	5.98E-07	8.26E-08
Benzo(k)fluoranthene	5.98E-07	8.26E-08
Carbazole	4.60E-07	6.35E-08
Chrysene	5.98E-07	8.26E-08
Dibenz(a,h)anthracene	5.98E-07	8.26E-08
Dibenzofuran	0.00E+00	0.00E+00
Fluoranthene	5.98E-07	8.26E-08
Fluorene	5.98E-07	8.26E-08
Indeno(1,2,3-c,d)pyrene	5.98E-07	8.26E-08
Naphthalene	5.98E-07	8.26E-08
Phenanthrene	5.98E-07	8.26E-08
Pyrene	5.98E-07	8.26E-08

Attachment 3
VAP Human Health Risk Assessment
Calculation of the Inhalation Intake Factor
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

IFinh = (IR x EF x ED x ET x FInh (1/PEF+1/VF)) / (AT x BW)

IFinh = Intake factor for inhalation (kg/kg-day)
IR = Inhalation rate (m^3/hr)
EF = Exposure frequency (days/yr)
ED = Exposure duration (yrs)
ET = Exposure time (hours/day)
PEF = Particulate emission factor(m^3/kg)
VF = Volatile emission factor (m^3/kg)
BW = Body weight (kg)
AT = Averaging time (days)

Chemical of Concern	IFinh	
	Noncarcinogenic (kg/kg-day)	Carcinogenic (kg/kg-day)
Arsenic	8.65E-11	6.35E-12
Cadmium	8.65E-11	6.35E-12
1-Methylnaphthalene	5.11E-07	7.51E-08
2-Methylnaphthalene	5.16E-07	7.59E-08
Acenaphthene	2.13E-07	3.13E-08
Acenaphthylene	1.58E-07	2.32E-08
Anthracene	5.73E-08	8.42E-09
Benzo(a)anthracene	8.65E-11	6.35E-12
Benzo(a)pyrene	8.65E-11	6.35E-12
Benzo(b)fluoranthene	8.65E-11	6.35E-12
Benzo(g,h,i)perylene	8.65E-11	6.35E-12
Benzo(k)fluoranthene	8.65E-11	6.35E-12
Carbazole	8.65E-11	6.35E-12
Chrysene	8.65E-11	6.35E-12
Dibenz(a,h)anthracene	8.65E-11	6.35E-12
Dibenzofuran	1.19E-08	1.75E-09
Fluoranthene	8.65E-11	6.35E-12
Fluorene	1.07E-07	1.57E-08
Indeno(1,2,3-c,d)pyrene	8.65E-11	6.35E-12
Naphthalene	6.47E-07	9.51E-08
Phenenthrene	4.67E-08	6.86E-09
Pyrene	8.65E-11	6.35E-12

Attachment 3
VAP Human Health Risk Assessment
Total Risk - Oral Pathway
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Noncarcinogenic $\mathbf{TC_{oral} = HQ/(IForal/RfDoral)}$

Where: HQ = Hazard Quotient (unitless)
IForal = Ingestion Intake Factor (kg/kg-day)
RfDoral = Oral Reference Dose (mg/kg-day)

Carcinogenic $\mathbf{TC_{oral} = Risk/(IForal \times SForal)}$

Where: Risk = Excess Lifetime Cancer Risk (unitless)
IForal = Ingestion Intake Factor (kg/kg-day)
SForal = Oral Slope Factor $(mg/kg\text{-}day)^{-1}$

Chemical of Concern	TCoral	
	Noncarcinogenic (mg/kg)	Carcinogenic (mg/kg)
Arsenic	3.04E+02	5.52E+01
Cadmium	6.08E+02	0.00E+00
1-Methylnaphthalene	4.26E+04	1.71E+03
2-Methylnaphthalene	2.43E+03	0.00E+00
Acenaphthene	3.65E+04	0.00E+00
Acenaphthylene	3.65E+04	0.00E+00
Anthracene	1.83E+05	0.00E+00
Benzo(a)anthracene	0.00E+00	6.81E+01
Benzo(a)pyrene	0.00E+00	6.81E+00
Benzo(b)fluoranthene	0.00E+00	6.81E+01
Benzo(g,h,i)perylene	1.83E+04	0.00E+00
Benzo(k)fluoranthene	0.00E+00	6.81E+02
Carbazole	0.00E+00	2.48E+03
Chrysene	0.00E+00	6.81E+03
Dibenz(a,h)anthracene	0.00E+00	6.81E+00
Dibenzofuran	6.08E+02	0.00E+00
Fluoranthene	2.43E+04	0.00E+00
Fluorene	2.43E+04	0.00E+00
Indeno(1,2,3-c,d)pyrene	0.00E+00	6.81E+01
Naphthalene	1.22E+04	0.00E+00
Phenanthrene	1.83E+05	0.00E+00
Pyrene	1.83E+04	0.00E+00

Attachment 3
VAP Human Health Risk Assessment
Total Risk - Dermal Pathway
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Noncarcinogenic $\mathbf{TC_{derm} = HQ/(IFderm/RfDderm)}$

HQ = Hazard Quotient (unitless)
IFderm = Dermal Intake Factor (kg/kg-day)
RfDderm = Dermal Reference Dose (mg/kg-day)

Carcinogenic $\mathbf{TC_{derm} = Risk/(IFderm \times SFderm)}$

Risk = Excess Lifetime Cancer Risk (unitless)
IFderm = Dermal Intake Factor (kg/kg-day)
SFderm = Dermal Reference Dose $(mg/kg\text{-}day)^{-1}$

Chemical Of Concern	TCderm	
	Noncarcinogenic (mg/kg)	Carcinogenic (mg/kg)
Arsenic	2.17E+03	3.50E+02
Cadmium	2.17E+05	0.00E+00
1-Methylnaphthalene	1.17E+05	0.00E+00
2-Methylnaphthalene	6.68E+03	0.00E+00
Acenaphthene	1.00E+05	0.00E+00
Acenaphthylene	0.00E+00	0.00E+00
Anthracene	5.01E+05	0.00E+00
Benzo(a)anthracene	0.00E+00	1.66E+02
Benzo(a)pyrene	0.00E+00	1.66E+01
Benzo(b)fluoranthene	0.00E+00	1.66E+02
Benzo(g,h,i)perylene	0.00E+00	0.00E+00
Benzo(k)fluoranthene	0.00E+00	1.66E+03
Carbazole	0.00E+00	7.87E+03
Chrysene	0.00E+00	1.66E+04
Dibenz(a,h)anthracene	0.00E+00	1.66E+01
Dibenzofuran	0.00E+00	0.00E+00
Fluoranthene	6.68E+04	0.00E+00
Fluorene	6.68E+04	0.00E+00
Indeno(1,2,3-c,d)pyrene	0.00E+00	1.66E+02
Naphthalene	3.34E+04	0.00E+00
Phenanthrene	5.01E+05	0.00E+00
Pyrene	5.01E+04	0.00E+00

Attachment 3
VAP Human Health Risk Assessment
Total Risk- Inhalation Pathway
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Noncarcinogenic TCinh = HQ/(IFinh/RfDinh)

Where: HQ = Hazard Quotient (unitless)
IFinh = Inhalation Intake Factor (kg/kg-day)
RfDinh = Inhalation Reference Dose (mg/kg-day)

Carcinogenic TCinh = Risk/(IFinh x SFinh)

Where: Risk = Excess Lifetime Cancer Risk (unitless)
IFinh = Inhalation Intake Factor (kg/kg-day)
RfDinh = Inhalation Slope Factor $(mg/kg\text{-}day)^{-1}$

Chemical of Concern	TCinh	
	Noncarcinogenic (mg/kg)	Carcinogenic (mg/kg)
Arsenic	1.16E+05	6.27E+04
Cadmium	1.16E+05	1.50E+05
1-Methylnaphthalene	0.00E+00	0.00E+00
2-Methylnaphthalene	0.00E+00	0.00E+00
Acenaphthene	0.00E+00	0.00E+00
Acenaphthylene	0.00E+00	0.00E+00
Anthracene	0.00E+00	0.00E+00
Benzo(a)anthracene	0.00E+00	1.78E+04
Benzo(a)pyrene	0.00E+00	1.61E+04
Benzo(b)fluoranthene	0.00E+00	1.46E+05
Benzo(g,h,i)perylene	0.00E+00	0.00E+00
Benzo(k)fluoranthene	0.00E+00	1.50E+05
Carbazole	0.00E+00	0.00E+00
Chrysene	0.00E+00	4.54E+05
Dibenz(a,h)anthracene	0.00E+00	3.38E+04
Dibenzofuran	0.00E+00	0.00E+00
Fluoranthene	0.00E+00	0.00E+00
Fluorene	0.00E+00	0.00E+00
Indeno(1,2,3-c,d)pyrene	0.00E+00	2.55E+05
Naphthalene	4.63E+03	1.06E+03
Phenanthrene	0.00E+00	0.00E+00
Pyrene	0.00E+00	0.00E+00

Attachment 3
VAP Human Health Risk Assessment
Total Risk - Direct Contact
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

$$TC_{Total} = 1/((1/TC_{oral}) + (1/TC_{derm}) + (1/TC_{inh}))$$

Where: TC_{Total} = Target Concentration for Aggregate Direct Contact Pathway (mg/kg)
TC_{oral} = Target concentration for Oral Route of Exposure (mg/kg)
TC_{derm} = Target Concentration for Dermal Route of Exposure (mg/kg)
TC_{inh} = Target Concentration for Inhalation Route of Exposure (mg/kg)

Chemical of Concern	TCtotal	
	Noncarcinogenic (mg/kg)	Carcinogenic (mg/kg)
Arsenic	266.20	47.64
Cadmium	603.47	149,879.33
1-Methylnaphthalene	31,219.45	1,713.12
2-Methylnaphthalene	1,783.97	NA
Acenaphthene	26,759.53	NA
Acenaphthylene	36,500.00	NA
Anthracene	133,797.65	NA
Benzo(a)anthracene	NA	48.12
Benzo(a)pyrene	NA	4.82
Benzo(b)fluoranthene	NA	48.24
Benzo(g,h,i)perylene	18,250.00	NA
Benzo(k)fluoranthene	NA	480.98
Carbazole	NA	1,887.99
Chrysene	NA	4,774.50
Dibenz(a,h)anthracene	NA	4.82
Dibenzofuran	608.33	NA
Fluoranthene	17,839.69	NA
Fluorene	17,839.69	NA
Indeno(1,2,3-c,d)pyrene	NA	48.24
Naphthalene	3,050.02	1,060.26
Phenanthrene	133,797.65	NA
Pyrene	13,379.77	NA

Attachment 3
VAP Human Health Risk Assessment
Calculated Soil Saturation Concentration
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

$$C_{SAT} = S/P_b(K_d P_b + \theta_W + H' \theta_a)$$

Where:
C_{sat} = Soil saturation limit (mg/kg)
S = Solubility in water (mg/kg)
Pb = Dry soil bulk density (kg/L)
K_d = Soil - water partition coefficient
θ_W = Water filled soil porosity (L_{water}/L_{soil})
θ_A = Air filled soil porosity (L_{air}/L_{soil})
H' = Dimensionless Henry's Law Constant

Chemical of Concern	C_{SAT} (mg/kg)	K_d	Solubility (mg/L water)
Arsenic	NA	2.90E+01	NA
Cadmium	NA	7.50E+01	NA
1-Methylnaphthalene	NA	1.52E+01	2.58E+01
2-Methylnaphthalene	NA	1.49E+01	2.46E+01
Acenaphthene	NA	3.02E+01	3.90E+00
Acenaphthylene	NA	3.02E+01	1.61E+01
Anthracene	NA	9.82E+01	4.34E-02
Benzo(a)anthracene	NA	1.06E+03	9.40E-03
Benzo(a)pyrene	NA	3.52E+03	1.62E-03
Benzo(b)fluoranthene	NA	3.60E+03	1.50E-03
Benzo(g,h,i)perylene	NA	1.17E+04	2.60E-04
Benzo(k)fluoranthene	NA	3.52E+03	8.00E-04
Carbazole	NA	5.50E+01	1.80E+00
Chrysene	NA	1.08E+03	2.00E-03
Dibenz(a,h)anthracene	NA	1.15E+04	2.49E-03
Dibenzofuran	NA	9.16E+03	3.10E+00
Fluoranthene	NA	3.33E+02	2.60E-01
Fluorene	NA	5.50E+01	1.69E+00
Indeno(1,2,3-c,d)pyrene	NA	2.08E+04	2.20E-05
Naphthalene	NA	9.26E+00	3.10E+01
Phenanthrene	NA	1.00E+02	1.15E+00
Pyrene	NA	3.26E+02	1.35E-01

Attachment 3
VAP Human Health Risk Assessment
Single Chemical Generic Direct Contact Soil Standard
Recreational Land Use
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Chemical of Concern	Single-Chemical Noncarcinogenic Endpoint (mg/kg)	Single-Chemical Carcinogenic Endpoint (mg/kg)	Soil Saturation Concentration (mg/kg)	Single-Chemical Direct Contact Standard for Recreational Land Use (mg/kg)
Arsenic	266.20	47.64	NA	47.00
Cadmium	603.47	149,879.33	NA	600.00
1-Methylnaphthalene	31,219.45	1,713.12	NA	1,700.00
2-Methylnaphthalene	1,783.97	NA	NA	1,800.00
Acenaphthene	26,759.53	NA	NA	26,000.00
Acenaphthylene	36,500.00	NA	NA	36,500.00
Anthracene	133,797.65	NA	NA	130,000.00
Benzo(a)anthracene	NA	48.12	NA	48.00
Benzo(a)pyrene	NA	4.82	NA	4.80
Benzo(b)fluoranthene	NA	48.24	NA	48.00
Benzo(g,h,i)perylene	18,250.00	NA	NA	18,000.00
Benzo(k)fluoranthene	NA	480.98	NA	480.00
Carbazole	NA	1,887.99	NA	1,900.00
Chrysene	NA	4,774.50	NA	4,800.00
Dibenz(a,h)anthracene	NA	4.82	NA	4.80
Dibenzofuran	608.33	NA	NA	600.00
Fluoranthene	17,839.69	NA	NA	18,000.00
Fluorene	17,839.69	NA	NA	18,000.00
Indeno(1,2,3-c,d)pyrene	NA	48.24	NA	48.00
Naphthalene	3,050.02	1,060.26	NA	1,000.00
Phenanthrene	133,797.65	NA	NA	130,000.00
Pyrene	13,379.77	NA	NA	13,000.00

ATTACHMENT 4

PROUCL© CALCULATIONS

Attachment 4
ProUCL 95 Percent UCL Calculation
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	8/22/2016 14:00
From File	WorkSheet.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

lead

General Statistics

Total Number of Observations	25	Number of Distinct Observations	24
		Number of Missing Observations	0
Minimum	16	Mean	396.7
Maximum	2900	Median	110
SD	633	Std. Error of Mean	126.6
Coefficient of Variation	1.596	Skewness	2.957

Normal GOF Test

Shapiro Wilk Test Statistic	0.619	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.918	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.274	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.177	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	613.3	95% Adjusted-CLT UCL (Chen-1995)	685
		95% Modified-t UCL (Johnson-1978)	625.8

Gamma GOF Test

A-D Test Statistic	0.848	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.792	Data Not Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.182	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.182	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data follow Appr. Gamma Distribution at 5% Significance Level			

Gamma Statistics

k hat (MLE)	0.656	k star (bias corrected MLE)	0.604
Theta hat (MLE)	605.1	Theta star (bias corrected MLE)	657.2
nu hat (MLE)	32.78	nu star (bias corrected)	30.18
MLE Mean (bias corrected)	396.7	MLE Sd (bias corrected)	510.6
		Approximate Chi Square Value (0.05)	18.64
Adjusted Level of Significance	0.0395	Adjusted Chi Square Value	18.02

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	642.5	95% Adjusted Gamma UCL (use when n<50)	664.6

Attachment 4
ProUCL 95 Percent UCL Calculation
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Lognormal GOF Test			
Shapiro Wilk Test Statistic	0.96	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.918	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.118	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.177	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			
Lognormal Statistics			
Minimum of Logged Data	2.773	Mean of logged Data	5.053
Maximum of Logged Data	7.972	SD of logged Data	1.421
Assuming Lognormal Distribution			
95% H-UCL	1047	90% Chebyshev (MVUE) UCL	813.6
95% Chebyshev (MVUE) UCL	1001	97.5% Chebyshev (MVUE) UCL	1262
99% Chebyshev (MVUE) UCL	1774		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	605	95% Jackknife UCL	613.3
95% Standard Bootstrap UCL	598.3	95% Bootstrap-t UCL	817.7
95% Hall's Bootstrap UCL	1432	95% Percentile Bootstrap UCL	635
95% BCA Bootstrap UCL	687.5		
90% Chebyshev(Mean, Sd) UCL	776.5	95% Chebyshev(Mean, Sd) UCL	948.6
97.5% Chebyshev(Mean, Sd) UCL	1187	99% Chebyshev(Mean, Sd) UCL	1656
Suggested UCL to Use			
95% Adjusted Gamma UCL	664.6		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Attachment 4
ProUCL 95 Percent UCL Calculation
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

BaP

General Statistics

Total Number of Observations	9	Number of Distinct Observations	9
		Number of Missing Observations	0
Minimum	0.58	Mean	3.509
Maximum	13	Median	2.5
SD	3.785	Std. Error of Mean	1.262
Coefficient of Variation	1.079	Skewness	2.383

Note: Sample size is small (e.g., <10), if data are collected using ISM approach, you should use
guidance provided in ITRC Tech Reg Guide on ISM (ITRC, 2012) to compute statistics of interest.
For example, you may want to use Chebyshev UCL to estimate EPC (ITRC, 2012).
Chebyshev UCL can be computed using the Nonparametric and All UCL Options of ProUCL 5.0

Normal GOF Test

Shapiro Wilk Test Statistic	0.702	Shapiro Wilk GOF Test	
5% Shapiro Wilk Critical Value	0.829	Data Not Normal at 5% Significance Level	
Lilliefors Test Statistic	0.3	Lilliefors GOF Test	
5% Lilliefors Critical Value	0.295	Data Not Normal at 5% Significance Level	
Data Not Normal at 5% Significance Level			

Assuming Normal Distribution

95% Normal UCL		95% UCLs (Adjusted for Skewness)	
95% Student's-t UCL	5.855	95% Adjusted-CLT UCL (Chen-1995)	6.655
		95% Modified-t UCL (Johnson-1978)	6.022

Gamma GOF Test

A-D Test Statistic	0.4	Anderson-Darling Gamma GOF Test	
5% A-D Critical Value	0.735	Detected data appear Gamma Distributed at 5% Significance Level	
K-S Test Statistic	0.196	Kolmogrov-Smirnoff Gamma GOF Test	
5% K-S Critical Value	0.284	Detected data appear Gamma Distributed at 5% Significance Level	
Detected data appear Gamma Distributed at 5% Significance Level			

Gamma Statistics

k hat (MLE)	1.455	k star (bias corrected MLE)	1.044
Theta hat (MLE)	2.411	Theta star (bias corrected MLE)	3.36
nu hat (MLE)	26.2	nu star (bias corrected)	18.8
MLE Mean (bias corrected)	3.509	MLE Sd (bias corrected)	3.434
		Approximate Chi Square Value (0.05)	9.97
Adjusted Level of Significance	0.0231	Adjusted Chi Square Value	8.647

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50)	6.616	95% Adjusted Gamma UCL (use when n<50)	7.628

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.974	Shapiro Wilk Lognormal GOF Test	
5% Shapiro Wilk Critical Value	0.829	Data appear Lognormal at 5% Significance Level	
Lilliefors Test Statistic	0.148	Lilliefors Lognormal GOF Test	
5% Lilliefors Critical Value	0.295	Data appear Lognormal at 5% Significance Level	
Data appear Lognormal at 5% Significance Level			

Attachment 4
ProUCL 95 Percent UCL Calculation
Sheridan Avenue Property
City of Bexley
Bexley, Ohio

Lognormal Statistics			
Minimum of Logged Data	-0.545	Mean of logged Data	0.874
Maximum of Logged Data	2.565	SD of logged Data	0.9
Assuming Lognormal Distribution			
95% H-UCL	9.39	90% Chebyshev (MVUE) UCL	6.546
95% Chebyshev (MVUE) UCL	7.975	97.5% Chebyshev (MVUE) UCL	9.957
99% Chebyshev (MVUE) UCL	13.85		
Nonparametric Distribution Free UCL Statistics			
Data appear to follow a Discernible Distribution at 5% Significance Level			
Nonparametric Distribution Free UCLs			
95% CLT UCL	5.584	95% Jackknife UCL	5.855
95% Standard Bootstrap UCL	5.499	95% Bootstrap-t UCL	10.05
95% Hall's Bootstrap UCL	15.31	95% Percentile Bootstrap UCL	5.733
95% BCA Bootstrap UCL	6.676		
90% Chebyshev(Mean, Sd) UCL	7.294	95% Chebyshev(Mean, Sd) UCL	9.009
97.5% Chebyshev(Mean, Sd) UCL	11.39	99% Chebyshev(Mean, Sd) UCL	16.06
Suggested UCL to Use			
95% Adjusted Gamma UCL	7.628		

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

ATTACHMENT 5

TIME-WEIGHTING CALCULATION EQUATIONS,

GRAPHICAL OUTPUT OF THE IEUBK MODEL,
AND

ALM SPREADSHEET

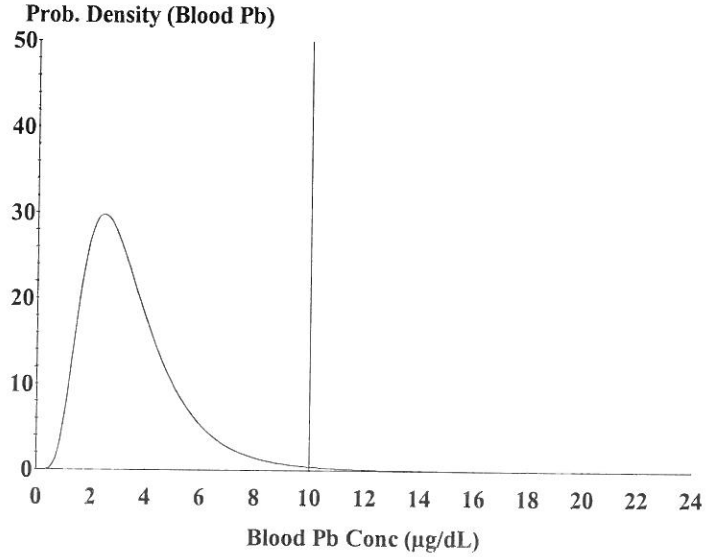
IEUBK Weighted Soil Concentrations

$$PbS_w = (PbS_i \times f_i) + (PbS_j \times f_j)$$

PbS_w = Weighted soil lead concentration across all exposure locations (i.e. residence and park)
PbS_i = Soil lead concentration for each location (i=residence, j=park)
f_i = Fraction of time spent at each location (i=residence, j=park) (days/week)

PbS_w = Varies per exposure duration
PbS_i = i=200 mg/kg, j=450mg/kg
f_i = I and j = 0 to 4 days per 7 days

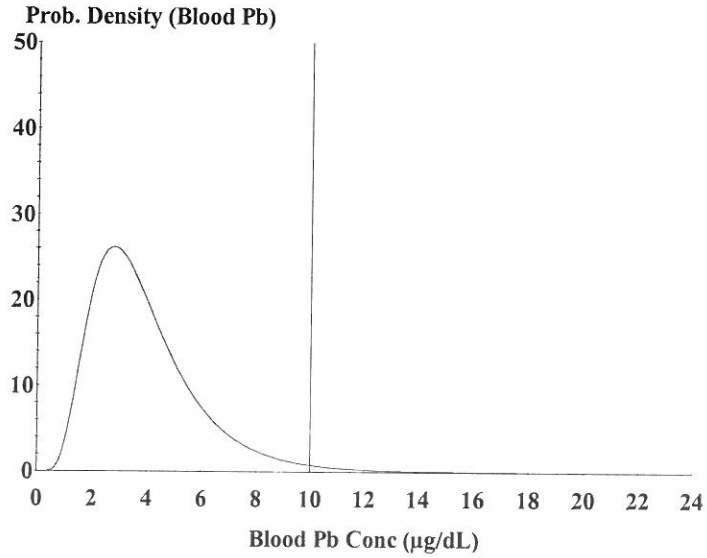
Table 2 presents the weighted soil concentrations, i.e. the results of this calculation.



Cutoff = 10.000 µg/dl
Geo Mean = 3.178
GSD = 1.600
% Above = 0.736
% Below = 99.264

Age Range = 0 to 84 months

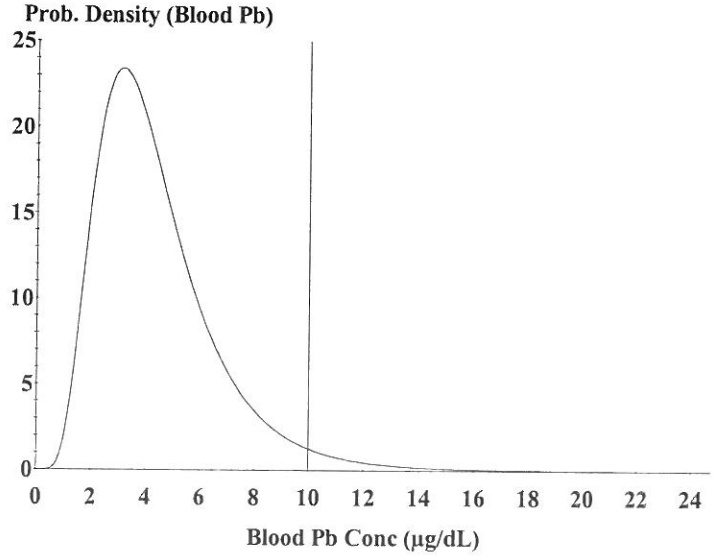
Run Mode = Research
Comment = 550/1 days secondary exposure



Cutoff = 10.000 µg/dl
Geo Mean = 3.616
GSD = 1.600
% Above = 1.522
% Below = 98.478

Age Range = 0 to 84 months

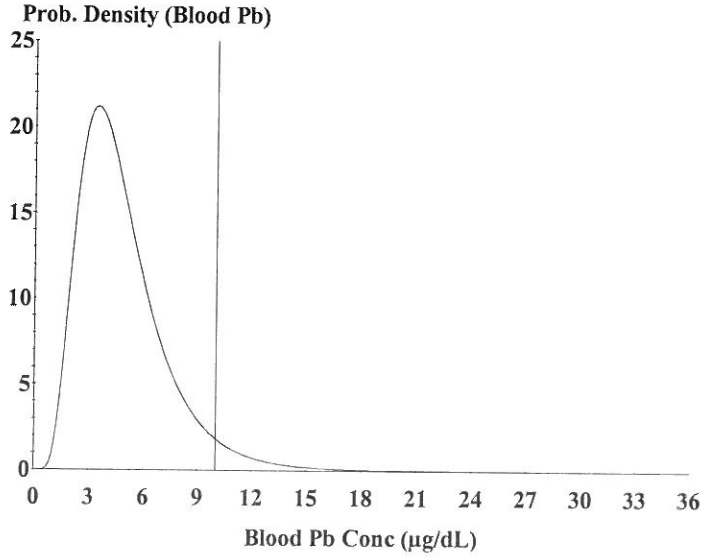
Run Mode = Research
Comment = 550/2 days secondary exposure



Cutoff = 10.000 µg/dl
Geo Mean = 4.045
GSD = 1.600
% Above = 2.708
% Below = 97.292

Age Range = 0 to 84 months

Run Mode = Research
Comment = 550/3 days secondary exposure



Cutoff = 10.000 µg/dl
Geo Mean = 4.466
GSD = 1.600
% Above = 4.315
% Below = 95.685

Age Range = 0 to 84 months

Run Mode = Research
Comment = 550/4 days secondary

Calculations of Blood Lead Concentrations (PbBs)

U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee

Version date 05/19/03

Exposure Variable	PbB Equation[1] 1*	2**	Description of Exposure Variable	Units	Values for Non-Residential Exposure Scenario			
					Using Equation 1		Using Equation 2	
					GSDi = Hom	GSDi = Het	GSDi = Hom	GSDi = Het
PbS	X	X	Soil lead concentration	ug/g or ppm	550	550	550	550
$R_{fetal/maternal}$	X	X	Fetal/maternal PbB ratio	--	0.9	0.9	0.9	0.9
BKSF	X	X	Biokinetic Slope Factor	ug/dL per ug/day	0.4	0.4	0.4	0.4
GSD_i	X	X	Geometric standard deviation PbB	--	2.1	1.8	2.1	2.3
PbB_0	X	X	Baseline PbB	ug/dL	1.5	1.0	1.5	1.7
IR_S	X		Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.100	--	--
IR_{S+D}		X	Total ingestion rate of outdoor soil and indoor dust	g/day	--	--	0.100	0.100
W_S		X	Weighting factor; fraction of IR_{S+D} ingested as outdoor soil	--	--	--	1.0	1.0
K_{SD}		X	Mass fraction of soil in dust	--	--	--	0.7	0.7
$AF_{S,D}$	X	X	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12	0.12
$EF_{S,D}$	X	X	Exposure frequency (same for soil and dust)	days/yr	90	90	90	90
$AT_{S,D}$	X	X	Averaging time (same for soil and dust)	days/yr	365	365	365	365
PbB_{adult}	**PbB of adult worker, geometric mean**			ug/dL	**2.2**	**1.7**	**2.2**	**2.4**
$PbB_{fetal,0.95}$	**95th percentile PbB among fetuses of adult workers**			ug/dL	**6.6**	**3.9**	**6.6**	**8.3**
PbB_t	**Target PbB level of concern (e.g., 10 ug/dL)**			ug/dL	**10.0**	**10.0**	**10.0**	**10.0**
$P(PbB_{fetal} > PbB_t)$	**Probability that fetal PbB > PbB_t, assuming lognormal distribution**			%	**1.3%**	**0.1%**	**1.3%**	**3.1%**

[1] Equation 1 does not apportion exposure between soil and dust ingestion (excludes W_S, K_{SD}).
When $IR_S = IR_{S+D}$ and $W_S = 1.0$, the equations yield the same $PbB_{fetal,0.95}$.

***Equation 1, based on Eq. 1, 2 in USEPA (1996).**

PbB $_{adult}$ =	$(PbS*BKSF*IR_{S+D}*AF_{S,D}*EF_S/AT_{S,D}) + PbB_0$
PbB $_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

****Equation 2, alternate approach based on Eq. 1, 2, and A-19 in USEPA (1996).**

PbB $_{adult}$ =	$PbS*BKSF*([(IR_{S+D})*AF_S*EF_S*W_S]+[K_{SD}*(IR_{S+D})*(1-W_S)*AF_D*EF_D])/365+PbB_0$
PbB $_{fetal,0.95}$ =	$PbB_{adult} * (GSD_i^{1.645} * R)$

Source: U.S. EPA (1996). Recommendations of the Technical Review Workgroup for Lead for an Interim Approach to Assessing Risks Associated with Adult Exposures to Lead in Soil