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US Environmental Protection Agency Region 3

Final Remedial Action Completion Report

BoRit Asbestos Superfund Site,
Operable Unit 1
Ambler, Pennsylvania

September 24, 2018

CDM Smith

Response Action Contract
for Remedial Planning and Oversight Activities at Sites
in EPA Region 3

U.S. EPA Contract No. EP-S3-07-06

FINAL REMEDIAL ACTION COMPLETION REPORT

for

Remedial Action

for the

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

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Abbreviations and Acronyms

95UCL	95% upper confidence limit
%	percent
ABS	activity-based sampling
ACM	asbestos-containing material
ARARs	applicable or relevant and appropriate requirements
bgs	below ground surface
BTAG	Biological Technical Assistance Group
CCM	cable concrete mats
CDM Smith	CDM Federal Programs Corporation
CLP	Contract Laboratory Program
COC	chemical of concern
DO	dissolved oxygen
DQO	data quality objectives
E. coli	Escherichia coli
E&S	erosion and sediment
EPA	U.S. Environmental Protection Agency
ERT	Environmental Response Team
ESAT	Environmental Services Assistance Team
FSDS	Field Sampling Data Sheet
ft	foot
ft^2	square feet
FYR	Five-Year Review
GPS	global positioning system
HASP	Health and Safety Plan
HHRA	Human Health Risk Assessment
HV	high-volume
IC	institutional control
ISO	International Organization for Standardization
L	liters
L^{-1}	per liter
L/min	liters per minute
LTM	long-term monitoring
LV	low-volume
MCE	mixed cellulose ester
MDL	method detection limit
MET	meteorology
MFL	million fibers per liter

Abbreviations and Acronyms (continued)

mg/kg	milligrams per kilogram
µg/kg	micrograms per kilogram
µm	micrometer, or micron
mil	thousandths of an inch in thickness
mm	millimeter
Mt.	Mount
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
ng/kg	nanogram per kilogram
NOAEL	no-observed-adverse-effect level
NPL	National Priorities List
O&M	operations and maintenance
ORP	oxidation reduction potential
PADEP	Pennsylvania Department of Environmental Protection
PCM	phase contrast microscopy
PCME	phase contrast microscopy-equivalent
PLM	polarized light microscopy
PRAP	Proposed Remedial Action Plan
QL	quantitation limit
RA	Remedial Action
RAC	Response Action Contract
RACR	Remedial Action Completion Report
RAO	remedial action objective
RG	remediation goal
RI	Remedial Investigation
ROD	Record of Decision
s/cc	structures per cubic centimeter
Site	BoRit Asbestos Superfund Site
SLERA	Screening Level Ecological Risk Assessment
SMP	Site Management Plan
SOP	standard operating procedure
TAS	Target Analytical Sensitivity
TDS	total dissolved solids
TEM	transmission electron microscopy
TOC	total organic carbon
TRV	toxicity reference value
USACE	United States Army Corps of Engineers
WA	Work Assignment

Section 1
Background

This document serves as the Remedial Action Completion Report (RACR) for the Remedial Action (RA) specified in the Record of Decision (ROD) (EPA 2017a) for the BoRit Asbestos Superfund Site (Site or BoRit Site) (U.S. Environmental Protection Agency [EPA] ID: PAD981034887), located in the Borough of Ambler, Whitpain Township, and Upper Dublin Township, Montgomery County, Pennsylvania. This RACR was prepared by CDM Federal Programs Corporation (CDM Smith) under work assignment (WA) 056RARAA3EN of the EPA Region 3 Response Action Contract (RAC) 2 contract EP-S3-07-06

The Site includes three adjacent parcels near the intersection of West Maple Street and Butler Pike:

- The Park parcel, located in Whitpain Township, is approximately 11 acres and contains a former asbestos disposal area (now the closed Whitpain Wissahickon Park).
- The Asbestos Pile parcel, located in Ambler Borough, is approximately six acres and contains an asbestos waste pile, approximately three acres, in the middle of the property.
- The Reservoir parcel, primarily located in Upper Dublin Township, is approximately 15 acres and contains a reservoir. The reservoir is manmade and is not used as a drinking water supply. Historically, the reservoir was filled by a former pond on the Wissahickon Creek located northwest of Mount (Mt.) Pleasant Avenue. The water from the pond was regulated by a gate valve that allowed water to flow under Mt. Pleasant Avenue and connected to a 24-inch pipe that ultimately discharged into the reservoir.

The Site also includes portions of Wissahickon Creek, Rose Valley Creek, and Tannery Run, which flow adjacent to the three Site parcels. The Site map is shown on **Figure 1-1**.

In April 2006, EPA's Site Assessment Program conducted sampling and found asbestos in the air, soil, surface water, and sediments at the Site. EPA re-evaluated the BoRit parcels prompting proposal to the National Priorities List (NPL) on September 3, 2008. The Site was listed on the NPL on April 9, 2009.

In December 2008, the EPA Removal Program initiated a Removal Action to address the most immediate environmental concerns at the Site. Since 2008, all three parcels have undergone a Removal Action to cover asbestos-containing materials (ACM) in accordance with applicable National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations. The Park and Asbestos Pile parcels are not currently being used and are vacant. The Reservoir parcel is currently being used as a waterfowl preserve. Engineering controls have been implemented as part of the Removal Action to prevent Site access while the Remedial Action is completed. Specifically, chain-link fences extend along the West Maple Street side of the Asbestos Pile parcel and the Reservoir parcel, and fencing was installed at the Park parcel along West Maple Street. Upon completion of the Remedial Action, fencing may be removed for future use. Future use plans for the Park parcel include a public park and open space.

This RACR describes the Remedial Action completed to address waste, soil, and reservoir sediment contamination associated with the Site. The Selected Remedy is comprised of the

completed Remedial Action combined with the Removal Action initiated by EPA's Removal Program in 2008 to address the most immediate environmental concerns at the Site. The EPA Removal Program completed the Removal Action in August 2017. The Removal Action activities are described in the ROD (EPA 2017a) and are briefly summarized below. The Remedial Action is described herein and was completed in September 2018. The waste, soil, and reservoir sediment contaminated with asbestos and other chemicals of concern (COCs) at the Site are considered a principal threat waste. The Selected Remedy physically contains the asbestos and other COCs to prevent migration from the Site and to prevent exposure to human and ecological receptors.

The Selected Remedy includes capping of waste, contaminated soil, and reservoir sediment with clean material along with implementation of associated health and safety controls, erosion and sediment (E&S) controls, grubbing and clearing, and regrading to meet design grade to facilitate capping. Major components of the Selected Remedy follow:

EPA Removal Program

- Stream bank stabilization at Rose Valley Creek, Tannery Run, and Wissahickon Creek
- Installation of cover at Asbestos Pile
- Installation of cover at Park
- Dewatering of the reservoir with treatment of surface water prior to discharge
- Re-grading and lining of reservoir berm interior slopes
- Installation of a cover on the reservoir bottom
- Refilling of the reservoir
- Activity-based sampling (ABS) at residences adjacent to the Site

EPA Remedial Program

- Implementation of institutional controls (ICs)
- Confirmation sampling
- Long-term monitoring (LTM) for Site-related COCs (future activity)
- Operations and maintenance (O&M)
- Five-year reviews (FYRs) (future activity)

Several remedial action objectives (RAOs) were developed to mitigate the potential current and/or future risks associated with exposure to contamination at the Site. Asbestos is the dominant environmental concern and primary risk driver at the BoRit Site. RAOs are focused on preventing release of asbestos from source material and preventing exposure to asbestos and other COCs (as presented in **Table 1-1**) in both source material and primary exposure media.

RAOs were developed for waste/soil and reservoir sediment and address human health and/or environmental protection.

RAOs for Waste/Soil
Protection of Human Health

- Minimize the inhalation of asbestos associated with waste/soil disturbances such that related cancer risks from airborne asbestos fibers are within or below EPA's acceptable risk range of one in 10,000 ($1x10^{-4}$) to one in 1,000,000 ($1x10^{-6}$).

Environmental Protection

- Prevent direct contact (i.e., inhalation, incidental ingestion, and dermal absorption) by ecological receptors to contaminated waste and soil containing ecological COC [asbestos, bis(2-ethyhexyl)phthalate, dioxins and furans, chromium, nickel, and zinc] concentrations exceeding the respective cleanup levels.

RAOs for Reservoir Sediment
Protection of Human Health

- None.

Environmental Protection

- Prevent direct exposure of ecological receptors to contaminated sediment containing concentrations of carbon disulfide exceeding the ecological screening level of 4.1 micrograms per kilogram (µg/kg).
- Minimize migration of asbestos from sediment to surface water to prevent surface water concentrations of asbestos exceeding the surface water screening level of 0.0001 million fibers per liter (MFL).

In conjunction with narrative RAOs established above, the National Oil and Hazardous Substances Pollution Contingency Plan also called for the ROD to establish final cleanup levels, which are acceptable exposure levels that are protective of human health and the environment. The cleanup levels are derived from applicable or relevant and appropriate requirements, from risk-based levels (human health and ecological), and from comparison to the background concentrations. Consideration was also given to analytical detection limits, guidance values, and other pertinent information. Where possible, cleanup levels were expressed as contaminant-specific cleanup levels. The cleanup levels established for the Site are risk-based values that fall within EPA's acceptable risk range. Cleanup levels, referred to as remediation goals (RGs) in the Proposed Remedial Action Plan (PRAP), were developed to protect human health and the environment.

RGs for Waste/Soil
Soil contaminated with asbestos poses risks to human health and ecological receptors. For humans, the potential for risk occurs when asbestos in soil becomes airborne. RGs to remediate the contaminated soil to protect human health and the environment are listed in **Table 1-1**. The surrogate human health RG for asbestos is a Site-specific value calculated by EPA Region 3 for asbestos in air. There were two types of air RGs established – one specific to ambient air and one specific to air under active soil disturbance activities (referred to as ABS air). The Site-specific RGs for asbestos in air are based on human health risks and a target cancer risk of one in 10,000 ($1x10^{-4}$). For asbestos, successful remediation of source waste material and soil based on human health will be assessed by achievement of the Site-specific air RGs.

Similarly, successful remediation of source waste material and soil based on ecological receptors will also be assessed by achievement of a Site-specific ecological air RG for asbestos. The

ecological RG for asbestos in air is based on the no-observed-adverse-effect level (NOAEL) toxicity reference value (TRV) for inhalation.

Soil contaminated with bis(2-ethylhexyl)phthalate, dioxins and furans, chromium, nickel, and zinc also poses risks to ecological receptors. Ecological RGs for contaminated soil are listed in **Table 1-1**. Ecological RGs are based on either ecological screening levels or the maximum background concentrations.

RGs for Reservoir Sediment and Reservoir Surface Water

Sediment contaminated with carbon disulfide in the reservoir poses risks to ecological receptors. A sediment RG based on the ecological screening level for carbon disulfide is listed in **Table 1-1** for the remediation of contaminated sediments in the reservoir to protect ecological receptors.

Even though asbestos was not detected in reservoir sediment at levels that potentially posed a risk in the Screening Level Ecological Risk Assessment (SLERA), the reservoir bench study demonstrated that reservoir surface water is directly affected by reservoir sediment, and sediment disturbances can result in elevated asbestos concentrations in surface water (CDM Smith 2015). Therefore, EPA used a conservative approach and assumed that asbestos is also a potential ecological risk in reservoir surface water. **Table 1-1** provides a target surface water RG for asbestos in reservoir water.

Risk-based RGs should be applied on an exposure area basis and evaluated in terms of the average concentration across the exposure area. The exposure areas were established in the risk assessments. The risk assessments also established the appropriate methods for determining the exposure concentration for the exposure area. These methods are described further below.

Application of Human Health RGs

In the Human Health Risk Assessment (HHRA), onsite human health exposures to ABS air during soil disturbance activities were evaluated on a parcel-by-parcel basis. Therefore, the human health ABS RG (0.04 structures per cubic centimeter [s/cc]) was applied to the mean ABS air concentration (based on phase contrast microscopy-equivalent [PCME][1] structures) for each parcel. Human health exposures to ambient air were evaluated across all ambient air monitoring stations. Therefore, the human health ambient air RG (0.001 s/cc) should be applied to the mean ambient air concentration (based on PCME) across all stations. In accordance with EPA guidance, the exposure concentration for asbestos in air should be calculated as the arithmetic mean treating non-detects as zero (EPA 2008). In the event all samples for a given exposure area are reported as non-detect, the exposure concentration should be evaluated in terms of the Poisson 95 percent upper confidence limit[2] (95UCL).

[1] All ABS and ambient air samples are analyzed by transmission electron microscopy (TEM), which can classify particles according to mineral type. However, the toxicity data used as the basis of the asbestos inhalation unit risk value are based on analyses performed using phase contrast microscopy (PCM), which can only classify particles by size and shape (i.e., PCM cannot differentiate asbestos from non-asbestos nor can PCM differentiate different types of asbestos). Thus, TEM analysis results are reported as PCME s/cc to ensure comparability to the toxicity data. PCME structures are defined as structures with a length greater than 5 micrometers (µm), a width greater than or equal to 0.25 µm, and an aspect ratio (length:width) greater than or equal to 3:1. All ABS and ambient air concentrations of asbestos discussed within this report are reported in terms of PCME structures.

[2] In accordance with the International Standards Organization (ISO) Method 10312, non-detects are reported as less than the Poisson 95UCL, where this upper limit is calculated as 2.99 times the achieved sensitivity. This is done because the reported concentration is only an estimate of the true air concentration based on the analysis of a small portion of the total filter. Thus, even if no structures are observed, it is possible asbestos is present. However, the true air concentration has a high probability (95 percent [%]) to be lower than this upper limit.

Application of Ecological RGs

For ecological receptors, the exposure area to which the risk-based RG is applied will depend upon home range size of the ecological receptor upon which the RG is based and the receptor-specific assessment endpoints defined in the ecological risk assessment. As shown in **Table 1-1**, in general, the ecological RGs are based on receptors that have fairly-small home ranges (e.g., plants, shrew, burrowing mammals). Although the assessment endpoints described in the SLERA are based on the protection of communities (or populations), the extent of the community exposure area was not defined in the SLERA. Therefore, for the purposes of applying the risk-based ecological RGs for soil, it should be assumed the RGs will apply to individual home ranges, where each home range is represented by a single sample. In applying the risk-based ecological RGs for surface water and sediment, it should be assumed the RGs would apply to the entire water body (i.e., the entire reservoir, the entire sampled range of Wissahickon Creek).

To evaluate burrowing mammal exposures to asbestos in soil, the ecological air RG (25 s/cc) should be compared to the reported concentration for each ABS air sample collected at the mammal's height. In the event the sample is reported as non-detect, the exposure concentration should be evaluated in terms of the Poisson 95UCL.

In accordance with EPA guidance, the exposure concentration for asbestos in surface water should be calculated as the arithmetic mean for the water body, treating non-detects as zero (EPA 2008). Because the surface water RG is based on total structures (meaning all structures longer than 0.5 µm), the mean concentration should also be based on total structures. Water concentrations based on structures longer than 10 µm are provided only for informational purposes. The ecological surface water RG for asbestos (0.0001 MFL) should be compared to the mean concentration for the reservoir and the mean concentration for Wissahickon Creek.

For non-asbestos analytes in soil (i.e., bis(2-ethylhexyl)phthalate, dioxins/furans, chromium, nickel, and zinc), the ecological soil RG should be compared to the reported concentration for each sample. For non-asbestos analytes in sediment (i.e., carbon disulfide), the ecological soil RG (4.1 µg/kg) should be compared to the estimated 95UCL on the mean for sediment samples across the entire reservoir.

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Section 2
Construction Activities

As noted in Section 1, EPA's Removal Action addressed the construction activities of the Selected Remedy, and a description of those construction activities are provided in the 2017 ROD (EPA 2017a). The Remedial Action was completed in September 2018 and consisted of confirmation sampling and O&M of the engineering controls completed as part of the Removal Action. The Remedial Action activities are described in detail below. Daily logs of on-Site Remedial Action activities are provided in **Appendix A**. A photo log of these activities is provided in **Appendix B**.

2.1 Confirmation Sampling

One round of confirmation sampling was conducted in locations where asbestos was detected prior to capping, to demonstrate that the cover is operating as designed. The components of confirmation sampling included:

- Surface soil sampling
- Surface water sampling
- Reservoir sediment sampling
- Ambient air sampling
- ABS air sampling
- ABS soil sampling

All sample locations were recorded using a handheld global positioning system (GPS) device. Field Sampling Data Sheet (FSDS) forms were completed during each sampling event, and they are provided in **Appendix C**. The following provides an overview of the confirmation sampling for each medium.

Surface Soil

Surface soil samples were collected from the Park, Reservoir, and Asbestos Pile parcels. Surface soil sample locations for the Park, Reservoir, and Asbestos Pile parcels are provided on **Figure 2-1**, **Figure 2-2**, and **Figure 2-3**, respectively. Subareas within each parcel were used to designate points for surface soil samples, and the locations for the soil samples within each subarea were selected by gridding each parcel on approximately 100-foot x 100-foot spacing, numbering each grid node, and using a random number generator to select two points within each subarea for sampling. Each surface soil sample consisted of a 30-point composite collected from 0-6 inches below ground surface (bgs). Surface soil samples were analyzed for asbestos, bis(2-ethylhexyl)phthalate, chromium, nickel, and zinc. One sample was collected from the former fire training and slag disposal area (within Subarea 1) on the Asbestos Pile parcel and analyzed solely for dioxins and furans.

Surface Water

Surface water sampling was conducted in the reservoir and in Wissahickon Creek from the locations sampled during the Remedial Investigation (RI) (CDM Smith 2015) as shown on **Figure 2-4** and **Figure 2-5**, respectively. Reservoir surface water samples were analyzed for asbestos, Escherichia coli (E. coli), total dissolved solids (TDS), nitrogen, alkalinity, phosphorous, sulfate, total organic carbon (TOC), hardness, aluminum, iron, and manganese. Surface water samples in the reservoir were collected from a boat using a stainless-steel bomb sampler. Wissahickon Creek surface water samples were analyzed for asbestos. These samples were collected while standing downstream of the sampling location or from the bank, using either a stainless-steel bomb sampler or directly into a sample bottle, depending on the water depth at each sample location. Surface water samples were collected from 6-12 inches above the bottom of the reservoir and/or the bottom of Wissahickon Creek. Depth-to-bottom and general water quality parameters (dissolved oxygen [DO], turbidity, temperature, pH, specific conductance, and oxidation reduction potential [ORP]) were collected from the same depth as sample collection.

Reservoir Sediment

Sediment sampling was conducted in the reservoir after surface water sampling was complete, from the same coordinates where surface water samples were collected (**Figure 2-4**). Sediment samples were analyzed for asbestos, carbon disulfide, and TOC. Each sample was a composite consisting of three to five grab samples collected from the top six inches of substrate using a Petite Ponar® stainless steel grab sampler.

Ambient Air

Ambient air samples were collected at locations where asbestos was previously detected (**Figure 2-6**). Each ambient air sample was collected for a duration of 24 hours and consisted of a high-volume (HV) sample (with a target flow rate of 3 liters per minute [L/m]) and a low-volume (LV) sample (with a target flow rate of 1.5 L/min). LV samples were archived by the laboratory in case HV cassettes were overloaded. Sample cassettes were placed at a height of 3-5 feet above ground surface during sampling. Every 8 hours during sample collection, pump flow rates were calibrated, and the pump batteries were replaced.

ABS Air and Soil

ABS was performed at the Park parcel in six locations and at the Asbestos Pile parcel in three locations. ABS areas were selected to be representative of the full extent of the capped areas in the Park and Asbestos Pile parcels. The specific ABS locations included ABS areas previously sampled during the RI as well as new locations placed in capped areas that were not evaluated during the RI. All ABS sample locations are shown on **Figure 2-7**. The ABS program included the standardized raking activity scenario outlined in Sections 7.5 and 7.6 of EPA Environmental Response Team (ERT) Standard Operating Procedure (SOP) 2084, *Activity-Based Air Sampling for Asbestos* (EPA 2007). ABS soil samples were collected prior to starting the raking activities and consisted of 30-point composite surface soil samples, collected from 0-3 inches bgs. To ensure that soil conditions were optimal for conducting ABS, soil moisture readings were collected prior to soil sampling so that the sampling team could evaluate whether the average of 10 readings exceeded 30 percent (%) moisture and whether any single point exceeded 50% moisture. A

portable meteorology (MET) station was placed at the Site to monitor wind direction and so that the sampling team could evaluate whether rainfall exceeded ¼ inch in the preceding 36 hours.

ABS air samples were collected for the duration of raking activities (two hours per area) and consisted of personal, perimeter, and ecological air samples. The ABS air sampling train consisted of a 0.80-µm, 25-millimeter (mm) mixed cellulose ester (MCE) filter connected to Tygon® tubing, which was connected to a sampling pump. The top cover from the cowl extension on the sampling cassette was removed ("open-face"), and the cassette was oriented face-down.

For personal air samples, sampling personnel wore two air sample cassettes (one HV and one LV) at the shoulder to simulate the breathing zone of an adult, and two air sample cassettes (one HV and one LV) at the waist to simulate the breathing zone of a child. The sampling pumps were set to 5 L/min for the HV samples and 2.5 L/min for the LV samples, resulting in target volumes of 600 liters (L) and 300 L, respectively. However, back-pressure on the pump resulted in actual HV flow rates of 4.0-4.9 L/min during sampling. Achieved sample volumes were 504-602 L for HV samples and 226-317 L for LV samples.

For perimeter air samples, HV and LV cassettes were each placed on the upwind and downwind perimeter of the sample area (as determined by the portable MET station). The HV pump was operated at 4 L/min, and the LV pump was operated at 2 L/min, resulting in target volumes of 480 L and 240 L, respectively. Achieved sample volumes were 475-496 L for HV samples and 232-264 L for LV samples.

For ecological air samples, one cassette was placed near the ground to simulate a burrowing mammal breathing zone. The ecological air sample pump was operated at 2 L/min, resulting in a target volume of 240 L. Achieved sample volumes were 185-266 L.

Pump flow rates for personal, perimeter, and ecological samples were verified every 30 minutes and recalibrated if the observed flow rates were ±10 percent of the target rate, except in the case of HV personal pumps which experienced a gradual flow decrease over time due to back pressure (if the flow rate was increased, the pump would fault). Sample collection information was documented on Site-specific FSDS forms which are provided in **Appendix C**.

2.2 Operations and Maintenance of the Engineering Controls

O&M activities specified in the ROD include:

- ***Site Inspections***: Non-intrusive visual Site inspections will be conducted to ensure integrity of the cap, vegetation, and stabilized stream bank areas. Site inspections will be performed at least quarterly as well as concurrently with the FYR.
- ***Post-Significant Weather Event Inspection***: Following a significant weather event, a non-intrusive visual Site inspection will be conducted to ensure that the integrity of the cap, vegetation, and stabilized stream bank areas were not impacted by the weather event.
- ***Cap and Physical Remedy Maintenance***: Damage to the cap, vegetation, and stabilized stream bank areas observed during quarterly and post-significant weather event Site

inspections will be repaired to eliminate exposure of underlying contaminated waste, soil, and reservoir sediment. Maintenance will include the repair of minor and major breaches or other damage resulting from approved construction activities or significant weather events.

- ***IC Evaluation and Updates***: ICs will be evaluated on an annual basis at a minimum and updated as necessary (e.g., post-significant weather events) to ensure protectiveness.
- ***Reporting****:* Routine reports summarizing O&M activities will be prepared on an annual basis, at minimum, and will be submitted to EPA and the Pennsylvania Department of Environmental Protection (PADEP) for review. Routine reporting will also involve regular review and updates as necessary to the Site-specific O&M Plan, the Site-specific Health and Safety Plan (HASP), and as-built drawings when necessary.

The following O&M activities were conducted from January to September 2018:

- Quarterly Site inspections
- Cap and physical remedy maintenance
- Annual cap mowing and tree removal
- Periodic invasive species management
- Slit seeding
- IC evaluation and updates
- Reporting
- ACM removal from Wissahickon Creek
- Stream gauge installation and stream data analysis
- Surveying
- Park parcel ramp modification and spillway repair
- Monitoring well and piezometer abandonment

Completed Quarterly Inspection Checklists are provided in **Appendix D**. During quarterly Site inspections, all three Site parcels were examined to determine the following: if vegetative cover was being maintained at the proper height, if there were any breaches to the soil cap or evidence of ACM, if there was any erosion or changes in drainage patterns, if there was any tree toppling or windthrows, if trees were growing in prohibited areas (*i.e.,* where geocells or cable concrete mats [CCM] were installed), evidence of animal burrowing, stressed or missing vegetation, damage or changes in any ICs, or negatively impacted capped areas in need of maintenance or repair. Items requiring action were communicated to EPA and immediately remedied as part of cap and physical remedy maintenance activities. Significant weather events did not occur during this period; therefore, additional inspections were not warranted.

Cap and physical remedy maintenance activities included removal of small trees growing along reservoir berms and creek banks where geocells and CCM were installed, backfilling of holes

created by burrowing mammals, and removal and disposal of ACM exposed by burrowing mammals.

Annual mowing was conducted throughout the three parcels in April 2018, prior to the start of the nesting season for ground-nesting birds. The entire cap area was mowed to approximately 4 inches above ground surface. Near the reservoir shoreline, mowing clippings were discharged up-slope and raked to keep them from entering the reservoir. Dead or toppling trees and those trees growing in prohibited locations were cut and removed from the Site. Depressions and holes identified during the mowing event, caused by burrowing mammals or toppled trees, were backfilled with clean topsoil immediately following the mowing event. In future mowing events, consistent with the O&M Plan, vegetation may be cut as high as 8 inches to maintain suitable vegetative cover at the Site.

Invasive species were identified during April 2018 mowing and addressed during a separate mobilization. Canadian Thistle was identified by EPA's Biological Technical Assistance Group (BTAG) as the most invasive species and was targeted in the spring invasive management event. As directed by EPA's BTAG, glyphosate was applied according to manufacturer instructions to the leaves of any Canadian Thistle identified at the Site, and glyphosate for aquatic applications was utilized in any locations with the potential for overspray into water. A second round of herbicide will be applied to the leaves and stems of the Canadian Thistle in Fall 2018, in addition to targeting Crown Vetch and Japanese Knotweed, which were also identified to a lesser extent at the Site.

Slit seeding was performed on approximately 8 acres at the Park parcel in late May/early June 2018 in an attempt to establish more vegetation on the plateau of the Park parcel. CDM Smith placed 2,050 pounds of seed approximately ¼-inch in depth, using slit seeders across the Park parcel.

The O&M Plan and the HASP were reviewed and updated prior to the initiation of the Remedial Action. Additionally, the O&M Plan was evaluated and updated as needed throughout the Remedial Action timeframe.

Visual inspections were performed to identify ACM remaining in Wissahickon Creek and on lower-lying portions of the Green Ribbon Walking Trail. Transite boards ranging from approximately 4 square feet (ft^2) to approximately 30 ft^2 and pipes ranging from approximately one foot (ft) to 3 ft in diameter were located in Wissahickon Creek. Very little transite was identified along the Green Ribbon Walking Trail. The ACM identified was mostly damp and non-friable. Identified ACM was removed and placed in 6-mil (*i.e.*, thousandths of an inch in thickness) plastic asbestos disposal bags and double-bagged 4-mil plastic asbestos disposal bags whenever possible. Asbestos disposal bags and larger pieces of ACM that did not fit in bags were placed in a lined and covered roll-off dumpster and disposed off site in an approved solid waste landfill. The extent of ACM removal activities is provided in **Figure 2-8.**

Gauging stations were installed on or proximate to the Site in Wissahickon Creek, in Rose Valley Creek, in Tannery Run, and in the reservoir. These gauging stations are intended to collect velocity and/or water level data. The data will be used to calculate stream discharge to evaluate

if significant weather events are having an impact on the Selected Remedy. Gauging stations were installed in accordance with the Site-Specific SOP for *Stream Gauge Station Installation and Continuous Monitoring* (CDM Smith 2018a). Stations consist of a staff gauge, a data logging unit, a solar panel, and a transmitter and antenna system (contained within a telemetry box) to relay data to a cloud network. Data logging units for the creeks were placed toward the centerline of each creek, while the data logging unit in the reservoir was placed in a stilling well near the edge of the water. Data logging units were installed in straight sections of the creek channels with uniform flow conditions and low turbulence, avoiding any curves and abrupt changes in elevation, and at least ten channel widths downstream or upstream of any control points or flow disturbances. The location and ground elevation at each of the data logging units, staff gauges, and telemetry boxes were surveyed and recorded. Additionally, baseline cross-sectional surveys were conducted in each of the creeks. Gauging station locations are provided on **Figure 2-9**. Data logging units were calibrated with the cross-sectional survey data to obtain accurate stream discharge calculations and configured to record and transmit readings at 15-minute intervals. Data were reviewed on a weekly basis to evaluate whether the gauging stations were functioning correctly and were not impacted by debris in the channels. Data monitoring will continue to evaluate the impacts of various weather events on the Selected Remedy.

The United States Army Corps of Engineers (USACE) Philadelphia District prepared designs to address repair and modification to erosion and sediment control structures in two areas of the Park parcel: repair of the spillway to Rose Valley Creek and modification (addition of a berm) at the top of the CCM ramp leading down to Wissahickon Creek, to direct runoff towards the spillway. A construction subcontractor, Brightfields Inc., was procured to construct the USACE designs. Prior to implementation of the USACE design, the construction subcontractor's surveyor confirmed ground level elevations at various points on the existing sediment control structures. The USACE design engineer then modified the design as appropriate (USACE 2018). The construction subcontractor then completed the spillway repair and ramp modification according to the USACE design specifications. The USACE design incorporated R5 riprap (larger riprap than previously used during the Removal Action) to prevent the spillway from washing out in the event of heavy runoff flows cause by precipitation. Additionally, the riprap was secured with a concrete infill. A berm was constructed at the top of the CCM ramp to direct runoff along the swale parallel to Rose Valley Creek towards the spillway, thereby preventing runoff from eroding the CCM ramp. Landscaping restoration was conducted in the areas surrounding the spillway and ramp that were disturbed by construction. As-built drawings are provided in **Appendix E.**

Five piezometers and seven monitoring wells remained at the Site following RI activities. As part of the Remedial Action O&M activities, all piezometers and wells were properly abandoned by a Pennsylvania licensed well driller following all applicable local, state, and federal regulations. Any aboveground casing was removed, and all wells and piezometers were flush with the ground upon completion of abandonment. Well and piezometer abandonment reports are provided in **Appendix F**.

Future planned O&M activities are described in Section 6.

Section 3
Chronology of Events

The tables below provide a chronology of activities conducted as part of the Removal Action and the Remedial Action.

Removal Action Activity	Date
Stream Bank Stabilization at Rose Valley Creek, Tannery Run, and Wissahickon Creek	December 2008 to June 2011
Installation of Cover at Park	July 2008 to August 2017
Installation of Cover at Asbestos Pile	June 2010 to November 2010
Dewatering, Re-grading, Capping, and Refilling the Reservoir	August 2013 to July 2017
ABS at Residences Adjacent to the Site	September 2016

Remedial Action Activity	Date
Annual Mowing and Tree Removal	April 9 to 13, 2018
Backfilling Burrowing Animal Holes	April 12 to 13, 2018
Quarterly Inspections	April 24, 2018 and July 3, 2018
ACM Removal from Wissahickon Creek	April 10 and 11, 2018
Confirmation Sampling (Surface Soil, Sediment, and Surface Water)	April 24 to 27, 2018 and May 1, 2018
Invasive Species Control	May 21, 23, and 24, 2018
Confirmation Sampling (Ambient Air)	May 24 and 25, 2018 and June 7, 2018
Park Parcel Cap Slit Seeding	May 30, 2018 to June 1, 2018
Stream Gauge Installation	June 4 to 11, 2018
Confirmation Sampling (ABS Air and Soil)	July 18 to 20, 2018
Stream Data Collection and Analysis	June 11, 2018 to Present
Ramp and Spillway Repair	August 13 to 24, 2018 and September 13, 2018
Monitoring Well Abandonment	September 13 to 14, 2018

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Section 4
Performance Standards and Quality Control

The results of Confirmation Sampling are provided in this section, and a comparison of analytical data with the data quality objectives (DQOs) was performed. A summary of samples collected is provided in **Table 4-1**. Data validation reports are provided in **Appendix G**. A discussion of the remedial goal exceedances with respect to the DQOs specified in the Site Management Plan (SMP) (CDM Smith 2018b), follows and is documented in **Table 4-2** through **Table 4-10**.

4.1 Surface Soil Sampling Results

Surface soil samples were prepared and analyzed for asbestos by polarized light microscopy (PLM). There are no RGs for asbestos in soil. Rather, successful remediation of soil is assessed by achievement of the Site-specific air-based RGs. Therefore, soil sample results are presented for informational purposes only.

Surface soil samples were prepared by milling to a particle size of approximately 250 µm using the preparation procedures described in EPA/600/R-93/116. An aliquot of the prepared material was examined by PLM using point counting in accordance with EPA/600/R-93/116. In total, 1,000 points were examined for each sample, which results in an approximate detection limit of 0.1%. As seen on **Table 4-2**, asbestos was not detected in any surface soil sample analyzed by PLM, which suggests that the selected remedy for the Site (capping of waste and contaminated soil with clean material) has been successful in lowering soil concentrations of asbestos. However, final conclusions about remedial effectiveness for onsite soil will be based on the results of the air monitoring.

Surface soil sample results for bis(2-ethylhexyl)phthalate, dioxins and furans, chromium, nickel, and zinc are provided on **Table 4-3.** Bis(2-ethylhexyl)phthalate was detected in exceedance of the RG of 925 µg/kg in one sample and below the RG in three other samples located on the Asbestos Pile parcel, but this COC was not detected in any of the surface soil samples on the Park parcel or Reservoir parcel. Dioxins and furans were detected in exceedance of the RG of 0.199 nanograms per kilogram (ng/kg) in the sample collected on the Asbestos Pile parcel. Chromium was detected in exceedance of the RG of 26 milligrams per kilogram (mg/kg) in three samples on the Asbestos Pile parcel, nine samples on the Park parcel, and five samples on the Reservoir parcel. Nickel and zinc were detected below their respective RGs in all of the surface soil samples. EPA's BTAG reviewed the ecological data and concluded that the contaminants detected in surface soils are not expected to pose an unacceptable risk because of the level of exceedances and the spatial distribution of the exceedances and that the growth of a healthy vegetative cover is expected to further ameliorate any residual risk (EPA 2018).

4.2 Reservoir Sediment Sampling Results

Reservoir sediment samples were prepared and analyzed for asbestos by PLM. There are no RGs for asbestos in sediment. Rather, successful remediation of sediment is assessed by achievement

of the Site-specific water-based RGs. Therefore, sediment sample results are presented for informational purposes only.

Reservoir sediment samples were prepared and analyzed using the same methods described above for soil. As seen on **Table 4-4**, asbestos was not detected in any reservoir sediment sample analyzed by PLM, which suggests that the selected remedy for the Site (capping reservoir sediment with clean material) has been successful in lowering asbestos concentrations in reservoir sediments. However, final conclusions about remedial effectiveness for reservoir sediment will be based on the results of surface water monitoring.

Reservoir sediment results for carbon disulfide and TOC are provided in **Table 4-5**. Carbon disulfide was not detected in any of the reservoir sediment samples. However, the quantitation limits (QLs) (ranging from 9.3 to 13 µg/kg) exceeded the RG of 4.1 µg/kg. The data validation report stated that samples with detected concentrations for target analytes less than the QLs were J-qualified (as estimated). Therefore, it can be assumed that if carbon disulfide had been detected at a level between the method detection limit (MDL) of 0.55 µg/kg and the QL, the result would have been J-qualified (and not U-qualified). This suggests that carbon disulfide concentrations in the sediment samples were not higher than the MDL and are likely below the RG. Additional sediment sampling will be performed in the future to confirm whether or not the carbon disulfide RG has been achieved. Mean TOC in the reservoir sediment ranged from 10,600 mg/kg to 25,000 mg/kg.

4.3 Surface Water Sampling Results

All surface water samples were analyzed for asbestos by TEM using high magnification (~20,000x) in accordance with the method and counting rules specified in EPA Method 100.1. **Table 4-6** presents measured surface water concentrations based on total asbestos and asbestos structures longer than 10 µm. As shown in the table, chrysotile was observed in four samples from Wissahickon Creek (three field samples and one field duplicate), and tremolite was also observed in the field duplicate sample. The water concentration for the field duplicate (7.7 MFL) was unexpected, because the corresponding field sample was non-detect for asbestos. It is possible that the discrete sampler used to collect the water stirred up the creek bed sediment during sample collection, as multiple attempts to collect sufficient water were necessary at the duplicate location. Asbestos present in Wissahickon Creek surface water suggests that the stream bed sediment may be an ongoing source of asbestos, especially when these sediments are disturbed. The mean surface water asbestos concentration in Wissahickon Creek was 2.0 MFL. Actinolite was observed in one sample from the reservoir. The mean surface water asbestos concentration in the reservoir was 0.55 MFL. The mean concentration for surface water in both the reservoir and Wissahickon Creek are above the RG.

EPA's BTAG reviewed the ecological data and concluded that the detected asbestos concentrations in the reservoir surface water are not expected to represent an ongoing risk to ecological receptors, because results of reservoir sediment did not indicate the presence of asbestos (EPA 2018). Consistent with BTAG's recommendation, additional surface water samples will be collected to evaluate if there continue to be exceedances of the RG in the future.

As illustrated in **Table 4-6**, none of the surface water analyses achieved the target analytical sensitivity (TAS) (33 per liter [L^{-1}]) as specified in the SMP (CDM Smith 2018b), because it is not analytically feasible (it is not possible to examine the number of grid openings needed to achieve a sensitivity lower than the RG). The fact that the TAS was not achieved does not negatively impact the reported concentration for detected samples or the estimated mean concentration (i.e., the concentrations are not biased). Achieving the TAS is most important when results are non-detect to allow for the interpretation of these results relative to the RG. Thus, even if future sampling efforts yield all non-detect results, because the achieved sensitivity will be above the RG, it will not be possible to analytically demonstrate that concentrations are below the RG. As such, EPA may consider changing the ecological RG for asbestos in surface water in a future decision document to accommodate analytical limitations of the TEM method.

Reservoir surface water sample results for inorganic compounds, general chemistry, microbial analysis, and water quality are provided in **Table 4-7**. RGs were not established in the ROD for general chemistry, microbial, or metals results in reservoir surface water; however, these data can be used to evaluate potential changes in ecological habitat within the reservoir following draining and refilling.

4.4 Ambient Air Sampling Results

Ambient air samples were analyzed for asbestos by TEM in basic accordance with the counting rules specified in ISO 10312:1995(E) (ISO 1995). **Table 4-8** presents measured ambient air concentrations based on PCME asbestos. One ambient air sample (CSCMAA-107B-AH101) was rejected during validation because of uncertainty surrounding the sample volume; the LV sample for this location was analyzed and was non-detect. One ambient air sample (CSCMAA-103-AH101) was UJ-qualified during validation, because a pump fault occurred during sample collection and the stop flow rate was estimated. Ferro-actinolite (a non-regulated amphibole) was observed in one sample located at the Post Office employee parking lot. The mean PCME air concentration, including the Post Office sample, was 0.000053 s/cc, which is below the ambient air RG (0.001 s/cc).

Ambient air results demonstrate that asbestos concentrations in the surrounding community continue to be low and are below a level of potential concern.

4.5 Activity Based Air Sampling Results

ABS air samples were analyzed for asbestos by TEM in basic accordance with the counting rules specified in ISO 10312:1995(E) (ISO 1995). ABS air samples collected in support of human health are presented on **Table 4-9a,** and ABS air samples collected in support of ecological (burrowing mammals) are presented on **Table 4-9b**. **Table 4-9a** and **Table 4-9b** present measured ABS air concentrations based on PCME asbestos. For personal and perimeter samples, where both HV and LV samples were collected, HV cassettes were analyzed whenever possible. However, if the HV filter was determined to be overloaded, either the LV filter was evaluated for analysis by direct preparation, or the HV filter was used by applying an indirect sample preparation technique in basic accordance with the preparation methods specified in ISO Method 13794 (ISO 1999). **Table**

4-9a shows whether HV or LV cassettes were analyzed and whether direct or indirect preparation was utilized. As shown, asbestos structures were not observed in any of the ABS air samples, and asbestos air concentrations were non-detect in all samples. As noted previously, in accordance with the ISO 10312 method, non-detect results are reported as less than the Poisson 95UCL, meaning there is less than a 5% probability that the true concentration for the sample is higher than this upper limit value.

For six human health ABS air samples, the achieved analytical sensitivity was higher than the TAS, which resulted in a reported Poisson 95UCL above the ABS air RG of 0.04 s/cc. While the higher analytical sensitivity does not negatively impact the reported result (i.e., the results are not biased), the probability that the true concentration is below the RG may be lower than 95% (e.g., the probability may only be 80%). As noted previously, during the ABS there were two types of human health air monitors – one was worn by the ABS sampling personnel (referred to as 'personal ABS') and the other was on a stationary monitor located on the edge of the ABS area (referred to as 'perimeter ABS'). When making comparisons to RGs, the personal ABS samples are preferred to the perimeter ABS samples, as they are most representative of air within the sampling personnel's breathing zone. In all cases, if the personal ABS samples collected at the adult or child height had an estimated Poisson 95UCL above the RG, the corresponding personal ABS sample at the other height for the same sampling location was below the RG, which supports the conclusion that the true air concentration is likely to be below the RG.

For the purposes of making comparisons to the ABS air RG, the mean ABS air concentrations for perimeter and personal air were estimated as the average across the Poisson 95UCL values (see **Table 4-9a**). Because each Poisson 95UCL value represents an upper limit, this approach effectively assumes the air concentration for every sample is represented at its upper limit in the calculation of the average, which results in a high-end estimate of the exposure.

For the Asbestos Pile parcel, mean ABS air concentrations are less than the RG. For the Park parcel, the mean personal ABS air concentration at the adult height is less than the RG, but slightly above the RG based on the child height and perimeter data. As noted above, the true mean ABS air concentration is likely to be lower than the estimated mean value (i.e., the reported value represents a conservative high-end of the potential exposure). These ABS air results demonstrate that estimated exposures to airborne asbestos during soil disturbance activities would likely result in a cancer risk less than $1x10^{-4}$, and post-construction conditions are protective of human health.

All ecological ABS air samples were non-detect, and the Poisson 95UCL values were well below the ecological RG for air (25 s/cc). This also supports the conclusion that ecological exposures under post-construction conditions are protective of ecological health.

ABS soil samples were analyzed for asbestos by PLM using point counting in accordance with EPA/600/R-93/116 (EPA 1993). **Table 4-10** presents measured ABS soil concentrations. As

shown, asbestos was not observed in any of the ABS soil samples, which is consistent with the ABS air sampling results.

4.6 Quality Control

Soil, sediment, surface water, ambient air, ABS air, and ABS soil samples were collected in accordance with procedures specified in the SMP (CDM Smith 2018b). All the data generated during this confirmatory sampling were evaluated to determine whether they meet the quality objectives and user requirements outlined in the SMP (CDM Smith 2018b). Any deviations from the SMP are documented in **Appendix H**. Changes to sample locations designated in the SMP are documented in **Table 4-11.** All data were validated either by the EPA Region III Environmental Services Assistance Team (ESAT) using EPA Contract Laboratory Program (CLP) data validation procedures, or internally by CDM Smith. All data generated were validated in accordance with the *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA 2017b), the *National Functional Guidelines for Organic Superfund Methods Data Review* (EPA 2017c), *TEM Validation Process Guidelines for Asbestos Data Review* (EPA 2016a), *PLM Validation Process Guidelines for Asbestos Data Review* (EPA 2016b), *and Dioxin/Furan Data Validation Guidance* (EPA 1999). Definitions for the qualifier flags used by ESAT and CDM Smith's internal qualifiers to qualify the data are provided as footnotes on **Tables 4-2** through **4-10.** A data quality assessment is provided in **Appendix H.**

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Section 5

Final Inspection and Certifications

A pre-final inspection of the Site was conducted on May 30, 2018, and this inspection is documented in the Pre-Final Inspection Report in **Appendix D.** During this inspection, breaches to the soil cap and evidence of ACM or debris were not observed on any of the Site parcels. A crack in the soil along the spillway to Rose Valley Creek was observed; however, this crack was repaired during the ramp and spillway repair activities completed on August 24, 2018. Trees on the Site did not show evidence of windthrows or topping. The Park parcel was generally observed to be lacking vegetation on flat areas, where rocky fill was observed, and invasive species were identified throughout the capped areas. Some damage from deer and trees was observed to the fence in addition to missing fence posts on the Park parcel. Items that were identified during the Pre-Final Inspection that require follow-up action by EPA include:

- Perimeter fence repairs
- Invasive species removal
- Monitoring well/piezometer abandonment (conducted in September 2018)
- Establish vegetative cover on the Park parcel plateau
- Place additional stone and seed at the toe of Asbestos Pile access ramp

The Final Inspection is expected to occur in October 2018 after the items on the punch list have been resolved.

All on-Site activities adhered to the HASP. No problems or deviations from the HASP occurred.

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Section 6

Operation and Maintenance Activities

The O&M activities prescribed in the ROD were performed as part of the Remedial Action work discussed in Section 2. O&M of the Engineering Controls will be performed throughout the life of the Selected Remedy to ensure that the capping and stream bank stabilization remain protective of human health and the environment. An O&M Plan was prepared for the Site which details activities for inspecting and maintaining all components of the remedy (CDM Smith 2018c). The O&M Plan is a living document that will be updated at a minimum of every five years, coinciding with FYRs, or more frequently, as needed. Creek and reservoir data will continue to be monitored to evaluate the impacts of various weather events on the Selected Remedy.

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Section 7
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Section 8
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Figures

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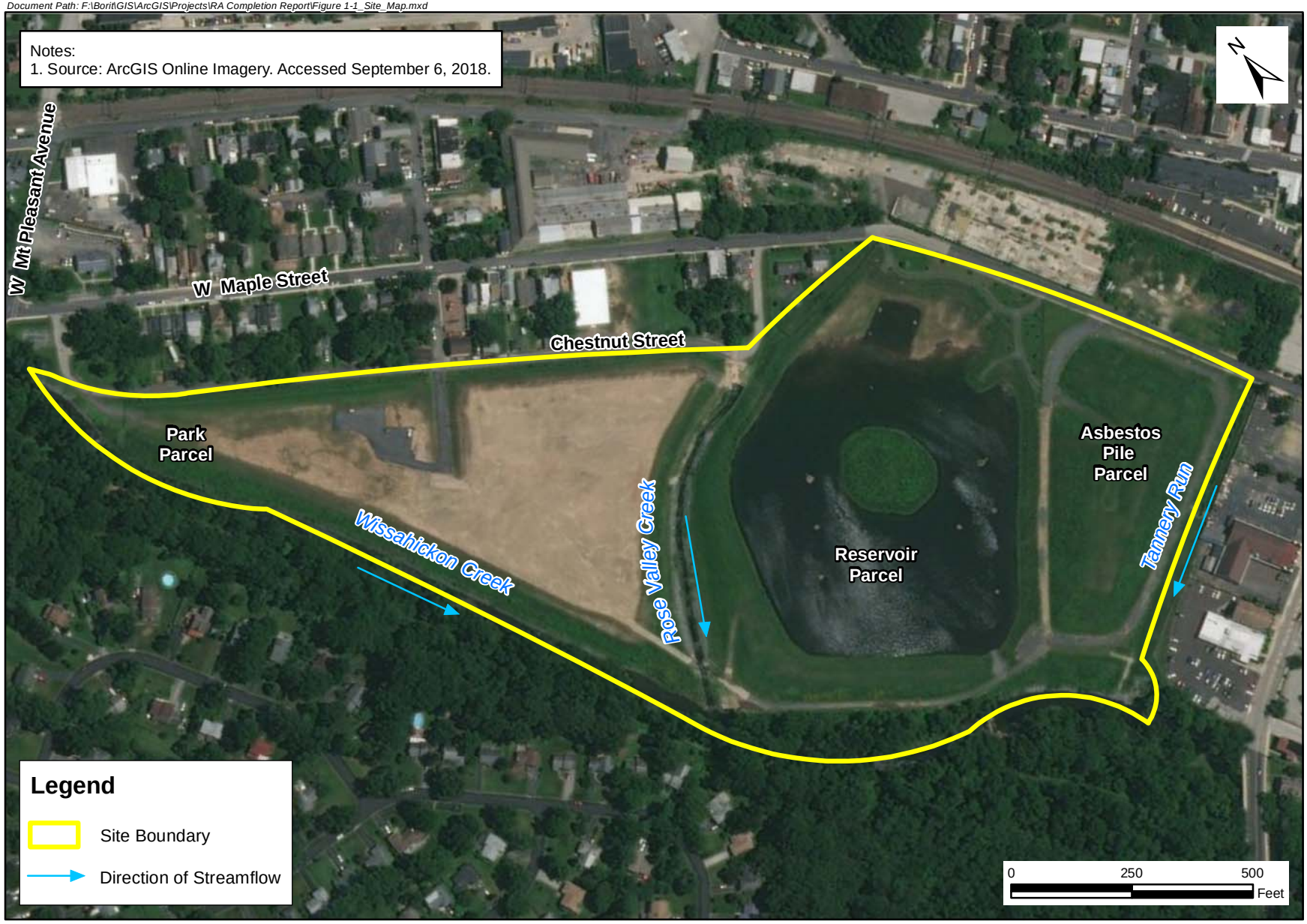

CDM Smith

BoRit Asbestos Superfund Site
Operable Unit 1
Ambler, Pennsylvania

Figure 1-1
Site Map

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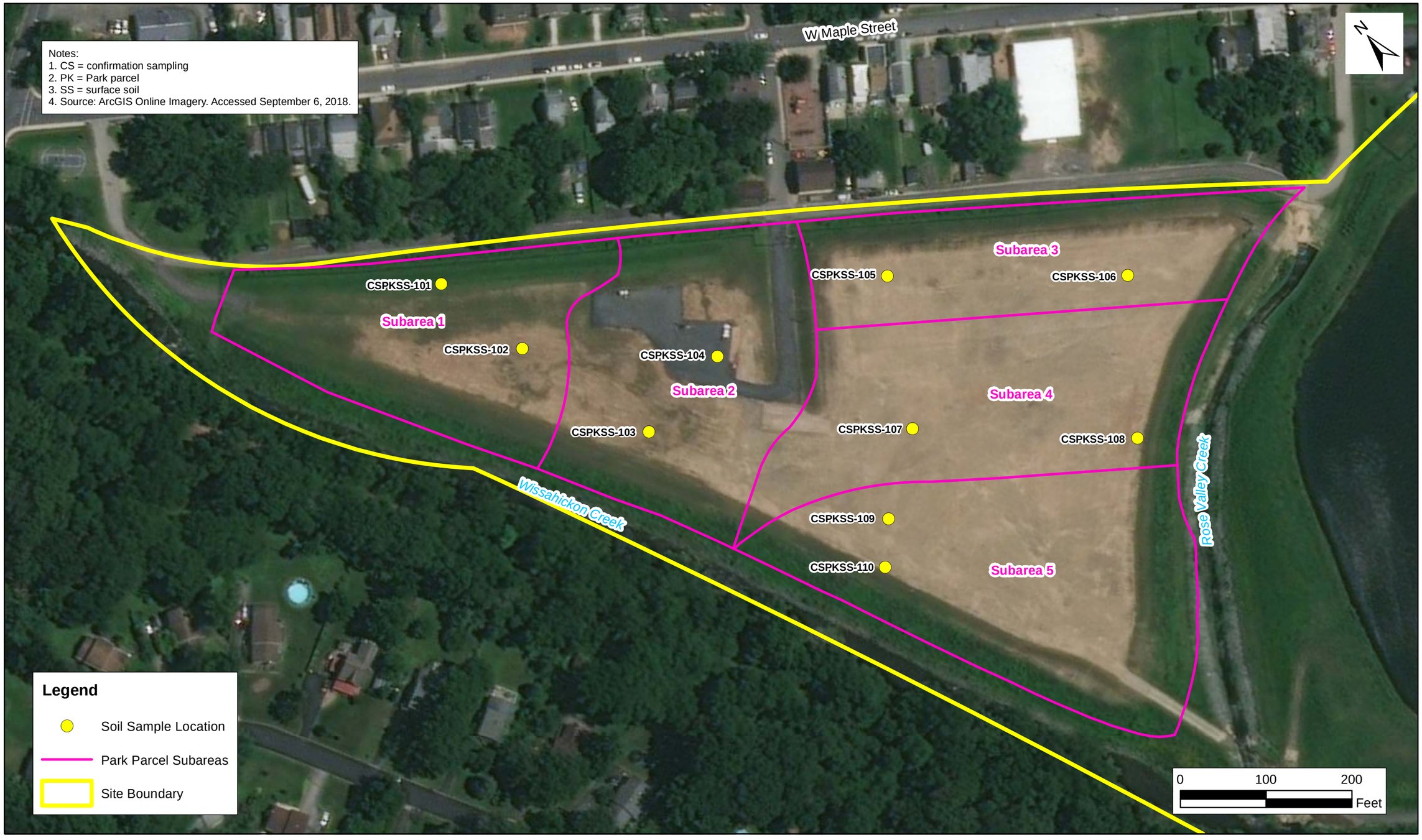

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Operable Unit 1
Ambler, Pennsylvania

Figure 2-1
Confirmation Sampling Locations for
Surface Soil Sampling - Park Parcel

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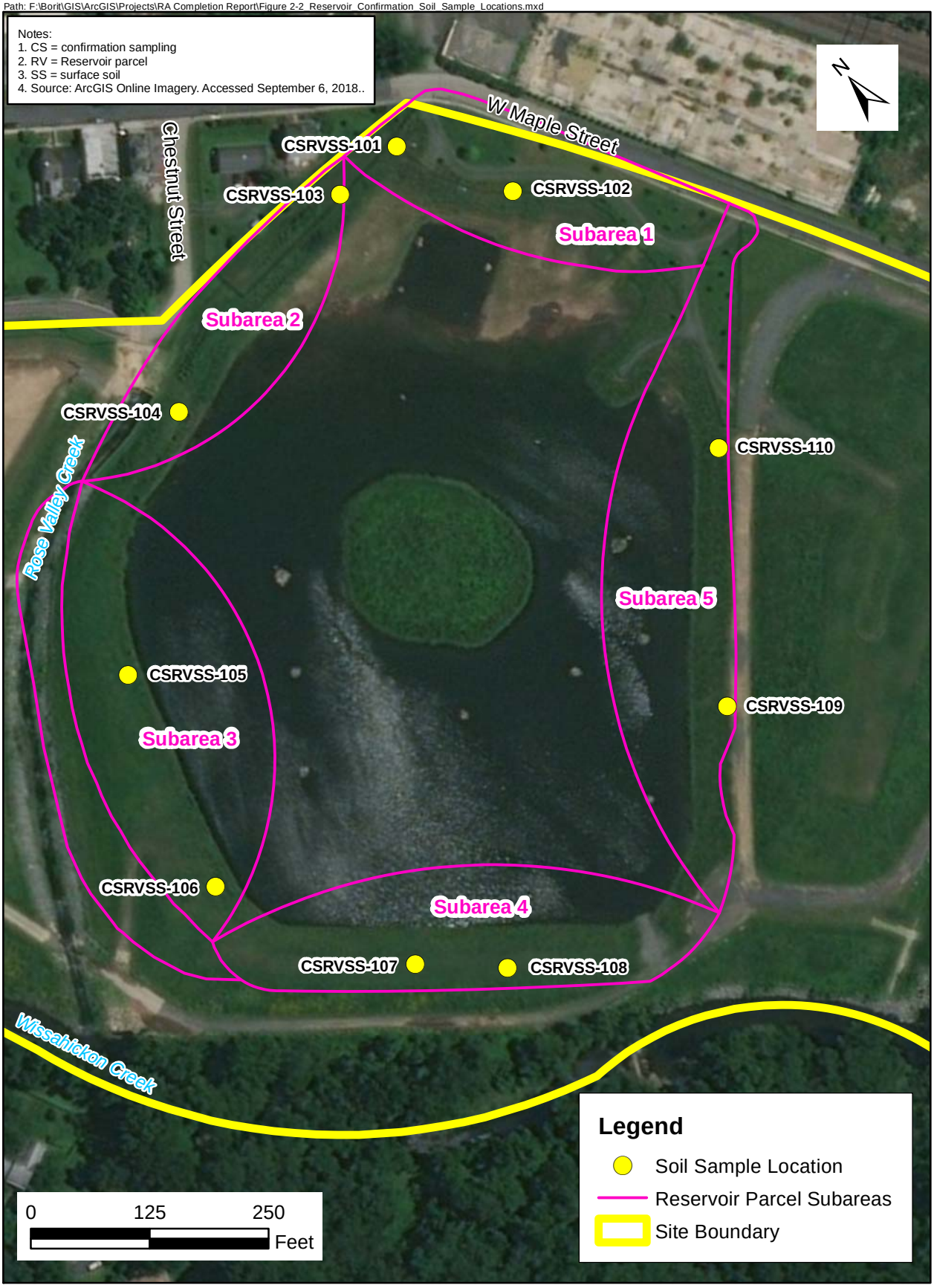

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Figure 2-2
Confirmation Sampling Locations for
Surface Soil Sampling
Reservoir Parcel

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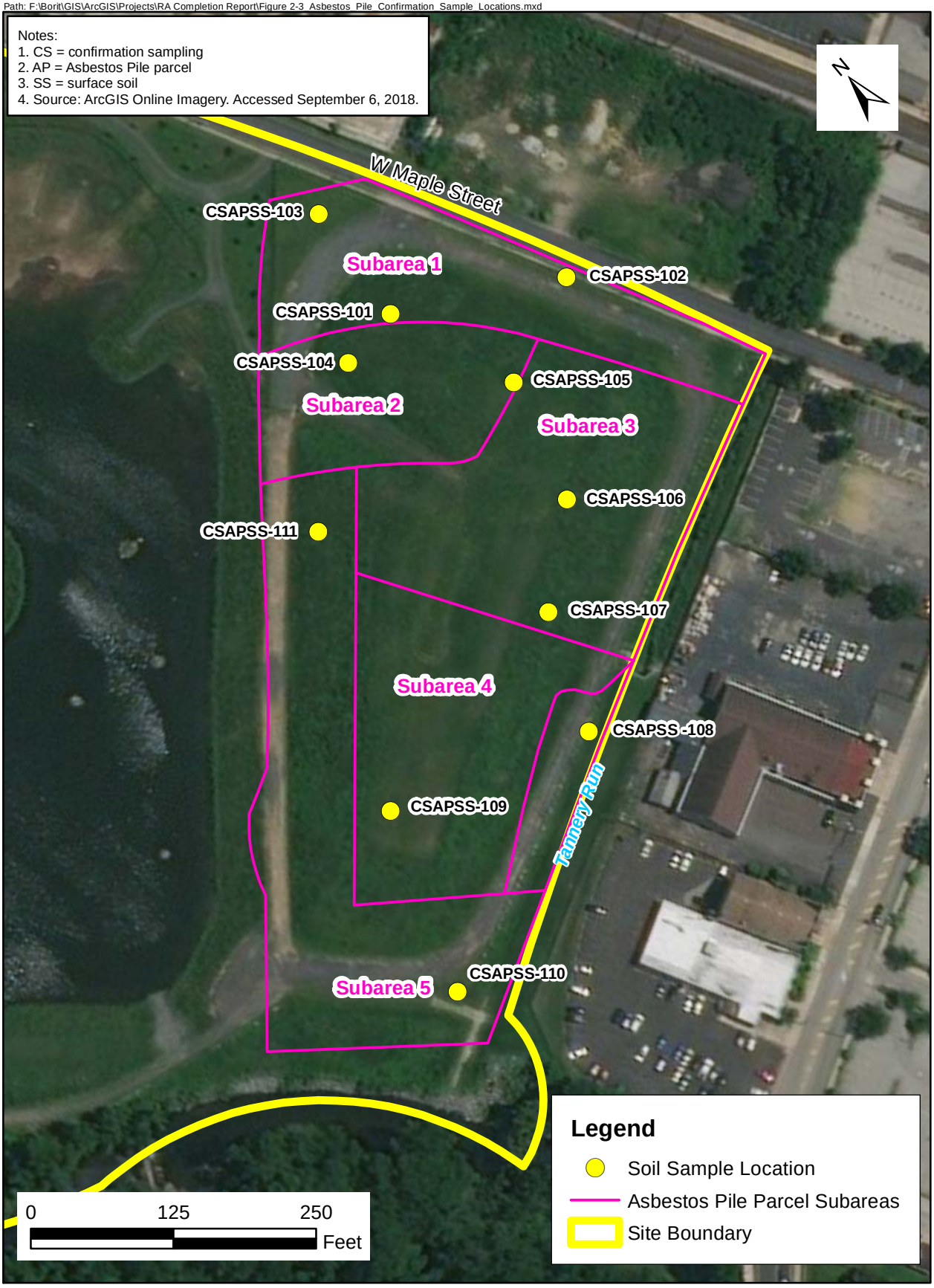

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Operable Unit 1
Ambler, Pennsylvania

Figure 2-3
Confirmation Sampling Locations for
Surface Soil Sampling
Asbestos Pile Parcel

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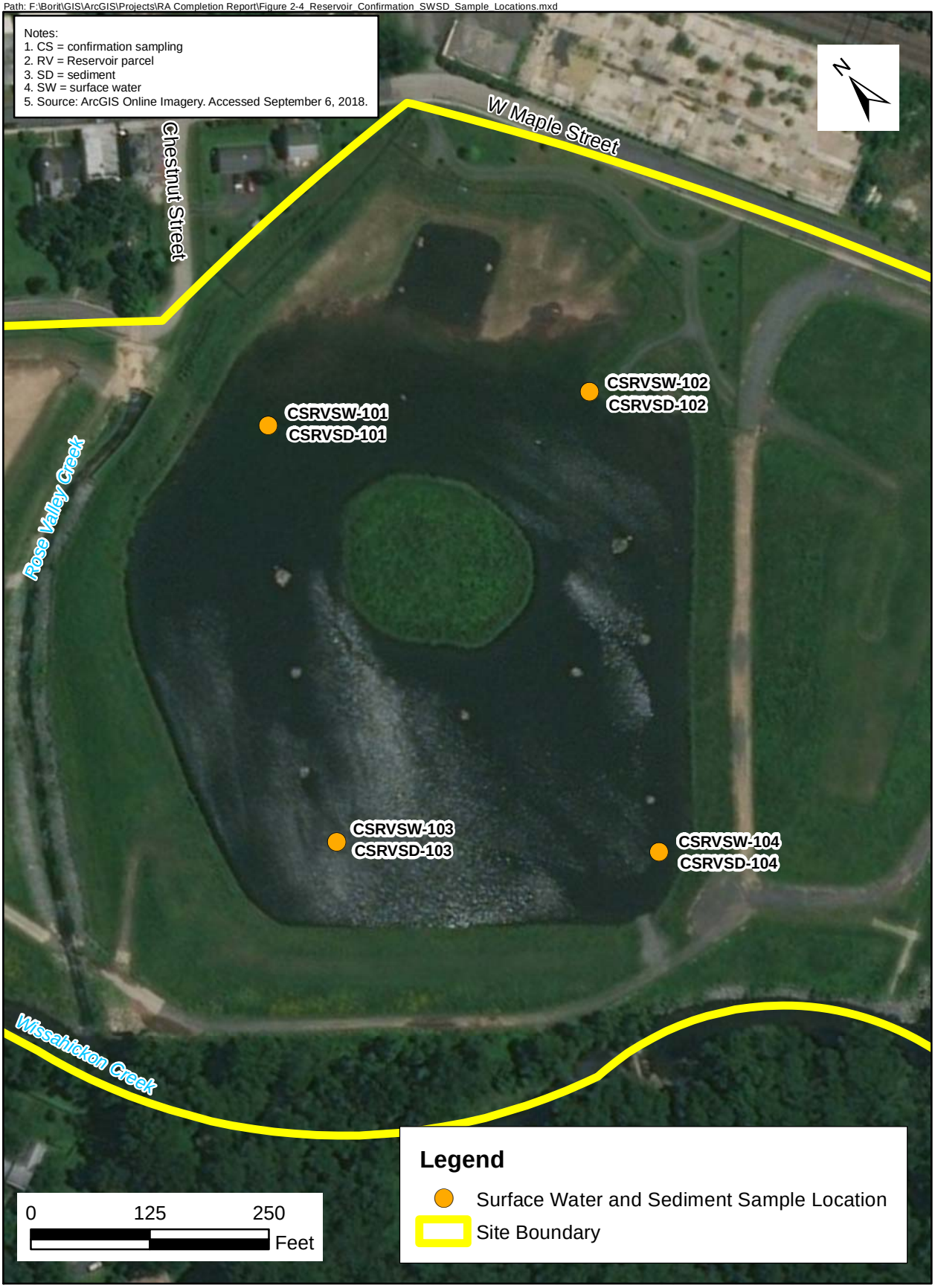

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BoRit Asbestos Superfund Site
Operable Unit 1
Ambler, Pennsylvania

Figure 2-4
Confirmation Sampling Locations for Surface Water and Sediment Sampling Reservoir Parcel

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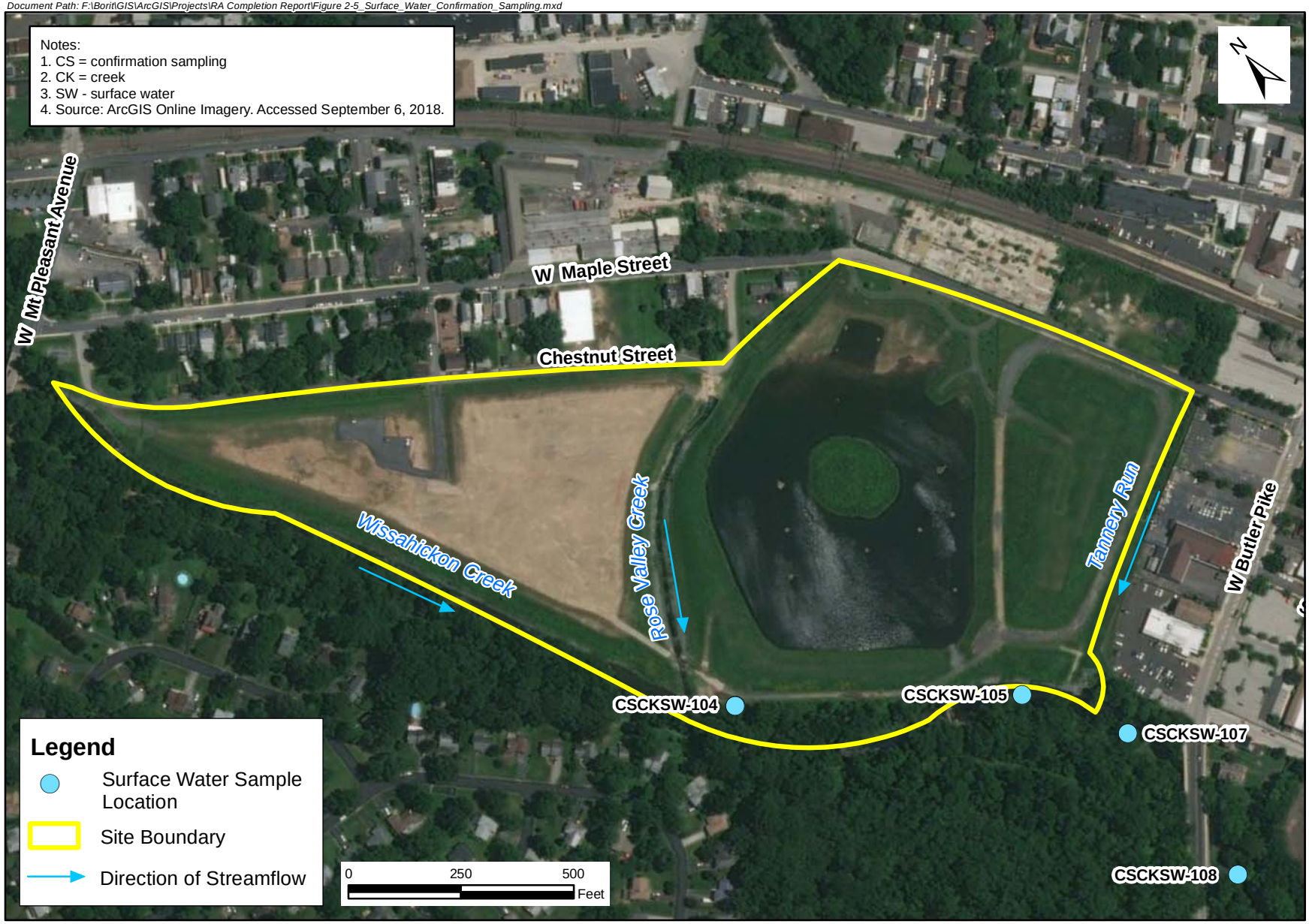

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Ambler, Pennsylvania

Figure 2-5
Confirmation Sampling Locations for
Wissahickon Creek Surface Water

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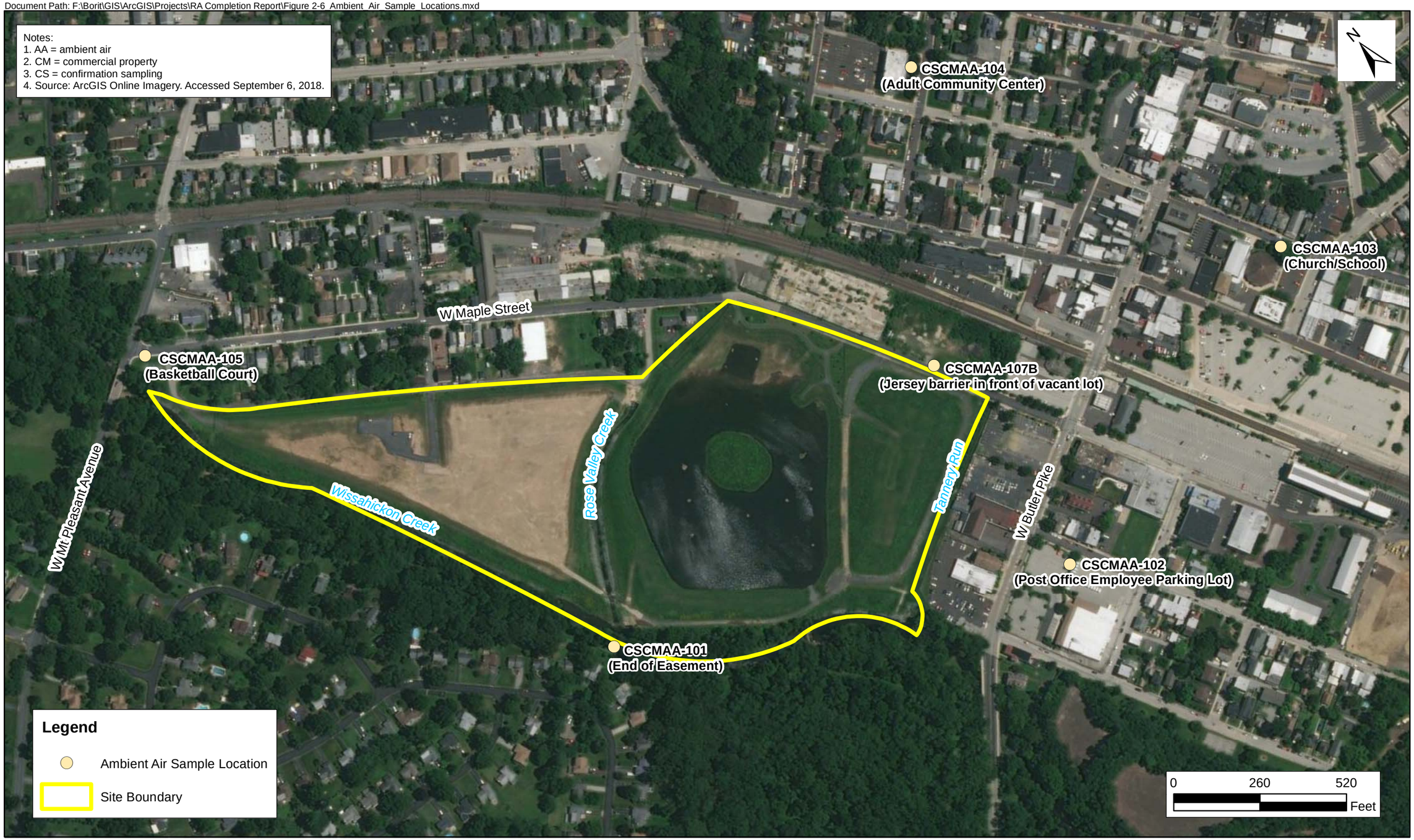

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BoRit Asbestos Superfund Site
Operable Unit 1
Ambler, Pennsylvania

Figure 2-6
Confirmation Sampling Locations for
Ambient Air Sampling

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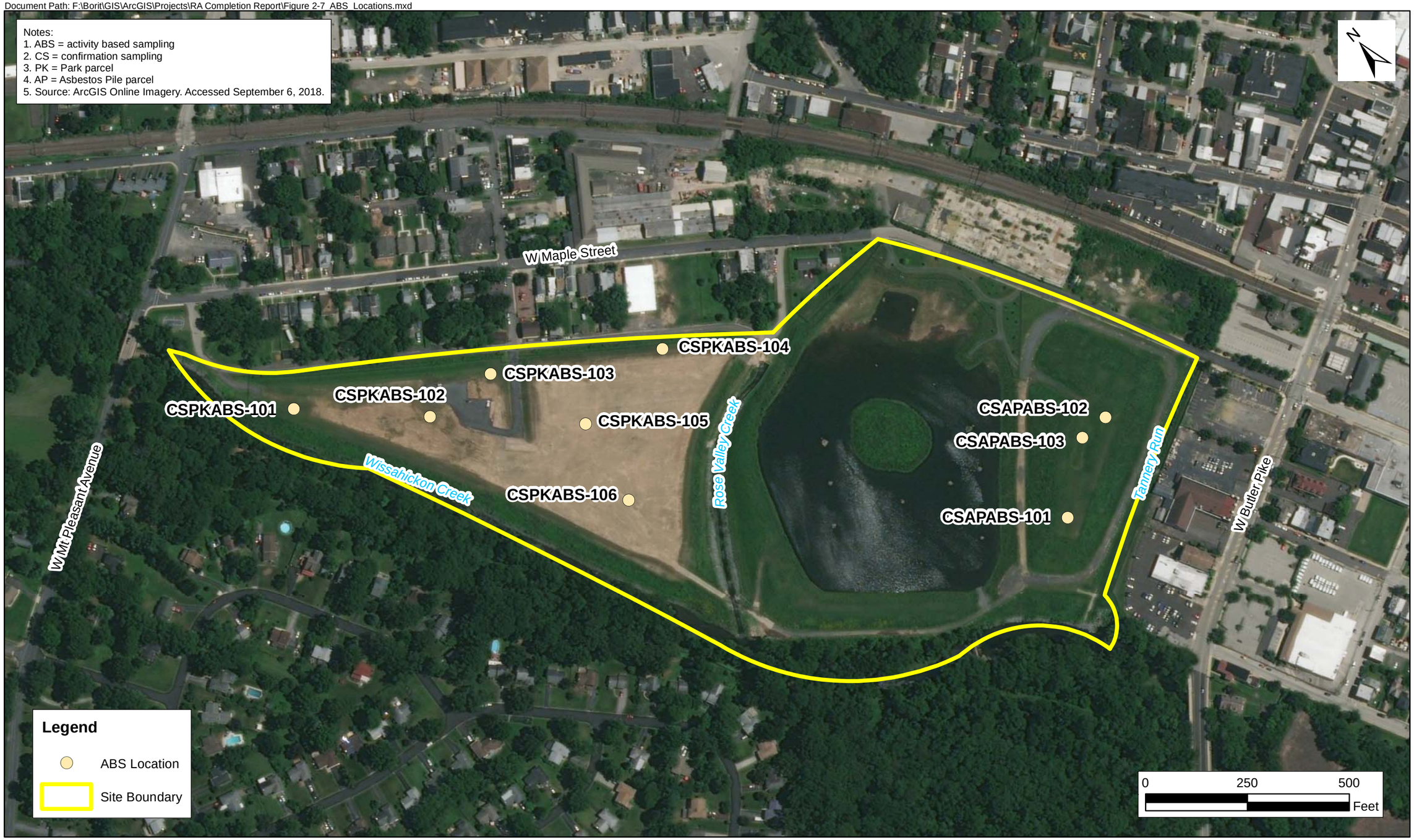
Notes:
1. ABS = activity based sampling
2. CS = confirmation sampling
3. PK = Park parcel
4. AP = Asbestos Pile parcel
5. Source: ArcGIS Online Imagery. Accessed September 6, 2018.



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BoRit Asbestos Superfund Site
Operable Unit 1
Ambler, Pennsylvania

Figure 2-7
Confirmation Sample Locations for ABS

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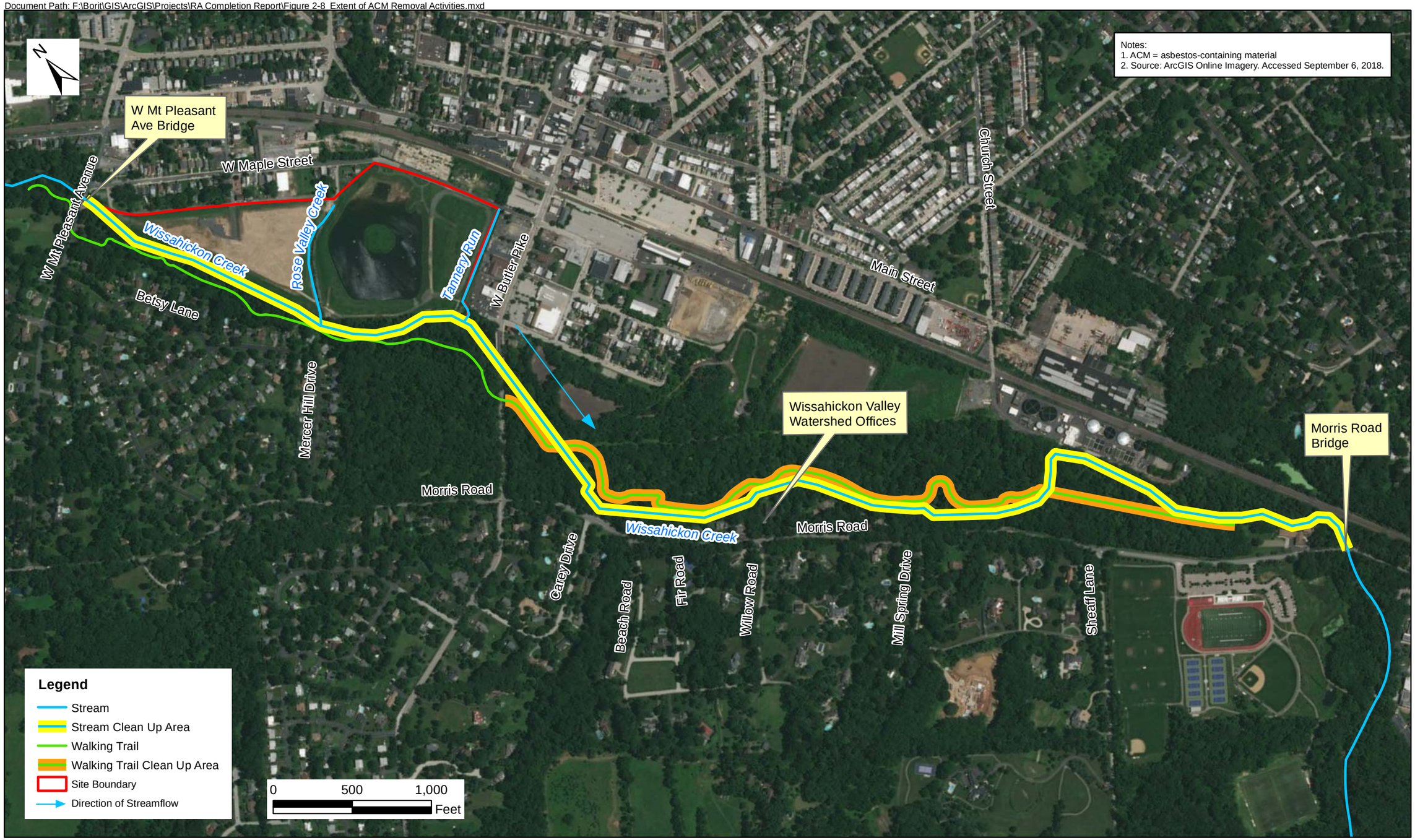

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BoRit Asbestos Superfund Site
Operable Unit 1
Ambler, Pennsylvania

Figure 2-8
Extent of ACM Removal Activities

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Waterbody	Staff Gauges	Elevation (ft amsl)
Rose Valley Creek	SG-A	174.76
Wissahickon Creek	SG-B	172.15
Reservoir	SG-C	184.03
Tannery Run	SG-D	186.35

Waterbody	Telemetry Boxes	Elevation (ft amsl)
Rose Valley Creek	RP-1	192.74
Wissahickon Creek	RP-2	199.08
Tannery Run	RP-3	195.76

Waterbody	Stream Bank End Points	Elevation (ft amsl)
Rose Valley Creek	East Bank	181.34
	West Bank	182.38
Wissahickon Creek	East Bank	180.57
	West Bank	178.25
Tannery Run	East Bank	191.49
	West Bank	192.5

Waterbody	Data Loggers	Elevation (ft amsl)
Rose Valley Creek	DL-A	174.75
Wissahickon Creek	DL-B	172.08
Reservoir	DL-C	185.06
Tannery Run	DL-D	186.46

Notes:
1. ADP - acoustic doppler profiler
2. DL - data logger
3. ft amsl - feet above mean sea level
4. RP - reference point
5. Source: ArcGIS Online Imagery. Accessed September 6, 2018.
6. Stream bank end point elevations were measured perpendicular to the stream channel at the data logger locations.

CDM Smith

BoRit Asbestos Superfund Site
Operable Unit 1
Ambler, Pennsylvania

Figure 2-9
Gauging Stations

Tables

Table 1-1
Target Media, Chemicals of Concern, and Remediation Goals
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Chemical of Concern [1]	Remediation Goals		Basis	Notes
	Medium [2]	Value		
Soil/Waste				
Asbestos	Air - ABS	0.04 s/cc (PCME)	Human Health Protection	Target cancer risk of 1E-04; based on PCME structures
	Air - ambient	0.001 s/cc (PCME)		
	Air	25 s/cc (WHO)	Ecological Protection; NOAEL TRV	NOAEL for inhalation by burrowing mammals; based on WHO structures
Bis(2-ethylhexyl)phthalate	Soil	925 µg/kg	Ecological Protection; ESL	EPA Region 5 BTAG ESL (8/22/03); based on masked shrew
Dioxins and Furans	Soil	0.199 ng/kg	Ecological Protection; ESL	EPA Region 5 BTAG ESL (8/22/03); based on masked shrew
Chromium	Soil	26 mg/kg	Ecological Protection; ESL	EPA EcoSSL for birds; based on trivalent chromium
Nickel	Soil	38 mg/kg	Ecological Protection; ESL	EPA EcoSSL for plants
Zinc	Soil	104 mg/kg	Ecological Protection; Maximum background concentration	EPA EcoSSL for birds (46 mg/kg); set equal to maximum background
Reservoir [3]				
Asbestos	Surface Water	0.0001 MFL (Total)	Ecological Protection; ESL	NOAEL for clam exposure; based on total structures
Carbon Disulfide	Sediment	4.1 µg/kg	Ecological Protection; ESL	EPA Region 3 BTAG freshwater sediment value, adjusted for organic content

Notes:

1. Asbestos is the dominant environmental concern and primary risk driver at the BoRit Site. RAOs are focused on preventing release of asbestos from source material and preventing exposure to asbestos in both source material and primary exposure media. The remaining chemicals of concern in the table are likely attributed to source material or past activities at the Site and the remedial action implemented to address asbestos in source material will address these additional contaminants. Although the HHRA and SLERA proposed additional COPCs, including COPCs for groundwater, surface water, and seep water beyond those listed above, those remaining COPCs were not included because they are not considered to be related to past Site activities (i.e., they come from off the Site or occur naturally at elevated levels in the soil) or they no longer occur at concentrations of concern.
2. Groundwater, surface water, and seep water are not considered target media. The RI data suggest that the presence of ACM and other contaminants in soil has not resulted in a Site-related groundwater contaminant plume or location with levels above the MCL of 7 MFL. Additionally, although PAHs were found above soil RSLs in many samples, they were not detected in the upper bedrock aquifer, and only one SVOC, bis(2-ethylhexyl)phthalate, was detected in groundwater at concentrations above the RSL. The detections of bis(2-ethylhexyl)phthalate above the RSL were limited to samples collected from MW-02, MW-05, and MW-06 in the first round of sampling conducted in 2010. Bis(2-ethylhexyl)phthalate was not detected in any of the three subsequent rounds of sampling completed at these wells in 2013. Manganese, which occurred at high concentrations in two wells that are not hydraulically connected to each other and which do not constitute a plume, is not a Site-related COPC in contaminated soil or waste and does not appear to be related to historical Site activities.
3. Even though asbestos was not detected at levels that potentially posed a risk in the SLERA, the reservoir bench study (discussed in Section 1.6 of the FS and in detail in the RI Addendum) demonstrated that reservoir surface water is directly affected by the reservoir sediment and sediment disturbances can result in elevated asbestos concentrations in surface water . Therefore, EPA used a conservative approach and assumed that asbestos is also a potential ecological risk in reservoir sediment.
4. Ecological soil screening levels for asbestos are not available. Successful remediation of source soil will be assessed by achievement of the Site-specific air RG for ecological receptors.

Notes:

µg/kg = micrograms per kilogram
ABS = activity-based sampling
ACM = asbestos-containing material
BTAG = EPA Biological Technical Assistance Group
COPC = chemical of potential concern
EcoSSL = ecological soil screening level
EPA = United States Environmental Protection Agency
ESL = ecological screening level
FS = Feasibility Study
HHRA = Human Health Risk Assessment
MCL = maximum contaminant level
MFL = million fibers per liter
mg/kg = milligrams per kilogram
ng/kg = nanograms per kilogram
NOAEL = no observed adverse effect level
PAHs = polycyclic aromatic hydrocarbons
PCME = phase contrast microscopy equivalent
RAO = remedial action objective
RG = remediation goal
RI = remedial investigation
RSL = regional screening level
s/cc = structures per cubic centimeter
SLERA = Screening Level Ecological Risk Assessment
SVOC = Semivolatile organic compound
TRV = toxicity reference value
WHO = World Health Organization

Table 4-1
Confirmation Sampling, 2018
Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos PLM	Asbestos TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
ABS Personal Air Sampling	ABS Air	APABS-101	CSAPABSA-101-AH101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-AL101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-CH101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-CL101	N		7/20/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-AH101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-AL101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-CH101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-CL101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-AH101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-AL101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-CH101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-CL101	N		7/19/2018	--			X													
	ABS Air	APABS-101	CSAPABSE-101	N		7/20/2018	--			X													
	ABS Air	APABS-102	CSAPABSE-102	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSE-103	N		7/19/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-AH101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-AL101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-CH101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-CL101	N		7/19/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-AH101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-AL101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-CH101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-CL101	N		7/19/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSE-101	N		7/20/2018	--			X													
	ABS Air	PKABS-102	CSPKABSE-102	N		7/19/2018	--			X													
	ABS Air	PKABS-103	CSPKABSE-103	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSE-104	N		7/20/2018	--			X													
	ABS Air	PKABS-105	CSPKABSE-105	N		7/19/2018	--			X													
	ABS Air	PKABS-106	CSPKABSE-106	N		7/20/2018	--			X													
	Quality Control	AP-01	CSPKABS-601	LB		5/21/2018	--			X													
	Quality Control	AP-01	CSPKABS-602	LB		5/21/2018	--			X													
	Quality Control		CSPKABSA-401	FB		7/19/2018	--			X													
	Quality Control		CSPKABSA-402	FB		7/20/2018	--			X													

Table 4-1
Confirmation Sampling, 2018
Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos PLM	Asbestos TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
ABS Perimeter Air Sampling	Perimeter Air	APABS-101	CSAPABSP-101-AH101	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AH102	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AL101	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AL102	N		7/20/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AH101	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AH102	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AL101	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AL102	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AH101	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AH102	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AL101	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AH101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AH102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AL101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AH101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AH102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AL101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AL102	N		7/20/2018	--			X													
ABS Soil Sampling	Soil	APABS-101	CSAPABS-101	N		7/18/2018	0 - 0.25		X														
	Soil	APABS-102	CSAPABS-102	N		7/18/2018	0 - 0.25		X														
	Soil	APABS-103	CSAPABS-103	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-101	CSPKABSS-101	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-102	CSPKABSS-102	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-103	CSPKABSS-103	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-104	CSPKABSS-104	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-105	CSPKABSS-105	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-106	CSPKABSS-106	N		7/18/2018	0 - 0.25		X														
Ambient Air Sampling	Ambient Air	CM-101	CSCMAA-101-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-102	CSCMAA-102-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-103	CSCMAA-103-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-104	CSCMAA-104-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-105	CSCMAA-105-AH101	N		6/7/2018	--			X													
	Ambient Air	CM-107B	CSCMAA-107B-AH101	N		6/7/2018	--			X													
	Quality Control	CM-101	CSCMAA-101-400	FB		5/25/2018	--			X													
	Quality Control	CM-105	CSCMAA-105-400	FB		6/8/2018	--			X													

Table 4-1
Confirmation Sampling, 2018
Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos PLM	Asbestos TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Sediment Sampling	Sediment	RV-01	CSRVSD-101	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-02	CSRVSD-102	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-03	CSRVSD-103	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-04	CSRVSD-104	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-01	CSRVSD-201	FD	CSRVSD-101	4/26/2018	0 - 0.5		X												X	X	
	Quality Control	TB-01	CSRVSD-301	TB		4/26/2018	--															X	
	Quality Control	RB-04	CSRVSD-503	RB		4/26/2018	--															X	
Soil Sampling	Soil	AP01-01	CSAPSS-101	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-02	CSAPSS-102	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-03	CSAPSS-103	N		4/27/2018	0 - 0.5				X												
	Soil	AP02-01	CSAPSS-104	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP02-01	CSAPSS-105	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP02-02	CSAPSS-106	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP03-01	CSAPSS-107	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP03-02	CSAPSS-108	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP04-01	CSAPSS-109	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP04-02	CSAPSS-110	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP05-02	CSAPSS-111	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-03	CSAPSS-203	FD	CSAPSS-103	4/27/2018	0 - 0.5				X												
	Soil	PK01-01	CSPKSS-101	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK01-02	CSPKSS-102	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK02-01	CSPKSS-103	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK02-02	CSPKSS-104	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK03-01	CSPKSS-105	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK03-02	CSPKSS-106	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK04-01	CSPKSS-107	N		4/25/2018	0 - 0.5		X				X					X					
	Soil	PK04-02	CSPKSS-108	N		4/25/2018	0 - 0.5		X				X					X					
	Soil	PK05-01	CSPKSS-109	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	PK05-02	CSPKSS-110	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	PK01-01	CSPKSS-201	FD	CSPKSS-101	4/24/2018	0 - 0.5		X				X					X					
	Soil	PK05-02	CSPKSS-210	FD	CSPKSS-110	4/26/2018	0 - 0.5		X				X					X					
	Soil	RV01-01	CSRVSS-101	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV01-02	CSRVSS-102	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV02-01	CSRVSS-103	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV02-02	CSRVSS-104	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV03-01	CSRVSS-105	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV03-02	CSRVSS-106	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV04-01	CSRVSS-107	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	RV04-02	CSRVSS-108	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	RV05-01	CSRVSS-109	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV05-02	CSRVSS-110	N		4/26/2018	0 - 0.5		X				X					X					
	Quality Control	RB-03	CSAPSS-503	RB		4/27/2018	--				X												
	Quality Control	RB-01	CSPKSS-501	RB		4/24/2018	--						X					X					
	Quality Control	RB-02	CSPKSS-502	RB		4/27/2018	--						X					X					

Table 4-1
Confirmation Sampling, 2018
Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos PLM	Asbestos TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Surface Water Sampling	Surface Water	CKSW-04	CSCKSW-104	N		4/27/2018	0.9 - 1.3			X													
	Surface Water	CKSW-05	CSCKSW-105	N		4/27/2018	0.5			X													
	Surface Water	CKSW-07	CSCKSW-107	N		4/27/2018	0.5			X													
	Surface Water	CKSW-08	CSCKSW-108	N		4/27/2018	1.0			X													
	Surface Water	CKSW-04	CSCKSW-204	FD	CSCKSW-104	4/27/2018	0.9 - 1.3			X													
	Surface Water	RVSW-01	CSRVSW-101	N		4/25/2018	2.5 - 3.0	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-01	CSRVSW-101	N		5/1/2018	2.5 - 3.0																X
	Surface Water	RVSW-02	CSRVSW-102	N		4/25/2018	2.0 - 2.5	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-02	CSRVSW-102	N		5/1/2018	2.0 - 2.5																X
	Surface Water	RVSW-03	CSRVSW-103	N		4/25/2018	5.3 - 5.8	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-03	CSRVSW-103	N		5/1/2018	5.3 - 5.8																X
	Surface Water	RVSW-04	CSRVSW-104	N		4/25/2018	5.5 - 6.0	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-04	CSRVSW-104	N		5/1/2018	5.5 - 6.0																X
	Quality Control	FB-01	CSCKSW-401	FB		4/27/2018	--			X													

Notes:

X = analyzed
ABS = activity based sampling
Al = aluminum
Ca = calcium
Cr = chromium
E. Coli = Escherichia coli
FB = field blank
FD = field duplicate
Fe = iron
LB = lot blank
Mg = magnesium
Mn = manganese
N = normal field sample
Ni = nickel
PLM = polarized light microscopy
RB = rinsate blank
TB = trip blank
TEM = transmission electron microscopy
Zn = zinc

Analytical Methods:

Alkalinity = SM2320B
Asbestos - PLM = PLM EPA 600/R
Asbestos - TEM = TEM EPA 100.1
Dioxins/ Furans = E1613
E. Coli = SM9223B
Hardness = E200.7
Metals (Ca, Mg) = E200.7
Metals (Al, Fe, Mn) = E200.8
Metals (Cr, Ni, Zn) = E200.7
Nitrogen = E353.2
Phosphorus = E365.4
Semivolatile Organic Compounds = E625
Sulfate = E300.0
Total Dissolved Solids = SM2540C
Total Organic Carbon = SM5310B
Volatile Organic Compounds = E524.2 (Trace)/E624 (Low)

Table 4-2
Confirmation Sampling, Spring 2018
Matrix: Surface Soil (0-6 inches bgs) - Asbestos Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

						PLM Point Count Results				
Area	Location ID	Sample ID	QC Type	QC Desc.	Sample Date	Points Counted[a]	Points with Asbestos	Area Percent[b] (%)	Asbestos Type	Qualifier
Asbestos Pile Parcel	AP01-01	CSAPSS-101	Field Sample		4/27/2018	1000	0	0%		U
	AP01-02	CSAPSS-102	Field Sample		4/27/2018	1000	0	0%		U
	AP02-01	CSAPSS-104	Field Sample		4/27/2018	1000	0	0%		U
	AP02-02	CSAPSS-105	Field Sample		4/27/2018	1000	0	0%		U
	AP03-01	CSAPSS-106	Field Sample		4/27/2018	1000	0	0%		U
	AP03-02	CSAPSS-107	Field Sample		4/27/2018	1000	0	0%		U
	AP04-01	CSAPSS-108	Field Sample		4/27/2018	1000	0	0%		U
	AP04-02	CSAPSS-109	Field Sample		4/27/2018	1000	0	0%		U
	AP05-01	CSAPSS-110	Field Sample		4/27/2018	1000	0	0%		U
	AP05-02	CSAPSS-111	Field Sample		4/27/2018	1000	0	0%		U
Park Parcel	PK01-01	CSPKSS-101	Field Sample		4/24/2018	1000	0	0%		U
	PK01-01	CSPKSS-201	Field Duplicate	CSPKSS-101	4/24/2018	1000	0	0%		U
	PK01-02	CSPKSS-102	Field Sample		4/24/2018	1000	0	0%		U
	PK02-01	CSPKSS-103	Field Sample		4/24/2018	1000	0	0%		U
	PK02-02	CSPKSS-104	Field Sample		4/24/2018	1000	0	0%		U
	PK03-01	CSPKSS-105	Field Sample		4/24/2018	1000	0	0%		U
	PK03-02	CSPKSS-106	Field Sample		4/24/2018	1000	0	0%		U
	PK04-01	CSPKSS-107	Field Sample		4/25/2018	1000	0	0%		U
	PK04-02	CSPKSS-108	Field Sample		4/25/2018	1000	0	0%		U
	PK05-01	CSPKSS-109	Field Sample		4/26/2018	1000	0	0%		U
	PK05-02	CSPKSS-110	Field Sample		4/26/2018	1000	0	0%		U
	PK05-02	CSPKSS-210	Field Duplicate	CSPKSS-110	4/26/2018	1000	0	0%		U
Reservoir Parcel	RV01-01	CSRVSS-101	Field Sample		4/26/2018	1000	0	0%		U
	RV01-02	CSRVSS-102	Field Sample		4/26/2018	1000	0	0%		U
	RV02-01	CSRVSS-103	Field Sample		4/26/2018	1000	0	0%		U
	RV02-02	CSRVSS-104	Field Sample		4/26/2018	1000	0	0%		U
	RV03-01	CSRVSS-105	Field Sample		4/26/2018	1000	0	0%		U
	RV03-02	CSRVSS-106	Field Sample		4/26/2018	1000	0	0%		U
	RV04-01	CSRVSS-107	Field Sample		4/27/2018	1000	0	0%		U
	RV04-02	CSRVSS-108	Field Sample		4/27/2018	1000	0	0%		U
	RV05-01	CSRVSS-109	Field Sample		4/26/2018	1000	0	0%		U
	RV05-02	CSRVSS-110	Field Sample		4/26/2018	1000	0	0%		U

Notes:

[a] 1,000 points were examined which results in an approximate detection limit of 0.1 percent (%).

[b] There are no soil-based cleanup levels for asbestos. Rather, successful remediation of soil will be assessed by achievement of the Site-specific air-based remediation goals. Remediation goals for air are 0.04 s/cc (ABS - human health), 0.001 s/cc (ambient - human health), and 25 s/cc (ecological).

% = percent

ABS = activity based sampling

bgs = below ground surface

Desc. = description

ID = identification

PLM = polarized light microscopy

QC = quality control

s/cc = structure per cubic centimeter

U = no asbestos detected

Table 4-3
Confirmation Sampling, Spring 2018
Matrix: Surface Soil (0-6 inches bgs) - SVOC and Inorganic Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location		AP01-01	AP01-02	AP01-03	AP01-03	AP02-01	AP02-02	AP03-01	AP03-02	AP04-01	AP04-02	AP05-01	AP05-02	PK01-01	PK01-01	PK01-02	PK02-01	PK02-02	PK03-01	PK03-02
Sample ID		CSAPSS-101	CSAPSS-102	CSAPSS-103	CSAPSS-203	CSAPSS-104	CSAPSS-105	CSAPSS-106	CSAPSS-107	CSAPSS-108	CSAPSS-109	CSAPSS-110	CSAPSS-111	CSPKSS-101	CSPKSS-201	CSPKSS-102	CSPKSS-103	CSPKSS-104	CSPKSS-105	CSPKSS-106
Sample Type		N	N	N	FD	N	N	N	N	N	N	N	N	N	FD	N	N	N	N	N
Parent Sample #		--	--	--	CSAPSS-103	--	--	--	--	--	--	--	--	--	CSPKSS-101	--	--	--	--	--
Start Sample Depth	Remediation Goals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
End Sample Depth		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Depth Unit		in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
Sample Date		4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/27/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018	4/24/2018
Semi-Volatile Organic Compounds (µg/kg)																				
Bis(2-Ethylhexyl)Phthalate	925	470	230	--	--	150 J	110 J	140 J	**970**	170 J	130 J	250	170 J	200 U	200 U	200 U	200 U	190 U	210 U	190 U
Dioxans/Furans (ng/kg)																				
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.199	--	--	87	83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HPCDF	0.199	--	--	8	7.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HPCDF	0.199	--	--	0.5 J	0.4 Z	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.199	--	--	1.1 J	0.85 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HXCDF	0.199	--	--	0.73 J	0.71 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.199	--	--	1.9 J	1.7 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HXCDF	0.199	--	--	0.5 J	0.51 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.199	--	--	1.9 J	1.8 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HXCDF	0.199	--	--	0.24 J	0.18 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.199	--	--	0.42 Z	0.26 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	0.199	--	--	0.76 J	0.73 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HXCDF	0.199	--	--	0.66 Z	0.66 Z	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PECDF	0.199	--	--	0.74 J	0.67 Z	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	0.199	--	--	0.19 Z	0.16 Z	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.199	--	--	0.48 J	0.47 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	0.199	--	--	9300 J	8800 J	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	0.199	--	--	27	23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ WHO 1998 Bird ND=0	0.199	--	--	**3.79**	**3.54**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ WHO 1998 Fish ND=0	0.199	--	--	**3.27**	**2.97**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ WHO 2005 ND=0	0.199	--	--	**5.69**	**5.34**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Inorganics (mg/kg)																				
Chromium	26	**33**	25.3	--	--	25.8	25	24.3	22.9	**30.3**	24.8	**27.6**	25.7	**35**	**28.2**	**28.9**	**109**	**32 J+**	24.3	21.6
Nickel	38	23.6	15.4	--	--	16.2	16	15.4	17.8	18.9	14.1	20.4	24.9	20	18.1	17.9	17.2	20	15.5	14.2
Zinc	104	67.3	63.1	--	--	67.1	64.2	62.2	58.9	74.5	62.5	80	67	60.4	63.7	56.9	50.4	63.3	53.3	36.9

Notes:
BOLD and YELLOW = result is greater than the remediation goal
-- = not available
in - inches
FD = field duplicate
J = analyte present in estimated quantities
J+ = analyte present in estimated quantitites and is biased high
mg/kg = milligrams per kilograms
N = normal field sample
ng/kg = nanograms per kilograms
U = analyte not detected above quantitation limit
µg/kg = micrograms per kilograms
Z = The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio; the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated.

Table 4-3
Confirmation Sampling, Spring 2018
Matrix: Surface Soil (0-6 inches bgs) - SVOC and Inorganic Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location		PK04-01	PK04-02	PK05-01	PK05-02	PK05-02	RV01-01	RV01-02	RV02-01	RV02-02	RV03-01	RV03-02	RV04-01	RV04-02	RV05-01	RV05-02
Sample ID		CSPKSS-107	CSPKSS-108	CSPKSS-109	CSPKSS-110	CSPKSS-210	CSRVSS-101	CSRVSS-102	CSRVSS-103	CSRVSS-104	CSRVSS-105	CSRVSS-106	CSRVSS-107	CSRVSS-108	CSRVSS-109	CSRVSS-110
Sample Type		N	N	N	N	FD	N	N	N	N	N	N	N	N	N	N
Parent Sample #	Remediation Goals	--	--	--	--	CSPKSS-110	--	--	--	--	--	--	--	--	--	--
Start Sample Depth		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
End Sample Depth		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Depth Unit		in	in	in	in	in	in	in	in	in	in	in	in	in	in	in
Sample Date		4/25/2018	4/25/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/27/2018	4/27/2018	4/26/2018	4/26/2018
Semi-Volatile Organic Compounds (µg/kg)																
Bis(2-Ethylhexyl)Phthalate	925	200 U	210 U	200 U	210 U	200 U	200 U	210 U	210 U	210 U	210 U	210 U	210 U	220 U	210 U	210 U
Dioxans/Furans (ng/kg)																
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HPCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HPCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HXCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HXCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HXCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzofuran	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HXCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PECDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-Tetrachlorodibenzofuran	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ WHO 1998 Bird ND=0	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ WHO 1998 Fish ND=0	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TEQ WHO 2005 ND=0	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Inorganics (mg/kg)																
Chromium	26	**29.1 J+**	**26.4**	22.5	**26.9**	**27.8**	**28.6**	23.3	**27.3**	23.3	25.2	**29.2**	18.9	22.2	**28.8**	**27**
Nickel	38	17.4	18.7	14.9	18.1	19.5	22.5	17.9	19.8	13.7	14.7	19.9	14.8	15.7	19.6	18.1
Zinc	104	56.7	61.7	41.2	63	56.2	62.8	49.2	52.9	48.9	61	72.2	50.4	54.2	60.5	56.4

Notes:
BOLD and YELLOW = result is greater than the remediation goal
-- = not available
in - inches
FD = field duplicate
J = analyte present in estimated quantities
J+ = analyte present in estimated quantitites and is biased high
mg/kg = milligrams per kilograms
N = normal field sample
ng/kg = nanograms per kilograms
U = analyte not detected above quantitation limit
µg/kg = micrograms per kilograms
Z = The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio; the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated.

Table 4-4
Confirmation Sampling, Spring 2018
Matrix: Sediment - Asbestos Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

						PLM Point Count Results				
Area	Location ID	Sample ID	QC Type	QC Desc.	Sample Date	Points Counted[a]	Points with Asbestos	Area Percent[b] (%)	Asbestos Type	Qualifier
Reservoir Parcel	RV-01	CSRVSD-101	Field Sample		4/26/2018	1000	0	0%		U
	RV-02	CSRVSD-102	Field Sample		4/26/2018	1000	0	0%		U
	RV-03	CSRVSD-103	Field Sample		4/26/2018	1000	0	0%		U
	RV-04	CSRVSD-104	Field Sample		4/26/2018	1000	0	0%		U
	RV-01	CSRVSD-201	Field Duplicate	CSRVSD-101	4/26/2018	1000	0	0%		U

Notes:
[a] 1,000 points were examined which results in an approximate detection limit of 0.1 percent (%).
[b] There are no sediment-based cleanup levels for asbestos. Rather, successful remediation of sediment will be assessed by achievement of the Site-specific surface water-based remediation goals (0.0001 MFL).
% = percent
bgs = below ground surface
Desc. = description
ID = identification
MFL = million fibers per liter
PLM = polarized light microscopy
QC = quality control
U = no asbestos detected

Table 4-5
Confirmation Sampling, Spring 2018
Matrix: Sediment - VOC and TOC Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	Remediation Goals	RV-101	RV-101	RV-102	RV-103	RV-104
Sample ID		CSRVSD-101	CSRVSD-201	CSRVSD-102	CSRVSD-103	CSRVSD-104
Sample Type		N	FD	N	N	N
Parent Sample #		--	CSRVSD-101	--	--	--
Start Sample Depth		0	0	0	0	0
End Sample Depth		0.5	0.5	0.5	0.5	0.5
Depth Unit		ft bgs	ft bgs	ft bgs	ft bgs	ft bgs
Sample Date		4/26/2018	4/26/2018	4/26/2018	4/26/2018	4/26/2018
Volatile Organic Compounds (µg/kg)						
Carbon Disulfide[a]	4.1	12 U	11 U	13 U	9.3 U	19 U
Total Organic Carbon (mg/kg)						
Total Organic Carbon	--	16800	18400	19500 J	10600	25000

Notes:
[a] Samples with detected concentrations for target analytes less than CRQLs are estimated and have been qualified "J"'.
Non-detect (U-qualified) samples indicate that the concentration was lower than the CRQL, but not higher than the MDL of 0.55 ug/kg.
-- = not available
CRQLs = contract required quantitation limits
FD = field duplicate
ft bgs = feet below ground (sediment) surface
J = analyte present in estimated quantities
J+ = analyte present in estimated quantitites and is biased high
MDL = method detection limits
mg/kg = milligrams per kilograms
N = normal field sample
RG = remedial goal
U = analyte not detected above quantitation limit
µg/kg = micrograms per kilograms

Table 4-6
Confirmation Sampling, Spring 2018
Matrix: Surface Water - Asbestos Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Area	Location ID	Sample ID	QC Type	QC Desc.	Sample Date	TEM EPA 100.1 Analysis Results								
							Total Asbestos Structures				Asbestos Structures > 10 µm in Length			
						Sensitivity (L^{-1})	Number of Structures	Water Conc. (MFL)[a]	Asbestos Type	Qualifier	Number of Structures	Water Conc. (MFL)[a]	Asbestos Type	Qualifier
Wissahickon Creek	CKSW-04	CSCKSW-104	Field Sample		4/27/2018	1.1E+05	0	< 0.33		U	0	< 0.33		U
		CSCKSW-204	Field Duplicate	CSCKSW-104	4/27/2018	3.0E+05	26	7.7	CH (25), TR (1)		2	0.59	CH	
	CKSW-05	CSCKSW-105	Field Sample		4/27/2018	4.4E+04	2	0.088	CH		0	< 0.13		U
	CKSW-07	CSCKSW-107	Field Sample		4/27/2018	2.2E+04	6	0.13	CH		4	0.088	CH	
	CKSW-08	CSCKSW-108	Field Sample		4/27/2018	2.2E+04	2	0.044	CH		1	0.022	CH	
	FB-01	CSCKSW-401	Field Blank		4/27/2018	1.1E+04	0	< 0.033		U	0	< 0.033		U
	Mean Water Conc. [d,e]:							**2.0**						
Reservoir[b]	RVSW-01	CSRVSW-101	Field Sample		4/25/2018	2.2E+05 [c]	0	< 0.66		U	0	< 0.66		U
	RVSW-02	CSRVSW-102	Field Sample		4/25/2018	1.1E+05	0	< 0.33		U	0	< 0.33		U
	RVSW-03	CSRVSW-103	Field Sample		4/25/2018	2.2E+06 [c]	1	2.2	AC		0	< 6.6		U
	RVSW-04	CSRVSW-104	Field Sample		4/25/2018	5.5E+06 [c]	0	< 16		U	0	< 16		U
	Mean Water Conc. [d,e]:							**0.55**						

Notes:
BOLD and YELLOW = result is greater than the remediation goal

[a] When no structures were observed, the concentration shown is the Poisson 95% upper confidence limit based on a count of zero.
[b] Collected near bottom of the water column
[c] Poor sensitivity is due to a low volume of water applied to the filter, presumably due to the turbidity of the water collected.
[d] Remediation goal = 0.0001 MFL (based on total structures)
[e] Mean concentration across field samples, treating non-detects as zero. The higher of the field duplicate and the parent sample is used in the calculation

< = less than
AC = actinolite
CH = chrysotile
EPA = U.S. Environmental Protection Agency
ID = identification
L^{-1} = per liter
MFL = million fibers per liter
QC = quality control
TEM = transmission electron microscopy
TR = tremolite

Table 4-7
Confirmation Sampling, Spring 2018
Matrix: Surface Water - Inorganic, General Chemistry, Microbial, and Water Quality Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	RV-101	RV-102	RV-103	RV-104
Sample ID	**CSRVSW-101**	**CSRVSW-102**	**CSRVSW-103**	**CSRVSW-104**
Sample Type	**N**	**N**	**N**	**N**
Start Depth	**3.01**	**2.5**	**5.8**	**6**
Depth Unit	**ft**	**ft**	**ft**	**ft**
Sample Date	**4/25/2018**	**4/25/2018**	**4/25/2018**	**4/25/2018**
Inorganic Compounds (µg/l)				
Aluminum	62500 J	28000 J	8360 J	28500 J
Calcium	96900	61100	38800	66900
Iron	98700 J	44400 J	12200 J	46800 J
Magnesium	57200	34300	16300	25800
Manganese	21100	4080	1310	3880
General Chemistry (mg/l)				
Alkalinity	128	129	135	127
Hardness	477	294	164	273
Phosphorus	0.223 J	2.61 J	0.172 J	0.388 J
Sulfate	16.6	16	16.2	16.4
Total Dissolved Solids	286	270	273	250
Total Nitrogen	1 UJ	1 UJ	1 UJ	1 UJ
Total Organic Carbon	23.4	19.3 J	26.6	24.7
Microbial Analysis (mpn/100ml)				
Escherichia Coli	150	180	130	210 J
Total Coliforms	> 24000	1000	> 24000	2000 J
Water Quality *				
Dissolved Oxygen	13.32	13.99	12.29	1.41
Oxidation-Reduction Potential	20.3	0.4	61.7	-37.7
pH	9.41	9.26	8.9	7.68
Specific Conductance	0.453	0.454	0.451	0.503
Temperature	14.58	14.62	14.57	9.58
Turbidity	15.6	21.2	16.5	19

Notes:
-- = not available
* = water quality units: dissolved oxygen - mg/l; Oxidation-Reduction Potential - millivolts;
pH - standard units; specific conductance - millisiemens per centimeter;
temperature - degrees celcius; turbidity - nephelometric turbidity unit
> = greater than
ft = feet
J = analyte present in estimated quantities
mg/l = milligrams per liter
mpn/100ml = most probably number per 100 milliliters
N = normal field sample
UJ = analyte not detected above quantitation limit, quantitation limit is estimated
µg/l = micrograms per liter

Table 4-8
Confirmation Sampling, Spring 2018
Matrix: Ambient Air - Asbestos Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

FIELD SAMPLES

Sample ID		Sample Location	Sample Date	Sample Duration (min)	Sample Air Volume (L)	TEM ISO PCME Asbestos Results[a]				
High Volume	Low Volume					Sensitivity (cc^{-1})	N Structures	Conc. (s/cc)[b]	Asbestos Type	Qualifier
CSCMAA-101-AH101	CSCMAA-101-AL101	Green Ribbon Trail	5/24/2018	1444	4320	3.3E-04	0	< 0.00099		U
CSCMAA-102-AH101	CSCMAA-102-AL101	Post Office	5/24/2018	1444	4300	3.2E-04	1	0.00032	NRA	
CSCMAA-103-AH101	CSCMAA-103-AL101	Church/school	5/24/2018	1429	4160	3.3E-04	0	< 0.00098		UJ[c]
CSCMAA-104-AH101	CSCMAA-104-AL101	Adult community center	5/24/2018	1437	4394	3.2E-04	0	< 0.00097		U
CSCMAA-105-AH101	CSCMAA-105-AL101	Basketball Court	6/7/2018	1319	4282	2.9E-04	0	< 0.00088		U
CSCMAA-107B-AH101	CSCMAA-107B-AL101[d]	Vacant lot (9 Maple Ave)	6/7/2018	1437	2177	3.3E-04	0	< 0.00099		U

Mean PCME Air Conc.[e]: **0.000053 including NRA[f]**
< 0.00095 excluding NRA[g]

FIELD BLANKS

Sample ID		Sample Location	Sample Date	Sample Duration (min)	Sample Air Volume (L)	TEM ISO PCME Asbestos Results[a]				
High Volume	Low Volume					Sensitivity (cc^{-1})	N Structures	Conc. (s/cc)	Asbestos Type	Qualifier
CSCMAA-101-400	--	Field Blank	5/25/2018	---	---	---	0	---		
CSCMAA-105-400	--	Field Blank	6/8/2018	---	---	---	0	---		
CSPKABS-601	--	Lot Blank	5/21/2018	---	---	---	0	---		
CSPKABS-602	--	Lot Blank	5/21/2018	---	---	---	0	---		

Notes:
Gray = filter anayzed
BOLD and YELLOW = result is greater than the remediation goal
[a] Filters were prepared and analyzed in basic accordance with TEM ISO 10312:1995(E) (ISO 1995)
[b] When no structures were observed, the concentration shown is the Poisson 95% upper confidence limit based on a count of zero.
[c] Sample was UJ-qualified during valudation because a pump fault occurred during sample collection and the stop flow rate was estimated
[d] High volume sample was rejected during validation due to uncertainty surrounding the sample volume; low volume sample for this location was analyzed instead.
[e] Remediation goal (human health) = 0.001 s/cc
[f] Mean concentration across field samples, treating non-detects as zero. The higher of the field duplicate and the parent sample is used in the calculation
[g] Because all samples were non-detect, the mean is reported as less than the average across the Poisson 95% upper confidence limits for each sample.

-- = not applicable
cc^{-1} = per cubic centimeter of air
Conc. = concentration
EFA = effective filter area
GO = grid opening
ID = identification
ISO = International Organization for Standardization
J = estimated concentration
L = liter
min = minute
N = number
NRA = non-regulated amphibole (ferro-actinolite)
PCME = phase contrast microscopy - equivalent
R = Rejected sample
s/cc = structures per cubic centimeter
TEM = transmission electron microscopy
U = asbestos not detected

Table 4-9a
Confirmation Sampling, Summer 2018
Matrix: Activity-Based Sampling Air - Asbestos Results (Human Health)
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

FIELD SAMPLES

Area	Location	ABS Type	Sample ID		Air Pump Location	Sample Date	Sample Duration (min)	Sample Volume (L)	Preparation Method	Sensitivity (cc^{-1})	TEM ISO PCME Asbestos Results[a]			
			High Volume	Low Volume							N Structures	Conc. (s/cc)[b]	Asbestos Type	Qualifier
Asbestos Pile Parcel	AP-101	Perimeter	CSAPABSP-101-AH101	CSAPABSP-101-AL101	Upwind	7/20/2018	120	465	Direct	1.1E-02	0	< 0.033	--	U
			CSAPABSP-101-AH102	CSAPABSP-101-AL102	Downwind	7/20/2018	120	479	Direct	1.3E-02	0	< 0.038	--	U
		Personal	CSAPABSA-101-AH101	CSAPABSA-101-AL101	Adult Height	7/20/2018	120	563	Direct	1.1E-02	0	< 0.033	--	U
			CSAPABSA-101-CH101	CSAPABSA-101-CL101	Child Height	7/20/2018	120	574	Direct	1.1E-02	0	< 0.032	--	U
	AP-102	Perimeter	CSAPABSP-102-AH101	CSAPABSP-102-AL101	Upwind	7/19/2018	120	242	Direct	1.2E-02	0	< 0.037	--	U
			CSAPABSP-102-AH102	CSAPABSP-102-AL102	Downwind	7/19/2018	120	262	Direct	1.3E-02	0	< 0.038	--	U
		Personal	CSAPABSA-102-AH101	CSAPABSA-102-AL101	Adult Height	7/19/2018	120	308	Direct	1.2E-02	0	< 0.036	--	U
			CSAPABSA-102-CH101	CSAPABSA-102-CL101	Child Height	7/19/2018	120	289	Direct	1.3E-02	0	< 0.038	--	U
	AP-103	Perimeter	CSAPABSP-103-AH101	CSAPABSP-103-AL101	Upwind	7/19/2018	120	246	Direct	1.2E-02	0	< 0.036	--	U
			CSAPABSP-103-AH102	CSAPABSP-103-AL102	Downwind	7/19/2018	120	254	Direct	1.3E-02	0	< 0.039	--	U
		Personal	CSAPABSA-103-AH101	CSAPABSA-103-AL101	Adult Height	7/19/2018	120	316	Direct	1.2E-02	0	< 0.035	--	U
			CSAPABSA-103-CH101	CSAPABSA-103-CL101	Child Height	7/19/2018	120	302	Direct	1.2E-02	0	< 0.037	--	U
									Asbestos Pile Parcel, Mean PCME Air Conc.[c]	**Perimeter, downwind:**	**< 0.038[d]**			
										Personal, Adult:	**< 0.034[d]**			
										Personal, Child:	**< 0.036[d]**			
Park Parcel	PK-101	Perimeter	CSPKABSP-101-AH101	CSPKABSP-101-AL101	Upwind	7/20/2018	120	247	Direct	1.2E-02	0	< 0.036	--	U
			CSPKABSP-101-AH102	CSPKABSP-101-AL102	Downwind	7/20/2018	120	481	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
		Personal	CSPKABSA-101-AH101	CSPKABSA-101-AL101	Adult Height	7/20/2018	120	301	Direct	1.2E-02	0	< 0.037	--	U
			CSPKABSA-101-CH101	CSPKABSA-101-CL101	Child Height	7/20/2018	120	302	Direct	1.2E-02	0	< 0.037	--	U
	PK-102	Perimeter	CSPKABSP-102-AH101	CSPKABSP-102-AL101	Upwind	7/19/2018	120	480	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
			CSPKABSP-102-AH102	CSPKABSP-102-AL102	Downwind	7/19/2018	120	482	Indirect - Ashed	2.8E-02	0	< 0.085	--	U
		Personal	CSPKABSA-102-AH101	CSPKABSA-102-AL101	Adult Height	7/19/2018	120	552	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
			CSPKABSA-102-CH101	CSPKABSA-102-CL101	Child Height	7/19/2018	120	544	Indirect - Ashed	2.5E-02	0	< 0.076	--	U
	PK-103	Perimeter	CSPKABSP-103-AH101	CSPKABSP-103-AL101	Upwind	7/20/2018	120	236	Direct	1.3E-02	0	< 0.038	--	U
			CSPKABSP-103-AH102	CSPKABSP-103-AL102	Downwind	7/20/2018	120	256	Direct	1.3E-02	0	< 0.039	--	U
		Personal	CSPKABSA-103-AH101	CSPKABSA-103-AL101	Adult Height	7/20/2018	120	314	Direct	1.2E-02	0	< 0.036	--	U
			CSPKABSA-103-CH101	CSPKABSA-103-CL101	Child Height	7/20/2018	120	307	Direct	1.2E-02	0	< 0.036	--	U
	PK-104	Perimeter	CSPKABSP-104-AH101	CSPKABSP-104-AL101	Upwind	7/20/2018	129	520	Indirect - Ashed	2.7E-02	0	< 0.08	--	U
			CSPKABSP-104-AH102	CSPKABSP-104-AL102	Downwind	7/20/2018	120	490	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
		Personal	CSPKABSA-104-AH101	CSPKABSA-104-AL101	Adult Height	7/20/2018	129	589	Indirect - Ashed	1.3E-02	0	< 0.038	--	U
			CSPKABSA-104-CH101	CSPKABSA-104-CL101	Child Height	7/20/2018	129	602	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
	PK-105	Perimeter	CSPKABSP-105-AH101	CSPKABSP-105-AL101	Upwind	7/19/2018	120	482	Indirect - Ashed	1.3E-02	0	< 0.038	--	U
			CSPKABSP-105-AH102	CSPKABSP-105-AL102	Downwind	7/19/2018	120	484	Indirect - Ashed	1.3E-02	0	< 0.038	--	U
		Personal	CSPKABSA-105-AH101	CSPKABSA-105-AL101	Adult Height	7/19/2018	120	547	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
			CSPKABSA-105-CH101	CSPKABSA-105-CL101	Child Height	7/19/2018	120	535	Indirect - Ashed	2.6E-02	0	< 0.077	--	U
	PK-106	Perimeter	CSPKABSP-106-AH101	CSPKABSP-106-AL101	Upwind	7/20/2018	120	478	Direct	1.3E-02	0	< 0.038	--	U
			CSPKABSP-106-AH102	CSPKABSP-106-AL102	Downwind	7/20/2018	120	486	Indirect - Ashed	2.8E-02	0	< 0.085	--	U
		Personal	CSPKABSA-106-AH101	CSPKABSA-106-AL101	Adult Height	7/20/2018	120	535	Indirect - Ashed	1.3E-02	0	< 0.039	--	U
			CSPKABSA-106-CH101	CSPKABSA-106-CL101	Child Height	7/20/2018	120	524	Indirect - Ashed	5.3E-02	0	< 0.16	--	U
									Park Parcel, Mean PCME Air Conc.[c]	**Perimeter, downwind:**	**< 0.054[d]**			
										Personal, Adult:	**< 0.038[d]**			
										Personal, Child:	**< 0.070[d]**			

FIELD BLANKS

Area	Location	ABS Type	Sample ID		Air Pump Location	Sample Date	Sample Duration (min)	Sample Volume (L)	Preparation Method	Sensitivity (cc^{-1})	TEM ISO PCME Asbestos Results[a]			
			High Volume	Low Volume							N Structures	Conc. (s/cc)	Asbestos Type	Qualifier
Field QC	Field Blank	--	CSPKABS-401	--	--	7/19/2018	0	0	Direct	---	0	---		
			CSPKABSA-402	--	--	7/20/2018	0	0	Direct	---	0	---		

Notes:

filter analyzed

[a] Filters were prepared and analyzed in basic accordance with TEM ISO 10312:1995(E) (ISO 1995).

[b]When no structures were observed, the concentration shown is the Poisson 95% upper confidence limit based on a count of zero.

[c] Remediation goal = 0.04 s/cc

[d] Because all samples were non-detect, the mean is reported as less than the average across the Poisson 95% upper confidence limits for each personal sample (both adult and child height).

-- = not applicable
< = less than
ABS = activity-based sampling
cc^{-1} = per cubic centimeter
GO = grid opening
HV = high volume
L = liter
LV = low volume
mL = milliliter
mm^2 = square millimeter
N = number
PCME = phase contrast microscopy-equivalent
s/cc = structure per cubic centimeter
U = asbestos not detected

Table 4-9b
Confirmation Sampling, Summer 2018
Matrix: Activity-Based Sampling Air - Asbestos Results (Ecological)
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Area	Location	Sample ID	Air Pump Location	Sample Date	Sample Duration (min)	Sample Volume (L)	Preparation Method	Sensitivity (cc^{-1})	TEM ISO PCME Asbestos Results[a]			
									N Structures	Conc. (s/cc)[b,c]	Asbestos Type	Qualifier
Asbestos Pile Parcel	AP-101	CSAPABSE-101-ML101	Mammal Height	7/20/2018	120	259	Direct	2.9E-02	0	< 0.088	--	U
	AP-102	CSAPABSE-102-ML101	Mammal Height	7/19/2018	120	255	Direct	2.9E-02	0	< 0.087	--	U
	AP-103	CSAPABSE-103-ML101	Mammal Height	7/19/2018	120	256	Direct	2.9E-02	0	< 0.087	--	U
Park Parcel	PK-101	CSPKABSE-101-ML101	Mammal Height	7/20/2018	120	242	Direct	3.1E-02	0	< 0.092	--	U
	PK-102	CSPKABSE-102-ML101	Mammal Height	7/19/2018	120	246	Indirect - Ashed	1.1E+00	0	< 3.3	--	U
	PK-103	CSPKABSE-103-ML101	Mammal Height	7/20/2018	120	260	Direct	2.9E-02	0	< 0.086	--	U
	PK-104	CSPKABSE-104-ML101	Mammal Height	7/20/2018	129	266	Indirect - Ashed	1.0E+00	0	< 3.1	--	U
	PK-105	CSPKABSE-105-ML101	Mammal Height	7/19/2018	120	249	Indirect - Ashed	2.2E+00	0	< 6.5	--	U
	PK-106	CSPKABSE-106-ML101	Mammal Height	7/20/2018	120	238	Indirect - Ashed	2.3E+00	0	< 6.9	--	U

Notes:
[a] Filters were prepared and analyzed in basic accordance with TEM ISO 10312:1995(E) (ISO 1995).
[b]When no structures were observed, the concentration shown is the Poisson 95% upper confidence limit based on a count of zero.
[c] Remediation goal = 25 s/cc

-- = not applicable
< = less than
ABS = activity-based sampling
cc^{-1} = per cubic centimeter
GO = grid opening
HV = high volume
L = liter
LV = low volume
mL = milliliter
mm^2 = square millimeter
N = number
PCME = phase contrast microscopy-equivalent
s/cc = structure per cubic centimeter
U = asbestos not detected

Table 4-10
Confirmation Sampling, Summer 2018
Matrix: Activity-Based Sampling Surface Soil (0-3 inches bgs) - Asbestos Results
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Area	Location ID	Sample ID	QC Type	Sample Date	PLM Point Count Results				
					Points Counted[a]	Points with Asbestos	Area Percent[b] (%)	Asbestos Type	Qualifier
Asbestos Pile Parcel	APABS-101	CSAPABSS-101	Field Sample	7/18/2018	1000	0	0%	--	U
	APABS-102	CSAPABSS-102	Field Sample	7/18/2018	1000	0	0%	--	U
	APABS-103	CSAPABSS-103	Field Sample	7/18/2018	1000	0	0%	--	U
Park Parcel	PKABS-101	CSPKABSS-101	Field Sample	7/18/2018	1000	0	0%	--	U
	PKABS-102	CSPKABSS-102	Field Sample	7/18/2018	1000	0	0%	--	U
	PKABS-103	CSPKABSS-103	Field Sample	7/18/2018	1000	0	0%	--	U
	PKABS-104	CSPKABSS-104	Field Sample	7/18/2018	1000	0	0%	--	U
	PKABS-105	CSPKABSS-105	Field Sample	7/18/2018	1000	0	0%	--	U
	PKABS-106	CSPKABSS-106	Field Sample	7/18/2018	1000	0	0%	--	U

Notes:
[a] 1,000 points were examined which results in an approximate detection limit of 0.1 percent (%).
[b] There are no soil-based cleanup levels for asbestos. Rather, successful remediation of soil will be assessed by achievement of the Site-specific air-based remediation goals. Remediation goals for air are 0.04 s/cc (ABS - human health), 0.001 s/cc (ambient - human health), and 25 s/cc (ecological).
-- = not applicable
% = percent
ABS - activity based sampling
bgs = below ground surface
Desc. = description
ID = identification
PLM = polarized light microscopy
QC = quality control
s/cc = structure per cubic centimeter
U = no asbestos detected

Table 4-11
Confirmation Sampling, 2018
Changes to Sample Locations
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample ID	Designated Coordinates (Northing, Easting)	Actual Coordinates (Northing, Easting)	Reason for Change
CSCKSW-105	308607.627755, 2673167.16289	308679.522018, 2673241.27436	Designated location not in Creek
CSCKSW-107	308462.523329, 2673355.07274	308463.512606, 2673365.36344	Too shallow at designated location
CSCMAA-101	309063.1963, 2672613.3709	309105.1324, 2672619.9853	Moved to sewer manhole where pump could be securely chained
CSCMAA-102	308460.0682, 2673795.8240	308412.1720, 2673832.0976	Designated location in middle of parking lot. Moved to sign where pump could be securely chained.
CSCMAA-103	308731.5405, 2674899.9558	308736.1240, 2674931.929	Designated location appears inside building. Moved to fence where pump could be securely chained.
CSCMAA-104	309864.8810, 2674426.8822	309864.8810, 2674426.8822	Neighbor tells crew that pump was previously secured to parking sign on lawn. Photographs from RI sampling confirm this.
CSCMAA-105	311314.6328, 2671974.4790	310683.3253, 2672101.2110	Access agreement could not be obtained at designated sample location.
CSPKABSx-101	310280.1204, 2672163.6093	310285.636614, 2672183.47152	Designated location was on a steep slope. Moved to flat area for safety reasons.

Appendix A

Daily Logs

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 001
	Date: 04/09/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Mowing Oversight	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0715 (SPC), 0745 (AEONRG) Personnel offsite time – 1730 (SPC, AEONRG)	Weather: 55°F, partly cloudy
Title: Mowing Oversight	

Summary: SPC conducts health and safety talk with AEONRG landscaping crew. SPC catalogs all equipment used. AEONRG performs mowing, cutting, and marking rodent burrow holes within the Park parcel. Landscaping activities were performed on the steep slope leading down to Wissahickon Creek. AEONRG crew were able to safely stabilize themselves while operating weed whacking equipment.

Equipment: PPE: modified level D, Cub Cadet heavy duty GT 2544, Troy Bilt xP hydrostatic horse, Cub Cadet zero turn Z series 3500, 4 Stihl KM 110R, 2 Stihl F5106, 1 Billy Goat hydraulic brush hog.

Data: N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 002
	Date: 04/10/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Mowing Oversight; ACM Removal	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (SPC, AEONRG), 0800 (LA, PV, SWC), 0815 (Greg Voigt, Brian McDowell – EPA), 0900 (LP) Personnel offsite time – 1800 (SPC, AEONRG, LA, PV, SWC, Greg Voigt, Brian McDowell – EPA), 1030 (LP)	Weather: 50°F, partly cloudy
Title: Mowing Oversight; ACM Removal	

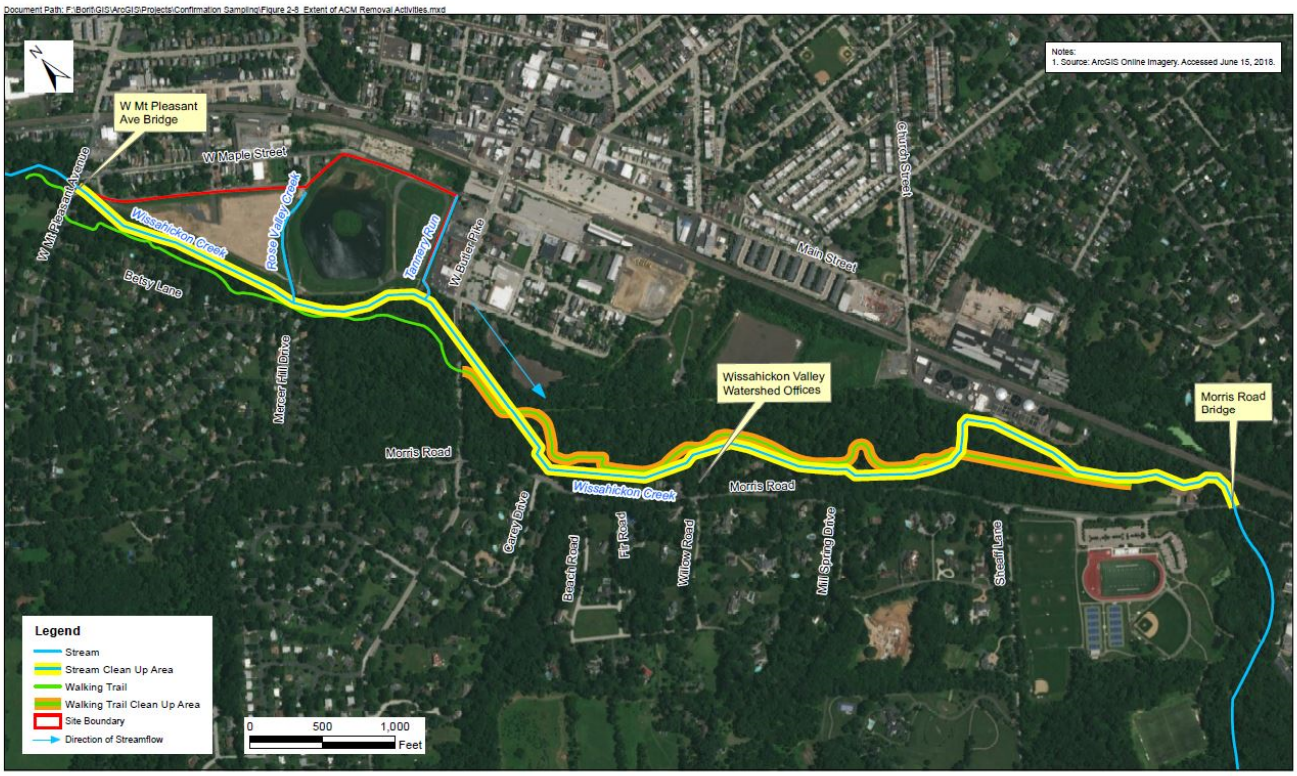
Summary: SPC conducts health and safety talk with AEONRG landscaping crew. AEONRG continues site mowing on the Park, Reservoir, and Asbestos Pile parcels. CDM Smith and EPA personnel prepare for asbestos containing material (ACM) removal along the Wissahickon Trail and within Wissahickon Creek in accordance with Figure 2-8, Extent of ACM Removal Activities (attached). Crew begins ACM removal at Rose Valley Creek and Wissahickon Creek confluence; heading north on Wissahickon Creek to W. Mt. Pleasant Ave. Bridge. Crew then mobilizes to Tannery Run and Wissahickon Creek confluence where they continue ACM removal heading north on Wissahickon Creek, to Rose Valley Creek and Wissahickon Creek confluence. Crew then mobilizes to Tannery Run and Wissahickon Creek confluence where they continue ACM removal headed south to Butler Pike Bridge. An inflatable raft is used where possible to haul ACM along creek to next pickup location. Crew disposes of ACM in either 1x6-mil or 2x4-mil asbestos trash bags unless pieces are too large to bag. Oversized pieces are placed unbagged in rolloff with bagged waste and rolloff is covered nightly.

LP onsite to meet potential invasive spraying subcontractor. Potential subcontractor performed similar work at the Former Ambler Asbestos Pile site with the EPA Remedial Project Manager, Greg Voigt. Following the Site walk, LP met with ACM removal crew and spoke with the mowing subcontractor.

Equipment: PPE: modified level D, Cub Cadet heavy duty GT 2544, Troy Bilt xP hydrostatic horse, Cub Cadet zero turn Z series 3500, 4 Stihl KM 110R, 2 Stihl F5106, 1 Billy Goat hydraulic brush hog. Utility vehicle (mule), 6 mil asbestos trash bags, 4 mil asbestos trash bags, Intex Explorer 300 inflatable raft.

Data: N/A

Field Team Leader: [redacted]	Company: CDM Smith



CDM Smith

BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Figure 2-8
Extent of ACM Removal Activities

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 003
	Date: 04/11/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Mowing Oversight; ACM Removal	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (SPC, AEONRG), 0800 (LA, PV, SWC), 0815 (Greg Voigt, Brian McDowell – EPA) Personnel offsite time – 1830 (SPC, AEONRG, LA, PV, SWC, Greg Voigt, Brian McDowell – EPA)	Weather: 60°F, Mostly Sunny
Title: Mowing Oversight; ACM Removal	

Summary: SPC conducts health and safety talk with AEONRG landscaping crew. AEONRG continues site mowing on the Park, Reservoir, and Asbestos Pile parcels. CDM Smith and EPA personnel prepare for asbestos containing material (ACM) removal along the Wissahickon Trail and within Wissahickon Creek in accordance with Figure 2-8, Extent of ACM Removal Activities (attached to CDM-002 daily log). Crew begins ACM removal at the Wissahickon Trail stepping stone foot path crossing Wissahickon Creek, which is south of the Watershed Offices, and moves north on both the Wissahickon Trail and Wissahickon Creek. Crew continues removing ACM heading north until they reach the Butler Pike Bridge. Crew then mobilizes to the Morris Road Bridge where they continue ACM removal activities on the Wissahickon Trail and Wissahickon Creek; heading north to the stepping stone path previously mentioned. An inflatable raft is used where possible to haul ACM along creek to next pickup location. Crew disposes of ACM in either 1x6-mil or 2x4-mil asbestos trash bags unless pieces are too large to bag. Oversized pieces are placed unbagged in rolloff with bagged waste and rolloff is covered nightly.

Equipment: PPE: modified level D, Cub Cadet heavy duty GT 2544, Troy Bilt xP hydrostatic horse, Cub Cadet zero turn Z series 3500, 4 Stihl KM 110R, 2 Stihl F5106, 1 Billy Goat hydraulic brush hog. Utility vehicle (mule), 6 mil asbestos trash bags, 4 mil asbestos trash bags, Intex Explorer 300 inflatable raft.

Data: N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 004
	Date: 04/12/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Mowing Oversight	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (SPC, AEONRG) Personnel offsite time – 1800 (SPC, AEONRG)	Weather: 68°F, cloudy

Title: Mowing Oversight

Summary: SPC conducts health and safety talk with AEONRG landscaping crew. AEONRG crew continues mowing and trimming activities on Asbestos Pile parcel after having completed all mowing and trimming on the Park and Reservoir parcels. AEONRG creates small piles of woody stemmed plants for later disposal. SPC begins to mark out animal burrow holes around Asbestos pile parcel.

Equipment: PPE: modified level D, Cub Cadet heavy duty GT 2544, Troy Bilt xP hydrostatic horse, Cub Cadet zero turn Z series 3500, 4 Stihl KM 110R, 2 Stihl F5106, 1 Billy Goat hydraulic brush hog.

Data: N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 005
	Date: 04/13/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Mowing Oversight	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (SPC, AEONRG) Personnel offsite time – 1630 (SPC, AEONRG)	Weather: 78°F, sunny

Title: Mowing Oversight

Summary: SPC conducts health and safety talk with AEONRG landscaping crew. AEONRG crew continues mowing and trimming Asbestos Pile parcel to completion. SPC performs walk through to determine areas of concern on the entire site. [redacted] is contacted to address areas that need additional removal or areas with animal burrow holes. Crew fills rodent holes with top soil and grass seed. AEONRG does not have a wood chipper on site and were unable to chip woody stemmed plants. AEONRG removes cut woody stemmed plants off-site.

Equipment: PPE: modified level D, Cub Cadet heavy duty GT 2544, Troy Bilt xP hydrostatic horse, Cub Cadet zero turn Z series 3500, 4 Stihl KM 110R, 2 Stihl F5106, 1 Billy Goat hydraulic brush hog.

Data: N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 006
	Date: 04/24/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (SPC, PV, SP) Personnel offsite time – 1730 (SPC, PV, SP)	Weather: 60°F, mostly cloudy
Title: Confirmation Sampling (SS, SD, SW)	

Summary: CDM Smith personnel (crew) arrive on-site and prepare to collect soil samples in accordance with Section 4.5 Surface Soil Sampling of the Final BoRit Site Management Plan (SMP). Crew begins by decontaminating trowels in accordance with Section 4.10 of the SMP and finding sampling locations using GPS coordinates stored on a Garmin handheld GPS device from subareas within the Park parcel as defined in Figure 3-3 of the SMP. Crew then collects 30-point composite surface soil samples to be analyzed for site contaminants of concern as defined in Table 3-1 of the SMP. Prior to and following collection of each sample, crew decontaminated all sampling equipment in accordance with Section 4.10 of the SMP. Crew mobilized to Wayne, PA field office for sample management and shipment following the day's sampling activities.

Equipment: PPE: modified level D, 8oz glass jars, 1L Amber jar, 1L Poly jar, Garmin handheld GPS device, hand trowels, decontamination spray bottles with Liquinox, potable water, deionized water, 10% nitric acid solution, and methanol

Data:

Sample ID	Sample Time	Bottleware	Analyses
CSPKSS-101	1045	3x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn
CSPKSS-201 (Duplicate of CSPKSS-101)	1045	3x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn
CSPKSS-103	1340	3x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn
CSPKSS-105	1445	3x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn
CSPKSS-102	1550	3x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn
CSPKSS-106	1620	3x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 006
	Date: 04/24/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (SPC, PV, SP) Personnel offsite time – 1730 (SPC, PV, SP)	Weather: 60°F, mostly cloudy

Title: Confirmation Sampling (SS, SD, SW)

CSPKSS-501 (Field blank)	1710	2x1L Amber bottle, 1x1L poly bottle	bis-2(ethylhexyl)phthalate, Cr, Ni, Zn
CSPKSS-104 (MS/MSD)	1715	7x8oz glass jar	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 007
	Date: 04/25/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, SP) Personnel offsite time – 1630 (SPC, PV, SP)	Weather: 60°F, light rain
Title: Confirmation Sampling (SS, SD, SW)	

Summary: CDM Smith personnel (crew) arrive on-site and prepare to collect soil samples and surface water samples in accordance with Section 4.5 Surface Soil Sampling and Section 4.6 Surface Water Sampling respectively of the Final BoRit Site Management Plan (SMP). Crew begins by decontaminating trowels in accordance with Section 4.10 of the SMP. SPC collected surface water samples in four locations within the Reservoir, as defined in Figure 3-8 of the SMP. SP continued collecting 30-point composite surface soil samples from subareas within the Park parcel as defined in Figure 3-3 of the SMP. Prior to and following collection of each sample, crew decontaminated all sampling equipment in accordance with Section 4.10 of the SMP. All samples to be analyzed for site contaminants of concern as defined in Table 3-1 of the SMP. In CSPKSS-108, a 1-inch blue triangular tile was encountered at approximately 5 inches BGS in a grab sample location, approximately 10 feet from sample GPS location.

Equipment: PPE: modified level D, 8oz glass jars, 1L Amber bottles, 1L Poly bottles, 250mL poly bottles, 500mL poly bottles, 250 mL poly bottles preserved with H_2SO_4, 500mL poly bottles preserved with HNO_3, 250mL poly bottles preserved with HNO_3, 250mL poly bottles preserved with HCL, Garmin handheld GPS device. E.coli bottleware provided by OASQA, YSI 650 MDS ID#15D101165, Hand trowels, decontamination spray bottles, Liquinox, potable water, deionized water, 10% nitric acid solution, methanol, flat bottom aluminum boat, anchor, oars, and life vests

Data:

Sample ID	Depth (ft bs)	pH (s.u.)	Temp (°C)	Turb (NTU)	DO (mg/L)	ORP (mV)	Cond (mS/cm)	Coord
CSRVSW-103	5.8	8.90	14.57	16.5	12.29	61.7	0.451	40.15432°N 75.22952°W
CSRVSW-104	6.0	7.68	9.58	19.0	1.49	-37.7	0.563	40.15372°N 75.22863°W
CSRVSW-102	2.5	9.26	14.62	21.2	13.99	0.4	0.454	40.15480°N 75.22758°W
CSRVSW-101	3.01	9.41	14.58	15.6	13.32	20.3	0.453	40.15536°N 75.22856°W

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 007
	Date: 04/25/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, SP) Personnel offsite time – 1630 (SPC, PV, SP)	Weather: 60°F, light rain
Title: Confirmation Sampling (SS, SD, SW)	

Sample ID	Sample Time	Bottleware	Analyses
CSRVSW-103	1233	2x250mL Poly, 1x1L Poly, 1x250mL Poly with H_2SO_4, 1x500mL Poly, 1x500mL poly with HNO_3, 1x250mL poly with HCl, 1x250mL poly with HNO_3, 1x250mL Poly with H_2SO_4, 2x1L Amber glass	E.Coli*, total dissolved solids,, Nitrogen, Alkalinity, Aluminum/iron/manganese, Phosphorus, Sulfate, Hardness, TOC, Asbestos
CSRVSW-104	1305		
CSRVSW-102	1333		
CSRVSW-101	1356		
CSPKSS-108	1305	3x8oz glass jars	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn
CSPKSS-107 (MS/MSD)	1555	7x8oz glass jars	bis-2(ethylhexyl)phthalate, asbestos, and Cr, Ni, Zn

*E.Coil was collected with each sample but the allowable holding time was exceeded. The E. Coli analysis samples were discarded with plans to recollect those samples on 5/01/18.

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 008
	Date: 04/26/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 Task Order: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, SP, LA) Personnel offsite time – 1630 (SPC, PV, SP, LA)	Weather: 50°F, sunny

Title: Confirmation Sampling (SS, SD, SW)

Summary: CDM Smith personnel (crew) arrive on-site and prepare to collect soil samples and sediment samples in accordance with Section 4.5 Surface Soil Sampling and Section 4.7 Sediment Sampling respectively of the Final BoRit Site Management Plan (SMP). SP calibrated YSI and found NTU readings to be out of range. Turbidity measurements may be unreliable. SP collected sediment samples from four locations within the Reservoir as defined in Figure 3-6 of the SMP. SPC collected 30-point composite surface soil samples from subareas within the Park parcel and Reservoir parcel as defined in the Figures 3-3 and 3-4 respectively of the SMP. All samples are to be analyzed for site contaminants of concern as defined in Table 3-1 of the SMP. Sediment sample at CSRVSD-103 contained very dark silty sediment with gravel; 3 grabs used for collection. Sediment sample at CSRVSD-104 contained mostly black silt with fine gravel; 3 grabs used for collection; black plastic mesh pulled up with second grab; VOCs collected with first grab. Sediment sample at CSRVSD-102 contained mostly black sandy silt; 3 grabs used for collection; VOCs collected from first grab; remaining sample jars filled with composite from all 3 grabs. Sediment sample at CSRVSD-101 contained medium to dark brown sandy silt; 4 grabs needed for collection; VOCs collected in single grab, all other samples are composite; VOCs collected using 40mL vial because sample was not thick enough for Encore sample collection. Prior to and following collection of each sample, crew decontaminated all sampling equipment in accordance with Section 4.10 of the SMP. GPS data points were collected at each site using a Trimble Geo x7. Trip blank and MS/MSD were collected.

Equipment: PPE: modified level D, Gas-powered mechanical auger with 6 inch bit, hand trowels, decontamination spray bottles, Liquinox, potable water, deionized water, 10% nitric acid solution, YSI 650 MDS ID#15D101165, 8oz glass jars, encore samplers, 40mL glass vials, Trimble Geo x7, methanol, flat bottom aluminum boat, anchor, oars, and life vests.

Data:

Sample ID	Sample Time	Bottleware	Analyses
CSRVSD-301 (Trip blank)	0820	3x40mL glass vials with HCL	VOCs
CSPKSS-109	0830	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 008
	Date: 04/26/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 Task Order: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, SP, LA) Personnel offsite time – 1630 (SPC, PV, SP, LA)	Weather: 50°F, sunny

Title: Confirmation Sampling (SS, SD, SW)

CSPKSS-110	0925	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSD-103	1045	4 Encore Samplers, 1x40mL glass vials, 2x8oz jar	carbon disulfide, TOC, Asbestos
CSRVSS-106	1110	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSD-104	1135	4 Encore Samplers, 1x40mL glass vials, 2x8oz jar	carbon disulfide, TOC, Asbestos
CSRVSS-104	1205	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSD-102 (MS/MSD)	1250	16 Encore samplers with 2x40mL glass vials, 6x8oz glass jar	carbon disulfide, TOC, Asbestos
CSRVSS-105	1140	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSS-103	1355	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSD-101	1400	4x40mL glass vials, 4x8oz glass jar	carbon disulfide, Asbestos, TOC
CSRVSD-201 (Field duplicate)			

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 008
	Date: 04/26/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling	Contract Number: 62625 Task Order: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, SP, LA) Personnel offsite time – 1630 (SPC, PV, SP, LA)	Weather: 50°F, sunny

Title: Confirmation Sampling (SS, SD, SW)

CSRVSD-503 (Field blank)	1420	3x40mL glass vials with HCL	VOCs
CSRVSS-101	1425	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSS-102	1445	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSS-110	1536	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn
CSRVSS-109	1611	3x8oz glass jars	bis-2(ethylhexyl)phthalate, Asbestos, and Cr, N, Zn

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF Site ACTIVITIES	Report # CDM – 009
	Date: 04/27/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task:	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, LA) Personnel offsite time – 1510 (SPC), 1600 (PV, LA)	Weather: 54°F, rainy

Title: Confirmation Sampling for (SS, SW)

Summary: CDM Smith personnel (crew) arrive on-site and prepare to collect soil samples and sediment samples in accordance with Section 4.5 Surface Soil Sampling and Section 4.6 Surface Water Sampling respectively of the Final BoRit Site Management Plan (SMP). PV calibrated YSI and found turbidity reading to be significantly out of range. Turbidity measurement may be unreliable. LA collected 30-point composite surface soil samples from 13 subareas within the Reservoir and Asbestos Pile parcels as defined on Figure 3-4 and 3-5 of the BoRit Final Site Management Plan (SMP). All samples to be analyzed for site contaminants of concern as defined in Table 3-1 of the SMP. PV located surface water sample locations using a Trimble GPS. PV collected 4 surface water samples and water quality data throughout the Site using a discrete bomb sampler and YSI as defined in Section 4.6 of the SMP. Prior to and following collection of each sample, crew decontaminated all sampling equipment in accordance with Section 4.10 of the SMP. Crew oversees 55-gallon drum drop off at the Park parcel parking lot. SPC returns to office to begin sample management activities. Rinsate and Field blanks are collected for both surface water and surface soil. Crew returns to office to assist SPC in sample management.

Equipment: PPE: modified level D, YSI 650 MDS ID#15D101165, 800mL glass jars, Trimble Geo x7, Discreet bomb sampler, decontamination spray bottles, Liquinox, potable water, deionized water, 10% nitric acid solution, 1L Amber glass jars, 55 gallon drum.

Data:

Table 1: Sample Data

Sample ID	Sample Time	Bottleware	Analyses
CSRVSS-108	0847	1x800mL glass jar	SVOCs, Asbestos, Cr, Ni, Zn
CSRVSS-107	0908		
CSAPSS-110	0945		
CSAPSS-108	1010		
CSAPSS-107	1035		
CSAPSS-106	1057		

DAILY LOG OF Site ACTIVITIES	Report # CDM – 009
	Date: 04/27/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task:	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, LA) Personnel offsite time – 1510 (SPC), 1600 (PV, LA)	Weather: 54°F, rainy

Title: Confirmation Sampling for (SS, SW)

CSCKSW-104 CSCKSW-204	1105	Discreet bomb sampler, 2x1L Amber glass	Asbestos
CSAPSS-102	1123	1x800mL glass jar	SVOCs, Asbestos, Cr, Ni, Zn
CSAPSS-103 CSAPSS-203 (MS/MSD)	1213	4X800mL glass	Dioxins
CSAPSS-101	1230	1x800mL glass jar	SVOCs, Asbestos, Cr, Ni, Zn
CSAPSS-104	1250		
CSCKSW-105	1245	2x1L Amber glass	Asbestos sample collected directly into bottle at 2 inches BWS
CSAPSS-105	1341	1x800mL glass jar	SVOCs, Asbestos, Cr, Ni, Zn
CSAPSS-109	1412		
CSAPSS-111	1435		
CSCKSW-107	1425	2x1L Amber glass	Asbestos sample collected directly into bottle. Water at creek bank too shallow for sampling; sample collected from center of creek.
CSCKSW-108	1505	2x1L Amber glass	Asbestos sample collected directly into bottle
CSPKSS-502 (Rinsate blank)	1520	1x1L poly with H_2SO_4, 2x1L Amber glass jar	Cr, Ni, Zn, SVOCs
CSCKSW-401 (Field blank)	1530	2x1L Amber glass	Asbestos

DAILY LOG OF Site ACTIVITIES	Report # CDM – 009
	Date: 04/27/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task:	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, LA) Personnel offsite time – 1510 (SPC), 1600 (PV, LA)	Weather: 54°F, rainy

Title: Confirmation Sampling for (SS, SW)

CSAPSS-503 (Rinsate blank) *sample jar broke during transport	1535		

Table 2: YSI 650 MDS calibration

	Pre-Cal	**Post-Cal**
pH 1 (4.0)	3.85	4.0
pH 2 (7.0)	7.00	7.00
Cond (mS/cm)	1.179	1.413
ORP (mV)	243.7	240.0
Turb (NTU) *initial reading significantly out of range	-926.2	0.0

Table 3: Water Quality

Sample	DTB (in)	Temp (°C)	pH	Cond (µS/cm)	DO (mg/L)	ORP (mV)	Turb (NTU)
CSCKSW-104, 204	16.0	13.59	7.83	0.829	18.60	62.8	71.1
CSCKSW-105	7.5	13.99	5.87	1.072	19.6	126.8	-73.8
CSCKSW-107	6.5	13.82	8.52	1.081	19.48	152.0	-74.0
CSCKSW-108	13.5	13.80	8.63	1.082	19.66	156.2	-73.7

DAILY LOG OF Site ACTIVITIES	Report # CDM – 009
	Date: 04/27/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task:	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV, LA) Personnel offsite time – 1510 (SPC), 1600 (PV, LA)	Weather: 54°F, rainy
Title: Confirmation Sampling for (SS, SW)	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 010
	Date: 05/01/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: E. Coli Surface Water Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630 (PV, SEC, AG) Personnel offsite time – 1115 (PV), 1515 (SEC, AG)	Weather: 60°F, sunny

Title: Surface Water Sampling

Summary: CDM Smith personnel (crew) arrive on-site and prepare to collect surface water samples in accordance with Section 4.6 Surface Water Sampling of the Final BoRit Site Management Plan (SMP). E.Coli contamination will be the only analyte tested in the surface water samples. Crew collected 4 surface water samples from the Reservoir parcel as defined on Figure 3-8 of the SMP. Prior to and following collection of each sample, crew decontaminated all sampling equipment in accordance with Section 4.10 of the SMP. Crew begins repairs on Park parcel where tire tracks were left. Additional seed mix was needed to complete this task. PV hand delivered surface water samples to John Curry, OASQA, Ft. Meade. Pine Environmental picked up all rental equipment other than the boat. Pine Environmental dropped off GPS unit.

Equipment: PPE: modified level D, GPS, 250mL Poly sealed container (provided by OASQA), decontamination spray bottles, Liquinox, potable water, deionized water, 10% nitric acid solution, rakes, seed mix

Data:

Table 1: Sample Data

Sample ID	Sample Time	Bottle ware	Contaminates
CSRVSW-102	0815	250mL Poly sealed container provided by OASQA	E.Coli
CSRVSW-101	0908		
CSRVSW-103	0945		
CSRVSW-104	1010		

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 011
	Date: 05/02/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling Demobilization	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1130 (PV, Pine), 1200 (LP) Personnel offsite time – 1300 (LP), 1530 (PV)	Weather: 85°F, sunny
Title: Equipment pickup, GPS Sample Location, Seeding and Animal Burrow Marking	

Summary: Meet Pine for boat pickup. Soil sample points on asbestos pile located with GPS. Finished applying all grass seed and water area with tire tracks. Animal burrow holes located and marked. Site secured.

Equipment: PPE: modified level D, GPS, rakes, seed mix

Data:

N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVIIES	Report # CDM – 012
	Date: 05/21/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling – Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 2000 (KB, AG) Personnel offsite time – 2030 (KB, AG)	Weather: 75°F, sunny to dusk

Title: Activity based sampling equipment delivery

Summary: Drop off equipment for Activity Based Sampling (ABS). Equipment stored in Conex box. Weather Station installed on T-Post approximately 200ft southwest of the Conex box, to measure rainfall throughout the ABS period. Site secured.

Equipment: PPE: modified level D., Bios Defender DryCal primary flow calibrator (USEPA ID#120566), 2 rotameters (LV: T485, HV: S32M), 3 SKC PC XR8 pumps, MET station

Data:

N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 013
	Date: 05/23/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0800	Weather: 63°F, overcast, High of 80°F
Title: Activity Based Sampling Training – Day 1	

Summary: CDM Smith personnel begin respirator training and fit testing conducted by KB. ABS air sampling scenario performed in an arbitrary location on the Park parcel, away from designated sample locations in accordance with Section 4.4 of the BoRit Final Site Management Plan (SMP). 90-minute test ABS air sampling scenario, including actor changes, performed by PV, AG, and LA while KB supervises. Soil moisture readings collected. Ambient air sampling locations located and assessed.

Equipment:

Honeywell respirators, Honeywell P100 particulate air filters, vials smoke irritant and 1 fit test kit, NOA pumps, Bios Defender DryCal primary flow calibrator (USEPA ID#120566), 2 rotameters (LV: T485, HV: S32M), 3 SKC PC XR8 pumps, Trimble GPS, MET station, Aquaterr digital soil moisture meter, 2 deep-cycle marine batteries, battery tender, small Honda generator

Data:

Respirators: Honeywell respirator and filters. AG-large, PV-medium, LA-small. Fit tests successful.

Sample Cassette Lot Number: 180413

Soil Moisture (0-6 inches bgs):

Location ID	Soil Moisture (%)
CSPKABS-101	96
CSPKABS-102	77
CSPKABS-103	88
CSPKABS-104	97
CSPKABS-105	Ground could not be penetrated due to rocks in soil
CSPKABS-106	Ground could not be penetrated due to rocks in soil
CSAPABS-101	75
CSAPABS-102	97

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 013
	Date: 05/23/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0800	Weather: 63°F, overcast, High of 80°F
Title: Activity Based Sampling Training – Day 1	

CSAPABS-103	94

Pump Flow Rates:

Location	Pump ID	Init. Flow Rate (L/min)	1528 Stop/Start	1600 Stop/Start	Final Flow Rate (L/min)
PP1 - Upwind Perimeter (HV)	SA5257	3.98	3.98/3.98	3.88/3.98	3.88
PP1 - Upwind Perimeter (LV)	SA5257	1.94	1.90/2.01	2.01/2.01	2.01
PP2 - Downwind Perimeter (HV)	SA5258	3.91	3.98/3.98	3.88/3.98	3.88
PP2 - Downwind Perimeter (LV)	SA5257	1.89	2.01/2.01	2.01/2.01	2.01
Ecological Perimeter	520323	2.01	1.55/2.01	2.01/2.01	2.01
Personal Adult Height (LV)	644259	2.48	2.48/2.48	2.48/2.48	2.48
Personal Child Height (LV)	518073	2.48	2.48/2.48	2.35/2.48	2.48

Timeline:

0800 Personnel on-site

0900 KB conducts respirator training for PV, AG, LA

1005 KB conducts respirator fit testing using irritant smoke for LA, AG, PV

1045 Crew mobilizes to practice ABS location on Park Parcel

1055 PV and AG mark out a 10 x 10 ft grid for the practice sample location. PV collects GPS at four corners of grid and stores points in file location: BORIT ABS

1125 PV and AG set up perimeter pumps upwind and downwind of ABS sample location. Height = 4 ft above ground surface (AGS)

1148 PV calibrates PP1 high-volume (HV) and low-volume (LV) using rotometer; KB checks with Drycal

1206 AG calibrates PP2 HV and LV to 2.01 using rotameters; PV checks with Drycal

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 013
	Date: 05/23/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0800	Weather: 63°F, overcast, High of 80°F
Title: Activity Based Sampling Training – Day 1	

1242 PV calibrates personal LV pumps using rotameters

1300 PV calibrates eco pump using rotameter

1310 Crew breaks for lunch

1340 Crew gets lesson from EPA BTAG on invasive species

1420 Crew sets up practice scenario

1503 Crew uncaps air cartridges, turns on pumps, and AG begins raking for test scenario

1528 First flow checks and actor change; PV begins raking

1600 Second flow check and actor change; LA begins raking

1635 Test ends and pumps are turned off

1640 Crew breaks down tent and packs equipment

1710 Crew prepares equipment for tomorrow's ambient air sampling activities

1725 AG calibrates soil moisture probe, locates sampling locations using a GPS, and collects soil moisture readings

1745 KB and PV mobilize to ambient air sample locations to assess areas

1836 PV and KB arrive back on site; crew wraps up

1840 Crew offsite for the day; Site secure.

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 014
	Date: 05/24/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0555 (KB), 0600 (PV), 0800 (AG, SWC)	Weather: 53°F, clear skies, High of 83°F

Title: Ambient Air Sampling (Day 1) and Weed Spraying (Day 3)

Summary: CDM Smith personnel (crew) set ambient air pumps at CSCMAA-101, CSCMAA-102, CSCMAA-103, CSCMAA-104, and CSCMAA-107B in accordance with Figure 3-2 of the BoRit Final Site Management Plan (SMP). Crew conducted battery exchanges and flow checks for pumps approximately every 8 hours in accordance with Section 4.8 of the SMP. Crew sprayed Canada Thistle with herbicide on Asbestos Pile and Reservoir parcels.

Equipment:

6 NOA pumps, 2 Bios Defender DryCal primary flow calibrators (USEPA ID#120566; Pine ID#106996), Trimble GPS, MET station, Aquaterr digital soil moisture meter, leaf blower, 15 deep-cycle marine batteries, battery tender, small Honda generator, 4 3-gallon HUD sprayers, Roundup herbicide, Rodeo herbicide

Data:

Sample Cassette Lot Number: 180413

Soil Moisture in CSPKABS-101 After Drying with Leaf Blower for 1 hour:

Minutes of Drying time	Average Soil Moisture (%)
0	90
15	81
30	88
45	79
60	92

Pump Flow Rates: Pump start times, stop times, and flow rates are located on Field Sampling Data Sheets (FSDS) AA-000101 through AA-000105.

Sample Locations: Saved in GPS file "BORIT ABS" and "borit 2"

Timeline:

0555 KB onsite at **CSCMAA-101**

0600 PV onsite. Start ambient air (AA) setup. Identify location to chain and lock AA pump approximately 18 feet from provided GPS coordinates

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 014 Date: 05/24/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0555 (KB), 0600 (PV), 0800 (AG, SWC)	Weather: 53°F, clear skies, High of 83°F

Title: Ambient Air Sampling (Day 1) and Weed Spraying (Day 3)

0615 PV collects GPS point for selected location

0634 KB uses Drycal 120566 to calibrate pump for high volume (HV) and low volume (LV) samples using calibration cassettes & average of 10 values. HV = 3.0692 liters per minute (LMP). LV = 1.4947 LPM

0638 Pump on; start sample collection

0646 Crew offsite

0658 Crew onsite at **CSCMAA-107B;** PV navigates to provided GPS coordinates

0702 PV identifies location approximately 2 feet from provided coordinates where pump can be secured and collects GPS coordinates

0710 Trouble with Drycal 120566 not reading flows. Switch to Drycal 106996

0724 KB calibrates pump for HV & LV Samples. HV = 3.067 LPM. LV = 1.502 LPM

0731 Pump on; start sample collection

0734 Crew offsite

0739 Crew onsite at **CSCMAA-102**. PV identifies location where pump can be secured, approximately 38 feet from provided coordinates, and collects GPS coordinates. KB inside to get access from post master. Doors do not open until 0815 – crew will return

0745 Crew offsite

0750 Crew onsite at **CSCMAA-103**. PV identifies suitable location to secure pump approximately 35 feet from provided coordinates and collects GPS point

0802 KB calibrates pump for HV & LV using Drycall 106996. HV = 2.993 LPM. LV = 1.511 LPM

0805 Pump on; start sample collection

0806 Crew offsite

0810 Crew onsite at **CSCMAA-104**. KB inside to obtain signed access from Karen Smith. PV identifies location at stair railing to secure pump.

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 014 Date: 05/24/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0555 (KB), 0600 (PV), 0800 (AG, SWC)	Weather: 53°F, clear skies, High of 83°F

Title: Ambient Air Sampling (Day 1) and Weed Spraying (Day 3)

0830 Neighbor tells crew that sampler was previously secured to parking sign on lawn. Crew moves pump and collects GPS point approximately 35 feet from provided coordinates

0836 KB calibrates pump with Drycal 106996. HV = 3.044 LPM. LV = 1.509 LPM.

0840 Pump on; start sample collection

0842 Crew offsite

0845 Crew onsite at **CSCMAA-102**. KMB obtains signed access agreement from post master. PV starts pump setup

0856 KB calibrates the pump with Drycal 106996. HV = 2.998 LPM. LV = 1.535 LPM

0900 Pump on; start sample collection

0905 Crew offsite

0916 Crew onsite at Park parcel to assist SWC and AG with weed spraying

0937 Crew moves to Asbestos Pile parcel for spraying

1120 PV offsite to buy leaf blower for ABS

1240 PV back onsite with leaf blower

1300 Drilling and test-pitting observed in vacant lot on Maple Ave proximate to **CSCMAA-107B**

1330 Leaf blower setup. KB call [redacted] to confirm leaf blowing on ABS location OK to occur concurrent with AA sampling

1431 PV to CSPKABS-1 to test soil moisture before, during and after leaf blowing in the area for one hour. No changes in average soil moisture collected from 0-6 inches BGS following one hour of drying

1500 KB offsite to check AA flow rates and replace batteries

1505 KB onsite at **CSCMAA-101**

1508 KB check flow rate using Drycal 106996. HV = 3.123 LPM. LV = 1.601 LPM

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 014 Date: 05/24/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0555 (KB), 0600 (PV), 0800 (AG, SWC)	Weather: 53°F, clear skies, High of 83°F

Title: Ambient Air Sampling (Day 1) and Weed Spraying (Day 3)

1512 Pause pump and replace battery

1513 Re-start pump and adjust flow rates with Drycal 106996. HV = 3.057 LPM. LV = 1.536 LPM

1525 Offiste

1530 KB onsite at **CSCMAA-107B**. Speak with drilling contractor onsite. They say they have not encountered dry ACM, just minor amounts of wet ACM

1546 Measure flow rates with Drycal 106996. HV = 3.063 LPM. LV = 2.516 LPM

1549 Pause pump and replace battery

1551 Re-start pump and adjust flow rates. HV = 3.043 LPM. LV = 1.533 LPM

1600 Offsite

1603 KB onsite at **CSCMAA-103**. Pump is not running – timer shows remaining time for 24-hour sample is 15 hours 54 minutes (indicating pump ran for 8 hours and 6 minutes before stopping)

1611 Cannot get pump to start with new battery. Replace pump with Pump SA5257 in same location, with same sample cassettes

1617 Pump on. Adjust flow rates using Drycal 106996. HV = 2.960. LV = 1.522. Time set to 15:54

1620 Pump fault. Re-secure battery leads. Pump back on within same minute

1623 Pump secured. Site photo taken

1626 Offsite

1630 KB Onsite at **CSCMAA-104**

1633 Check flow rates with Drycal 106996. HV = 3.047 LPM. LV = 1.548 LPM

1636 Pause pump and replace battery

1637 Pump on. Adjust flow rates using Drycall 106996. HV = 3.043 LPM. LV = 1.534 LPM. Photograph pump setup

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 014 Date: 05/24/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0555 (KB), 0600 (PV), 0800 (AG, SWC)	Weather: 53°F, clear skies, High of 83°F
Title: Ambient Air Sampling (Day 1) and Weed Spraying (Day 3)	

1643 Offsite

1645 KB onsite at **CSCMAA-102**. Check flows with Drycal 106996. HV = 3.274 LPM. LV = 1.973 LPM

1651 Pause pump and replace battery

1652 Pump on. Adjust flow rates with Drycall 106996. HV = 2.990 LPM. LV = 1.506 LPM

1658 Offsite. KB return to Park parcel to recharge batteries and organize equipment for return to Pine

1810 SWC and AG offsite

1830 Generator running to charge batteries, chained to Conex with lock. PV and KB offsite. Conex locked. Gate locked.

2300 KB onsite at Park parcel to put generator and pumps into Conex

2315 Offsite. Conex & gate locked

2322 KB onsite at **CSCMAA-101** to check flow rates and replace battery

2335 PV onsite

2337 Check flow rates with Drycal 106996. HV = 2.764 LPM. LV = 1.303 LPM

2340 Pause pump and replace battery

2341 Pump on. Adjust flow rates with Drycal 106996. HV = 3.023 LPM. LV = 1.521 LPM

2348 Crew offsite

2353 Crew onsite at **CSCMAA-107B**. Pump not running. Timer reads remaining time of 24:00. No way to tell when pump faulted between 1550 and 2353. Cap existing cassettes and add "A" to index. ID new cassettes attached to pump have "B" suffix

2409 Pump on with new battery and cassettes. Calibrate flow rates with Drycal 106996. HV = 2.984 LPM. LV = 1.564 LPM. Voltage on old battery was 10.64 so was taken out of service

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 014 Date: 05/24/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0555 (KB), 0600 (PV), 0800 (AG, SWC)	Weather: 53°F, clear skies, High of 83°F

Title: Ambient Air Sampling (Day 1) and Weed Spraying (Day 3)

2413 Offsite

2416 Crew onsite at **CSCMAA-103**. Check flow rates with Drycal 106996. HV = 2.187 LPM. LV = 1.174 LPM

2420 Pause pump and replace battery

2422 Pump on. Adjust flow rates with Drycal 106996. HV = 3.042 LPM. LV = 1.522 LPM

2426 Offsite

2429 Crew onsite at **CSCMAA-104**. Check flow rates with Drycal 106996. HV = 2.792 LPM. LV = 1.387 LPM

2431 Pause pump and replace battery

2432 Pump on. Adjust flow rates with Drycal 106996. HV = 3.061 LPM. LV = 1.508 LPM

2441 Crew onsite at **CSCMAA-102**. Check flow rates with Drycal 106996. HV = 2.518 LPM. LV = 1.177 LPM

2445 Pause pump and replace battery

2446 Pump on. Adjust flow rates with Drycal 106996. HV = 2.997 LPM. LV = 1.512 LPM

2450 Offsite. End of day

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 015
	Date: 05/25/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630	Weather: 55°F, clear skies, High of 82°F

Title: Ambient Air Sampling (Day 2)

Summary: CDM Smith personnel will conduct final flow checks and collect ambient air samples at CM-101, CM-102, CM-103, CM-104, and CM-107B in accordance with Section 4.8 of the BoRit Final Site Management Plan (SMP).

Equipment:

6 NOA pumps, 1 Bios Defender DryCal primary flow calibrator (Pine ID#106996), 2 rotameters (LV: T485, HV: S32M), Trimble GPS, MET station, Aquaterr digital soil moisture meter, 5 deep-cycle marine batteries, battery tender, small Honda generator

Data:

Sample Cassette Lot Number: 180413

Soil Moisture (0-6 inches bgs):

Location ID	Soil moisture
CSPKABS-101	88, 84, 95, 92, 74
CSPKABS-102	84, 67, 97, 97, 95
CSPKABS-103	95, 87, 92, 98, 93
CSPKABS-104	100, 95, 88, 92, 70
CSPKABS-105	Could not insert probe due to rock in soil
CSPKABS-106	Could not insert probe due to rock in soil
CSAPABS-101	100, 87, 92, 86, 80
CSAPABS-102	80, 93, 89, 89, 94
CSAPABS-103	85, 96, 92, 94, 83

Pump Flow Rates: Pump start times, stop times, and flow rates are located on Field Sampling Data Sheets (FSDS) AA-000101 through AA-000105.

Sample Locations: Saved in GPS file "BORIT ABS" and "borit 2"

Timeline:

0625 KB onsite at **CSCMAA-101**

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 015
	Date: 05/25/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630	Weather: 55°F, clear skies, High of 82°F

Title: Ambient Air Sampling (Day 2)

0633 PV onsite. Gather supplies

0640 Take flow measurements with Drycal 106996. HV = 2.899 LPM. LV = 1.427 LPM

0644 Pump turned off manually as the timer did not appear to be counting down as expected. Cap cassettes and remove from tubing. CSCMAA-101-AH101 was dropped from a height of approximately 3 feet onto pump box. Crew removes sampling setup from site

0652 Expose blank at **CSCMAA-101**.

0702 Offsite

0705 Crew onsite at Park parcel to start battery charger and generator

0722 Offsite

0725 Crew onsite at **CSCMAA-107B**. Observe dew on outside of cassettes. Building material rolls from demo present within 4 feet of cassettes

0731 Check flow rates using Drycal 106996. HV = 2.683 LPM. LV = 1.442 LPM

0733 Pump off. Cap cassettes. Drilling contractor is onsite; excavator is breaking concrete on southeast portion of property. Crew breaks down sampling setup and packs into vans

0739 Offsite

0744 Crew onsite at **CSCMAA-103**. Wait for 24-hour timer to end

0814 Pump shuts off while crew is opening the case. Timer shows the 15 hours 54 minutes ave elapsed as hen pump was replaced on 5/24/18

0817 Pump turned back on to get final flow rates using Drycal 106996. HV = 3.190 LPM. LV = 1.546 LPM. Pump off. Samples capped

0826 Offsite

0830 Crew onsite at **CSCMAA-104**. Pump still running, but timer shows no numbers. Crew will wait to see if pump shuts off at 24-hours past sample start time

0839 Pump shuts off after timer beeps

0840 Crew turns pump back on for final flow check using Drycal 106996. HV = 3.337 LPM. LV =

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 015 Date: 05/25/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling and Weed Spraying	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630	Weather: 55°F, clear skies, High of 82°F

Title: Ambient Air Sampling (Day 2)

1.661 LPM. Pump off. Cap sample cassettes. Crew breaks down sampling setup and packs equipment into vans.

0845 Offsite

0849 Crew onsite at **CSCMAA-102**. Pump is running. Timer shows 17 minutes remaining

0905 Check final flow rates with Drycal 106996. HV = 3.084 LPM. LV = 1.566 LPM

0906 Pump shuts off as timer expires. Cap sample cassettes. Crew breaks down sampling setup and loads into vans

0926 Offsite

0933 Crew onsite at Park parcel to unload equipment. Separate rented equipment and prepare for Pine pickup. Note: Drycal 106996 was calibrated on 4/6/18by Advanced Labs, inc. and is due for calibration on April 2019. Drycal 120566 was calibrated 10/10/2017 by CIH Equipment Co. Inc and is due for calibration 10/10/2018

0955 Crew custody seal and individually bag cassettes

1240 Crew offsite to get lunch and find WIFI to download calculation spreadsheet for ambient air total volume calculation. Complete volume calculations, chain of custody, and QC FSDSs

1515 Onsite at Park parcel to check soil moisture at ABS locations and inventory equipment in Conex box

1520 KB calibrates soil moisture meter. PV begins inventory.

1525 KB begins soil moisture readings. Hole from burrowing animal or soil sampling observed approximately 3 feet south of CSAPABS-103

1630 KB finish soil moisture measurements and PV finished packaging samples for shipment and taking inventory of Conex

1705 Conex locked. Gate locked. Crew offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 016
	Date: 05/29/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Confirmation Sampling – Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1130 (PV) Personnel offsite time – 1750 (PV)	Weather: 75°F, sunny and clouds
Title: Landscaping, data collection, and site maintenance	

Summary: PV onsite to collect rain gauge readings, collect soil moisture readings, trim ABS areas, oversee Pine Environmental equipment pickup, cut sapling along reservoir berm, remove ACM piled up near mole hole along reservoir berm, flag mole holes. PV tested new voltmeter and placed wing nuts on batteries as needed. PV set up new lock for Conex box and sprayed wasp nest on door of Conex box. PV cleared path with weed trimmer to location of mole hole with exposed ACM and donned level C PPE. PV removed visible ACM and gravel from area around mole hole. Some ACM remains because dense vegetation has grown roots through much of the gravel pile making it difficult to find the ACM material. Tyvek booties do not provide sufficient grip for traversing the slope or shoveling. Heavy sweat disallows respirator from creating a proper seal on face. Trash bag became too heavy to carry.

Equipment: PPE: modified level D, modified level C, respirator, tyvex booties, Voltmeter, wing nuts, batteries, Conex box with lock, wasp spray, weed trimmer, roll-off container, soil probe, weather station

Data:

Sample ID	Moisture (%)
CSPK101	69, 87, 93, 97, 72
CSPK102	56, 89, 84, 83, 78
CSPK103	63, 90, 96, 94, 98

Weather Station Data:	
Weather station	0.00 inches rain today
Weather underground	0.00 inches rain in last 36 hours

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 017
	Date: 05/30/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Pre-Final Site Inspection and Slit Seeding	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0900 (SWC, Greg Voigt, Brian McDowell, Joe McDowell - USEPA, Colin Wade and Tim Cherry - PADEP), 0923 (PV), 0935 (LA, LP), 0953 (George's tool rental) Personnel offsite time – 1410 (LP), 1847 (PV), 1910 (SWC, LA)	Weather: 73°F, Overcast
Title: Site walk with USEPA and NJDEP, Park parcel seeding	

Summary: CDM Smith personnel (crew) onsite to conduct a site walk with USEPA and NJDEP. SWC led site walk. LP onsite to drop off grass seed. LP joins pre-final inspection team, releasing SWC to perform slit seeding. Once inspection is complete, LP leaves to obtain additional grass seed. LP returns with second load of grass seed. LA, SWC, and PV begin slit seeding in southern end of Park parcel shown on Figure 2-1 of the BoRit Final Site Management Plan (SMP). LA and PV seed Park parcel with 3 slit seeders filled with Kentucky 31 tall fescue grass seed. Blades set to "F" to slit approximately ¼" deep. Seed drop level initially set to "6" to release approximately 11 pounds per 1000 square feet of ground, seed drop level adjusted to "4.5" dispersing 6 pounds per square foot of ground at southern end of Park parcel. Crew raised the level of the blades on the slit seeder to address difficulty penetrating the ground surface. Crew completed seeding in approximately half of the Park parcel. Crew secured remaining seed in Conex box. Crew secured seeders with lock and chain.

Equipment: PPE: modified level D, 3 slit seeders, Kentucky 31 tall fescue grass seed, ear muffs, gasoline can

Data:

N/A

Field Team Leader: [redacted]	Company: CDM Smith

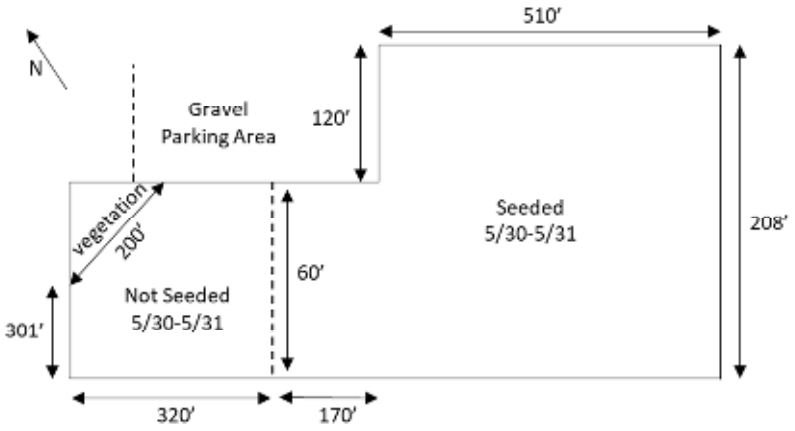
DAILY LOG OF SITE ACTIVITIES	Report # CDM – 018
	Date: 05/31/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Slit Seeding	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA), 1150 (USEPA), 1445 (PV, LA) Personnel offsite time – 1217 (USEPA), 1343 (PV, LA), 1855 (PV, LA)	Weather: 62°F, Overcast with light rain
Title: Continue slit seeding	

Summary: CDM Smith personnel (crew) onsite to continue slit seeding the Park parcel shown on Figure 2-1 of the BoRit Final Site Management Plan (SMP). MET station reports 0.00" of rain at current time; however, there is a light drizzle and the ground is damp. Crew checks to see if soil sticks to seeder blades when operating. Soil is deemed OK to continue slit seeding. Crew loads Mule with seed, seeder, gasoline, hoppers with seed and begins seeding where crew left off previous day. One seeder has problem engaging blades because there is geotextile wrapped around on end, crew works to free the material. Geotextile is successfully removed however seeder is still unable to run with blades down. Replacement seeder is implemented in place of faulty seeder. Seed drop rate is set to "4-4.5" (5-6 pounds per square foot. USEPA picks up mule trailer and drops off new trailer. Truck accidentally backs up into MET station. MET station is checked, and it appears to be intact and functioning. Another seeder becomes stuck due to geotextile in blades, material is successful removed, and seeding continues. Seeding was completed in non-vegetated area of parcel. Seeding then continued in other areas of parcel. Crew trims vegetated portion of parcel located west of gravel parking area. Approximately 150,000 square feet of ground seeded at end of seeding for the day. About 20,000 square feet of unseeded area remains at the end of the day. Crew used 30 50-lb bags of seed while 10 bags remain.

Equipment: PPE: modified level D, 3 silt seeders, Kentucky 31 tall fescue grass, ear muffs, gasoline, weed trimmer, Mule

Data: NA

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 018
	Date: 05/31/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Slit Seeding	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA), 1150 (USEPA), 1445 (PV, LA) Personnel offsite time – 1217 (USEPA), 1343 (PV, LA), 1855 (PV, LA)	Weather: 62°F, Overcast with light rain
Title: Continue slit seeding	



Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 019
	Date: 06/01/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Slit Seeding	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1100 (PV), 1545 (George's Tool Rental) Personnel offsite time – 1622 (George's Tool Rental), 1655 (PV)	Weather: 76°F, Overcast with high humidity
Title: Complete slit seeding	

Summary: PV onsite to complete slit seeding in all non-vegetated areas left unseeded. George's Tool Rental arrives to pick up seeders. All seeders determined to be in good condition and filled with gas before returned. George's Tool Rental leaves Site with all three seeders. 4x50 pound bags of grass seed remain secured in Conex box.

Equipment: PPE: modified level D, 3 slit seeders, Kentucky 31 tall fescue grass, ear muffs, gasoline can

Data:

N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 020
	Date: 06/04/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0755 (SPC, PV, JR, DH) Personnel offsite time – 1300 (PV) 1645 (SPC, JR, DH)	Weather: 70°F, Mostly Cloudy
Title: Steam Gauge installation	

Summary: CDM Smith personnel (crew) onsite to begin installation of telemetry boxes in 3 locations shown on Figure 2-9 attached below. JR conducts health and safety meeting. PV onsite to drop off a gasoline powered chain type trencher, which was rented from a hardware store. PV shows crew telemetry installation locations and gets crew started on work. PV reorganizes equipment within Conex box to safely store marine batteries. SPC and JR mobilize to each installation area to determine equipment needed and then to hardware store to purchase equipment. Crew trims weeds, digs trenches by hand and with gasoline powered chain type trencher. SPC and JR dig pit for concrete pad, mix and place concrete for Tannery Run telemetry box. Crew digs pit for concrete pad and pours concrete for Rose Valley creek and Wissahickon creek telemetry boxes. DH installs support poles in recently poured (wet) concrete pads at each location and uses bubble level to ensure that they are vertical.

Equipment: PPE: modified level D, weed trimmers, shovels, concrete (large aggregate in bags), gasoline powered chain type trencher

Data:

N/A

Figures:

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 020 Date: 06/04/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0755 (SPC, PV, JR, DH) Personnel offsite time – 1300 (PV) 1645 (SPC, JR, DH)	Weather: 70°F, Mostly Cloudy
Title: Steam Gauge installation	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 020
	Date: 06/04/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0755 (SPC, PV, JR, DH) Personnel offsite time – 1300 (PV) 1645 (SPC, JR, DH)	Weather: 70°F, Mostly Cloudy
Title: Steam Gauge installation	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 021
	Date: 06/05/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 Task Order: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1700 (SPC, JR, DH)	Weather: 75°F, Sunny
Title: Steam Gauge Installation	

Summary: CDM Smith personnel (crew) onsite to continue installation of telemetry boxes in 3 locations shown on Figure 2-9 attached below. JR conducts health and safety meeting. Crew dig trenches for Wissahickon and Reservoir telemetry boxes using shovels and gasoline powered chain type trencher. DH installs telemetry box at Tannery Run, Wissahickon creek, and Reservoir by fixing equipment to support poles in dry concrete. SPC and JR go to hardware store to buy additional supplies. SPC collects soil moisture readings in Park parcel. DH installs solar panels, antennas, and sim card. Cellular connection is established in all telemetry boxes. SPC and JR measure distance from telemetry boxes to significant features near by.

Equipment: PPE: modified level D, Equipment purchased from hardware store (rebar, surveyor tape, stream gauges as monuments, steel poles and fittings, wood stakes, flagging tape), weed trimmers, shovels, concrete, gasoline powered chain type trencher

Data:

Sample ID	Moisture (%)
CSPK-101	72, 68, 86, 93, 67
CSPK-102	80, 71, 62, 84, 70
CSPK-103	66, 69, 74, 68, 77
CSPK-104	83, 73, 75, 81, 85
CSPK-105	61, 68, 64, 69, 73

Figures:

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 021 Date: 06/05/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 Task Order: 3330.056
CDM Smith Personnel – Sean [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1700 (SPC, JR, DH)	Weather: 75°F, Sunny
Title: Steam Gauge Installation	

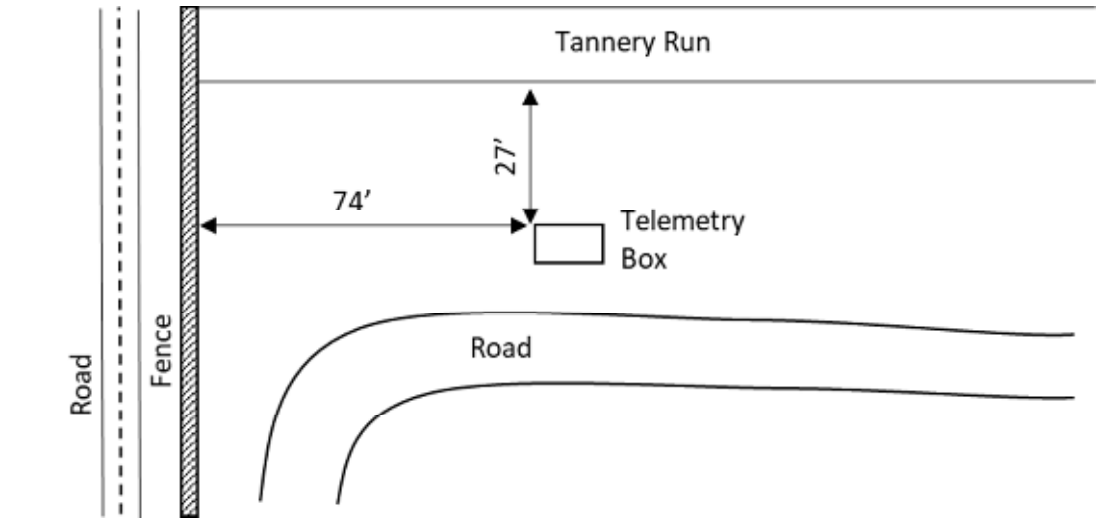


Figure 1

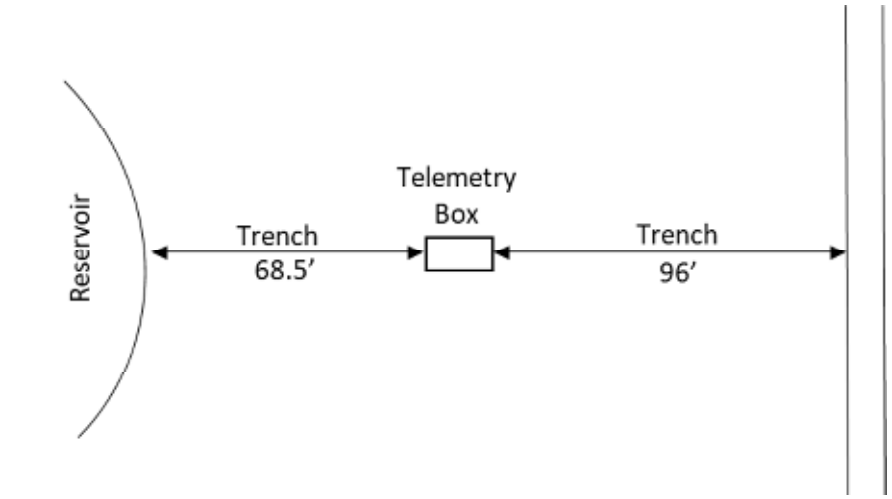


Figure 2

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 021 Date: 06/05/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 Task Order: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1700 (SPC, JR, DH)	Weather: 75°F, Sunny
Title: Steam Gauge Installation	

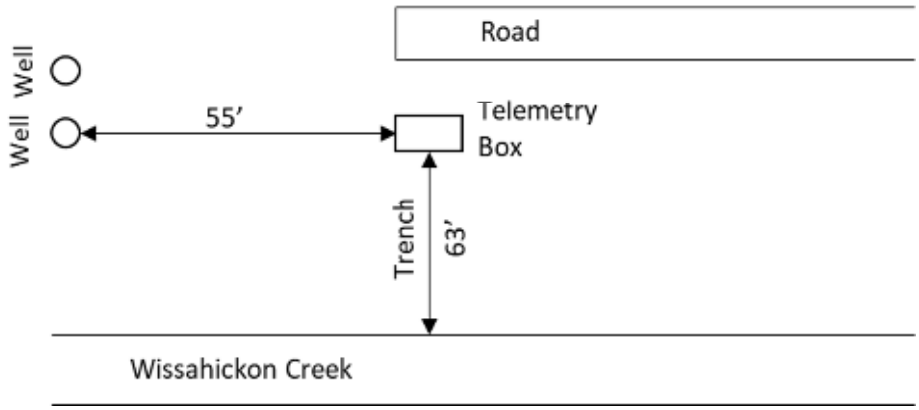
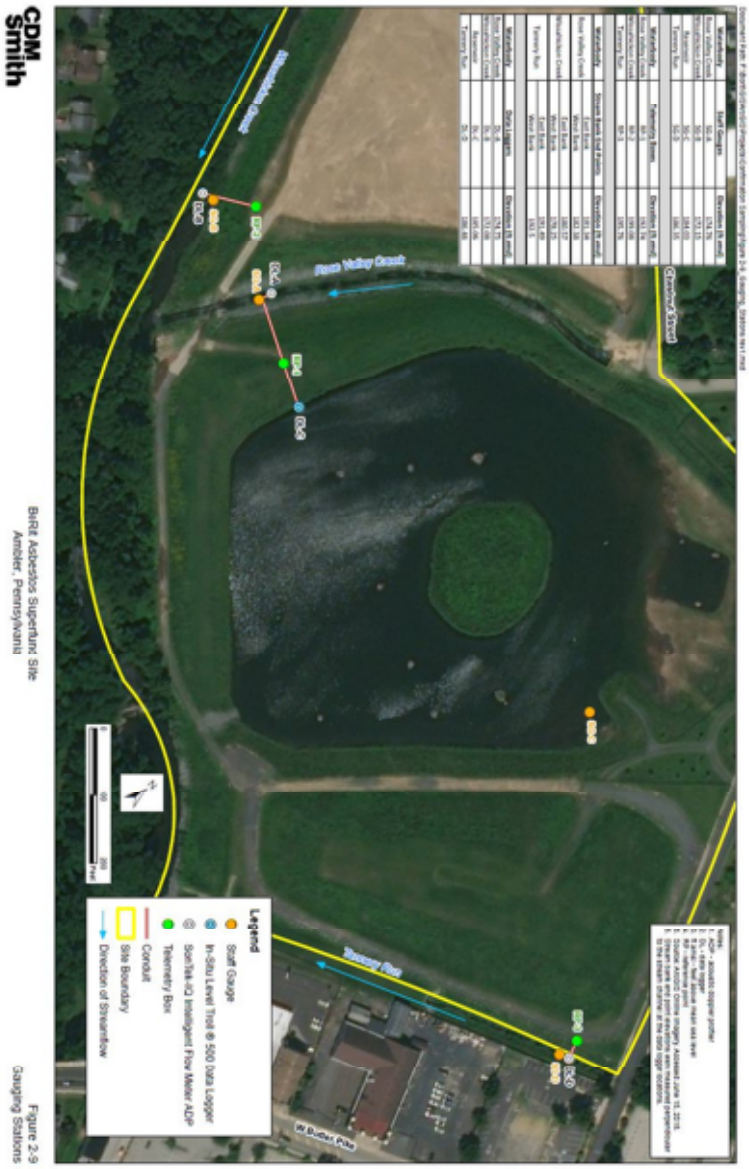


Figure 3

Field Team Leader: [redacted]	Company: CDM Smith


CDM Smith
BkRit Asbestos Superfund Site
Ambler, Pennsylvania
Figure 2-9
Gauging Stations
Legend
Staff Gauge
In-Situ Level Troll 9-500 Data Logger
SonTek-IQ Intelligent Flow Meter ADP
Telemetry Box
Conduit
Site Boundary
Direction of Streamflow
Wissahickon Creek
Rose Valley Creek
Tannery Run
W Butler Pike

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 022
	Date: 06/06/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1745 (SPC, JR, DH)	Weather: 68°F, Mostly Cloudy
Title: Steam gauge installation, cross-sectional survey, flow monitor	

Summary: CDM Smith personnel (crew) onsite to begin installation of staff gauges and SonTek stream sensors (sensors) in locations shown on Figure 2-9 attached below. SPC and JR install staff gauges near sensor locations at Rose Valley Creek and Wissahickon Creek, and Tannery Run. DH installs sensor in Tannery Run and Rose Valley Creek. DH connects each sensor to its own telemetry box.

Equipment: PPE: modified level D, hammer, battery powered drill, screws, staff gauges, fence post, safety gloves, eye protection, sensor installation equipment

Figures:

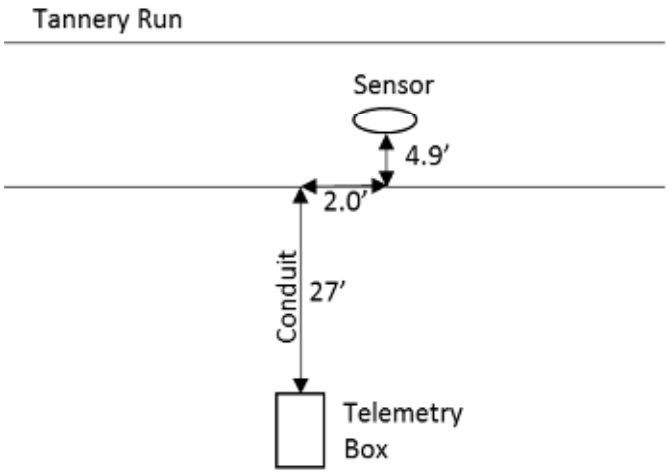


Figure 1

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 022 Date: 06/06/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1745 (SPC, JR, DH)	Weather: 68°F, Mostly Cloudy
Title: Steam gauge installation, cross-sectional survey, flow monitor	

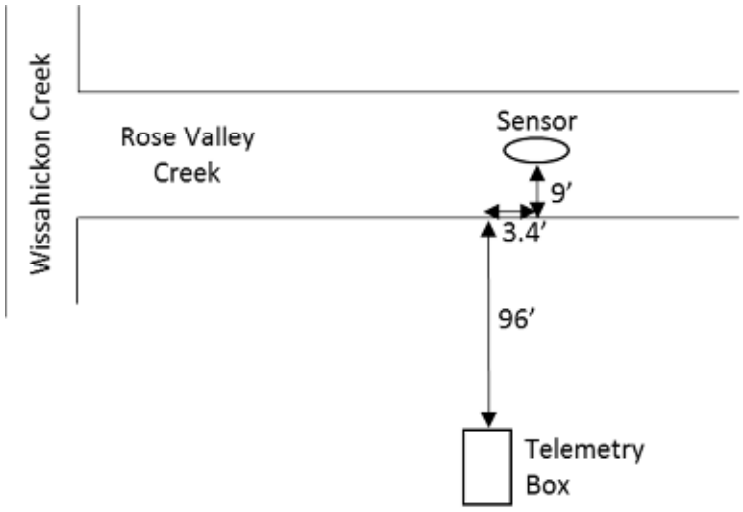


Figure 2

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 022 Date: 06/06/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1745 (SPC, JR, DH)	Weather: 68°F, Mostly Cloudy

Title: Steam gauge installation, cross-sectional survey, flow monitor

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 022
	Date: 06/06/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, DH) Personnel offsite time – 1745 (SPC, JR, DH)	Weather: 68°F, Mostly Cloudy
Title: Steam gauge installation, cross-sectional survey, flow monitor	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023b
	Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Confirmation Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1200 (SPC, PV) Personnel offsite time – 2332 (SPC, PV)	Weather: 70°F, Sun & clouds
Title: Ambient Air Confirmation Sampling	

Summary: CDM Smith personnel onsite to continue Ambient Air Sampling conducted per the requirements in Section 3.1 of the BoRit Final Site Management Plan (SMP). Ambient air and confirmation sampling at 105 and 107B shown on Figure 3-2 of the SMP were unable to be sampled due to access/pump issues on 5/24 and 5/25. PV collected field blank CSCMAA 105-400. Using Drycal (ID#R3522), PV calibrated pump for high volume and low volume samples using calibration cassettes and averages of 10 flow values for both high and low volume pumps (HV = 3.011 L/min, LV = 1.506 L/min. Crew started sample collection at CSCMAA – 107B (reference FSDSAA-000107) at 14:20. Access was not granted for CSCMAA-105 at Cognis facility so crew setup near the basketball court on Maple Ave and Mount Pleasant Ave as requested by the EPA Work Assignment Manager, approximately 646 ft away from original location. Battery voltage was checked to ensure constant flow. Crew started sample collection – reference FSDSAA-.000106 at 14:47. PV calibrated flow at CSCMAA-107B and CSCMAA-105. Crew onsite at CSCMAA-107B for battery change out and flow calibration at 22:25. The black cap was left on CSCAA-107B-AH101 for approximately 8.5 hours (blue cap had been removed, so flow was able to pass through cassette); PV removed black cap. Crew unloads equipment and charges batteries with a portable generator.

Equipment: PPE: Level D; Equipment – Drycal, high volume pump, low volume samples, calibration cassettes, batteries, water jugs for herbicide dilution, generator

Data:

13:53 Battery for CSCMAA-107B at 13.09 Volts

14:08 DryCal (ID#R3522)- HV=3.011 L/min; LV=1.506 L/min

14:36 Battery for CSCMAA-105 at 12.74 Volts

14:45 DryCal (ID#R3522)- HV=3.003 L/min; LV=1.496 L/min

22:35 Old Battery for CSCMAA-107B at 12.59 Volts; HV=2.777 L/min; LV=1.340 L/min

22:46 New Battery for CSCMAA-107B- HV=3.056 L/min; LV=1.502 L/min

23:02 Old Battery for CSCMAA-105 at 12.16 Volts; HV=2.588 L/min; LV=1.244 L/min

23:10 New Battery for CSCMAA-105- HV=3.044; LV=1.541

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a
	Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy
Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring	

Summary:

CDM Smith personnel (crew) onsite to conduct cross sectional surveys and stream flow monitoring of Rose Valley Creek and Wissahickon Creek. YSI personnel onsite to continue installation of SonTek stream sensors. JR conducts Health and safety meeting. DH installed sensor at Rose Valley Creek. Crew completed cross-sectional survey of Rose Valley Creek and Wissahickon Creek. (See data below). Crew completed flow measurements across Rose Valley Creek and Wissahickon Creek. Cross-section and stream flow data are used to configure SonTek stream sensors. SPC collects soil moisture measurements on the Park and Asbestos Pile Parcels.

Equipment: PPE: level D, Laser level with receiver and staff gauge, flow meter

Data:

Soil Moisture Readings:

Park: 80, 71, 74, 54, 78

Pile: 73, 87, 91, 72, 53, 73

Title: Rose Valley Creek Cross-Section Survey

Station	BS (+)	HI	FS (-)	Elev.	Notes
RP-1	0.87	100.87		100.00	Reservoir Telemetry Box
TP-1			6.95	93.92	Temporary Point- 1
TP-1	0.43	94.35			
LB-0			5.75	88.60	Left Bank End Point
CS-0.0			7.64	86.71	Cross Section at End Point
CS-6.0			7.19	87.16	15 ft ds of ADP at cross-sectional survey
CS-12.1			7.64	86.71	
CS-14.8			8.09	86.26	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy

Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring

CS-15.0			9.05	85.30	
CS-16.5			9.59	84.76	
RB-58.85			4.71	89.64	
CS-58.85			7.02	87.33	
CS-55.9			7.94	86.41	
CS-58.85	0.79	88.12			
CS-52.5			2.36	85.76	
CS-48.8			2.68	85.44	
CS-46.2			3.13	84.99	
CS-43.8			4.01	84.11	
CS-43.1			3.92	84.2	
CS-42.0			4.55	83.57	
CS-41.3			6.05	82.07	Right edge water (REW)
CS-37.1			5.98	82.14	
CS-33.2			6.11	82.01	
CS-29.2			6.03	82.09	
CS-24.5			5.88	82.24	LEW
WL			5.80	82.32	0.05 Staff gauge
CS-20.7			5.32	82.80	
CS-18.0			4.29	83.83	
CS-0.0			1.40	86.72	Tie in

Title: Rose Valley Flow Measurements

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy
Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring	

Station	Depth (ft)	Velocity* (ft/s)	Notes
LEW-24.4	0	0	0.05 Staff Gauge
26.0	0.15	0.45	
27.0	0.20	0.77	
28.0	0.22	0.80	
28.5	0.22	0.92	
29.0	0.22	1.01	
29.5	0.26	1.00	
30.0	0.30	1.31	
30.5	0.31	1.40	
31.0	0.33	1.48	
31.5	0.34	1.45	
32.0	0.40	1.50	
32.5	0.41	1.66	
33.0	0.34	1.48	
33.5	0.35	1.48	
34.0	0.31	1.50	
34.5	0.32	1.10	
35.0	0.30	0.93	
36.0	0.25	0.87	
37.0	0.22	0.50	
38.0	0.17	0.37	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy

Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring

39.0	0.15	0.27	
40.0	0.12	0.19	
REW-40.5	0	0	Staff Gauge = 0.09

* Measured at 0.6*depth from surface

Title: Wissahickon Creek Cross-Section

Station	BS (+)	HI	FS (-)	Elev.	Notes
RP-2	1.15	101.15		100.00	Wissahickon Telemetry Box
TP-1			6.13	95.02	
TP-1	0.25	95.27			
TP-2			5.37	89.90	
TP-2	0.48	90.38			
TP-3			5.36	85.02	
TP-3	0.35	85.37			LB at top of stake
LB-0.0			3.88	81.49	Left bank zero of x-sectional survey at ADP unit.
CS-0.0			5.05	80.32	
LB-0.0	0.58	82.07		(???)	
TP 4			4.36	77.71	
TP 4	0.54	78.25			
RB 71.3			Na	79.17	CSO is at LS. (LB at top of stake)

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy
Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring	

	CS 71.3			Na	78.16	
	CS 69.5			0.5	77.75	
	CS 69.8			0.33	77.92	
	CS 68.5			1.02	77.23	RO is right bank XS stake
	CS 67.0			2.43	75.82	
	CS 65.5			3.39	74.86	
	CS 63.8			3.89	74.36	
	CS 64.2			3.85	74.40	REW=at staff gauge of 1.73’
	CS 60.0			4.34	73.91	
	CS 58.0		78.25	4.67	73.58	
	CS 56.0			4.59	73.66	At Rock
	CS 55.0			4.82	73.43	
	CS 53.0			4.93	73.32	
	CS 50.0			5.22	73.03	
	CS 47.0			5.46	72.79	
	CS 44.0			5.34	72.91	
	CS 42.0			5.16	73.09	
	CS 41.0			-	-	ADP at unit
	CS 39.0			5.34	72.91	
	CS 40.0			5.34	72.91	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy

Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring

CS 36.0			5.26	72.99	
CS 33.0			5.24	73.01	
CS 30.0			5.25	73.00	
CS 27.0			5.28	72.97	
CS 24.0			5.48	72.77	
CS 21.5			5.04	73.21	Rocks
CS 19.5			5.36	72.89	
CS 16.5			5.46	72.79	
CS 14.1			3.84	74.41	LEW at staff = 1.73
CS 9.0			0.55	77.70	
CS 12.0			1.66	76.59	
LB 0.0	3.34	84.83	-	-	
CS 5.0			5.60	79.23	
TP-4			7.19	77.64	Rock at TP-4 moved

E = Estimated

Title: Wissahickon Flow Measurements

Station	Depth	Velocity	Notes
LEW-13.7	0	0	Staff Gauge = 1.73
14	0.48	0	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy
Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring	

	15	0.56	0	
	17	1.35	0	
	19	1.04	0.11	
	22	1.62	0.39	
	25	1.53	0.27	
	27	1.45	0.33	
	29	1.41	0.48	
	31	1.42	0.27	
	33	1.39	0.32	
	35	1.46	0.39	
	37	1.57	0.37	
	39	1.60	0.35	
	41	1.40	0.60	
	43	1.60	0.39	
	45	1.51	0.62	
	47	1.55	0.52	
	49	1.50	0.50	
	51	1.42	0.42	
	53	1.17	0.34	
	55	1.04	0.26	
	59	0.60	0.16	
	62	0.40	0	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 023a Date: 06/07/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Stream Gauge Installation, Stream Cross-Sectional Survey, Stream Flow Monitoring	Contract Number: 6265 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel- [redacted] Personnel onsite time – 0715 (SPC, JR, DH, DE) Personnel offsite time – 1730 (SPC, JR, DH, DE)	Weather: 70°F, Mostly Cloudy
Title: Stream gauge installation, stream cross-sectional survey, stream flow monitoring	

REW-64	0	0	Staff Gauge = 1.725

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 024b
	Date: 06/8/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Confirmation Air Sampling at CSCMAA-105 and CSCMAA-107B	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (SPC, PV) Personnel offsite time - 1615 (SPC, PV)	Weather: 70°F, Sun and Clouds

Title: Confirmation Air Sampling at CSCMAA-105 and CSCMAA-107B

Summary: CDM Smith personnel onsite to conduct ambient air sampling as per Section 3.1 of the BoRit Final Site Management Plan (SMP). During air sampling activities, weed spraying and stream gauge activities occurred (see Report # CDM-024a for further details on concurrent activities). PV collected ambient air samples– CSCMAA-107B-AH101, CSCMAA-107B-AL101, CSCMAA-105-AH101, CSCMAA-105-AL101. GPS sample point collected – Reference file name BoRit2.

Equipment: PPE: Level D; Equipment – Drycal, battery, pumps

Data:

07:37 Battery for CSCMAA-107B at 12.13 Volts; DryCal (ID#R3522)- HV=2.911 L/min; LV=1.428 L/min

07:41 New battery voltage=12.75 Volts; HV=3.096 L/min; LV= 1.515 L/min

07:55 Battery for CSCMAA-105 at 11.82 Volts; DryCal (ID#R3522)- HV=2.98 L/min; LV=1.491 L/min

08:03 New battery voltage=12.71 Volts; HV=3.069 L/min; LV= 1.508 L/min

07:37 Battery for CSCMAA-107B at 12.13 Volts; DryCal (ID#R3522)- HV=2.911 L/min; LV=1.428 L/min

14:18 CSCMAA-107B- DryCal (ID#R3522)-HV=3.578 L/min; LV=1.824 L/min

14:36 CSCMAA-105- DryCal (ID#R3522)-HV=3.235 L/min; LV=1.889 L/min

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 024a
	Date: 06/8/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling, Stream Cross Sections & Flow Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, PV) Personnel offsite time – 1500 (SPC, JR) - 1615 (PV)	Weather: 80°F, Cloudy

Title: Ambient Air Sampling, Stream Cross Sections & Flow Readings

Summary: CDM Smith personnel onsite to continue stream gauge installation. JR conducts H&S audit of the Conex box to address safety issues. JR measured hole in fence along Ambler Ave. SPC and JR conduct a cross-section survey and stream flow measurements of Tannery Run in order to properly configure SonTek stream sensor. PV conducted weed spraying on Reservoir island but found that invasive species were not present. PV conducted weed spraying on north bank of Rose Valley Creek, and top of the berm on the south side of Park Parcel along Rose Valley Creek. DH conducts brief tutorial on telemetry box operations and maintenance at Tannery Run telemetry box. Crew must still program meters and download datalogger software.

Equipment: PPE: Level D, Laser level with receiver and staff gauge, flow meter, 3-gallon HUD sprayers, Roundup herbicide, Rodeo herbicide

Data:

Title: Tannery Run Cross Section Survey

Station	BS (+)	HI	FS (-)	Elev.	Notes
RP-3	0.92	100.92		100.0	Tannery Run Telemetry Box
RB-0			4.18	96.74	
RB-0	0.50	97.24			
CS-0			1.59	95.65	
CS-1.0			2.43	94.81	
CS-2.0			2.76	94.48	
CS-3.0			3.43	93.81	
CS-4.0			4.11	93.13	
CS-5.0			4.53	92.71	
CS-6.0			4.84	92.40	
CS-7.0			4.98	92.26	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 024a
	Date: 06/8/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling, Stream Cross Sections & Flow Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, PV) Personnel offsite time – 1500 (SPC, JR) - 1615 (PV)	Weather: 80°F, Cloudy

Title: Ambient Air Sampling, Stream Cross Sections & Flow Readings

CS-8.0			5.24	92.00	
CS-9.0			5.28	91.96	
CS-10.0			5.16	92.08	
CS-11.0			5.50	91.74	
CS-12.0			5.78	91.46	
CS-13.0			6.37	90.87	REW
CS-14.0			6.56	90.68	
CS-15.0			6.62	90.62	
CS-16.0			6.54	90.72	ADP Unit at 16.5′ in X-Section (5′ DS of XS)
CS-17.0			6.56	90.68	
CS-18.0			6.57	90.67	
CS-18.9			6.58	90.60	LEW
CS-19.2		97.24	5.44	91.80	
CS-20.0			4.92	92.32	
CS-21.3			3.84	93.40	
CS-21.7			3.66	93.58	
CS-22.4			3.04	94.2	Base of left end point
LB-22.4			1.51	95.73	
RB-0			0.5	96.74	

Title: Tannery Run Flow Measurements

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 024a
	Date: 06/8/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling, Stream Cross Sections & Flow Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, PV) Personnel offsite time – 1500 (SPC, JR) - 1615 (PV)	Weather: 80°F, Cloudy

Title: Ambient Air Sampling, Stream Cross Sections & Flow Readings

Station	Depth (ft)	Velocity (ft/s)	Notes
REW-13.0	0	0	Staff Gauge = 0.22′
13.4	0.26	0.37	
13.8	0.30	0.19	
14.2	0.39	0.50	
14.6	0.36	1.02	
15.0	0.35	0.50	
15.4	0.30	0.51	
15.8	0.34	0.34	
16.2	0.29	0.37	Staff Gauge = 0.22′
16.6	0.31	0.44	
17.0	0.32	0.49	
17.4	0.39	0.27	
17.8	0.39	0.23	
18.2	0.38	0.06	
18.6	0.36	0.15	

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 024a Date: 06/8/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling, Stream Cross Sections & Flow Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, PV) Personnel offsite time – 1500 (SPC, JR) - 1615 (PV)	Weather: 80°F, Cloudy

Title: Ambient Air Sampling, Stream Cross Sections & Flow Readings

LEW at 19.1	0	0	Staff Gauge = 0.21’

Weed Spray Details: 15 oz Roundup and 8 oz of Rodeo; 11 Gallons of water used.

Title: Elevation Calculations

Station	BS (+)	HI	FS(-)	Elev.	Notes
Actual Elevation of **RP-3**					
MW-6	1.84	198.79		196.95	Top of PVC
RP-3			3.03	**195.76**	Tannery Run Telemetry Box
Actual Elevation of **RP-1**					
MW-3	2.72	185.99		183.27	Top of PVC
LB-0			4.65	181.34	Left Bank of Rose Valley
Δ Elevation (RP-1 – LB-0) = 100-88.60 = 11.40					
Therefore, RP-1 Elevation = 181.34+11.40 = **192.74** Rose Valley Creek Telemetry Box					
Actual Elevation of **RP-2**					
MW-2	5.98	204.34		198.36	Top of casing (rim)
RP-2			5.26	**199.08**	Wissahickon Creek Telemetry Box

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 024a Date: 06/8/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ambient Air Sampling, Stream Cross Sections & Flow Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] YSI Personnel - [redacted] Personnel onsite time – 0700 (SPC, JR, PV) Personnel offsite time – 1500 (SPC, JR) - 1615 (PV)	Weather: 80°F, Cloudy
Title: Ambient Air Sampling, Stream Cross Sections & Flow Readings	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 025
	Date: 06/11/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Site Walk for Bidders	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0800 (SPC) - 0930 (SG) Personnel offsite time – 1230 (SPC, SG)	Weather: 60°F, Cloudy

Title: Site Walk for Ramp Repair and Spillway Modification Bidders

Summary: CDM Smith personnel (crew) conduct a Site walk for potential bidders (see list below) of the proposed ramp repairs and spillway modifications. Crew walk to Wissahickon telemetry box for brief operations review.

Equipment: PPE: NA

Data:

Title: Bidder Information

Name	Affiliation
[redacted]	BSTI
[redacted]	Brightfields, Inc.
[redacted]	Panther
[redacted]	Scott Contractors
[redacted]	Lewis Environmental
[redacted]	Environmental Restoration
[redacted]	Environmental Restoration
[redacted]	Riggs Distler
[redacted]	Panther

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 026
	Date: 06/13/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Input Survey Data into ADPs	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Xylem Personnel- [redacted] Personnel onsite time – 0800 (JR) Personnel offsite time – 1345 (JR)	Weather: 65°F, Overcast
Title: Input Survey Data into ADPs	

Summary: CDM Smith personnel onsite to assist TW with SonTek stream sensor configuration. JR conducts health and safety meeting. JR and TW gathered equipment for measurements and updating ADPs. Representative from Xylem ([redacted] reviews data collected by CDM Smith and updates software at the telemetry box on Wissahickon Creek (see Figure 2-9 of the BoRit Final Site Management Plan (SMP) below). TW collects coordinates collected from Rose Valley ADP. Elevation depth taken of ADP from ground surface 2.5'; Right and left bank swapped in software to match looking upstream to ADP. Rose Valley IQ configuration complete and loaded to instruments; TW will input data into IQ software. TW input x-section data into IQ software for Tannery Run, Wissahickon Creek, and Rose Valley Creek.

Equipment: PPE: Modified level D

Data:

Wissahickon Staff Gauge – 1.94 ft

IQ – 6" depth over transducer

Total depth = 22 7/8"

Top of IQ – 16 7/8"

IQ is 24' from waters edge – Western Bank (steep bank edge)

Note – RB and LB for each IQ location were switched in IQ software. RB is now designated while facing water flow. LB should be on left when individual is facing upstream.

Tannery run Staff Gauge = 0.28'

Elevation of 90.68' for bottom of bed at IQ. ADP top is 94.4' elevation.

Not each IQ was setup to capture max depth of 10' of water that the sensors can detect; Tannery Run IQ# 1813005

Figures:

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 026
	Date: 06/13/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Input Survey Data into ADPs	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Xylem Personnel- [redacted] Personnel onsite time – 0800 (JR) Personnel offsite time – 1345 (JR)	Weather: 65°F, Overcast

Title: Input Survey Data into ADPs

Figure 2-9
Gauging Stations

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 026
	Date: 06/13/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Input Survey Data into ADPs	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Xylem Personnel- [redacted] Personnel onsite time – 0800 (JR) Personnel offsite time – 1345 (JR)	Weather: 65°F, Overcast
Title: Input Survey Data into ADPs	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 027
	Date: 06/20/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Soil Moisture Monitoring	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0650 (BY) Personnel offsite time – 0900 (BY)	Weather: 86°F, Sunny
Title: Soil Moisture Monitoring	

Summary: CDM Smith personnel onsite to measure soil moisture by ASTM Method D2216-05: *Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.* BY collected weather station module for download offsite and 6" soil moisture probe for return. Soil moisture probe (Turf Tec) returned to office for recalibration and maintenance. New soil moisture meter (Turf Tec) with 1" extending probe. BY calibrates and repairs new probe. Calibration involves saturating soil and adjusting soil moisture probe to read 100%. When soil became too hard to penetrate to 6", a ½" piece of steel (rod) and hammer were used to make a hole so that the moisture probe could penetrate fully. When the moisture probe was able to fully penetrate 6" into the soil, the test was clean (6" probe column in result table below).

Equipment: PPE: level D, Turf Tec soil moisture probe

Data:

*Title: Location PK102 – grass/dirt/rock, puddling

Location	1"	2"	3"	4"	6" probe
1	81	100	88	86	55 rod
2	72	100	100	100	80 clean
3	91	98	100	62	87 rod
4	93	100	100	100	94 clean
5	100	100	100	71	80 clean

*Title: Location PK101 grass/brush, feels wet, no standing water

Location	1"	2"	3"	4"	6" probe
1	100	100	96	>>	90

**(above data is invalid due to improperly calibrated soil moisture probe)*

Location	1"	2"	3"	4"	6" probe
Location PK 102 – grass, dirt, rock, some low/swampy points, no standing water					

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 027
	Date: 06/20/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Soil Moisture Monitoring	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0650 (BY) Personnel offsite time – 0900 (BY)	Weather: 86°F, Sunny

Title: Soil Moisture Monitoring

1	30	37	93	95	29 rod
2	61	70	97	91	44 rod
3	68	77	99	98	86 clean
4	56	64	100	91	66 rod
5	58	81	90	75	n/a
Location PK 101 – grass/shrub, wet					
1	65	64	80	74	78 clean
2	86	76	82	62	70 clean
3	63	56	73	63	64 rod
4	77	84	91	97	73 clean
5	49	65	78	75	77 clean
Location 105 – dirt/light stone, minimal grass, high point; no water					
1	30	90	99	93	n/a
2	28	89	98	100	n/a
3	38	81	80	100	n/a
4	42	92	98	98	n/a
5	57	98	100	100	n/a

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 028
	Date: 06/25/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Site O&M, Soil Moisture, Rainfall Measurements	Contract Number: 056 Task Order: 3330
CDM Smith Personnel – [redacted] Personnel onsite time – 1030 (SPC) Personnel offsite time – 1600 (SPC)	Weather: 78°F, Sunny
Title: Site O&M, Soil Moisture	

Summary: CDM Smith personnel onsite to address safety issues, which were found by Jeff Rakowski during his health and safety audit on 6/8/2018. SC measures soil moisture by ASTM Method D2216-05: *Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.* SC built shelves and organized onsite conex box. SC installs signs for "no smoking or open flame", "OSHA it's the law", and "hospital information" around conex box. A fire extinguisher was installed within the conex box. SC weed whacked locations where future activity-based sampling will occur. SC discards ACM bag left on site after ACM creek removal activities into roll-off.

Equipment: PPE: level D; Shelves, fire extinguisher, health and safety signage, 6-mil ACM bags, soil moisture probe

Data:

Soil moisture calibration in saturated soil at location

Reading: 80 Cal to: 100

Reading: 91 Cal to: 100

Location	1″	2″	3″	4″
Location PK-101 Tall grass, no standing water				
1	42	59	71	96
2	33	47	58	86
3	49	68	75	99
4	28	52	70	97
5	25	63	74	81
Location PK-102 Shrubs, no standing water, exposed dry soil				
1	31	43	74	91
2	35	49	71	98
3	52	69	84	99
4	50	61	77	95

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 028
	Date: 06/25/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Site O&M, Soil Moisture, Rainfall Measurements	Contract Number: 056 Task Order: 3330
CDM Smith Personnel – [redacted] Personnel onsite time – 1030 (SPC) Personnel offsite time – 1600 (SPC)	Weather: 78°F, Sunny
Title: Site O&M, Soil Moisture	

5	48	63	82	100
Location PK-105 Small patches of grass <1" high, large areas of exposed dry soil				
1	44	65	78	88
2	35	68	84	99
3	48	72	88	96
4	41	63	75	100
5	52	78	71	100

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 029
	Date: 06/26/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Disposal and O&M	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0830 (SPC), 0900 (Cemco) Personnel offsite time – 1100 (SPC), 0930 (Cemco)	Weather: 75°F, Sunny
Title: Disposal and O&M	

Summary: CDM Smith personnel onsite to oversee asbestos-containing material roll-ff pick up per Task 8 – RA Implementation of the Draft Work Plan/Cost Estimate for Remedial Action. Cemco brought 30 CY roll-off to leave onsite for future ACM disposal. Cemco then hauled 20 CY roll-off containing ACM offsite. SC conducts weed whacking and SonTek stream sensor cleaning. Stream sensors were covered in algae and sediment and will likely need frequent cleaning.

Equipment: PPE: level D; Mule, weed whacker, stiff bristle brush

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 030
	Date: 07/03/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Quarterly Inspection & Soil Moisture Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0815 (SPC) Personnel offsite time – 1400 (SPC)	Weather: 90°F, Sunny
Title: Quarterly Inspection & Soil Moisture Readings	

Summary: CDM Smith personnel onsite to conduct second quarterly inspection for 2018 as per Subtask 10.1 – Quarterly Inspections in the Draft Work Plan/Cost Estimate for Remedial Action. SC removed young locust tree from reservoir berm prior to inspection. EPA (Joe McDowell and Brian McDowell) and PADEP (Colin Wade and Tim Cherry) personnel arrived onsite for quarterly inspection. SC addressed issues with Sontek connection. SPC performs quarterly inspection with EPA and PADEP. Following the quarterly inspection, SPC talks with [redacted] (Xylem). [redacted] confirmed that data was downloaded improperly and must be reinstalled. SPC collects soil moisture readings.

Equipment: PPE: level D; Mule, Laptop, SonTek connection cord, soil moisture probe

Data:

Soil moisture calibration in saturated soil at location

Reading 87 Cal to 100

Reading 96 Cal to 100

Location	1″	2″	3″	4″
Location PK-101 Tall grass				
1	40	60	69	85
2	33	51	60	77
3	29	52	65	79
4	38	62	68	72
5	39	71	85	96
Location PK-102 shrubs, exposed dry soil				
1	30	52	60	86
2	27	50	61	79
3	32	61	72	84
4	21	58	78	81
5	25	51	67	77
Location PK-105 small patches of short grass; large areas of exposed dry soil				

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 030
	Date: 07/03/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Quarterly Inspection & Soil Moisture Readings	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0815 (SPC) Personnel offsite time – 1400 (SPC)	Weather: 90°F, Sunny

Title: Quarterly Inspection & Soil Moisture Readings

1	22	55	59	68
2	19	41	53	72
3	21	38	49	73
4	23	43	59	81
5	28	36	62	85

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 031
	Date: 07/05/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Configure Telemetry Boxes	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0830 (SPC) Personnel offsite time – 1400 (SPC)	Weather: 85°F, Partly Cloudy
Title: Configure Telemetry Boxes	

Summary: CDM Smith personnel configured SonTek stream sensors as part of Subtask 5.1 – QA Inspection in the Draft Work Plan/Cost Estimate for Remedial Action. SPC configured all three telemetry units so that Sontek sensors will communicate with remote computer in Wayne, PA. [redacted] (Xylem) provided support via telephone. Depth measurements in each creek were collected to compare to remote readings with [redacted] in Wayne, PA office.

Equipment: PPE: level D; computer, connection cable

Data:

Depth measurements in all 3 creeks to compare with remote readings in office:

Rose Valley – 0.22 feet from base of sensor

Wissahickon – 1.10 feet from base of sensor

Tannery Run- 0.18 feet from base of sensor

Depth at each creek from adjusted datum:

Rose Valley – 0.32 feet at channel bottom

Wissahickon – 1.48 feet at channel bottom

Tannery Run – 0.28 feet at channel bottom

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 032
	Date: 07/10/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Soil Moisture, Pine and EPA pickups	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1000 (PV) Personnel offsite time – 1600 (PV)	Weather: 85°F, Clear Skies
Title: Soil Moisture, Pine and EPA pickups	

Summary: CDM Smith personnel onsite to measure soil moisture by ASTM Method D2216-05: *Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.* EPA arrived onsite to take ambient air sampling equipment – 13 marine batteries, 7 air con pumps with cables, 5 NOAA pumps, 8 cassette stands, 1 voltmeter, 1 battery tender with 8 cables, 10 locks, 3 chains. PV collected soil moisture readings on Park Parcel and on Asbestos Pile Parcel at 3" bgs with Turf Tek Sensor (3"). Pine Environmental arrive onsite to pick up boat, motor, oars, battery, and life vests.

Equipment: PPE: Level D, Turf Tek soil moisture probe

Data:

Soil Moisture Readings

Park Parcel 3" bgs:

101: 61, 90, 78, 98, 100

102: 35, 61, 72, 80, 85

106: ground too hard to insert probes

Asbestos Pile 3" bgs:

102: 56, 44, 53, 83, 60, 98, 89, 86, 88, 32

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 033 Date: 07/12/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Soil Moisture	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0900 (PV) Personnel offsite time – 1230 (PV)	Weather: 72°F, Clear Skies
Title: Soil Moisture	

Summary: CDM Smith personnel onsite to measure soil moisture by ASTM Method D2216-05: *Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.* PV collected soil moisture readings at 3" with new probe and 6" with old probe (new = Turf Tek, old = Aquaterr).

Equipment: PPE: Level D; moisture probes – Turf Tek and Aquaterr

Data:

Soil Moisture Readings (All 3" depth readings were taken with Turf Tek probe and all 6" depth readings were taken with Aquaterr probe)

PK101 (3"): 71, 61, 40, 27, 73 (Turf Tek)

PK101 (6"): Ground too hard to insert probe (Aquaterr)

PK102 (3"): 37, 54, 74, 46, 64 (Turf Tek)

PK102 (6"): Ground too hard to insert probe (Aquaterr)

PK105: Ground too hard for both probes

AP103(3"): 35, 31, 42, 29, 47 (Turf Tek)

AP103(6"): Ground too hard or too densely vegetated (Aquaterr)

Moderate vegetation at PK101 and PK102 with rocky soil. Soil is very dry.

NOTE: small pieces of white and blue tile encountered in PK102

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 034
	Date: 07/18/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (PV, LA, SP), 0900 (SC), 1015 (MN)	Weather: 63°F, clear skies, High of 84°F
Title: Activity Based Sampling – Day 1 (Soil Sampling)	

Summary: CDM Smith personnel (crew) onsite to prepare for activity-based sampling event and collect soil samples within the Park and Asbestos Pile parcels, as defined in Section 4.4 Activity-Based Sampling (ABS) of the Final BoRit Site Management Plan (SMP). Respirator training and fit testing was conducted by PV for SP. Activity-based sampling locations can be found on Figure 3-1 Proposed ABS Locations for Confirmation Sampling and Initial Long-term Monitoring of the Park Parcel and Asbestos Pile Parcel of the SMP. Nine ABS sample areas (6 on Park parcel, 3 on Asbestos Pile parcel) located with Trimble GPS unit, marked with flags, and cleared of tall weeds and grass. ABS soil sampling was conducted in nine locations with 30-point composite samples collected from 0-3 inches below ground surface in each area. PV trains SP and SEC on note taking procedures for ABS air sampling. Crew labels and identifies sample pumps for ABS air sampling.

Equipment:

1 small Honeywell respirator, 2 Honeywell P100 particulate air filters, 1 vial smoke irritant and 1 fit test kit, Trimble GPS, 4 trenching shovels, 18 hand trowels, 4 stainless steel bowls, 8 oz glass sample jars, 1 Bios Defender DryCal primary flow calibrator, 2 rotameters, 1 weed trimmer

Data:

Soil Moisture: Turf Tec soil moisture meter was not working. Aquaterr soil moisture meter could not be inserted to 6" without damaging the device. Soil was slightly damp with no standing water.

Respirators: Honeywell respirator and filters. SP-small. Fit tests successful.

Samples Times:

Sample ID	Sample Time
CSPKABSS-101	1008
CSPKABSS-102	0955
CSPKABSS-103	1058
CSPKABSS-104	1222
CSPKABSS-105	1111
CSPKABSS-106	1237

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 034
	Date: 07/18/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (PV, LA, SP), 0900 (SC), 1015 (MN)	Weather: 63°F, clear skies, High of 84°F

Title: Activity Based Sampling – Day 1 (Soil Sampling)

CSAPABSS-101	1540
CSAPABSS-102	1507
CSAPABSS-103	1516

Timeline:

0700: PV, LA, SP on-site

0715: PV conducts fit test for SP respirator. Honeywell small half-faced respirator fit using quantitative smoke irritant test. LA marks out sample locations on Park parcel.

0745: PV attempts to turn on soil moisture meter but it does not turn on. Ask SEC to buy batteries on her way to the site.

0800: Set up decon station and clean trowels and shovels.

0845: Set up 10 ft x 10 ft grid at CSPKABSS-102 and begin 30-point composite soil sampling from 0-3 inches BGS.

0900: SEC on-site.

0930: Set up 10 ft x 10 ft grid at CSPKABSS-101 and begin 30-point composite soil sampling from 0-3 inches BGS.

0955: PV collects **CSPKABSS-102** using 1 x 8 oz glass jar for asbestos.

1008: SP collects **CSPKABSS-101** using 1 x 8 oz glass jar for asbestos.

1015: MN on-site.

1030: Jake (Weston) on-site to return 5 NOAA air sampling pumps, 13 deep-cycle marine batteries, battery tender, and cables.

1033: Set up 10 ft x 10 ft grids at CSPKABSS-103 and CSAPABSS-105 and begin 30-point composite soil sampling from 0-3 inches BGS.

1058: PV collects **CSPKABSS-103** using 1 x 8 oz glass jar for asbestos.

1111: SP collects **CSPKABSS-105** using 1 x 8 oz glass jar for asbestos.

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 034 Date: 07/18/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (PV, LA, SP), 0900 (SC), 1015 (MN)	Weather: 63°F, clear skies, High of 84°F

Title: Activity Based Sampling – Day 1 (Soil Sampling)

1130: Set up 10 ft x 10 ft grids at CSPKABSS-104 and CSAPABSS-106 and begin 30-point composite soil sampling from 0-3 inches BGS.

1222: PV collects **CSPKABSS-104** using 1 x 8 oz glass jar for asbestos.

1237: SP collects **CSPKABSS-106** using 1 x 8 oz glass jar for asbestos.

1240: PV put new battery in Turf Tec soil moisture meter. Meter still not working. Call to Turf Tec to discuss circuitry and troubleshoot wire placement.

1330: Pack truck to take equipment to Asbestos Pile parcel.

1400: Troubleshoot Turf Tec. Rearrange wires according to discussion with Turf Tec. Monitor now turning on, but wires will not stay in place. MN splice wires, connect to metal connector, and put in place. Meter now working.

1430: Set up 10 ft x 10 ft grids at CSAPABSS-102 and CSAPABSS-103 and begin 30-point composite soil sampling from 0-3 inches BGS.

1507: SP collects **CSAPABSS-102** using 1 x 8 oz glass jar for asbestos.

1515: Calibrate soil moisture meter. Calibration screw is stripped and wires continue coming out. Once calibrated, three soil moisture readings are collected (92, 89, 88). However, when conducting air calibration (reading should be 0%), meter is reading 82%. Attempt to recalibrate. Numbers are erratically jumping around, and meter cannot be calibrated. Call Turf Tec to troubleshoot. Turf Tec agrees that instrument circuit board is likely malfunctioning, and suggests sending the unit back for repair. They will send their demo unit via overnight delivery.

1516: LA collects **CSAPABSS-103** using 1 x 8 oz glass jar for asbestos.

1540: LA collects **CSAPABSS-101** using 1 x 8 oz glass jar for asbestos.

1600: Decon and pack up equipment.

1630: Demonstrate calibration procedure, sample setup, and field forms for SC and SP.

1730: Label pumps and write corresponding serial numbers in the field book.

1800: Prepare sampling schedule and strategy for ABS air sampling tomorrow.

1845: Site secure. All off-site.

DAILY LOG OF SITE ACTIVITIES		Report # CDM - 034
		Date: 07/18/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling Training		Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0700 (PV, LA, SP), 0900 (SC), 1015 (MN)		Weather: 63°F, clear skies, High of 84°F
Title: Activity Based Sampling – Day 1 (Soil Sampling)		
Field Team Leader: [redacted]	Company: CDM Smith	

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F
Title: Activity Based Sampling – Day 2 (Air Sampling)	

Summary: CDM Smith personnel (crew) onsite to collect activity-based air samples. Respirator training and fit testing was conducted by PV for half face Honeywell respirator, using quantitative smoke irritant. SPC adjusted stream gauge IQ data. PV checks weather to assure that 0.0" of rain fell within the last 36 hours. PV downloaded MET station data for historic weather as well as weather conditions during sampling. Crew is split into two teams to sample air at different areas. Collection of activity-based air samples within the Park and Asbestos Pile parcels, as defined in Section 4.4 Activity-Based Sampling of the *Final BoRit Site Management Plan (SMP)*. Locations can be found on Figure 3-1 Proposed ABS Locations for Confirmation Sampling and Initial Long-term Monitoring of the Park Parcel and Asbestos Pile Parcel of the *BoRit SMP.* Raking scenario was demonstrated for all staff. Crew took visual assessment of area's dryness. As per the SMP crew members rake dirt in 10x10 foot area. Actor taking soil will rotate 45° every 15 minutes. Pump readings will be taken at different pump levels including, adult high and low volume, child high and low volume, a low volume ecological pump set for mammals, upwind perimeter high and low volume, and downwind perimeter high and low volume pumps. Some ABS areas had significant vegetation while others did not. A field blank was collected. Pine delivers new soil moisture meter (Extech M0750) to replace Turf Tek on following day.

Equipment:

Honeywell respirator, Honeywell P100 particulate air filters, vial smoke irritant and fit test kit, portable MET station, Trimble GPS, Bios Defender DryCal primary flow calibrator, rotameters, SKC PC XR8 personal sample pumps, SKC Leland personal sample pumps, NOAA perimeter sampling pumps, deep-cycle marine batteries, , small generator, battery tender battery charging station, 20-28 inch wide rakes, utility belts, voltage meter, sun canopies, folding tables, folding chairs 0.8 µm 25mm MCE air sampling cassettes, cassette stands, Turf Tek soil moisture probe, weed trimmer

Data:

Weather: 0.0" rain in the last 36 hours. Wind speed 0 MPH, Wind direction 331° N/NW. Station pressure 30.00" Hg

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F

Title: Activity Based Sampling – Day 2 (Air Sampling)

Soil Moisture:

Sample Area	Moisture content (%)	Average (%)	Max (%)
CSPKABS-102	69, 68, 91, 86, 100	82.8	100
CSAPABS-102	29, 70, 60, 71, 44	54.8	71
CSAPABS-103	51, 34, 73, 64, 63	57	73

Note: the soil moisture readings above were collected using the Turf Tek probe, which was later determined to be incompatible with site conditions. Therefore, the above readings are not valid.

Respirators: Honeywell respirator and filters. SPC for half face respirator, SC for small, SWC and SPC for medium, and KO for large. Fit tests successful.

Samples Times:

Sample ID	Sample Time
CSPKABS-102	1241
CSPKABS-105	1649
CSAPABS-102	1406
CSAPABS-103	1703

Pumps:	Samples:	SERIAL #
AH-1	Personal adult high volume (CSPKABSA-102-AH101 & CSPKABSA-105-AH101)	033803
AH-2	Personal adult high volume (CSAPABSA-102-AH101 & CSAPABSA-103-AH101)	033838
CH-1	Personal child high volume (CSPKABSA-102-	041852

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F
Title: Activity Based Sampling – Day 2 (Air Sampling)	

	CH101 & CSPKABSA-105-CH101	
CH-2	Personal child high volume (CSAPABSA-102-CH101 & CSAPABSA-103-CH101	R12104
AL-1	Personal adult low volume (CSPKABSA-102-AL101 & CSPKABSA-105-AL101	644260
AL-2	Personal adult low volume (CSAPABSA-102-AL101 & CSAPABSA-103-AL101	644230
CL-1	Personal child low volume (CSPKABSA-102-CL101 & CSPKABSA-105-CL101	518073 (EPA 001748)
CL-2	Personal child low volume (CSAPABSA-102-CL101 & CSAPABSA-103-CL101	516287 (EPA 011092)
CL-3	Personal child low volume	644259
ECO-1	Ecological (mammal) low volume (CSPKABSE-102-ML101 & CSPKABSE-105-ML101)	644170
ECO-2	Ecological (mammal) low volume (CSAPABSE-102-ML101 & CSAPABSE-103-ML101)	644470
UPH/UPL -1	Upwind perimeter low volume (CSPKABSP-102-AL101 & CSPKABSP-105-AL101) Upwind perimeter high volume (CSPKABSP-102-AH101 & CSPKABSP-105-AH101)	EPA SA5258
UPH/UPL-2	Upwind perimeter low volume (CSAPABSP-102-AL101 & CSAPABSP-103-AL101) Upwind perimeter high volume (CSAPABSP-102-AH101 & CSAPABSP-103-AH101)	EPA SA5259
DWH/DWL-1	Downwind perimeter high volume	EPA SA5257

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F
Title: Activity Based Sampling – Day 2 (Air Sampling)	

	(CSPKABSP-102-AL102 & CSPKABSP-105-AL102) Downwind perimeter low volume (CSPKABSP-102-AH102 & CSPKABSP-105-AH102)	
DWH/DWL -2	Downwind perimeter high volume (CSAPABSP-102-AH102 & CSAPABS-103-AH102) Downwind perimeter low volume (CSAPABSP-102-AL102 & CSAPABSP-103-AL102)	EPA SA5225
ROTAMETER 1	CSAPABS-102 & CSAPABS-103,	31034199
ROTAMETER 2	CSPKABS-102 & CSPKABS-105	R359
DRY CAL 1	CSPKABS-102 & CSPKABS-105	11030
DRY CAL 2	CSAPABS-102 & CSAPABS-103	106996
DRY CAL 3	--	120566

Timeline:

0600: SPC, PV, SEC, LA, SWC, and SP on-site

0615: SC PV fit test SEC, SWC, and SPC for half face respirator. SC for small, SWC and SPC for medium

0640: SPC adjusting stream gauge IQ data.

0650: SP checking weather data: 0.0" rain in last 36 hours, wind speed 0 mph, wind direction 331° N/NW, station pressure 30.00" Hg. Met station data will be downloaded to record historic weather

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F

Title: Activity Based Sampling – Day 2 (Air Sampling)

data as well as conditions during sampling.

0700: Prepare sampling equipment.

0725: AG, KO on-site

Note: crew will be split into two teams

Team 1: PV, SEC, AG, KO

Team 2: LA, SWC, SPC, SP

0800: PV fit test KO respirator. Honeywell large fit with quantitative smoke irritant

0830: set up sample area at CSPKABS-102 calibrate pumps and demonstrate raking scenario for all staff.

1015: CSPKABS-102 Location description dry soil, sparsely vegetated, some gravel. Turf tek soil moisture meter delivered

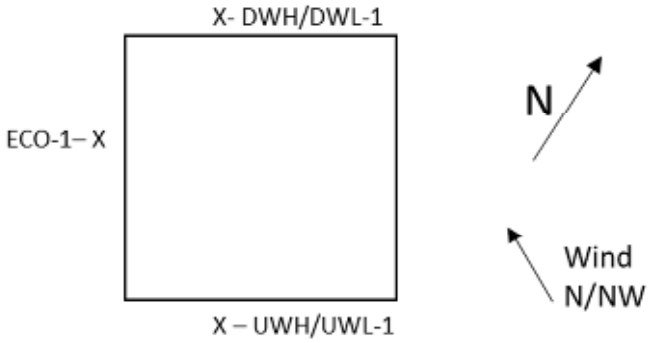


Figure 1: CSPKABS-102

1020: turf tek soil moisture meter calibrated

1025: turf tek soil moisture meter readings in study area 102. Visually surface is very dry.

1041: start sampling at 102. AG is actor 1 facing north east. Dust visible during active raking

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F
Title: Activity Based Sampling – Day 2 (Air Sampling)	

1045: Team 2 (SP, SWC, SPC, LA) arrive at CSAPABS-102, and begin set up for activity-based sampling. Sampling location is 10x10 ft square with vegetative cover over entire area, except dirt exposed by soil sampling yesterday. SP collected soil moisture readings in 4 quadrants and center of sampling area.

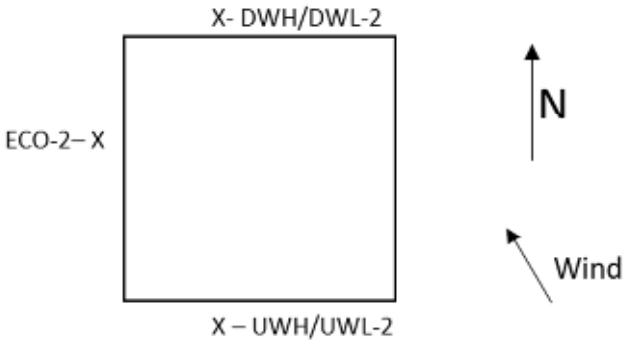


Figure 2: CSAPABS-102

1056: AG switch facing south east. Every 15 minutes actors will rotate 45°

1111: High volume pumps cannot be adjusted or they will fault; therefore, actual pump readings are recorded during pump checks to determine flow volume.

1206: Team 2 Begin scenario; SWC begins raking facing west

1241: Team 1 record final flow readings. Shut off all pumps. Collect all samples from pumps

1245: Team 1 organize paperwork and decontaminate pumps and rake. LP onsite to oversee ABS activities

1400: Team 1 move to location CSPKABS-105

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F
Title: Activity Based Sampling – Day 2 (Air Sampling)	

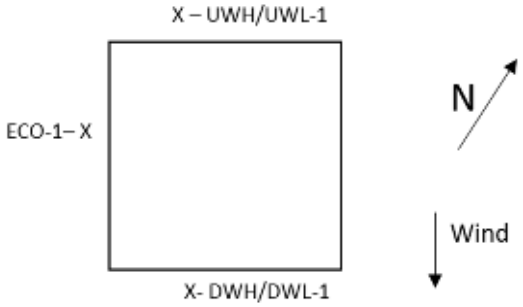


Figure 3: CSPKABS-105

1406: Team 2 end scenario at CSAPABS-102; LP offsite

1435: Team 2 arrives at CSAPABS-103 and begins set up for activity-based sampling. Location is 10x10 ft square with vegetative cover over entire area. Soil is visible where sample was collected on 7/18. SP collects soil moisture readings in 4 quadrants of square and at center.

1449: Team 1 start sampling at CSPKABS-105 Location: very dry, no vegetation, rocky, KO is actor 1. Facing northeast (will rotate 45° clockwise every 15 mins)

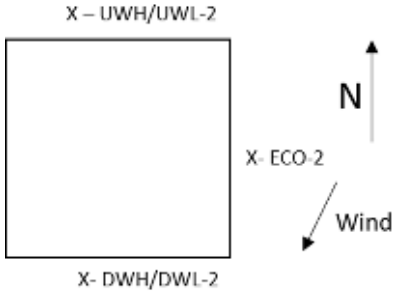


Figure 4: CSAPABS-103

1503: Begin scenario at CSAPABS-103. SPC begins raking facing East.

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035 Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F

Title: Activity Based Sampling – Day 2 (Air Sampling)

1549: PV switches out and relieves KO as actor 2

1649: Collect samples and turn pump off.

1700: Team 1 Decon pumps and note sample names on page 109 of logbook

1710: Team 1 custody seal samples and clean up supplies

1718: Team 2 end scenario at CSAPABS-103.

Note: 15 mins were added to Team 2's scenario because CL pump shut off 15 minutes prior to end of scenario. Scenario extended with this pump only to collect for entire 2 hours.

1811: Note: sample time for area **CSAPABS-102** was 1406 sample time for area **CSAPABS-103** was 1703 for all but child low volume sample which was 1718.

1812: Field Blank **CSPKABS-401** collected from LOT #180417 box

1830: Calculated sample volumes using spreadsheet (saved on server). Complete COCs and package samples. Pack up sample equipment and download weather station data.

1900: AG offsite

1915: KO and SEC offsite

1920: SWC offsite

1930: SPC offsite

1945: SP offsite

2000: LA offsite to take samples to FedEx

2020: Site secure. PV offsite

Note: Timing for CSAPABS-102 for Team 2, was performed in a different manner. Actors were timed raking vigorously for 30-35 minutes. Switching actors was not timed, but pumps continued to run during switch and flow checks. This resulted in only needing 3 actors, rather than 4 and flow ended up being checked approximately every 40 minutes, rather than every 30 minutes. Methodology was corrected for CSAPABS-103 for Team 2.

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 035
	Date: 07/19/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (PV, LA, SPC, SEC, SWC, SP), 0725 (AG, KO), 1245 (LP), 1030 (USEPA) Personnel offsite time – 1400 (USEPA, LP) ,1900 (AG), 1915 (KO, SEC), 1920 (SWC), 1930 (SPC), 1945 (SP), 2000 (LA), 2020 (PV)	Weather: 58°F, sunny, High of 82°F
Title: Activity Based Sampling – Day 2 (Air Sampling)	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036
	Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F

Title: Activity Based Sampling – Day 3 (Air Sampling)

Summary: CDM Smith personnel (crew) split into two teams for sampling air at different areas. Crew members collected soil moisture readings at each area. Teams begin raking soil in 10x10 foot square, actor rotates 45° every 15 minutes. Collection of activity-based air samples within the Park and Asbestos Pile parcels, as defined in Section 4.4 Activity-Based Sampling of the Final BoRit Site Management Plan (SMP). Locations can be found on Figure 3-1 Proposed ABS Locations for Confirmation Sampling and Initial Long-term Monitoring of the Park Parcel and Asbestos Pile Parcel of the BoRit SMP. Pumps collect readings at different spots including adult high and low volume, child high and low volume, ecological mammal low volume, and upwind and downwind high and low volume perimeter pumps. Battery was replaced in downwind pump to achieve desired flow rate. At CSPKABS-101, KO notices child high volume pump switching on and off in between 2-30 minutes of scenario crew switch. Joe McDowell from EPA is present on site. JR took samples to FedEx for shipping. Turf Tek soil moisture probe was deemed incompatible with site soils and replaced with Extech M0750.

Equipment: Honeywell respirator, Honeywell P100 particulate air filters, vial smoke irritant and fit test kit, portable MET station, Trimble GPS, Bios Defender DryCal primary flow calibrator, rotameters, SKC PC XR8 personal sample pumps, SKC Leland personal sample pumps, NOAA perimeter sampling pumps, deep-cycle marine batteries, , small generator, battery tender battery charging station, 20-28 inch wide rakes, utility belts, voltage meter, sun canopies, folding tables, folding chairs 0.8 µm 25mm MCE air sampling cassettes, cassette stands, Extech M0750 soil moisture probe, weed trimmer

Data:

Weather: weather station reads 0.0 in rain in last 36 hours. Wind 1 mph, 90° to the east.

Soil Moisture (using Extech M0750):

Sample Area	Soil Moisture (%)	Average (%)	Max (%)
CSAPABS-101	16.4, 17.3, 18.0, 17.1, 19.4, 19.5, 18.3, 17.8, 18.0, 17.4	17.92	19.5
CSPKABS-103	17.3, 14.8, 15.6, 13.8, 22.7, 16.1, 16.6, 15.8, 15.4, 17.0	16.51	22.7

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036 Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F
Title: Activity Based Sampling – Day 3 (Air Sampling)	

CSPKABS-104	12.6, 15.0, 15.2, 13.4, 14.1, 14.1, 17.2, 15.7, 11.2, 12.0	14.05	17.2
CSPKABS-106	7.4, 2.1, 7.3, 6.3, 8.1, 5.5, 3.5, 5.5, 9.7, 12.7	6.81	12.7

Respirators: Honeywell respirator and filters.

Samples Times:

Sample ID	Sample Time
CSPKABS-101	1828
CSPKABS-103	1507
CSPKABS-104	1140
CSPKABS-106	1533
CSAPABS-101	1108

pumps:	Samples:	SERIAL #
AH-1	Personal adult high volume (CSPKABSA-104-AH101 & CSPKABAS-106-AH101)	033803
AH-2	Personal adult high volume (CSAPABSA-101-AH101, CSPKABSA-101-AH101 & CSPKABSA-103-AH101)	033838
CH-1	Personal child high volume (CSPKABSA-104-CH101 & CSPKABSA-106-CH101)	041852
CH-2	Personal child high volume (CSAPABSA-101-CH101, CSPKABSA-101-CH101 & CSPKABSA-103-CH101)	R12104
AL-1	Personal adult low volume (CSPKABSA-104-	644260

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036
	Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F
Title: Activity Based Sampling – Day 3 (Air Sampling)	

	AL101 & CSPKABSA-106-AL101)		
AL-2	Personal adult low volume (CSAPABSA-101-AL101, CSPKABSA-101-AL101 & CSPKABSA-103-AL101)	644230	
CL-1	Personal child low volume (CSPKABSA-104-CL101 & CSPKABSA-106-CL101)	518073 (EPA 001748)	
CL-2	Personal child low volume	516287 (EPA 011092)	
CL-3	Personal child low volume (CSPKABSA-101-CL101, CSPKABSA-103-CL101, & CSAPABSA-101-CL101)	644259	
ECO-1	Ecological (mammal) low volume (CSPKABSE-104-ML101 & CSPKABSE-106-ML101)	644170	
ECO-2	Ecological (mammal) low volume (CSAPABSE-101-ML101, CSPKABSE-101-ML101 & CSPKABSE-103-ML101)	644470	
UPH/UPL -1	Upwind perimeter low volume (CSPKABSP-104-AL101 & CSPKABSP-106-AL101) Upwind perimeter high volume (CSPKABSP-104-AH101 & CSPKABSP-106-AH101)	EPA SA5258	
UPH/UPL-2	Upwind perimeter low volume (CSPKABSP-101-AL101, CSPKABSP-103-AL101, CSAPABSP-101-AL101) Upwind perimeter high volume (CSAPABSP-101-AH101 CSPKABSP-101-AL101, & CSPKABSP-103-AH101,)	EPA SA5259	
DWH/DWL-1	Downwind perimeter high volume (CSPKABSP-104-AL102 & CSPKABSP-106-	EPA SA5257	

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036
	Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F
Title: Activity Based Sampling – Day 3 (Air Sampling)	

	AL102) Downwind perimeter low volume (CSPKABSP-104-AH102 & CSPKABSP-106-AH102)	
DWH/DWL -2	Downwind perimeter high volume (CSAPABSP-101-AH102, CSPKABSP-101-AH102 & CSPKABSP-103-AH102) Downwind perimeter low volume (CSAPABSP-101-AL102, CSPKABSP-101-AL102 & CSPKABSP-103-AL102)	EPA SA5225
ROTAMETER 1	CSPKABS-101, CSAPABS-101 & CSPKABS-103	31034199
ROTAMETER 2	CSPKABS-104 and CSPKABS-106	R359
DRY CAL 1	CSPKABS-104 and CSPKABS-106	11030
DRY CAL 2	CSAPABS-101, CSPKABS-101 & CSPKABS-103	106996
DRY CAL 3	--	120566

Timeline:

0600: SC, LA, PV, SP, SPC, SEC Arrive on site and begin prepping for scenarios

0615: PV, SPC, SP on-site. Prep equipment and sample cassettes

0700: AG on-site

0730: JR and KO onsite

Note: Crew will be split into two teams

Team 1: PV, SEC, AG, KO

Team 2: LA, SPC, JR, SP

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036 Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F
Title: Activity Based Sampling – Day 3 (Air Sampling)	

0800: LA, SP, SPC, JR mobilize to CSAPABS-101. PV, SEC, AG, KO mobilize to CSPKABS-104

0815: Soil moisture readings at CSAPABS-101, CSPKABS-104, CSPKABS-103, collected using Pine-rented soil moisture meter (Extech mo. 750) at 3" bags. Turf Tek determined to be incompatible with site soils so use was discontinued and values were considered invalid.

Team 2 arrives at CSAPABS-101 and begin set up for scenario. Pumps are calibrated to desirable flow rates. JR is instructed about scenario set up and procedures.

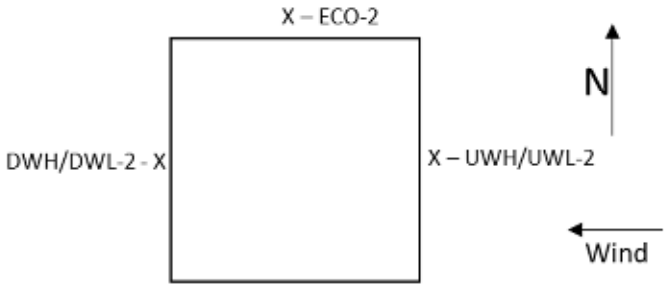


Figure 1: CSAPABS-101

0900: Set up at CSPKABS-104. Dense grass cover. Location is directly on mound/berm. AG is first actor, facing E

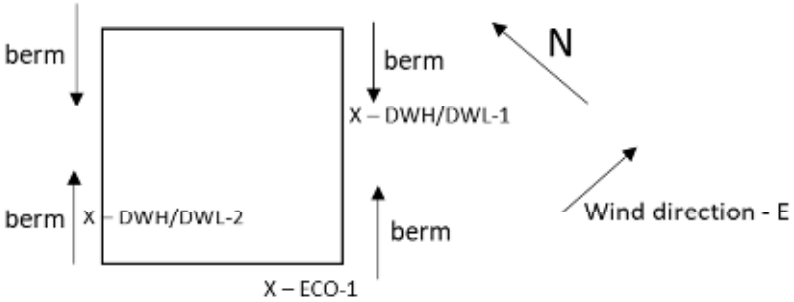


Figure 2: CSPKABS-104

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036 Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F
Title: Activity Based Sampling – Day 3 (Air Sampling)	

0908: Begin scenario. JR begins raking facing north

0915: Downwind pump not reaching desired flow rates – determine that battery in not working; replace and restart sampling

0930: Joe McDowell (EPA) on-site

0940: Restart sampling at CSPKABS-104. Actor will rotate 45 degrees every 15 minutes. Pump flow rate recorded every 30 minutes

1030: Joe McDowell off-site

1108: Samples collected at **CSAPABS – 101.** End scenario.

1130: Crew mobs to next scenario location after packing up equipment

1140: Samples collected at **CSPKABS – 104.** SP relinquishes Logbook to LA.

1145: SP offsite for day

1200: LA, SPC, JR, set up. PV, SEC, AG, KO set up at CSPKABS-106. Dry, rocky soil, very sparse vegetation. SEC is actor rotate 45 degrees every 15 mins. Check flow every 30 mins.

Team 2 sets up sampling equipment at location CSPKABS-103. Area is completely vegetated.

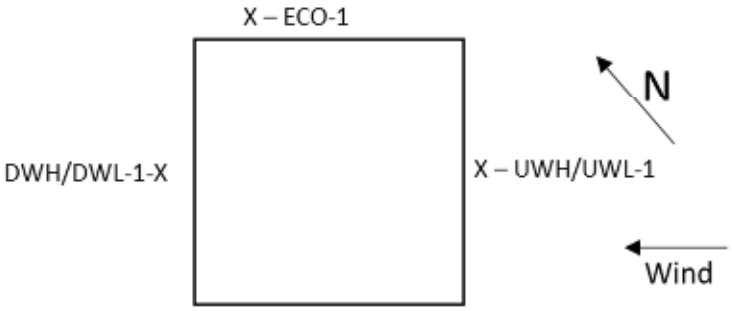


Figure 3: CSPKABS-106

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 036 Date: 07/20/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Activity Based Sampling	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (LA), 0615 (PV, SEC, SPC, SP), 0700 (AG), 0730 (JR, KO), 0930 (Joe McDowell) Personnel offsite time - 1030 (Joe McDowell) 1940 (All)	Weather: 63°F, sunny, High of 86°F

Title: Activity Based Sampling – Day 3 (Air Sampling)

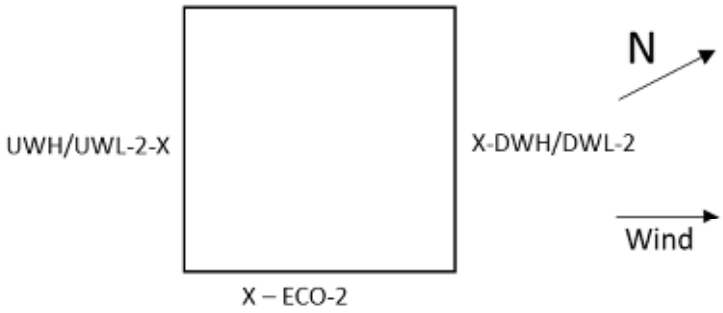


Figure 4: CSPKABS-103

1300: SPC dons equipment: PPE for raking scenario

1307: Raking scenario ends at CSPKABS-103

1510: Crew breaks down scenario

1533: Samples collected at **CSPKABS-106**

1507: Samples collected at **CSPKABS-103**

1530: Set up at CSPKABS-101

1545: Crew mobs to next scenario location, CSPKABS-101 sets up equipment.

1610: AG and KO join crew at CSPKABS-101

1628: Crew begins scenario at CSPKABS-101

Note: At CSPKABS-101, KO noticed child high volume pump switching on and off between two and thirty minutes of scenario.

1828: Crew completes raking scenario at CSPKABS-101. Samples collected at **CSPKABS-101**

1840: Crew return to staging area to complete sample management and pack equipment

1940: All off site. JR takes samples to Fed Ex. Site secured

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 037
	Date: 08/02/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Spillway Survey	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0830 (PV), 0830 (Sklar) Personnel offsite time – 1207 (PV), 1207 (Sklar)	Weather: 72°F, Cloudy
Title: Spillway Survey	

Summary: Sklar performed survey of select locations prior to the start of the spillway repair and ramp modification work. PKPZ-03 was located and used as the elevation benchmark for the spillway survey.

Equipment: PPE: level D

Data:

Note: (See Figure below for locations). Data provided in survey report, SG numbers below tie to surveying report.

SG-1 = Rose Valley

SG-2 = Wissahickon

SG-3 = Tannery Run

SG-4 = Reservoir

Figures:

Field Team Leader: [redacted]	Company: CDM Smith

SG-B
SG-A
SG-C
SG-D
Tyssahickon Trail

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 038
	Date: 08/13/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630 (RP, SG, Brightfields) Personnel offsite time – 0745 (SG), 1420 (RP, Brightfields)	Weather: 73°F, cloudy with heavy rain (AM), light rain (PM)
Title: Equipment mobilization and vegetation trimming	

Summary: Brightfields mobilizes to the spillway and ramp, orienting themselves with the Site. Heavy rain caused regional flooding, delaying delivery of yellow equipment to the site. Once the rain slows the equipment is mobilized to the spillway via the Rose Valley gate. Brightfields inspects both pieces of equipment and tests them to ensure they are operational. Brightfields deems both the excavator and loader to be in good working condition. Brightfields begins weed whacking on the area surrounding the spillway. Areas on both sides of the spillway are cleared of vegetation. Brightfields will continue weed whacking tomorrow with a different tool.

Equipment: CAT excavator 314E (CR30783), CAT MTL 259D (multi terrain loader) (CR31121), weed whackers.

Data:

N/A

Timeline:

0630: CDM Smith employees, RP and SG onsite. Brightfields Inc. onsite.

0635: SG conducts Health and Safety talk

0810: Extremely heavy rain begins

1202: CAT Excavator and CAT Multi-terrain loader brought onsite via Rose Valley Creek Gate

1203: Brightfields inspects and tests both machines to ensure operability

1215: Both machines are deemed to be safe and operational

1235: Brightfields removes vegetation on spillway berms using weed whackers for the rest of the day.

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 039
	Date: 08/14/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630 (RP, SG, Brightfields) Personnel offsite time – 0815 (SG), 1425 (RP, Brightfields)	Weather: 65°F, sunny with clouds
Title: Spillway repair and rip rap removal and replacement	

Summary: Brightfields transport geotextile to spillway. Brightfields removes silt sock at the top of the spillway. Brightfields begins to remove R3/R4 rip rap from spillway, and relocate it to the top of the spillway, using the CAT excavator. Brightfields personnel begin to dig anchor trench on each side of the spillway using hand shovel. Brightfields compacts soil at the top of the spillway. Brightfields installs geotextile at the top of the spillway and places old R3/R4 rip rap on top of geotextile. New R5 rip rap is delivered to the Site. Brightfields drives rebar through the geotextile into the slope of the spillway and begins placing new R5 rip rap on the slope.

Equipment Used: CAT excavator 314E (CR30783), CAT MTL 259D (multi terrain loader) (CR31121), soil compactor, sledge hammers, shovels, rakes, Propex nonwoven needle-punched geotextile, epoxy-coated rebar

Data:

N/A

Timeline:

0630: All personnel onsite

0640: Health and Safety Talk

0850: Brightfields begins R3/R4 riprap removal from the spillway using CAT Excavator

1010: Brightfields lays geotextile at the top of the spillway

1040: Brightfields places existing R3/R4 rip rap at the top of the spillway

1045: First load of new R5 riprap delivered onsite

1200: Brightfields installs epoxy coated rebar on spillway

1220: Second load of R5 riprap delivered

1230: Brightfields starts to install R5 riprap onto spillway

1425: Staff offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 040
	Date: 08/15/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0630 (RP, 1 Brightfields), 0640 (1 Brightfields), 0645 (1 Brightfields) Personnel offsite time – 1500 (2 Brightfields), 1530 (1 Brightfields, RP)	Weather: 68°F, sunny
Title: Spillway repair: installation of HPTRM and earth anchors	

Summary: New Job Hazard Analysis form created to use the air compressing drill. Brightfields completes installation of R5 rip rap on the spillway slope. Any vegetation remaining on the slopes next to the spillway is cut down. Concrete cable mat is exposed during earth anchor trench digging. SG is contacted. Earth anchors will be placed as close to the concrete block as possible. Broken silt socks are relocated from spillway area to the parking area; they are placed on top of a piece of geotextile. BF begins installing the high performance turf reinforcement mat (HPTRM) on both sides of the spillway following boundaries illustrated in sheet 1 of 4 of the design plans. Earth anchors are installed into the anchoring trench using a Rhino pneumatic post driver. Stone was delivered and stockpiled at the foot of the ramp repair area (Reservoir side of Rose Valley Creek).

Equipment Used: CAT excavator 314E (CR30783), CAT MTL (multi terrain loader) 259D (CR31121), Pyramat 75 (High performance turf reinforcement mat), type B2 earth anchors, Armormax 18" pins, Rhino pneumatic post driver/pile driver, air compressor with 375 cfm, sledge hammers, shovels, rakes

Data:

N/A

Timeline:

0650: Health and Safety Talk and Job Hazard Analysis form

0720: Complete installation of R5 riprap on spillway

0745: Concrete Cable Mat becomes exposed while Brightfields is digging anchor trench. Contact SG, decide to place earth anchors as close to concrete blocks as possible

0915: Install HPTRM on berms adjacent to the spillway

1210: Drill earth anchors into the anchor trench using Rhino pneumatic post driver/pile driver

1515: Stone aggregate material delivered to ramp repair area

1530: CDM Smith offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 041
	Date: 08/16/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (3 Brightfields), 0620 (RP, 1 Brightfields) Personnel offsite time – 1450 (RP, Brightfields)	Weather: 69°F, sunny

Title: Spillway repair: concreting of rip rap R5

Summary: Complete installation of earth anchors using pneumatic post driver. Brightfields pumps water from Rose Valley Creek and uses it to wash the R5 rip rap on the spillway, preparing rip rap for concrete. An erosion eel is constructed and arranged in a circle covered with a poly liner for concrete equipment to be washed into. Greg Voigt (EPA) and Travis (USACE) arrive onsite, 1000. EPA and USACE review the construction. Travis Fatzinger (USACE) instructs Brightfields to hammer the earth anchor further into the ground until personnel could not fit their fingers under the anchor. CDM Smith instructs Brightfields to taper the ground approaching the spillway so that water does not pond in front of the R3/R4 rip rap. Greg Voigt (EPA) mobilizes to ACM removal site in Wissahickon Creek with Brightfields and USACE personnel at 1010 and do not return to spillway repair area. Brightfields continues to soak the rocks with water from Rose Valley Creek to saturate the rocks before concrete is poured. Concrete shoot does not reach all the way to the top of the spillway so concrete is poured, first, into the bucket of the excavator and then placed on the spillway starting from top to bottom. Brightfields personnel work the concrete into the rip rap using shovels and brooms to fill all voids between the rock. Brushes are used to remove extra concrete from the exposed rocks. Concrete truck cleans shoot into erosion eel. After Brightfields has completed spreading the concrete, the spillway is covered with a poly sheet cover for curing.

Equipment Used: CAT excavator 314E (CR30783), CAT 259D MTL (multi terrain loader) (CR31121), Pyramat 75 (High performance turf reinforcement mat), type B2 earth anchors, Armormax 18" pins, Rhino pneumatic post driver/pile driver, air compressor with 375 cfm, sledge hammers, shovels, rakes, brooms and brushes, concrete, poly curing cover, erosion eel

Data:

N/A

Timeline:

0635: Health and Safety Talk

0700: Brightfields adjusts R5 riprap for concrete infill

0842: Brightfields hoses down R5 riprap using water pumped from Rose Valley Creek

1000: Greg Voigt (U.S. EPA) and Travis Fatzinger (USACE) onsite

1325: Concrete poured from truck into CAT Excavator bucket. Brightfields Excavator operator places the concrete at the top of the spillway. Other Brightfields personnel use shovels and

DAILY LOG OF SITE ACTIVITIES	Report # CDM - 041 Date: 08/16/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0600 (3 Brightfields), 0620 (RP, 1 Brightfields) Personnel offsite time – 1450 (RP, Brightfields)	Weather: 69°F, sunny

Title: Spillway repair: concreting of rip rap R5

brooms to distribute the concrete throughout the spillway and work it into the gaps between the riprap.

1352: Concrete truck cleans shoot into erosion eel covered with a poly sheet

1430: Spillway is covered with poly sheet so the concrete can cure

1450: CDM Smith offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 042
	Date: 08/17/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0625 (RP, Brightfields), 0630 (Brightfields) Personnel offsite time – 1345 (RP, Brightfields)	Weather: 71°F, mostly sunny

Title: Spillway repair: spreading top soil, seed, and erosion control mat

Summary: Top soil is delivered to the Site. Half the load is dropped off at the spillway repair area and the other half is dropped by the parking area at the Park parcel. Biotic earth hydraulic growth medium is spread over both berms adjacent to the spillway, followed by a layer of black top soil, an erosion control mat, and a seed mixture. Soil excavated from the spillway is used to taper the approach to the spillway, as per USACE request. R3/R4 rip rap are flattened sloping towards the spillway. Material and debris surrounding the spillway are collected and moved back to the parking area. All unused materials are covered with a poly sheet.

Equipment Used: Imported top soil, biotic earth black hydraulic growth medium, seed (native steep slope mix), erosion control cover. CAT excavator 314E (CR30783), CAT 259D MTL (multi terrain loader) (CR31121), sledge hammers, shovels, rakes, brooms, brushes

Data:

N/A

Timeline:

0640: Health and Safety talk

0752: Top soil is delivered to Site. Half is placed in the parking lot area on top of a piece of geotextile, the other half is delivered to the spillway area.

0815: Spread top soil on top of HPTRM on berms adjacent to the spillway, spread HGM and seed mix with the top soil

0939: Install erosion control mat over seeded top soil

1221: Erosion control bed installed alone swales on top of the spillway in front of the R3/R4 rip rap

1345: CDM Smith offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 043
	Date: 08/20/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0620 (RP, Brightfields), 0640 (SG) Personnel offsite time – 0759 (SG), 1430 (RP, Brightfields)	Weather: 68°F, cloudy

Title: Ramp modifications: clay berm construction

Summary: Brightfields completes leveling earth at the top of the spillway, area is covered with biotic earth and top soil, and area is seeded. Erosion control mat is placed overtop of area and pinned down. Clay is delivered to the Site and deposited directly on top of berm construction footprint. Brightfields uses MTL to distribute the clay throughout the berm construction area and then compacts the clay using the roller. Clay elevation is measured continuously using a laser level.

Equipment Used: CAT excavator 314E (CR30783), CAT 259D MTL (multi terrain loader) (CR31121), CAT CS34 (CR40078) Steel Barrel Roller, shovels, rakes, laser level

Data:

N/A

Timeline:

0632: Health and Safety Talk

0806: Brightfields reseeds Erosion Control Beds (ECB) at the top of the spillway and covers more area with ECB

1106: First load of clay delivered to Ramp repair area.

1123: Clay pushed and flattened with MTL and then compacted with steel barrel roller

1312: Second load of clay delivered to Ramp repair area

1314: Clay distributed throughout footprint using MTL and compacted using steel barrel roller

1430: CDM Smith offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 044
	Date: 08/21/2018 Day: Tuesday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel offsite time – 1116 ([redacted] (USACE)), 1400 (RP, Brightfields)	Weather: 67°F, cloudy
Title: Ramp modifications: clay berm construction	

Summary: Brightfields loads top soil from spillway repair area and parking area into dump trailer and relocates the soil to the berm construction area by the ramp. Relocating the soil requires several trips. Third load of clay is delivered onsite. USACE's Richard and Travis onsite. USACE informs CDM Smith that the spillway design has not been fully completed, 50 ft of erosion control matting needs to be added to the swale on the southwest side of the spillway. Brightfields distributes clay throughout ramp berm and compacts it with a roller. USACE amends their ramp berm design. Richard adds a redline to the drawing, instructing Brightfields to excavate only as necessary to achieve full stone road width and thickness. Corner of swale is excavated for road width at point 21.

Equipment Used: CAT excavator 314E (CR30783), CAT 259D MTL (multi terrain loader) (CR31121), CAT CS34 (CR40078) Roller, shovels, rakes, laser level

Data:

N/A

Timeline:

0634: Health and Safety talk

0717: Relocate soil from parking area to ramp repair area using dump trailer

0946: Third load of clay delivered to Site

0947: [redacted] (USACE) onsite.

1116: [redacted] (USACE) adds redline to plans. The area for excavation marked on sheet 3 in plans is reduced to "excavate only as necessary to achieve full road width and thickness".

1220: Swale excavated as necessary to achieve full road width and thickness using MTL

1320: Compact clay using Steel barrel roller

1400: CDM Smith offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 045
	Date: 08/22/2018 Day: Wednesday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP, Brightfields), 1310 (SG) Personnel offsite time – 1410(SG), 1422 (RP, Brightfields)	Weather: 69°F, cloudy
Title: Ramp repair: top soil and stone placement to top of clay berm	

Summary: Laser level is set up for excavation of area at the toe of the ramp berm. Extra clay is loaded into dump trailer. Cut is made between points 24 and 26 for 9 inches of stone aggregate, as designated in the table on sheet 3 of 4 of the ramp repair area plan. Geotextile is rolled over the clay berm and secured with pins. MTL is used to place stone aggregate over the berm in the area designated on sheet 3 of 4 of the ramp repair area plan. Stone is compacted using CAT CS34 roller. Extra stone aggregate is necessary to achieve a 0.6% slope between point 23 and 27. Top soil is applied to designated areas. Biotic Earth is spread throughout the top soil. Erosion control bedding is rolled over the top soil and seed is scattered. Extra unused soil and excavated soil is piled into one spot and covered with a poly sheet.

Equipment Used: CAT excavator 314E (CR30783), CAT 259D MTL (multi terrain loader) (CR31121), CAT CS34 (CR40078) Roller, shovels, rakes, laser level, top soil, aggregate stone, erosion control bedding, seed, biotic earth black hydraulic growth medium (HGM), propex nonwoven needle-punched geotextile, 6" U-shaped staples, Armormax 18" long pins

Data:

N/A

Timeline:

0640: Health and Safety Talk

0718: Begin excavation at toe of the swale

0945: Geotextile rolled over clay berm and secured with pins and staples

1018: Stone aggregate placed on berm in area designated for stone roadway on sheet 3 of the plans

1110: Stone aggregate compacted using steel barrel roller

1112: Top soil spread on top of the berm, with HGM and seed mixture

1320: Top soil covered with ECB, apply more grass seed

1422: Offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 046a
	Date: 08/23/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP), 0618 (Brightfields) Personnel offsite time – 1326 (RP, Brightfields)	Weather: 62°F, mostly cloudy
Title: Ramp repair: berm construction	

Summary: More staples added into erosion control mat on berm. Excavated dirt pile is loaded into dump trailer, to be taken offsite. Fox scare crow goose deterrents are staked into berm, and on swales parallel to spillway. Reflective tape is tied onto stakes around the ramp berm and spillway as additional deterrent for geese. Brightfields cleans up area where stone aggregate was piled at bottom of ramp area using multi terrain loaded (MTL). One Brightfields personnel takes excavated dirt in dump trailer offsite. Brightfields installs 50 ft of the turf reinforcement mat along the swale on the southwest side of the spillway, as instructed in Note 30, on page 2 of 4 in the plans. Before placing turf reinforcement mat (TRM) biotic earth, seed are scattered throughout the area where the mat will be placed. The TRM is secured with pins and staples. Extra stone aggregate is delivered to Site. Stone is dropped in front of the ramp berm. Brightfields returns to Site with dump trailer and loads up the remaining excavated dirt to be taken offsite. Brightfields adds extra stone aggregate between points 24 and 26 to ensure a 0.6% slope between points 23 and 27 for positive drainage. Stone aggregate is compacted using steel barrel roller. Excavator is refueled and moved to Rose Valley Creek gate for pickup by rental company.

Equipment Used: CAT 259D MTL (multi terrain loader) (CR31121), CAT CS34 (CR40078) Roller, shovels, rakes, top soil, aggregate stone, turf reinforcement mat, seed, biotic earth, fox scare crows, reflective tape.

Timeline:

0630: Health and Safety Talk

0640: Crew mobs to ramp repair area

0645: Staple Erosion Control Mat into berm

0650: Load excavated dirt pile into dump trailer

0718: Install Fox scare crow goose deterrent on spillway and berm

0719: Hang reflective tape along spillway and berm

0756: Clean up area where stone aggregate was piled at bottom of ramp area using MTL

0822: Brightfields personnel offsite to deliver excavated soil and topsoil to Philadelphia

0827: Brightfields installs 50 feet of Erosion Control Mat along swale parallel to Rose Valley Creek

0915: Add top soil, Biotic Earth Black, and seed on top of Erosion Control Mat

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 046a
	Date: 08/23/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] (RP) Personnel onsite time – 0610 (RP), 0618 (Brightfields) Personnel offsite time – 1326 (RP, Brightfields)	Weather: 62°F, mostly cloudy
Title: Ramp repair: berm construction	

1120: Brightfields loads the rest of the excavated dirt into dump trailer

1127: Stone aggregate placed on top of berm between points 24 and 26 to create positive drainage

1200: Compact stone aggregate using steel barrel roller

1230: CAT Excavator is moved to Rose Valley Creek gate for pickup by rental company.

1326: All personnel offsite

Data:

N/A

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 046b
	Date: 08/23/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Reservoir Transducer Configuration	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1000 (SC) Personnel offsite time – 1420 (SC)	Weather: 78°F, Mostly Sunny
Title: Reservoir Transducer Configuration	

Summary: CDM Smith personnel onsite to configure the In-Situ Level Troll transducer located in the reservoir as seen on Figure 2-9 below. SPC connected to the stripped and tinned transducer using an In-Situ Communication Device Kit. Each wire was disconnected from the reservoir telemetry box, connected to the In-Situ Communication Device Kit, and connected via USB to a computer. Using Win-Situ 5 software, SPC was able to configure the transducer to output the reservoir's surface as elevation in feet above mean sea level. SPC collected reservoir surface elevation with an existing staff gauge, which was recently surveyed by Sklar (see Report # CDM-037 for details). SPC reconnected all wires to the telemetry box and ensured that data was transmitting.

Equipment: PPE: level D; In-Situ Communication Device Kit, Computer

Data:

Reservoir Staff Gauge reading: 1.58ft

Reservoir Staff Gauge elevation at 0.0: 184.03 ft-amsl

Reservoir Surface Elevation: 185.61

Surveyor Notes:

GAUGES TEXT

User Name: DWS
Project: 2245
Report Nodes

Date: 08-02-18
Time: 23:49:46
Page: 1

Report Nodes

Node ID	Northing	Easting	Elevation	Description
104	309286.35	2672742.57	174.76	SG-A
108	309330.03	2672584.53	172.15	SG-B
113	309268.03	2673525.43	184.03	SG-C
120	308907.98	2673884.36	186.35	SG-D

ELEVATIONS PROVIDED ARE REDUCED TO 0.00' ON EACH GAUGE MAKING EACH GAUGE DIRECT READ

EXAMPLE: IF READING ON SG-A IS 0.36'THEN WATER ELEVATION IS 174.76'+0.36'= 175.12'

EXAMPLE: IF READING ON SG-B IS 5.22' THEN WATER ELEVATION IS 172.15'+5.22'= 177.37'

HORIZONTAL DATUM: PENNSYLVANIA STATE PLANE COORDINATES NAD 83_2011 (SOUTH ZONE)
VERTICAL DATUM: NAVD 88
MONUMENT USED: NGS "PAPH" (CORS) (PID: DJ6115) (GEOID 12B) AND INNER CASING OF WELL PKPZ03 (198.96')

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 046b
	Date: 08/23/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Reservoir Transducer Configuration	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1000 (SC) Personnel offsite time – 1420 (SC)	Weather: 78°F, Mostly Sunny
Title: Reservoir Transducer Configuration	

Figures:

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 046b
	Date: 08/23/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Reservoir Transducer Configuration	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 1000 (SC) Personnel offsite time – 1420 (SC)	Weather: 78°F, Mostly Sunny
Title: Reservoir Transducer Configuration	
Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 047
	Date: 08/24/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP), 0615 (Brightfields), 0919 ([redacted] (USACE)), 1137 (Joe McDowell (U.S. EPA)) Personnel offsite time – 1001 ([redacted] 1158 (RP, Brightfields, Joe McDowell)	Weather: 57°F, sunny
Title: Demobilization and Cleanup	

Summary: Unused stone aggregate is loaded into dump trailer using the MTL. Brightfields moves the stone aggregate to the area where the ramp road and Rose Valley Creek (RVC) intersect. The stone aggregate is piled on the south side of the creek, set back approximately 50 feet from creek. Brightfields set up a string pattern on the swales adjacent to the spillway to deter the geese from eating the newly planted grass seeds. The string pattern is marked with orange spray paint and reflective tape. The geese should not land in the area any longer for fear of being trapped or getting their wings caught in the string. The string will be removed in 6 to 7 weeks depending on vegetation growth. Seed is scattered in front of berm in the ramp area, along with left over biotic earth soil. Seed is also scatted on top of TRM by spillway. Rich DePasquale (USACE) onsite to inspect final construction. He inspects berm area and indicated to Brightfields and CDM Smith that everything looks very good. Half a load of top soil is delivered to the Site and dropped at the area in front of the spillway. Brightfields uses MTL to distribute half an inch of top soil onto the TRM parallel to the swales approaching the spillway. Rich DePasquale confirms that 50 ft of TRM along the swale is sufficient. Brightfields rack top soil evenly throughout TRMs. Rich DePasquale approves the geese deterring suspended string pattern. Brightfields back drags extra top soil around barren area in front of the spillway as per Rich DePasquale's instructions. Brightfields drives pickup truck over berm on stone pathway as per Rich DePasquale request to test that the vehicle does not bottom out when driving across the berm. Vehicle does not bottom out. Rich DePasquale approves future irrigation of seeded areas using water pumped from RVC. MTL and steel barrel roller are refueled and moved to the area in front of the RVC gate for return. Joe McDowell (U.S. EPA) onsite. Asks CDM if Brightfields has done work on an area by the Asbestos Pile. This work is not in Brightfields contract and is confirmed after discussing with [redacted] and [redacted]. All personnel are offsite, and Site is secured.

Equipment Used: CAT 259D MTL (multi terrain loader) (CR31121), rakes, top soil, seed, biotic earth black hydraulic growth medium (HGM), reflective tape, string

Data:

N/A

Timeline:

0645: Health and Safety talk

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 047 Date: 08/24/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Ramp Modifications and Spillway Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP), 0615 (Brightfields), 0919 ([redacted] (USACE)), 1137 (Joe McDowell (U.S. EPA)) Personnel offsite time – 1001 ([redacted] 1158 (RP, Brightfields, Joe McDowell)	Weather: 57°F, sunny
Title: Demobilization and Cleanup	

0715: Brightfields sets up suspended string pattern at spillway and ramp to deter geese from newly planted seeds

0807: Extra Stone aggregate dumped at the intersection of the ramp and the Rose Valley Creek.

0852: HGM scattered in area at the foot of the berm to return nutrients to the soil

0929: Half an inch of top soil is placed over ECB along the swales approaching the spillway

0931: Rich DePasquale confirms that 50 feet of ECB along the South West swale is sufficient

1011: Brightfields back drags extra unused top soil throughout the area in front of the spillway as per Richard DePasquale's instructions

1022: Richard DePasquale requests that Brightfields drives pickup truck on the stone roadway across the berm to ensure that the vehicle does not bottom out. Vehicle clears the ground when driving over the berm.

1132: CAT equipment moved to outside Rose Valley Creek gate for pickup

1137: Joe McDowell (USEPA) onsite.

1142: [redacted] and [redacted] contacted

1158: Offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 048
	Date: 09/10/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Receive Compost from Whitmarsh Township	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0530 (SG), 0600 (RP) Personnel offsite time – 1000 (SG), 1430 (RP)	Weather: 54°F, cloudy, light drizzle
Title: Compost Delivery – Day 1	

Summary: First dump truck arrives onsite and attempts to drive over Park parcel cap to areas designated for compost drop off. Park cap is determined to be too soft in some areas for the dump trucks to drive over, so they are redirected to deposit the compost at an area closer to the entrance. Compost is dumped in the area directly across from the gravel driveway. A total of 41 loads of compost are delivered between 0734 and 1421. See photo for visual of area where compost was dumped.

Equipment Used:

5, 29 CY dump trucks from RP Blair Corporation

Data:

Time	Truck ID
0734	97
0745	109
0752	94
0757	82
0829	97
0839	109
0840	101

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 048
	Date: 09/10/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Receive Compost from Whitmarsh Township	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0530 (SG), 0600 (RP) Personnel offsite time – 1000 (SG), 1430 (RP)	Weather: 54°F, cloudy, light drizzle
Title: Compost Delivery – Day 1	

0845	94
0855	82
0924	97
0930	94
0936	109
0945	82
0946	101
1008	97
1016	94
1023	109
1029	101
1034	82
1052	97
1102	94
1114	109
1122	82
1124	101
1134	97
1151	94
1203	109
1209	82
1216	101
1220	97
1241	94

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 048
	Date: 09/10/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Receive Compost from Whitmarsh Township	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0530 (SG), 0600 (RP) Personnel offsite time – 1000 (SG), 1430 (RP)	Weather: 54°F, cloudy, light drizzle
Title: Compost Delivery – Day 1	

1250	109
1258	82
1300	101
1308	97
1332	94
1341	109
1345	82
1348	101
1350	97
1421	94

Timeline:

0603: RP onsite. SG at Whitmarsh township, to meet trucks and watch initial loading to kickoff the event.

0744: First truck arrives (#97) dumps load close to orange barrier fence at driveway. Ground is determined to be too soft for truck to drive all the way over cap.

0750: SG onsite

1345: Truck 82 and 109 offsite

1350: Truck 97 and 101 offsite

1423: Truck 94 offsite

1432: Tally 41 total loads delivered

1440: CDM Smith offsite; Site secured.

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 049a
	Date: 09/13/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Quarterly inspection	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] EPA Personnel – Joe McDowell (JM) PADEP Personnel – Colin Wade (CW) Personnel onsite time – 0640 (RP), 0800 (SPC, JM, CW) Personnel offsite time – 1014 (JM, CW), 1110 (RP, SC)	Weather: 71°F, cloudy, light drizzle
Title: Quarterly inspection	

Summary: Entire Site inspected, and Quarterly inspection checklist completed by SPC. JM and CW point out invasive plant species and trees growing on berm beside Rose Valley Creek (RVC) that should be addressed in the next spraying event. Crew mobilizes to stream gauge that had become disconnected in Wissahickon Creek. SPC and RP will address stream gauge after quarterly inspection. JM observes that the reservoir water level is much higher than usual. JM requests that access road next to Pile be repaired. There is an area with standing water near the gate, JM recommends that puddle be filled in with "3/4 stone." Fence is broken in several areas throughout the Site; JM requests that CDM Smith schedule fence repair. (Follow up note: CDM Smith Project Manager checked with EPA RPM and EPA RPM stated that CDM Smith is still holding off on any fence repair or stone placement at the Asbestos Pile until Park tilling and seeding and ACM removal in Wissahickon Creek is complete due to current funding reallocated to these tasks.) Checklist is reviewed with JM. On the check sheet "Monthly mowing" is corrected to "Annual mowing." JM signs logbook and determines quarterly inspection complete.

Equipment Used:

Mule

Data:

Action needed (Follow up note: removed these as action items per discussion with EPA RPM):

- Fence Survey needs to be completed, and broken areas repaired.
- Swale area near Asbestos Pile, with standing water, needs to be filled.

Timeline:

0800: SPC, JM, and CW onsite, RP meets them in parking area after finishing meeting with Brightfields Inc.

0821: Crew mobilizes to Boys and Girls club to see if well (MW-7) under ramp is accessible to drillers for well abandonment.

0843: Spillway passes inspection by JM and CW. JM and CW point out Japanese knot weed, Canadian thistle to be sprayed, and two trees along RVC berm that need to be cut down.

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 049a
	Date: 09/13/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Quarterly inspection	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] EPA Personnel – Joe McDowell (JM) PADEP Personnel – Colin Wade (CW) Personnel onsite time – 0640 (RP), 0800 (SPC, JM, CW) Personnel offsite time – 1014 (JM, CW), 1110 (RP, SC)	Weather: 71°F, cloudy, light drizzle
Title: Quarterly inspection	

0853: Crew mobilizes to ramp area to inspect new construction as well as view the stream gauge that became disconnected in Wissahickon Creek.

0903: Crew mobilizes to Asbestos Pile to help CDM Smith personnel locate flush mount well (MW-5) for abandonment

0904: JM requests that the area with standing water on the Asbestos Pile access road be filled in (Follow up: Not an action item per the EPA WAM).

0914: JM notes that several areas of the black border fence are broken and need repair (Follow up: Not an action item per the EPA WAM).

1004: Mobilize back to Park parcel parking area and review inspection checklist with JM. All points reviewed and JM signs off on inspection.

1007: Wording about monthly mowing in inspection checklist corrected to annual mowing.

1009: JM requests that when CDM Smith does stream cleanup that personnel walk in Creek and perform a visual inspection.

1014: Quarterly inspection complete, JM and CW offsite.

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 049b
	Date: 09/13/2018 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Spillway and Ramp Repair	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Brightfields Personnel - [redacted] Personnel onsite time – 0630 (JV), 0640 (RP) Personnel offsite time – 0815 (JV), 1110 (RP)	Weather: 71°F, cloudy, light drizzle
Title: Construction follow-up	

Summary: Meet with JV to see what corrections need to be made to ensure positive drainage at the ramp area. RP arrives onsite and mobilizes to ramp area with JV. The area not matching the design documents is surveyed. JV decided that the fix can be made immediately. JV scrapes about one inch of stone from swale to achieve proper elevation. JV surveys to see the new elevation. More stone is scraped from swale. About half an inch of water is ponding at point 24. JV observed deposition in the swale that raised the elevation about ¾" from the original placement. Final survey is completed, and swale is creating good positive drainage.

Equipment Used:

Metal rake, shovel, metal damper

Data:

N/A

Timeline:

0640: RP onsite

0650: Mobilize to ramp area

0700: Survey area with standing water

0705: JV scrapes stone from swale (about 1 inch) to achieve proper elevation

0722: JV surveys to ensure proper elevation is achieved at points 24, 25, and 26

0745: JV uses metal damper to compact stone aggregate

0750: JV survey to ensure elevation matches the values designated in the design drawings

0815: JV offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 049c
	Date: 9-13-18 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Well and Piezometer Abandonment	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (KO), 0730 (SB), 0800 (Eichelberger – 3 member crew Personnel offsite time – 1200 (SB,) 1730 (KO), 1700 (Eichelberger - 3 member crew)	Weather: 72°F, muggy and overcast
Title: Well and Piezometer Abandonment	

Summary: Eichelberger crew arrived at 0800. KO and SB located wells. In total, five wells and five piezometers were successfully abandoned and secured between 0920 and 1601. Each well and piezometer was filled with a cement – bentonite mixture weighing 14 lbs./gal.

Equipment Used: Grouting mixer and tubing, front loader, cutting torch

Data:

Time	Well / Piezometer #
0940	PKPZ-03
1030	PKPZ-01
1100	MW-02
1130	PKPZ-02
1150	MW-06
1300	MW-05
1320	GT-7
1340	MW-04
1410	GT-6
1601	MW-03

Timeline:

0730: KO and SB onsite

0800: Eichelberger Construction onsite

0800-0900: Located wells

0920: Began filling first piezometer; SB continued to locate wells and determine access for vehicles

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 049c Date: 9-13-18 Day: Thursday
Project: BoRit Asbestos Superfund Site Task: Well and Piezometer Abandonment	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – Kyle [redacted] Personnel onsite time – 0730 (KO), 0730 (SB), 0800 (Eichelberger – 3 member crew Personnel offsite time – 1200 (SB,) 1730 (KO), 1700 (Eichelberger - 3 member crew)	Weather: 72°F, muggy and overcast
Title: Well and Piezometer Abandonment	

1200: SB offsite

1601: Completed well abandonment for the day. Checked MW-07 location for access and determined that the well head could be accessed without ramp removal. No bolts on the ramp were loosened for this activity.

1700: Eichelberger Construction offsite

1730: KO offsite; gates secured

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 050a
	Date: 9-14-18 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Well and Piezometer Abandonment	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (KO), 0700 (Eichelberger - 3 member crew) Personnel offsite time –1130 (KO), 1030 (Eichelberger - 3 member crew)	Weather: 66°F, muggy and overcast, with light rain
Title: Well and Piezometer Abandonment	

Summary: Eichelberger crew arrived at 0700 to get vehicles ready. Team discussed how to abandon MW-07 under accessibility ramp. Well cap was removed without removing ramp leg, well was successfully abandoned. In total, two wells were successfully abandoned and secured between 0800 and 0833. Each well was filled with a cement – bentonite mixture weighing 14 lbs./gal. After filling wells, returned to piezometer PKPZ-01 and filled it with gravel and placed top soil and seeded ground. Also placed IDW barrel by red asbestos dumpster in the parking area at the Park parcel. Per request from [redacted] (CDM Smith Project Manager), KO checked that the contents of the rubbish dumpster had been removed. At 1000, an 18'' corrugated casing was removed from well MW-02 and piezometer PKPZ-02.

Equipment Used: Grouting mixer and tubing, front loader, cutting torch

Data:

MW-07 after grouting

MW-07 at conclusion

Time	Well / Piezometer #
0815	MW-07
0833	MW-01A

Timeline:

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 050a
	Date: 9-14-18 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Well and Piezometer Abandonment	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0730 (KO), 0700 (Eichelberger - 3 member crew) Personnel offsite time –1130 (KO), 1030 (Eichelberger - 3 member crew)	Weather: 66°F, muggy and overcast, with light rain
Title: Well and Piezometer Abandonment	

0700: Eichelberger Construction onsite

0730: KO onsite

0800: Began filling first well, MW-7. No bolts on the ramp were modified for this activity.

0833: Completed well abandonment at MW-01A

0910: Filled vault at PKPZ-01

0930: IDW 55-gallon closed top drum was labeled and placed by dumpster

0945: Checked dumpster to ensure it had recently been emptied

0950: [redacted] (SC) and [redacted] (MN) arrived on site

1000: Removed corrugated casing from wells

1030: Eichelberger Construction offsite

1030: Discussed transducer replacement with SC and MN

1130: KO offsite; SC and MN remain onsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 050b
	Date: 09/14/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Damaged Wissahickon Creek SonTek Sensor Evaluation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0945 (SPC), 0945 (MN) Personnel offsite time – 1145 (SPC), 1130 (MN)	Weather: 70°F, Overcast
Title: Damaged Wissahickon Creek SonTek Sensor Evaluation	

Summary: CDM Smith personnel onsite to evaluate the condition of the SonTek stream sensor located in Wissahickon Creek as seen on Figure 2-9 below. The communication/power cord was forcibly removed from the sensor while maintaining a connection to the telemetry box. Because the cord was removed underwater and current continued to flow from the telemetry box, the cord was damaged and deemed unusable after extensive phone conversations with Chris Condella from Xylem support. SPC and MN verified that the damaged cord was not transferring current from one end to the other with the use of a digital multimeter. It was recommended by Chris Condella that we replace the cord entirely. Chris spoke with Tom Wazniak about the next steps that we should take to replace the damaged cord. Tom Wazniak will determine if this cord is under warranty for this situation. During a second site visit on 9/14/2018, in efforts to understand the possible reason for how the Wissahickon cable was pulled out, MN inspected the cable connection at the Tannery Run and Rose Valley Creek Sontek transducers.

Equipment: PPE: modified level D; digital multimeter, screw drivers

Figures:

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 050b Date: 09/14/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Damaged Wissahickon Creek SonTek Sensor Evaluation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0945 (SPC), 0945 (MN) Personnel offsite time – 1145 (SPC), 1130 (MN)	Weather: 70°F, Overcast

Title: Damaged Wissahickon Creek SonTek Sensor Evaluation

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 050b Date: 09/14/2018 Day: Friday
Project: BoRit Asbestos Superfund Site Task: Damaged Wissahickon Creek SonTek Sensor Evaluation	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0945 (SPC), 0945 (MN) Personnel offsite time – 1145 (SPC), 1130 (MN)	Weather: 70°F, Overcast

Title: Damaged Wissahickon Creek SonTek Sensor Evaluation

Timeline:

0945: SPC and MN onsite

1000: Crew collects all equipment and mobilizes to Wissahickon SonTek sensor

1030: Crew prepares submerged cord to be evaluated and pulls all fuses

1100: Crew calls Chris Condella for Xylem evaluation of the cord

1145: Crew offsite

Field Team Leader: [redacted]	Company: CDM Smith

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 051
	Date: 09/17/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Receive Compost from Whitemarsh Township	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP) Personnel offsite time – 1440 (RP)	Weather: 64°F, cloudy, light drizzle

Title: Compost Delivery – Day 2

Summary: First dump truck arrives onsite and is directed towards area in front of spillway to drop compost. 14 loads are deposited in this location. Next trucks are directed to area in front of ramp, 14 loads are deposited in this location. Next trucks are directed to deposit compost along the berm the in area adjacent to driveway. 5 loads are deposited here.

Equipment Used:

1 Mega Dump truck, 1 Atlantic Concrete Dump truck, 3RP Blair Corporation dump trucks. All trucks 29 CY.

Data:

Total Compost Loads: 33

Total Trucks: 5

Time	Truck ID

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 051
	Date: 09/17/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Receive Compost from Whitemarsh Township	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP) Personnel offsite time – 1440 (RP)	Weather: 64°F, cloudy, light drizzle
Title: Compost Delivery – Day 2	

0755	35
0800	100
0810	97
0911	35
0911	2
0912	97
0914	94
0928	100
1007	35
1007	2
1014	97
1020	94
1026	100
1101	35
1104	2
1109	97
1117	94
1118	100
1156	35
1156	2
1201	97
1204	94
1211	100
1242	35

DAILY LOG OF SITE ACTIVITIES	Report # CDM – 051
	Date: 09/17/2018 Day: Monday
Project: BoRit Asbestos Superfund Site Task: Receive Compost from Whitemarsh Township	Contract Number: 62625 WA Number: 3330.056
CDM Smith Personnel – [redacted] Personnel onsite time – 0610 (RP) Personnel offsite time – 1440 (RP)	Weather: 64°F, cloudy, light drizzle

Title: Compost Delivery – Day 2

1244	97
1255	2
1301	94
1316	100
1331	35
1334	97
1344	2
1349	94
1358	100

Connex Box Inventory:

9-Large Tyvek suits

18-Extra Large Tyveks suits

12-Double Extra Large Tyvek suits

4-pairs of Tyvek booties

Could not find walkie talkies

Timeline:

0610: RP onsite

0755: First truck arrives (#35), RP directs him to area in front of spillway to drop compost

1104: RP instructs trucks to begin dropping compost in area in front of ramp

1331: RP instructs trucks to drop compost on NE side of Park Parcel next to driveway

1400: Inventory Connex box for Tyvek suits and walkie talkies.

1440: CDM Smith offsite; Site secured.

Field Team Leader: [redacted]	Company: CDM Smith

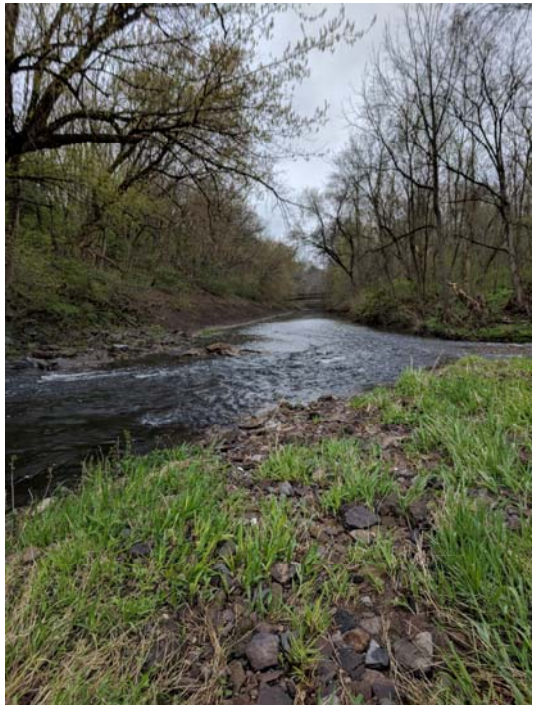
Appendix B

Photo Log

Remedial Action Activities
Photo Log
BoRit Asbestos Superfund Site
USEPA Region 3

- Confirmation Sampling: Surface Soil, Surface Water, Sediment ……..P. 2
- Confirmation Sampling: Ambient Air ……P. 3
- Confirmation Sampling: ABS Soil ……P. 4
- Confirmation Sampling: ABS Air ……..P. 5
- Quarterly Site Inspections ……P. 6
- Cap Maintenance ……P. 7
- Invasive Species Spraying …… P. 8
- Stream and Trail Cleanup ……..P. 9
- Gauging Station Installation ……P. 10
- Spillway Repair ……P. 11
- Piezometer and Monitoring Well Abandonment ……P. 12

Confirmation Sampling:
Surface Soil, Surface Water, Sediment



04/24/2018 – 04/27/2018 and 05/01/2018

Confirmation Sampling: Ambient Air

05/24/2018 – 05/25/2018 and 06/07/2018

Confirmation Sampling: ABS Soil

07/18/2018 – 07/20/2018

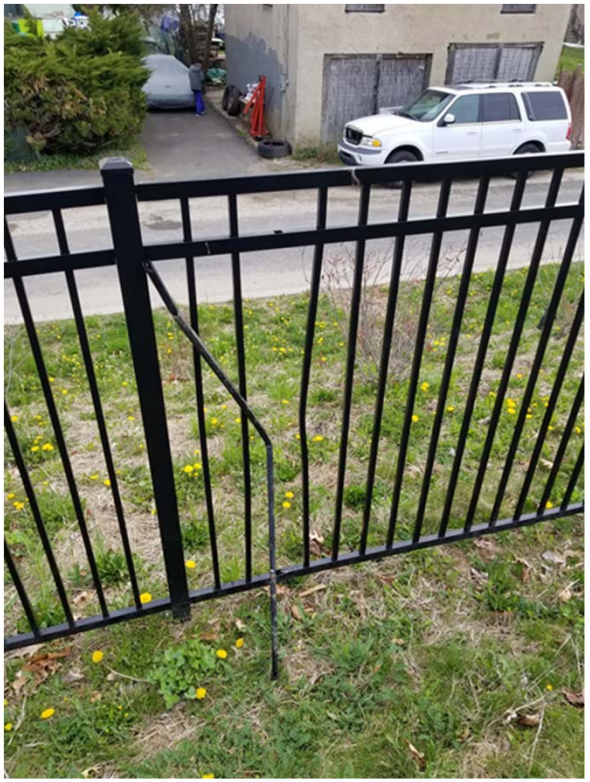
Confirmation Sampling: ABS Air

07/18/2018 – 07/20/2018

Quarterly Site Inspections

04/24/2018 – 07/03/2018

Cap Maintenance



04/12/2018 – 04/13/2018

Invasive Species Spraying

05/21/2018, 05/23/2017, and 05/24/2018

Stream and Trail Cleanup

No Photos

04/10/2017 – 04/11/2018

Gauging Station Installation

06/04/2018 – 06/11/2018

Spillway Repair

08/13/2018 – 08/24/2018

Piezometer and Monitoring Well Abandonment

09/13/2018 – 09/14/2018

Appendix C

Field Sampling Data Sheets

Sheet No.: S- 001

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 24, 2018

Field Logbook No: 001

Page No: 010

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-101	CSPKSS-201	CSPKSS-103
Location ID	PK01-01	PK01-01	PK02-01
Sample Group			
Location Description (circle)	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____
Category (circle)	**FS** FD of _____ EB LB	FS **FD** of CSPKSS-101 EB LB	**FS** FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	**Surface Soil** Other _____
Type (circle)	Grab # subsamples = 0 **Comp. #** subsamples 30	Grab # subsamples = 0 **Comp. #** subsamples 30	Grab # subsamples = 0 **Comp. #** subsamples 30
Sample Time	1045	1045	1340
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	**BORIT CS 4-24-18** Filename: _____ NA	**BORIT CS 4-24-18** Filename: _____ NA	**BORIT CS 4-24-18** Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 002

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 24, 2018

Field Logbook No: 001

Page No: 010-011

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-105	CSPKSS-102	CSPKSS-106
Location ID	PK03-01	PK01-02	PK03-02
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1445	1550	1620
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 003

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 24, 2018

Field Logbook No: 001

Page No: 011

Sampling Team: CDM Smith Other _____ Names: [redacted] _____

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-501	CSPKSS-104	
Location ID	PK01-01	PK02-02	
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other WATER	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples _____	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1710	1715	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	❑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 004

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 25, 2018

Field Logbook No: 001

Page No: 013

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-108	CSPKSS-107	
Location ID	PK04-02	PK04-01	
Sample Group			
Location Description (circle)	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1305	1555	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	1-inch triangular blue tile encountered at approx. 5 inches bgs from 1 grab location ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ❑ no ACM observed % ACM: ____
GPS File (fill in or circle)	**BORIT CS 4-24-18** Filename: _____ NA	**BORIT CS 4-24-18** Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 005

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 014

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-109	CSPKSS-110	CSPKSS-210
Location ID	PK05-01	PK05-02	PK05-02
Sample Group			
Location Description (circle)	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	FS **FD of CSPKSS-110** EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	**Surface Soil** Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**
Sample Time	0830	0925	0925
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	**BORIT CS 4-24-18** Filename: _____ NA	**BORIT CS 4-24-18** Filename: _____ NA	**BORIT CS 4-24-18** Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 006

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 015-017

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-106	CSRVSS-104	CSRVSS-105
Location ID	RV03-02	RV02-02	RV03-01
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1110	1205	1140
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 007

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 018

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-101	CSRVSS-102	CSRVSS-110
Location ID	RV01-01	RV01-02	RV05-02
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1425	1445	1536
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 008

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 018

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-109	CSRVSS-103	CSRVSD-503
Location ID	RV05-01	RV02-01	RV02-01
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB Rinsate Blank LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other water
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 01 Comp. # subsamples _____
Sample Time	1611	1355	1420
Top Depth (inches below ground surface)	0	0	NA
Bottom Depth (inches below ground surface)	6	6	NA
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ❑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 009

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 020

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-108	CSRVSS-107	CSAPSS-110
Location ID	RV04-02	RV04-01	AP05-01
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	0847	0908	0945
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 010

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 021

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-108	CSAPSS-107	CSAPSS-106
Location ID	AP04-01	AP03-02	AP03-01
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1010	1035	1057
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA	BORIT CS 4-24-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 011

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 021

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-102	CSAPSS-103	CSAPSS-203
Location ID	AP01-02	AP01-03	AP01-03
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of CSAPSS-103 EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1123	1213	1213
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 5-02-18 NA	Filename: BORIT CS 5-02-18 NA	Filename: BORIT CS 5-02-18 NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 012

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 022

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-101	CSAPSS-104	CSAPSS-105
Location ID	AP01-01	AP02-01	AP02-02
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1230	1250	1341
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	BORIT CS 5-02-18 Filename: _____ NA	BORIT CS 5-02-18 Filename: _____ NA	BORIT CS 5-02-18 Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 023

Sampling Team: CDM Smith Other _____ Names: [redacted] _____

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-109	CSAPSS-111	
Location ID	AP04-02	AP05-02	
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1412	1435	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	❑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 5-02-18 NA	Filename: BORIT CS 5-02-18 NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 024

Sampling Team: CDM Smith Other _____ Names: [redacted] _____

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-501	CSPKSS-503	
Location ID	PK01-01	PK02-01	
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other WATER	Surface Soil Other WATER	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples _____	Grab # subsamples = 0 Comp. # subsamples _____	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1520	1535	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	❑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- **000001**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-25-2018

Field Logbook No: 001

Page No: 012

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSW-103**	**CSRVSW-104**	**CSRVSW-102**
Location ID	**RV-103**	**RV-104**	**RV-102**
Sample Group	**NA**	**NA**	**NA**
Location Description	Western quadrant of Reservoir	Southern quadrant of Reservoir	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank
Matrix Type (circle)	(Surface Water) Laboratory Water Sediment Other _____	(Surface Water) Laboratory Water Sediment Other _____	(Surface Water) Laboratory Water Sediment Other _____
Sample Time	**1233**	**1305**	**1333**
Field Comments	Water depth = 5.8 ft pH = 8.90 Temp = 14.57 Turb = 16.5 DO = 12.29 ORP = 61.7 COND = 0.451	Water depth = 6.0 ft pH = 7.68 Temp = 9.58 Turb = 19.0 DO = 1.41 ORP = -37.7 COND = 0.503	Water depth = 2.5 ft pH = 9.26 Temp = 14.62 Turb = 21.2 DO = 13.99 ORP = 0.71 COND = 0.454
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- **000002**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-25-2018

Field Logbook No: 001

Page No: 013

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSW-101**		
Location ID	**RV-101**		
Sample Group	**NA**		
Location Description	Northern quadrant of Reservoir	Southern quadrant of Reservoir	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	(Surface Water) Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	**1356**		
Field Comments	Water depth = 3.01 ft pH = 9.41 Temp = 14.58 Turb = 15.6 DO = 13.32 ORP = 20.3 COND = 0.453		
GPS File (fill in or circle)	Filename: BORIT NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- **000003**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site

Sampling Date: 4-26-2018

Field Logbook No: 001

Page No: 015-016

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSD-103**	**CSRVSD-104**	**CSRVSD-102**
Location ID	**RV-103**	**RV-104**	**RV-102**
Sample Group	**NA**	**NA**	**NA**
Location Description	Western quadrant of Reservoir	Southern quadrant of Reservoir	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water (Sediment) Other _____	Surface Water Laboratory Water (Sediment) Other _____	Surface Water Laboratory Water (Sediment) Other _____
Sample Time	**1045**	**1135**	**1250**
Field Comments	Sample is very dark, almost black brown. Sediment was silty with gravel. 3 dredge grabs were used to collect sample volume. VOCs collected from first dredge only.	Sample was mostly black silt with some medium to dark brown silt and fine gravel. 3 dredge grabs were used to collect sample volume. VOCs collected from first dredge only. Black plastic mesh pulled up with 2nd drege.	Sample was mostly black sandy silt with some medium to dark brown sandy silt. 3 dredge grabs were used to collect the sample volume. VOCs collected from first dredge only. Sediment very difficult to collect with encores.
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- **000004**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-26-2018

Field Logbook No: 001

Page No: 017

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSD-101**	**CSRVSD-201**	
Location ID	**RV-101**	**RV-101**	
Sample Group	**NA**	**NA**	
Location Description	Northern quadrant of Reservoir	Same as CSRVSD-101	Eastern quadrant of Reservoir
Category (circle)	[FS] FB FD of _____ Trip Blank	FS FB [FD of CSRVSD-101] Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water [Sediment] Other _____	Surface Water Laboratory Water [Sediment] Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	**1400**	**1400**	
Field Comments	Medium to dark brown sandy silt. 4 dredge grabs used to collect sample volume. VOCs collected from first dredge only. Sample not dry enough to collect with Encore sampler. 40 mL vial used for VOC samples		
GPS File (fill in or circle)	Filename: BORIT NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- **000005**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-27-18

Field Logbook No: 001

Page No: 021-022

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSCKSW-104	CSCKSW-204	CSCKSW-105
Location ID	CK-104	CK-104	CK-105
Sample Group			
Location Description	West of Reservoir parcel	Same as CSCKSW-104	Southwest of Asbestos Pile parcel
Category (circle)	**FS** FB FD of _____ Trip Blank	FS FB **FD** of CSCKSW-104 Trip Blank	**FS** FB FD of _____ Trip Blank
Matrix Type (circle)	**Surface Water** Laboratory Water Sediment Other _____	**Surface Water** Laboratory Water Sediment Other _____	**Surface Water** Laboratory Water Sediment Other _____
Sample Time	1105	1105	1245
Field Comments	collected using a "bomb" discreet water sampler approx 6 inches above bottom DTB = 16 in.	collected using a "bomb" discreet water sampler approx 6 inches above bottom DTB = 16 in.	Water collected directly in bottle at approximately 2" below water surface. DTB = 7.5 in.
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- **000006**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-27-18

Field Logbook No: 001

Page No: 023

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSCKSW-107	CSCKSW-108	CSCKSW-401
Location ID	CK-107	CK-108	NA
Sample Group			
Location Description	South of BoRit site, before Butler St. Bridge	Just south of Butler St. Bridge	NA
Category (circle)	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank	FS (FB) FD of _____ Trip Blank
Matrix Type (circle)	(Surface Water) Laboratory Water Sediment Other _____	(Surface Water) Laboratory Water Sediment Other _____	Surface Water (Laboratory Water) Sediment Other _____
Sample Time	1425	1505	1530
Field Comments	collected directly in bottles 0.5 in. below water surface. Sample moved toward center of creek to reach depth. DTB = 6.5 in.	collected directly in bottles approx. 6 in. above bottom of creek bottom DTB = 13.5 in.	
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: _____ (NA)

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

PV 9-5-18
Sheet No.: PE-~~000601~~ 000101 LB
KMB 5/21/18

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/21/18

Field Logbook No: 001

Page No: NA

Sampling Team: CDM Smith Other _____ Names [redacted]

Person Sampled NA Co. Name: NA ID: NA Task: NA

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABS-601 ~~CS-601~~		
Location ID	LOT BLANK		
Sample Group	NA		
Location Description	NA		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA (KMB 5/21/18)	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date			
Start Time	5/21/18	5/21/18	
Start Flow (L/min)			
Stop Date			
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: PB0413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: KMB QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE-~~600002~~ 000102 LB
KMB 5/21/18

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/21/18

Field Logbook No: 001

Page No: NA

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled NA Co. Name: NA ID: NA Task: NA

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABS-102 ~~CS-602~~		
Location ID	LOT BLANK		
Sample Group	NA		
Location Description	NA		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor **Outdoor** Both NA	Indoor **Outdoor** Both NA	Indoor **Outdoor** Both NA
Filter Diameter (circle)	**25mm** Other _____	**25mm** Other _____	**25mm** Other _____
Pore Size (circle)	**PCM- 0.80** Other _____	**PCM- 0.80** Other _____	**PCM- 0.80** Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date			
Start Time			
Start Flow (L/min)			
Stop Date			
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No **Yes** NA	No **Yes** NA	No **Yes** NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

KMB 5/21/18

KMB 5/21/18

CSPKABS-602 PV 9-5-18

v 090210

For Field Team Completion (Initials)	Completed by: KMB QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE-000103

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5-23-18

Field Logbook No: 001

Page No: 30-31

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled Andrew Galvin Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-TEST-A101	CSPKABSA-TEST-~~A~~CL101 PV 5-23-18	
Location ID	PK-TEST	PK-TEST	
Sample Group	NA	NA	
Location Description	10x10, lightly vegetated (Hor.) w/some bare spots.		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	(Rotometer) (DryCal) NA	(Rotometer) (DryCal) NA	Rotometer DryCal NA
Pump ID Number	644259		
Flow Meter ID No.	120566 / 532M	120566 / TH8S	
Start Date	5/23/18	5/23/18	
Start Time	1503 / 1528	1503	
Start Flow (L/min)	2.48 / 2.48	2.48	
Stop Date			
Stop Time	1528	1528	
Stop Flow (L/min)	2.48 / 2.48	2.48 / 2.35	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No [Yes] NA	No [Yes] NA	No [Yes] NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA-120101

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/23/18

Field Logbook No: 001

Page No: 030-031

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-TEST-M101	CSPKABSP-TEST-H101	CSPKABSP-TEST-L101
Location ID	PK-TEST	PK-TEST	PK-TEST
Sample Group	NA	NA	NA
Location Description		Upwind	Upwind
Category (circle)	[FS] FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	[FS] FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	[FS] FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor [Outdoor] NA	Indoor [Outdoor] NA	Indoor [Outdoor] NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	520323	SA5258	SA5256
Flow Meter ID No.	120566 / T485	120566 / 532M	120566 / T485
Start Date	5/23/18	5/23/18	5/23/18
Start Time	1503 / 1528	1503 / 1528	1503 / 1528
Start Flow (L/min)	~~3.98~~ 2.01 / 2.01	3.98 / 3.98	2.01 / 2.01
Stop Date			
Stop Time	1528	1528	1528
Stop Flow (L/min)	1.55 / 2.01	3.98 / 3.88	1.9 / 2.01
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No [Yes] NA	No [Yes] NA	No [Yes] NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-000101

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/24/18

Field Logbook No: 001

Page No: 033-047

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-101-AH101	CSCMAA-101-AL101	CSCMAA-107B-AH101 A 4-718
Location ID	CM-101	CM-101	CM-107B
Sample Group	NA	NA	NA
Location Description	Adjacent to sewer manhole. End of easement Green Ribbon Trail	pump manifolded w/ AH101	vacant lot in-between 2 jersey barriers, 5ft from Maple Ave
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	~~Rotometer~~ (DryCal) NA	~~Rotometer~~ (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	SA5258	SA5258	4
Flow Meter ID No.	~~120566/532m~~ 120566	120566 / ~~T485~~	~~120566/532m~~ 106996
Start Date	5/24/18	5/24/18	5/24/18
Start Time	0638 / 1513 / 2341	0638 / 1513 / 2341	0731 / 1551
Start Flow (L/min)	3.092 / 3.057 / 3.023	1.4947 / 1.536 / 1.521	3.067 / 3.043 KMB 5/25/18
Stop Date	~~5/24/18~~ KMB 5/24/18 5/25/18	5/25/18	~~5/25/18~~ PV 5/24/18
Stop Time	1512 / 2340 / 0644	1512 / 2340 / 0644	1549 KMB 5/25/18
Stop Flow (L/min)	3.123 / 2.764 / 2.899	1.601 / 1.303 / 1.427	3.063
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No (Yes) NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre 2nd Clear 3rd Clear (NA)	Pre 2nd Clear 3rd Clear (NA)	Pre 2nd Clear 3rd Clear (NA)
Field Comments	Total Volume: 4320 L	Total Volume: 2139 L	Pump off when field team arrived. Timer did not indicate run time before shut off. Cassette replaced 2353
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-000102

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/24/18

Field Logbook No: 001

Page No: ~~034,036~~ KMB 5/25/18 033-047

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-107B-AL101 A	CSCMAA-102-AH101	CSCMAA-102-AL101
Location ID	CM-107B	CM-102	CM-102
Sample Group	NA	NA	NA
Location Description	Pump manifolded w/ AA101	Post to Attic employee parking lot, lamp post near exit to	Pump manifold w/ AH101
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	~~Rotometer~~ DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	~~120500~~ ~~4985~~ 106996	SA5259	SA5259
Flow Meter ID No.	4	106966	106966
Start Date	5/24/18	5/24/18	5/24/18
Start Time	0731 / 1551	0900 / 1652 / 0046	0900 / 1652 / 0046
Start Flow (L/min)	1.502 / 1.533 KMB 5/25/18	2.998 / 2.990 / 2.997	1.535 / 1.506 / 1.512
Stop Date	5/24/18	5/25/18	5/25/18
Stop Time	1549 KMB 5/25/18	1651 / 0045 / 0906	1651 / 0045 / 0906
Stop Flow (L/min)	2.516	3.274 / 2.518 / 3.084	1.973 / 1.877 / 1.566
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre 2nd Clear Post 3rd Clear Clear NA	Pre 2nd Clear Post 3rd Clear Clear NA	Pre 2nd Clear Post 3rd Clear Clear NA
Field Comments	Side AA-000101	Total Volume: 4300	Total Volume: 2228
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-000103

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/24/18

Field Logbook No: 001

Page No: ~~035~~ KMB 5/25/18 033-047

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-103-AH101	CSCMAA-103-AL101	CSCMAA-104-AH101
Location ID	CM-103	CM-103	CM-104
Sample Group	NA	NA	NA
Location Description	Church, Grassy area in front of parking lot, adjacent to sidewalk on Spring Garden St.	Church, manifolded w/ AH101	Comm. Center. Next to parking sign
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	SA5256	SA5256	SA5255
Flow Meter ID No.	106966	106966	106966
Start Date	5/24/18	5/24/18	5/24/18
Start Time	0805 / 1617 / 0022	0805 / 1617 / 0022	0840 / 1637 / 0032
Start Flow (L/min)	2.993 / 2.960 / 3.042	1.511 / 1.522 / 1.522	3.044 / 3.043 / 3.061
Stop Date	5/25/18	5/25/18	
Stop Time	1559 / ~~0020~~ / 0814	1559 / 0020 / 0814	1636 / 0031 / 0839
Stop Flow (L/min)	PV ~~3.190~~ / 2.187 / 3.190	/ 1.174 / 1.546	3.047 / 2.792 / 3.337
Pump fault? (circle)	No (Yes) NA	No (Yes) NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	1603: Pump not running. Replace pump. Same Cassette. Total volume: 4160	Timer shows 15:54 rem. New pump # SA5257 Total volume: 2137	Concrete on sidewalk being repaired ~5ft from pump Total volume: 4394
Cassette Lot Number:	180413		
Sample Type:			
Archive Blank (circle):	Yes No	Yes No	Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-000164

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/24/18

Field Logbook No: 001

Page No: ~~035-036~~ KMB 5/25/18 033-047

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-104-AL101	CSCMAA-107B-AL101B	CSCMAA-107B-AL101B
Location ID	CM-104	CM-107B	CM-107B
Sample Group	NA	NA	NA
Location Description	Comm. Center. manifolded w/ AA101	Vacant lot. cassette replaced after 16 hrs due to pump fault and uncertainty over how long pump was running before fault	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer DryCal NA
Pump ID Number	SAB255	4	4
Flow Meter ID No.	106966	106966	106966
Start Date	5/24/18	5/25/18	5/25/18
Start Time	0840 / 1637 / 0032	0009 / KMB 5/25/18	0009 / KMB 5/25/18
Start Flow (L/min)	1.509 / 1.534 / 1.503	2.984 / KMB 5/25/18	1.564 / KMB 5/25/18
Stop Date	5/25/18	5/25/18	5/25/18
Stop Time	1636 / 0031 / 0839	0733 / KMB 5/25/18	0733 / KMB 5/25/18
Stop Flow (L/min)	1.548 / 1.387 / 1.661	2.683 / KMB 5/25/18	1.442 / KMB 5/25/18
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Total volume = 2199	2 rolls of impermeable/ fabric building material noted in front of sample location	
Cassette Lot Number: 186413	Sample Type:	Sample Type:	Sample Type:
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-000105

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/25/18

Field Logbook No: 001

Page No: 043

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-101-400		
Location ID	NA		
Sample Group	NA		
Location Description	near CSCMAA-101		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	NA		
Flow Meter ID No.	NA		
Start Date	5/25/18		
Start Time	NA		
Start Flow (L/min)	NA		
Stop Date	5/25/18		
Stop Time	NA		
Stop Flow (L/min)	NA		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180413	Sample Type: FB Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORITAB3 NA	Filename: NA	Filename: NA

v 090210

For Field Team Completion (Initials)	Completed by: AV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-_____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: _____

Field Logbook No: 001

Page No: _____

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID			
Location ID			
Sample Group			
Location Description			
Category (circle)	[FS] FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	[FS] FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	[FS] FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor [Outdoor] NA	Indoor [Outdoor] NA	Indoor [Outdoor] NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date			
Start Time			
Start Flow (L/min)			
Stop Date			
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No [Yes] NA	No [Yes] NA	No [Yes] NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number:_____	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA- 000106

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: _____

Field Logbook No: 001

Page No: _____

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-105-AH101	CSCMAA-105-AL101	CSCMAA-105-400
Location ID	CM-105	CM-105	NA
Sample Group	NA	NA	NA
Location Description	Adjacent to basket ball court. Chained to no parking sign.	near CSCMAA-105	
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	SA5259	SA5259	NA
Flow Meter ID No.	R3522	R3522	NA
Start Date	6/7/18	6/7/18	6/7/18
Start Time	1447 / 2310 / 0803	1447 / 2310 / 0803	NA
Start Flow (L/min)	2.994 / 3.044 / 3.069	1.500 / 1.541 / 1.508	NA
Stop Date	6/8/18	6/8/18	6/7/18
Stop Time	2306 / 0758 / 1455	2306 / 0758 / 1455	NA
Stop Flow (L/min)	2.588 / 2.980 / 3.235	1.244 / 1.498 / 1.889	NA
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre 2nd Clear 3rd Clear Post Clear NA	Pre 2nd Clear 3rd Clear Post Clear NA	Pre 2nd Clear 3rd Clear Post Clear NA
Field Comments	Volume calc = 3944L	Volume calc = 2022L	
Cassette Lot Number: 190403	Sample Type: high vol Archive Blank (circle): Yes No	Sample Type: low vol Archive Blank (circle): Yes No	Sample Type: FB Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: ~~BORIT ABS~~ NA	Filename: ~~BORIT ABC~~ NA	Filename: ~~BORIT~~ NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-[illegible]

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: _____

Field Logbook No: 001

Page No: _____

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-107B-AH101	CSCMAA-107B-AL101	
Location ID	CM-107B	CM-107B	
Sample Group	NA	NA	
Location Description	Along Maple Ave, in-between 2 Jersey Bariers. No activity on-site.		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	SA5255	SA5255	
Flow Meter ID No.	R3522	R3522	
Start Date	6/7/18	6/7/18	
Start Time	1420 / 2246 / 0741	1420 / 2246 / 0741	/ /
Start Flow (L/min)	3.055 / 3.056 / 3.096	1.5[illegible] / 1.507 / 1.515	/ /
Stop Date	6/8/18	6/8/18	
Stop Time	2244 / 0740 / 1420	2244 / 0740 / 1420	/ /
Stop Flow (L/min)	2.777 / 2.911 / 3.578	1.340 / 1.428 / 1.824	/ /
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre 2nd Clear Post 3rd Clear Clear NA	Pre 2nd Clear Post 3rd Clear Clear NA	Pre 2nd Clear Post 3rd Clear Clear NA
Field Comments	Black cap left on for 9.5 hrs. Volume calc = 4396 L	Volume Calc = 2177 L	
Cassette Lot Number:	180413		
Sample Type:	high vol	low vol	
Archive Blank (circle):	Yes No	Yes No	Yes No
GPS File (fill in or circle)	Could not collect Filename: ~~BORIT A3~~ NA	Could not collect Filename: ~~BORIT A2~~ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: ABSS- 001

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR ABS SOIL

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 7/18/2018

Field Logbook No: 001

Page No: 99

Sampling Team: [CDM Smith] Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKABSS-101	CSPKABSS-102	CSPKABSS-103
Location ID	PKABS-101	PKABS-102	PKABS-103
Sample Group	N/A	N/A	N/A
Location Description (circle)	[Park] Reservoir Asbestos Pile Other _____	[Park] Reservoir Asbestos Pile Other _____	[Park] Reservoir Asbestos Pile Other _____
Category (circle)	[FS] FD of _____ EB LB	[FS] FD of _____ EB LB	[FS] FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	[Surface Soil] Other _____	[Surface Soil] Other _____	[Surface Soil] Other _____
Type (circle)	Grab # subsamples = 0 [Comp.] # subsamples 30	Grab # subsamples = 0 [Comp.] # subsamples 30	Grab # subsamples = 0 [Comp.] # subsamples 30
Sample Time	1008	0955	1058
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	3	3	3
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	10x10ft grid around center point ☒ no ACM observed % ACM: ____	10x10ft grid around center point ☒ no ACM observed % ACM: ____	10x10ft grid around center point ☒ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

← BORIT ABS_Final_072318 →

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: ABSS- 002

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR ABS SOIL

Location: BoRit Asbestos Superfund Site, Ambler PA

Sampling Date: 7/18/2018

Field Logbook No: 001

Page No: 100

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKABSS-104	CSPKABSS-105	CSPKABSS-106
Location ID	PKABS-104	PKABS-105	PKABS-106
Sample Group	NA	NA	NA
Location Description (circle)	(Park) Reservoir Asbestos Pile Other _____	(Park) Reservoir Asbestos Pile Other _____	(Park) Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1222	1111	1237
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	3	3	3
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	10x10ft grid around center point ☒ no ACM observed % ACM: ____	10x10 ft grid around center point ☒ no ACM observed % ACM: ____	10x10ft grid around center point ☒ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

← Borit ABS_Final_072318 →

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: ABSS-003

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR ABS SOIL

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 7/18/2018

Field Logbook No: 001

Page No: 100-101

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPABSS-101	CSAPABSS-102	CSAPABSS-103
Location ID	APABS-101	APABS-102	APABS-103
Sample Group	NA	NA	NA
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1540	1507	1516
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	3	3	3
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	10x10 ft grid around center point ☒ no ACM observed % ACM: ____	10x10 ft grid around center point ☒ no ACM observed % ACM: ____	10x10 ft grid around center point ☒ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

← Borit ABS_Final_072318 →

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000121

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-101 Sampling Date: 7/20/2018

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-101-AH101	CSPKABSA-101-AL101	CSPKABSA-101-CH101
Location ID	PK101	PK-101	PK-101
Sample Group	ADULT HIGH	ADULT LOW	CHILD HIGH
Location Description	10X10 FT SQUARE FULLY VEGETATED	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	106996	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758
Start Flow (L/min)	4.327 / 4.315 / 4.335 / 4.359	2.476 / 2.564 / 2.460 / 2.520	4.251 / 4.589 / 4.389 / 4.385
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828
Stop Flow (L/min)	4.315 / 4.335 / 4.359 / 4.409	2.564 / 2.460 / 2.520 / 2.484	4.589 / 4.389 / 4.385 / 4.377
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No (Yes) NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			WAS SAMPLING ~~APPROX 30 MIN~~ OFF AND ON BETWEEN APPROX 2 MIN + 30 MIN. PUMP WAS CHANGED AFTER 86 MIN.
Cassette Lot Number: 180417			
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

4.589

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 0001 22

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-101 Sampling Date: 7/20/2018

Field Logbook No: 002

Page No: [redacted]

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-101-CL101		
Location ID	PK-101		
Sample Group	CHILD LOW		
Location Description	10X10FT SQUARE ENTIRELY VEGETATED		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	644259		
Flow Meter ID No.	106996		
Start Date	7/20/18		
Start Time	1628 / 1658 / 1728 / 1758		
Start Flow (L/min)	~~2.529~~ 2.534 / 2.534 / 2.517 / 2.481		
Stop Date	7/20/18		
Stop Time	1658 / 1728 / 1758 / 1828		
Stop Flow (L/min)	~~2.534~~ 2.517 / 2.481 / 2.508		
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			
Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000123

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-101-ML101	CSPKABSP-101-AH101	CSPKABSP-101-AL101
Location ID	PK-101	PK-101	PK-101
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	10X10 FT SQUARE FULLY VEGETATED →	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPA SA5258 →	→
Flow Meter ID No.	31034199 →	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758
Start Flow (L/min)	2.143 / 2.143 / 2.026 / 1.908	3.991 / 3.991 / 3.991 / 3.991	2.143 / 2.143 / 2.026 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828
Stop Flow (L/min)	2.143 / 2.026 / 1.908 / 1.908	3.991 / 3.991 / 3.991 / 3.991	2.143 / 2.026 / 1.908 / 1.908
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

2.639 → 2.143 (Stop Flow, Cassette 3, 1728)

1.908 → 2.143 (Stop Flow, Cassette 3, 1828)

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 0001 24

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: ——

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-101-AH102	CSPKABSP-101-AL102	
Location ID	PK-101	PK-101	
Sample Group	DOWNWIND HIGH	DOWNWIND LOW	
Location Description	10X10FT SQUARE FULLY VEGETATED →	→	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor [Outdoor] NA	Indoor [Outdoor] NA	Indoor [Outdoor] NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA5255 →	→	
Flow Meter ID No.	31034199 →	→	
Start Date	7120/18	7120/18	
Start Time	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758	
Start Flow (L/min)	3.991 / 3.991 / 3.877 / 3.991	2.143 / 2.026 / 1.908 / 2.143	
Stop Date	7/20/18	7/20/18	
Stop Time	1658 / ~~1728~~ 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1829	
Stop Flow (L/min)	3.991 / 3.877 / 3.991 / 4.329	2.026 / 1.908 / 2.143 / 2.397	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

1.908
2.143

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000101

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CS PKABS - 102 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 105

Sampling Team: CDM Smith Other Names: PV, AG, SC, KO

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-102-AH101	CSPKABSA-102-AL101	CSPKABSA-102-CH101
Location ID	CSPKABS-102	CSPKABS-102	CSPKABS-102
Sample Group			
Location Description	ADULT HIGH VOLUME	ADULT LOW VOLUME	CHILD HIGH VOLUME
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033803	644260	041852
Flow Meter ID No.	11030	11030	11030
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1041 / 1111 / 1141 / 1211	1041 / 1111 / 1141 / 1211	1041 / 1111 / 1141 / 1211
Start Flow (L/min)	4.898 / 4.681 / 4.509 / 4.521	2.486 / 2.481 / 2.490 / 2.505	4.921 / 4.614 / 4.490 / 4.393
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1111 / 1141 / 1211 / 1241	1111 / 1141 / 1211 / 1241	1111 / 1141 / 1211 / 1241
Stop Flow (L/min)	4.681 / 4.509 / 4.521 / 4.446	2.481 / 2.393 / 2.505 / 2.691	4.614 / 4.490 / 4.393 / 4.356
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments	DIRTY FILTER @ 1 HR MARK (1141)		DARK FILTER @ 1 HR MARK (1141)
Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000102

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-102 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 105

Sampling Team: CDM Smith Other ____ Names: PV, AG, SC, RP

Person Sampled [redacted] Co. Name: CDM S ID: ____ Task: ____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-102-CL101	CSPKABSA-~~601~~ ~~401~~ 401	
Location ID	CSPKABSA-102	Field Blank	
Sample Group		Field Blank	
Location Description	CHILD LOW VOLUME	—	
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS (FB-(field blank)) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other ____	(25mm) Other ____	(25mm) Other ____
Pore Size (circle)	(PCM- 0.80) Other ____	(PCM- 0.80) Other ____	(PCM- 0.80) Other ____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073	—	
Flow Meter ID No.	11030	—	
Start Date	7-19-18	7-19-18	
Start Time	1041 / 1111 / 1141 / 1211		
Start Flow (L/min)	2.532 / 2.553 / 2.493 / 2.527		
Stop Date	7-19-18	7-19-18	
Stop Time	1111 / 1141 / 1211 / 1241		
Stop Flow (L/min)	2.553 / 2.493 / 2.527 / 2.5		
Pump fault? (circle)	(No) Yes NA	No Yes (NA)	No Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC (NA)	TWA EXC NA
Field Comments		Field Blank	
Cassette Lot Number: 180417			
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: ____ QC by: ____
For eFSDS validation	Validated ____	Validated ____	Validated ____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS -102 Sampling Date: 7/19/18

Field Logbook No: 1

Page No: 105

Sampling Team: CDM Smith Other _____ Names: PV, KG, SC, KD

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-102-ML101	CSPKABSP-102-AH101	CSPKABSP-102-AL101
Location ID	CSPKABS-102	CSPKABS-102	CSPKABS-102
Sample Group			
Location Description	ECO	~~ADULT HIGH VOLUME~~ UPWIND HIGH	~~ADULT LOW VOLUME~~ UPWIND LOW
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644170	EPA SA5258	EPA SA5258
Flow Meter ID No.	~~3-1034199~~ R359	~~3103499~~ R359	~~3103499~~ R359
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1041 / 1111 / 1141 / 1211	1041 / 1111 / ~~1126~~ 1141 / 1211	1041 / 1111 / ~~1126~~ 1141 / 1211
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 2.017	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1111 / 1141 / 1211 / 1241	1111 / ~~1126~~ 1141 / 1211 / 1241	1111 / ~~1126~~ 1141 / 1211 / 1241
Stop Flow (L/min)	~~2.017~~ 2.2 / 2.017 / 2.017	3.9 / 3.9 / 4.037 / 4.037	~~2.017~~ ~~2.135~~ 1.818 / 2.017 / 2.10
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	DUSTY FILTER @ 1141 MARK (1141)		
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-102 Sampling Date: 7/19/18

Field Logbook No: 1

Page No: 105

Sampling Team: CDM Smith Other _____ Names: AV, AG, SC, KO

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-102-AH102	CSPKABSP-102-AL102	
Location ID	CSPKABS-102	CSPKABS-102	
Sample Group			
Location Description	DOWNWIND MGP	DOWNWIND LOW	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor [Outdoor] NA	Indoor [Outdoor] NA	Indoor [Outdoor] NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA5257	EPA SA5257	
Flow Meter ID No.	~~3103499~~ R359	~~3103499~~ R359	
Start Date	7/19/18	7/19/18	
Start Time	1041 / 1111 / 1141 / 1211	1041 / 1111 / 1141 / 1211	
Start Flow (L/min)	4.037 / 4.037 / 4.037 / 4.048	2.017 / 2.017 / 2.017 / 2.011	
Stop Date	7/19/18	7/19/18	
Stop Time	1111 / 1141 / 1211 / 1241	1111 / 1141 / 1211 / 1241	
Stop Flow (L/min)	3.892 / 3.90 / 4.116 / 4.043	2.017 / 2.017 / 1.869 / 2.038	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000105

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS - 103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-103-AH101	CSPKABSA-103-AL101	CSPKABSA-103-CH101
Location ID	PK 103	PK 103	PK 103
Sample Group	ADULT HIGH	ADULT LOW	CHILD HIGH
Location Description	10 x 10 Ft SQUARE COMPLETE VEGETATIVE COVER	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	10 69916	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437
Start Flow (L/min)	4.315 / 4.185 / 4.185 / 4.167	2.601 / 2.584 / 2.651 / 2.580	4.446 / 4.109 / 4.650 / 4.203
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507
Stop Flow (L/min)	4.185 / 4.185 / 4.167 / 4.160	2.584 / 2.651 / 2.580 / 2.634	4.109 / 4.650 / 4.203 / 4.025
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000106

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-103-CL101		
Location ID	PK 103		
Sample Group	CHILD LOW		
Location Description	10x10 Ft SQUARE COMPLETE VEGETATIVE COVER		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	649259		
Flow Meter ID No.	106996		
Start Date	7/20/18		
Start Time	1307 / 1337 / 1407 / 1437	/ / /	/ / /
Start Flow (L/min)	2.504 / 2.504 / 2.638 / 2.516	/ / /	/ / /
Stop Date	7/20/18		
Stop Time	1337 / 1407 / 1437 / 1509	/ / /	/ / /
Stop Flow (L/min)	2.504 / 2.638 / 2.516 / 2.635	/ / /	/ / /
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000107

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-103-ML101	CSPKABSP-103-AH101	CSPKABSP-103-AL101
Location ID	PK 103	PK 103	PK 103
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	10X10 FT SQUARE COMPLETE VEGETATIVE COVER	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPASA5258 →	→
Flow Meter ID No.	31034199 →	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437
Start Flow (L/min)	2.397 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 3.991 / 3.991	2.397 / 1.908 / 1.908 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507
Stop Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 3.991 / 3.991	1.908 / 1.908 / 1.908 / 1.908
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000108

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-103-AH102	CSPKABSP-103-AL102	
Location ID	PK 103	PK 103	
Sample Group	DOWNWIND HIGH	DOWNWIND LOW	
Location Description	10X10FT SQUARE COMPLETE VEGETATIVE COVER →	→	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor [Outdoor] NA	Indoor [Outdoor] NA	Indoor [Outdoor] NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA5255 →	→	
Flow Meter ID No.	31034199 →	→	
Start Date	7/20/18	7/20/18	
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	/ / /
Start Flow (L/min)	3.991 / 3.991 / 3.991 / 3.991	2.143 / 2.143 / 2.143 / 2.143	/ / /
Stop Date	7/20/18	7/20/18	
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	/ / /
Stop Flow (L/min)	3.991 / 3.991 / 4.324 / 3.837	2.143 / 2.143 / 2.143 / 2.143	/ / /
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000109

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-104-AH101	CSPKABSA-104-AL101	CSPKABSA-104-CH101
Location ID	~~Adult High~~	~~Adult~~	CSPKABS-104
Sample Group	Adult High	Adult Low	Child High
Location Description	on berm along Maple Ave short grass and some before sampling. Light dust	on Park parcel, next to shrubs. shrubs and gra during raking	gate. vegetated with cut down to ~3in
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033803	644260	041852
Flow Meter ID No.	11030	11030	11030
Start Date	7-20-18	7-20-18	7-20-18
Start Time	0910 / 0940 / 1040 / 1110	0910 / 0940 / 1040 / 1110	0910 / 0940 / 1040 / 1110
Start Flow (L/min)	4.771 / 4.799 / 4.610 / 4.583	2.492 / 2.570 / 2.495 / 2.493	4.710 / 4.770 / 4.559 / 4.683
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140
Stop Flow (L/min)	4.771 / 4.610 / 4.415 / 4.583 / 4.490	2.492 / 2.495 / 2.362 / 2.581 / 2.480	4.710 / 4.559 / 4.683 / 4.715 / 4.637
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments	0919- issue with downwind	pump battery. Turn off all	pumps & restart sampling
Cassette Lot Number:	180417		
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PE- 0001 10

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS - 104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-104-CL101	CSPKABSA - ~~602~~ 402	
Location ID	~~Child Low~~ CSPKABS104	Field Blank	
Sample Group	Child Low		
Location Description	see PE 0001 09		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073 (EPA 001 748)	—	
Flow Meter ID No.	11030	—	
Start Date	7-20-18	7-20-18	
Start Time	0910 / 0940 / 1010 / 1040 / 1110		
Start Flow (L/min)	2.516 / 2.552 / 2.602 / 2.580		
Stop Date	7-20-18	7-20-18	
Stop Time	0919 / 1010 / 1040 / 1110 / 1140		
Stop Flow (L/min)	2.516 / 2.602 / 2.580 / 2.579 / 2.631		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RR	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PA- 0001 11

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-104-ML101	CSPKABSP-104-AH101	CSPKABSP-104-AL101
Location ID	~~ECO~~ CSPKABS-104	~~UPWIND HIGH~~	~~UPWIND LOW~~
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	See PE-000109		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) ~~DryCal~~ NA	(Rotometer) ~~DryCal~~ NA
Pump ID Number	644170	EPA SA5258	EPA SA 5258
Flow Meter ID No.	R 359	R 359	R 359
Start Date	7-20-18	7-20-18	7-20-18
Start Time	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110
Start Flow (L/min)	2.1 / 2.017 / 2.017 / 2.017 / 2.1	4.037 / 4.037 / 4.037 / 4.037 / 4.037	2.1 / 2.1 / 2.1 / 2.017 / 2.1
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140
Stop Flow (L/min)	2.1 / 2.3 / 2.017 / 2.1 / 2.017	4.037 / 4.037 / 4.037 / 4.037 / 4.020	2.1 / 2.1 / 2.017 / 2.017 / 2.1
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PA- 000112

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS - 104 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-104-AH102	CSPKABSP-104-AL102	
Location ID	DOWNWIND HIGH	DOWNWIND LOW	
Sample Group	CSPKABS-104	CSPKABS-104	
Location Description	See PE 000104		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) (DryCal) NA	(Rotometer) (DryCal) NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5257	EPA SA 5257	
Flow Meter ID No.	R359/11030	R359/11030	
Start Date	7-20-18	7-20-18	
Start Time	~~0940~~ 1010 / 1040 / 1110	0940 / 1010 / 1040 / 1110	
Start Flow (L/min)	4.037 / 4.037 / 4.037 / 4.038	~~1.9~~ 2.217 / 2.1 / 2.3 / 2.034	
Stop Date	7-20-18	7-20-18	
Stop Time	1010 / 1040 / 1110 / 1140	1010 / 1040 / 1110 / 1140	
Stop Flow (L/min)	4.037 / 4.037 / 4.38 / 4.037	2.1 / 2.3 / 2.405 / 2.1	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	battery not working change and start sampling at 0940		
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000113

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 1

Page No: ~~110 113~~ 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-105-AH101	CSPKABSA-105-AL101	CSPKABSA-105-CH101
Location ID	CSPKABS-105	CSPKABS-105	CSPKABS-105
Sample Group			
Location Description	ADULT HIGH	ADULT LOW	CHILD HIGH
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033803	644260	041852
Flow Meter ID No.	~~P359~~ 11030	11030	11030
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619
Start Flow (L/min)	4.84 / 4.621 / 4.542 / 4.432	2.~~695~~ 2.504 / 2.555 / 2.466 / 2.531	4.758 / 4.489 / 4.343 / 4.434
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649
Stop Flow (L/min)	4.621 / 4.542 / 4.432 / 4.439	2.555 / 2.466 / 2.531 / 2.573	4.489 / 4.343 / 4.434 / 4.332
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PE- 0001/4

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-105-CL101		
Location ID	CSPKABS-105		
Sample Group			
Location Description	CANCO low		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073 (EPA 061748)		
Flow Meter ID No.	11030		
Start Date	7/19/18		
Start Time	1444 / 1519 / 1549 / 1619	~~1449~~ SE	~~1449~~ SE
Start Flow (L/min)	2.578 / 2.497 / 2.512 / 2.532		
Stop Date	7/19/18		
Stop Time	1519 / 1549 / 1619 / 1649		
Stop Flow (L/min)	2.497 / 2.512 / 2.532 / 2.520		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-105-ML101	CSPKABSP-105-AH101	CSPKABSP-105-AL101
Location ID	CSPKABS-105	CSPKABS-105	CSPKABS-105
Sample Group			
Location Description	ECO	UPWIND HIGH	UPWIND LOW
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644170	EPA SA5258	EPA SA5258
Flow Meter ID No.	R359	R359	R359
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 2.017	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649
Stop Flow (L/min)	2.1 / 2.017 / 2.017 / 2.317	4.037 / 4.037 / 4.037 / 4.037	1.9 / 2.017 / 2.017 / 2.017
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	VERY DARK FILTER @ 1649		
Cassette Lot Number: 180417 ~~180417~~ SC	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-105-AH102	CSPKABSP-105-AL102	
Location ID	CSPKABSP-105 ~~-AH102~~ &C	CSPKABSP-105 &C	
Sample Group			
Location Description	DOWNWIND HIGH	DOWNWIND LOW	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	~~Rotometer~~ DryCal NA	(Rotometer) DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA5259	EPA SA5259	
Flow Meter ID No.	R359	R359	
Start Date	7/19/18	7/19/18	
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	
Start Flow (L/min)	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017	
Stop Date	7/19/18	7/19/18	
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	
Stop Flow (L/min)	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No Yes NA
MET Station onsite? (circle)	~~No~~ (Yes) NA	~~No~~ (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 0001 / 7

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 014-

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled Scascarino Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-106-AH101	CSPKABSA-106-AL101	CSPKABSA-106-CH101
Location ID	~~Adult High~~ CSPKABS-106		
Sample Group	Adult High	Adult low	Child High
Location Description	Dry, very rocky soil with very little vegetation. Much di		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	033903	644260 ~~033903~~	~~033903~~ 041852
Flow Meter ID No.	11030	~~644260~~ 11030	11030
Start Date	7-20-18	7-20-18	7-20-18
Start Time	1333 1403 1433 1503	1333 1403 1433 1503	1333 1403 1433 1503
Start Flow (L/min)	4.673 4.526 4.327 4.427	2.467 2.471 2.483 2.477	4.709 4.451 4.375 4.228
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	1403 1433 1503 1533	1403 1433 1503 1533	1403 1433 1503 1533
Stop Flow (L/min)	4.526 4.327 4.427 4.415	2.471 2.483 2.477 2.454	4.451 4.375 4.228 4.200
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments	All personal		
Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000118

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: 91

Page No: 114-

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled S. Cusgwine Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-106-CL101		
Location ID	CSPKABS-106		
Sample Group	Child Low		
Location Description	See PE-00117		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	~~077803~~ 518073		
Flow Meter ID No.	~~518073~~ 11030		
Start Date	~~7-20-18~~ 7-20-18		
Start Time	1333 / 1403 / 1433 / 1503		
Start Flow (L/min)	2.584 / 2.545 / 2.508 / 2.627		
Stop Date	7-20-18		
Stop Time	1403 / 1433 / 1503 / 1533		
Stop Flow (L/min)	2.65 / 2.508 / 2.627 / 2.505		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-106 Sampling Date: 7-20-19

Field Logbook No: 001

Page No: 114-

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-106-ML101	CSPKABSP-106-AH101	CSPKABSP-106-AL101
Location ID	CSPKABS-106		
Sample Group	ECO	Upwind High	Upwind Low
Location Description	See PE-000117		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644170	EPA SA 5258	EPA SA 5258
Flow Meter ID No.	R359	R359	R359
Start Date	7-20-18	7-20-18	7-20-18
Start Time	1333 / 1403 / 1433 / 1503	1333 / 1403 / 1433 / 1503	1333 / 1403 / 1433 / 1503
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 1.9	4.037 / 4.037 / 4.037 / 3.9	1.9 / 1.9 / 2.017 / 2.017
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	1403 / 1433 / 1503 / 1533	1403 / 1433 / 1503 / 1533	1403 / 1433 / 1503 / 1533
Stop Flow (L/min)	2.017 / 2.017 / 1.9 / 1.9	4.037 / 4.037 / 3.9 / 3.9	1.9 / 2.017 / 1.818 / 2.017
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	Dust on filter - very overloaded	Dust on filter	
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000120

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 114

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-106-AH102	CSPKABSP-106-AL102	
Location ID	Downwind High	Downwind Low	
Sample Group	CSPKABS-106		
Location Description	see PE-00117		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5257	EPA SA 5257	
Flow Meter ID No.	R359	R359	
Start Date	7-20-18	7-20-18	
Start Time	1333 / 1403 / 1433 / 1503	1333 / 1403 / 1433 / 1503	
Start Flow (L/min)	4.037 / 4.037 / 4.1 / 4.037	2.017 / 2.017 / 2.017 / 2.1	
Stop Date	7-20-18	7-20-18	
Stop Time	1403 / 1433 / 1503 / 1533	1403 / 1433 / 1503 / 1533	
Stop Flow (L/min)	4.037 / 4.1 / 4.037 / 4.037	2.017 / 2.017 / 2.1 / 2.1	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Moderate dust on filter	light dust on	
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

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v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000125

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: _____

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-101-AH101	CSAPABSA-101-AL101	CSAPABSA-101-CH101
Location ID	AP 101	AP 101	AP 101
Sample ~~Group~~ Desc.	Adult High	Adult Low	Child High
Location Description	10X10 FT SQUARE W/ VEGETATIVE COVER OVER ENTIRE SQUARE SOIL EXPOSED WHERE SOIL SAMPLING OCCURED ON 7/18	→	→
Category (circle)	~~FS~~ FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	~~FS~~ FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	106996	106996	106996
Start Date	7/20/18	7/20/18	7/20/18
Start Time	0908 / 0938 / 1008 / 1038	0908 / 0938 / 1008 / 1038	0908 / 0938 / 1008 / 1038
Start Flow (L/min)	4.826 / 4.765 / 4.529 / 4.678	2.444 / 2.433 / 2.444 / 2323	4.822 / 4.846 / 4.808 / 4.705
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108
Stop Flow (L/min)	4.765 / 4.529 / 4.678 / 4.732	2433 / 2444 / 2323 / 2347	4.846 / 4.808 / 4.705 / 4.696
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 000126

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAP ABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-101-CL101		
Location ID	AP 101		
Sample ~~Group~~ Dose	Child Low		
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	649259		
Flow Meter ID No.	1069916		
Start Date	7/20/18		
Start Time	0906 / 0938 / 1008 / 1036		
Start Flow (L/min)	2.536 / 2.648 / 2.732 / 2.570		
Stop Date	7/20/18		
Stop Time	0938 / 1008 / 1036 / 1108		
Stop Flow (L/min)	2.648 / 2.732 / 2.570 / 2.614		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS - 101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSE-101-ML101	CSAPABSP-101-AH101	CSAPABSP-101-AL101
Location ID	AP 101	AP 101	AP 101
Sample ~~Group~~ Desc.	Eco	Upwind High	Upwind Low
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPA SA5258	EPA SA5258
Flow Meter ID No.	31034199	31034199	31034199
Start Date	7/20/18	7/20/18	7/20/18
Start Time	0908 / 0938 / 1008 / 1038	0908 / 0958 / 1008 / 1038	0908 / 0938 / 1008 / 1038
Start Flow (L/min)	2.143 / 2.143 / 2.27 / 2.143	3.991 / 3.837 / 3.917 / 3.837	2.03 / 1.819 / 2.03 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	0938 / ~~0938~~ 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108
Stop Flow (L/min)	2.149 / 2.397 / 2.143 / 1.908	~~3.837~~ 3.837 / 3.991 / 3.837 / 3.917	1.729 / 1.908 / 2.03 / 1.908
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000128

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-101-AH102	CSAPABSP-101-AL102	
Location ID	AP 101	AP-101	
Sample ~~Group~~ Desc.	Downwind High	Downwind Low	
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5255	EPA SA 5255	
Flow Meter ID No.	31034199	31034199	
Start Date	7/20/18	7/20/18	
Start Time	0906 / 0938 / 1008 / 1038	0908 / 0938 / 1008 / 1038	
Start Flow (L/min)	4.15 / 3.991 / 4.15 / 3.837	2.143 / 2.149 / 2.27 / 2.143	
Stop Date	7/20/18	7/20/18	
Stop Time	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108	
Stop Flow (L/min)	3.991 / 4.15 / 3.837 / 3.837	2.143 / 2.143 2.397 / 2.143 / 2.143	
Pump fault? (circle)	(No) Yes NA	(No) Yes 2.27 NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

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For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 0001 29

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-102-AH101	CSAPABSA-102-AL101	CSAPABSA-102-CH101
Location ID	AP 102	AP 102	AP 102
Sample ~~Group~~ Desc	Adult High	Adult Low	Child High
Location Description	10x10ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	10x10ft square w/ vegetation cover over entire square. Dirt exposed where soil sampling occured on 7/18	~~10x10 ft square w/ Adult~~ See ~~Cassette~~ location description
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R1 21 04
Flow Meter ID No.	106996	106996	106996
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1206 / 1245 / 1320 / ~~1408~~	1206 / 1245 / 1320 / ~~1408~~	1206 / 1245 / 1320 / ~~1408~~
Start Flow (L/min)	4.924 / 4.755 / 4.682	2.629 / 2.508 / 2.629	4.714 / 4.624 / 4.686
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1245 / 1320 / 1408	1245 / ~~1320~~ / 1408	1245 / 1320 / 1408
Stop Flow (L/min)	4.755 / 4.682 / 4.646	2.508 / 2.629 / 2.495	4.624 / 4.686 / 4.606
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No (Yes) NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			Pump & Cassette fell during transfer of actors
Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 0001 30

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAP ABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-102-CL101		
Location ID	AP 102		
Sample ~~Group~~ Desc	Child Low		
Location Description	See Asbst Mgt location description		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	516287 (011092 EPAII)		
Flow Meter ID No.	106996		
Start Date	7/19/18		
Start Time	12.06 / 1245 / 1320 / ~~1445~~		
Start Flow (L/min)	2.397 / 2431 / 2.397		
Stop Date	7/19/18		
Stop Time	1245 / 1320 / 1405		
Stop Flow (L/min)	2431 / 2397 / 2.419		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSE-102-ML101	CSAPABSP-102-AH101	CSAPABSP-102-AL101
Location ID	AP 102	AP 102	AP 102
Sample ~~Group~~ Des	Eco	Upwind High	Upwind Low
Location Description	See Adult High location description →		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPA SA5259	EPA SA5259
Flow Meter ID No.	31034199	31034199	31034199
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1206 / 1245 / 1320 / ~~1406~~	1206 / 1245 / 1320 / ~~1406~~	1206 / 1245 / 1320 / ~~1406~~
Start Flow (L/min)	2143 / 2143 / 203	3.991 → 4.15 / 4.15 / 3.991	2143 / 203 / 1.908
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1245 / 1320 / ~~1406~~	1245 / ~~1320~~ / 1406	1245 / ~~1320~~ / 1406
Stop Flow (L/min)	2397 / 1.405 → 2143 / 203	4.15 / 3.991 / 3.991	1.908 → 2143 / 1.908 / 203
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 0001 32

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: ——

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-102-AH102	CSAPABSP-102-AL102	
Location ID	AP 102	AP 102	
Sample ~~Group~~ Desc.	Downwind High	Downwind Low	
Location Description	See Ambient High location description →		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5255	EPA SA 5255	
Flow Meter ID No.	106996	106996	
Start Date	7/19/18	7/19/18	
Start Time	1206 / 1245 / 1320 / ~~1406~~	1206 / 1245 / 1320 / ~~1406~~	
Start Flow (L/min)	~~4.850~~ / 4.145 / 4.270 / 4.103	~~2.324~~ / 2.089 / 2.149 / 2.112	
Stop Date	~~4.656~~ 3.917 / 7/19/18	~~2.504~~ 2.154 / 7/19/18	
Stop Time	1245 / 1320 / 1406	1245 / 1320 / 1406	
Stop Flow (L/min)	4.559 / 4.270 / 4.417	2.471 / 2149 / 2.085	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS -103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-103-AH101	CSAPABSA-103-AL101	CSAPABSA-103-CH101
Location ID	AP 103	AP 103	AP103
Sample ~~Group~~ Desc.	Adult High	Adult Low	Child High
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	~~033803~~ 033838	644230	R12104
Flow Meter ID No.	~~[illegible]~~ 106996	106996	106996
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633
Start Flow (L/min)	4.714 / 4.624 / 4.682 / 4.629	2.587 / 2.610 / 2.627 / 2.617	4.732 / 4.741 / 4.615 / 4.602
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1533 / 1603 / 1633 / ~~1634~~ 1703	1533 / 1603 / 1633 / 1705	1533 / 1603 / 1633 / 1703
Stop Flow (L/min)	4.627 / 4.682 / 4.624 / 4.529	2.590 / 2.627 / 2.617 / 2.680	4.741 / 4.615 / 4.602 / 4.655
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 0001 34

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAP ABS -103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-103-CL101		
Location ID	AP 103		
Sample Group	Child Lov		
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	516287 (071092-FPA)		
Flow Meter ID No.	106996		
Start Date	7/19/18		
Start Time	1503 / 1533 / 1603 / 1633	1703	
Start Flow (L/min)	2.457 / 2.530 / 2.479 / 2.558	2.780	
Stop Date	7/19/18		
Stop Time	1533 / 1603 / 1633 / ~~1703~~ 1648	1718	
Stop Flow (L/min)	2.536 / 2.479 / 2.558 / 2.480	2.517	
Pump fault? (circle)	~~(NO)~~ (Yes) NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	PUMP SHUT OFF FIFTEEN MINUTES PRIOR TO TEST TERMINATION. THIS PUMP WAS EXTENDED FOR FIFTEEN TEST MINUTES. Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 0001 35

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: ~~~

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSE-103-ML101	CSAPABSP-103-AH101	CSAPABSP-103-AL101
Location ID	AP103	AP 103	AP 103
Sample Group	Eco	Upwind High	Upwind Low
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor [Outdoor] NA	Indoor [Outdoor] NA	Indoor [Outdoor] NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPA SA5258	EPA SA5258
Flow Meter ID No.	31034199	31034199	3104199
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633
Start Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / ~~1633~~ / 3.991	2.143 / 2.143 / 2.143 / 1.908
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1533 / 1603 / 1633 / 1703	1533 / 1603 / 1633 / 1703	1533 / 1603 / 1633 / 1703
Stop Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.837 3.991 / 3.991 / 3.837	2.143 / 2.143 / 1.908 / 1.908
Pump fault? (circle)	(No) Yes NA	(No) Yes 3.914 NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: 1 NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000136

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAP ABS 103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-103-AH102	CSAPABSP-103-AL102	
Location ID	AP 103	AP 103	
Sample ~~Group~~ Desc	Downwind ~~low~~ High	Downwind Low	
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	EPA SA5255	EPA SA5255	
Flow Meter ID No.	31034199	31034199	
Start Date	7/19/18	7/19/18	
Start Time	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633	
Start Flow (L/min)	3.991 4.324 / 4.15 / 4.15 / 3.991	2.143 / 2.03 / 2.143 / 2.143	
Stop Date	4.15 7/19/18	7/19/18	
Stop Time	1533 / 1603 / 1633 / 1703	1533 / 1603 / 1633 / ~~1703~~	
Stop Flow (L/min)	~~2.03~~ 4.15 / 4.324 / 3.991 /	2.03 / 2.143 / 2.143 / 2.143	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Appendix D

Quarterly Inspection Checklists and Pre-Final Inspection Report

Quarterly Inspection Checklist
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Inspector Name:	[redacted]	**Date:**	April 24, 2018
Company:	CDM Smith	**Weather:**	Sunny, 40-50 °F
Phone:	[redacted]	**Start Time:**	[redacted]
Email:	[redacted]	**End Time:**	1130 AM

Instructions:
Any observed impacted areas of the remedy should be photographed, georeferenced, and attached to the inspection checklist.
Some inspection items noted on this checklist refer to institutional controls and the 100-year floodplain. For additional information, refer to Figure 2-1 and Figure 2-2 of the Operation and Maintenance Plan for institutional controls and the extent of the 100-year floodplain, respectively.
If the quarterly inspection checklist is completed immediately following a significant weather event, the "Post-Significant Weather Event" section of the checklist should be completed in conjunction with the parcel specific sections.

Park Parcel

☐ Not Applicable

Are there any breaches to the soil cap or evidence of asbestos-containing material (ACM) or debris?
☐ YES ☒ NO
Comments:
One rodent hole on the bank of the Park was observed later in the day where the rodent used the geocell to hold the hole open and the hole was observed to be very deep, likely into the ACM; although, no ACM observed. Second hole, likely another entrance was smaller, no ACM observed.

Are there any signs of erosion or activities that have negatively impacted the effectiveness of the remedy at the Park Parcel?
☐ YES ☒ NO
Comments:
Crack along spillway - no evidence of ACM observed.

Do trees in the Park parcel show evidence of windthrows or toppling?
☐ YES ☒ NO
Comments:

Is there evidence of animal burrowing in the Park parcel cap?
☒ YES ☐ NO
Comments:
Holes were filled during the mowing event in early April; however, two holes were observed on the Park parcel bank at Rose Valley (closer to the Wissahickon confluence). See first comment response.

Are there any areas of stressed or missing vegetation on the Park parcel cap? ☒ YES ☐ NO *Comments:* Main parcel has a general lack of vegetation in flat areas; where a lack of topsoil and rocky fill was observed.
Note any comments or observations from Whitpain Township personnel or recreational users: ☒ YES ☐ NO Damage to fence from tree and deer on North side of parcel. More damage observed on Reservoir side of Park parcel with several posts missing. Also noted lack of vegetation.
Note any negatively impacted capped areas in need of maintenance or repair: Crack in berm along spillway.

Reservoir Parcel	☐ Not Applicable
Are there any breaches to the soil cap or evidence of ACM along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Is there adequate vegetative cover on the berms and bottom of the Reservoir to prevent erosion and/or exposure of ACM waste? *Comments:*	☒ YES ☐ NO
Are there any signs of erosion or changes in the drainage pattern along the Reservoir berms? *Comments:* Small area of erosion on inner bank of Reservoir on Rose Valley side, down slope of planted shrubs.	☐ YES ☒ NO
Are there any signs of stressed vegetation along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Is there evidence of sapling or tree growth along the Reservoir berms and Reservoir bottom? *Comments:* Honey locust on exterior of Reservoir berm. Looks to be 2 to 3 years old, per comment from PADEP.	☒ YES ☐ NO
Is there evidence of animal burrowing in the cap along the Reservoir berms? *Comments:* Several holes along inner Reservoir berm closest to Maple Street and more downslope of shrub area. Also one around tree in public park area. Also one tree has fallen over in public park area. All of these areas are not a cap for ACM, except downslope of shrub area.	☒ YES ☐ NO
Reservoir stream gauge surface water elevation: 1.98	

Note any comments or observations from Wissahickon Water Fowl Preserve staff or maintenance personnel:
Fence broken at end of viewing station. Late inclusion - During confirmation sampling at the Site on April 26, 2018, a man was observed fishing in the Reservoir along the banks and entered through missing fence posts.

Asbestos Pile Parcel	☐ Not Applicable
Are there any breaches to the soil cap or evidence of ACM? *Comments:*	☐ YES ☒ NO
Is the vegetative cover on the Asbestos Pile slopes maintained at a proper height? *Comments:*	☒ YES ☐ NO
Is vegetation on the top (flat portion) of the Asbestos Pile parcel mowed annually to allow access and inspection? *Comments:*	☒ YES ☐ NO
Are there any signs of erosion along the side slopes of the Asbestos Pile? *Comments:* There is standing water in the swale area which looks muddy. Not clear if this is due to erosion or just poor drainage.	☐ YES ☒ NO
Is there evidence of animal burrowing in the cap along the Asbestos Pile slopes or on the top (flat portion) of the Asbestos Pile? *Comments:*	☐ YES ☒ NO
Are there any areas of stressed or missing vegetation on the Asbestos Pile parcel cap? *Comments:*	☐ YES ☒ NO

Stream Banks (Wissahickon Creek, Tannery Run, and Rose Valley Creek)	☐ Not Applicable
Is any new tree growth observed along the steep slope of Wissahickon Creek where geocells were installed? *Comments:*	☐ YES ☒ NO
Is any new tree growth observed along the steep slope of Tannery Run where concrete cable mats (CCMs) were installed? *Comments:*	☐ YES ☒ NO
Is any new tree growth observed along the steep slope of Rose Valley Creek where CCMs were installed? *Comments:* Willow tree observed near Rose Valley entrance to Site. Per direction from EPA BTAG this stays.	☒ YES ☐ NO
Is there any indication of erosion or damage along the stream bank slopes?*Comments:*	☐ YES ☒ NO
Is there evidence of erosion of grout or fill material used to infill seams of CCMs for the Rose Valley Creek Ramp? *Comments:* Fill used between concrete cable mats eroded away in places.	☒ YES ☐ NO
Are there any trees located at the bottom of the slope along Wissahickon Creek and its tributaries that exceed 10 inches diameter at breast height (DBH) or that are in imminent danger of toppling? *Comments:*	☐ YES ☒ NO

Are there any signs of stressed or sparse vegetation along the stream banks? *Comments:*	☐ YES ☒ NO

Post-Significant Weather Event	☒ Not Applicable
Note: This section should be completed for each Site parcel and stream banks immediately following a significant storm event.	
Is there evidence of damage to the cap? *Comments:*	☐ YES ☐ NO
Is there any washout of debris, large rocks, or trees that have deposited along the Site creeks? *Comments:*	☐ YES ☐ NO
Is there evidence of damage or obstructions inside of culverts such as debris or trees? *Comments:*	☐ YES ☐ NO
Has public access been restricted to the Site? *Comments:*	☐ YES ☐ NO
Is there any evidence of flooding and did the flooding exceed the current delineation of the 100-year floodplain? Note the approximate flood elevations with respect to Site features or land marks. *Comments:*	☐ YES ☑ NO
Is there any evidence of cracking, heaving, or breaches in culverts, CCMs, or retaining walls? *Comments:*	☐ YES ☐ NO

Quarterly Inspection Checklist
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Inspector Name:	[redacted]	**Date:**	July 3, 2018
Company:	CDM Smith	**Weather:**	Sunny, 85-95 °F
Phone:	[redacted]	**Start Time:**	9 AM
Email:	[redacted]	**End Time:**	11 AM

Instruction

Any observed impacted areas of the remedy should be photographed, georeferenced, and attached to the inspection checklist.

Some inspection items noted on this checklist refer to institutional controls and the 100-year floodplain. For additional information, refer to Figure 2-1 and Figure 2-2 of the Operation and Maintenance Plan for institutional controls and the extent of the 100-year floodplain, respectively.

If the quarterly inspection checklist is completed immediately following a significant weather event, the "Post-Significant Weather Event" section of the checklist should be completed in conjunction with the parcel specific sections.

Park Parcel

☐ Not Applicable

Are there any breaches to the soil cap or evidence of asbestos-containing material (ACM) or debris?

☐ YES ☒ NO

Comments:

Are there any signs of erosion or activities that have negatively impacted the effectiveness of the remedy at the Park Parcel?

☐ YES ☒ NO

Comments:

Crack along spillway - no evidence of ACM observed.

Do trees in the Park parcel show evidence of windthrows or toppling?

☐ YES ☒ NO

Comments:

Is there evidence of animal burrowing in the Park parcel cap?

☐ YES ☒ NO

Comments:

Vegetation too high to see ground in many areas.

Are there any areas of stressed or missing vegetation on the Park parcel cap? ☒ YES ☐ NO *Comments:* Main parcel has a general lack of vegetation in flat areas; where a lack of topsoil and rocky fill was observed.
Note any comments or observations from Whitpain Township personnel or recreational users: ☒ YES ☐ NO Damage to fence from tree and deer on North side of parcel. More damage observed on Reservoir side of Park parcel with several posts missing. Also noted lack of vegetation.
Note any negatively impacted capped areas in need of maintenance or repair:

Reservoir Parcel	☐ Not Applicable
Are there any breaches to the soil cap or evidence of ACM along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Is there adequate vegetative cover on the berms and bottom of the Reservoir to prevent erosion and/or exposure of ACM waste? *Comments:*	☒ YES ☐ NO
Are there any signs of erosion or changes in the drainage pattern along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Are there any signs of stressed vegetation along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Is there evidence of sapling or tree growth along the Reservoir berms and Reservoir bottom? *Comments:*	☐ YES ☒ NO
Is there evidence of animal burrowing in the cap along the Reservoir berms? *Comments:* Vegetation too high to see ground in many areas.	☐ YES ☒ NO
Reservoir stream gauge surface water elevation: 1.75	

Note any comments or observations from Wissahickon Water Fowl Preserve staff or maintenance personnel:

Quarterly Inspection Checklist
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Asbestos Pile Parcel	☐ Not Applicable
Are there any breaches to the soil cap or evidence of ACM? *Comments:*	☐ YES ☒ NO
Is the vegetative cover on the Asbestos Pile slopes maintained at a proper height? *Comments:*	☒ YES ☐ NO
Is vegetation on the top (flat portion) of the Asbestos Pile parcel mowed annually to allow access and inspection? *Comments:*	☒ YES ☐ NO
Are there any signs of erosion along the side slopes of the Asbestos Pile? *Comments:* There is standing water in the swale area which looks muddy. Not clear if this is due to erosion or just poor drainage.	☐ YES ☒ NO
Is there evidence of animal burrowing in the cap along the Asbestos Pile slopes or on the top (flat portion) of the Asbestos Pile? *Comments:* Vegetation too high to see ground in many areas.	☐ YES ☒ NO
Are there any areas of stressed or missing vegetation on the Asbestos Pile parcel cap? *Comments:*	☐ YES ☒ NO

Stream Banks (Wissahickon Creek, Tannery Run, and Rose Valley Creek)	☐ Not Applicable
Is any new tree growth observed along the steep slope of Wissahickon Creek where geocells were installed? *Comments:*	☐ YES ☒ NO
Is any new tree growth observed along the steep slope of Tannery Run where concrete cable mats (CCMs) were installed? *Comments:*	☐ YES ☒ NO
Is any new tree growth observed along the steep slope of Rose Valley Creek where CCMs were installed? *Comments:* Willow tree observed near Rose Valley entrance to Site. Per direction from EPA BTAG this stays.	☒ YES ☐ NO
Is there any indication of erosion or damage along the stream bank slopes?*Comments:*	☐ YES ☒ NO
Is there evidence of erosion of grout or fill material used to infill seams of CCMs for the Rose Valley Creek Ramp? *Comments:* Fill used between concrete cable mats eroded away in places.	☒ YES ☐ NO
Are there any trees located at the bottom of the slope along Wissahickon Creek and its tributaries that exceed 10 inches diameter at breast height (DBH) or that are in imminent danger of toppling? *Comments:*	☐ YES ☒ NO

Are there any signs of stressed or sparse vegetation along the stream banks? *Comments:*	☐ YES ☒ NO

Post-Significant Weather Event	☒ Not Applicable
Note: This section should be completed for each Site parcel and stream banks immediately following a significant storm event.	
Is there evidence of damage to the cap? *Comments:*	☐ YES ☐ NO
Is there any washout of debris, large rocks, or trees that have deposited along the Site creeks? *Comments:*	☐ YES ☐ NO
Is there evidence of damage or obstructions inside of culverts such as debris or trees? *Comments:*	☐ YES ☐ NO
Has public access been restricted to the Site? *Comments:*	☐ YES ☐ NO
Is there any evidence of flooding and did the flooding exceed the current delineation of the 100-year floodplain? Note the approximate flood elevations with respect to Site features or land marks. *Comments:*	☐ YES ☑ NO
Is there any evidence of cracking, heaving, or breaches in culverts, CCMs, or retaining walls? *Comments:*	☐ YES ☐ NO

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

June 7, 2018

Mr. Colin Wade
Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

RE: Pre-final Inspection of BoRit Asbestos Superfund Site

Dear Mr. Wade,

Consistent with Paragraph 17 of the Superfund State Contract (SSC) for the BoRit Asbestos Superfund Site (Site), dated September 8, 2017, EPA and the Pennsylvania Department of Environmental Protection (PADEP) conducted a Pre-final Inspection of the BoRit Asbestos Superfund Site on May 30, 2018. Items that were identified during the Pre-final Inspection that require follow-up action by EPA are listed below:

Site-Wide:
1. Perimeter fence repairs
2. Invasive species removal
3. Monitoring well/piezometer abandonment
4. Stream/reservoir gauge installation

Park Parcel:
1. E&S enhancements to the two spillways leading to Rose Valley Creek
2. Establish vegetative cover on the plateau

Reservior Parcel
None

Pile Parcel
1. Place additional stone and seed at the toe of pile access ramp

Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.
Customer Service Hotline: 1-800-438-2474

EPA requests DEP's concurrence with the punchlist identified above. Once the items on the punchlist have been resolved, I will contact you to set up a Final Inspection of the Site. If you have any questions regarding this letter, please contact me at 215-814-5737 or voigt.gregory@epa.gov.

Sincerely,

Gregory Voigt
USEPA Region III

cc: T. Cherry (PADEP)
J. McDowell (USEPA)
[redacted] (CDM-Smith)

♻ *Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.*
Customer Service Hotline: 1-800-438-2474

Quarterly Inspection Checklist
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Inspector Name:	[redacted]	**Date:**	September 13, 2018
Company:	CDM Smith	**Weather:**	Light Rain, 75°F
Phone:	[redacted]	**Start Time:**	8 AM
Email:	[redacted]	**End Time:**	11 AM

Instruction

Any observed impacted areas of the remedy should be photographed, georeferenced, and attached to the inspection checklist.
Some inspection items noted on this checklist refer to institutional controls and the 100-year floodplain. For additional information, refer to Figure 2-1 and Figure 2-2 of the Operation and Maintenance Plan for institutional controls and the extent of the 100-year floodplain, respectively.
If the quarterly inspection checklist is completed immediately following a significant weather event, the "Post-Significant Weather Event" section of the checklist should be completed in conjunction with the parcel specific sections.

Park Parcel

☐ Not Applicable

Are there any breaches to the soil cap or evidence of asbestos-containing material (ACM) or debris?
Comments:

☐ YES ☒ NO

Are there any signs of erosion or activities that have negatively impacted the effectiveness of the remedy at the Park Parcel?
Comments:
Crack along spillway-FIXED

☐ YES ☒ NO

Do trees in the Park parcel show evidence of windthrows or toppling?
Comments:

☐ YES ☒ NO

Is there evidence of animal burrowing in the Park parcel cap?
Comments:
Vegetation too high to see ground in many areas.

☐ YES ☒ NO

Are there any areas of stressed or missing vegetation on the Park parcel cap? ☒ YES ☐ NO *Comments:* Main parcel has a general lack of vegetation in flat areas. Leaf mulch has been dumped on-site to be tilled into the surface soil to promote growth.
Note any comments or observations from Whitpain Township personnel or recreational users: ☐ YES ☒ NO
Note any negatively impacted capped areas in need of maintenance or repair:

Reservoir Parcel	☐ Not Applicable
Are there any breaches to the soil cap or evidence of ACM along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Is there adequate vegetative cover on the berms and bottom of the Reservoir to prevent erosion and/or exposure of ACM waste? *Comments:*	☒ YES ☐ NO
Are there any signs of erosion or changes in the drainage pattern along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Are there any signs of stressed vegetation along the Reservoir berms? *Comments:*	☐ YES ☒ NO
Is there evidence of sapling or tree growth along the Reservoir berms and Reservoir bottom? *Comments:* Honey Locust saplings seen on Reservoir berm near Rose Valley Creek to be removed.	☒ YES ☐ NO
Is there evidence of animal burrowing in the cap along the Reservoir berms? *Comments:* Vegetation too high to see ground in many areas.	☐ YES ☒ NO
Reservoir stream gauge surface water elevation: 185.65	

Note any comments or observations from Wissahickon Water Fowl Preserve staff or maintenance personnel:

Quarterly Inspection Checklist
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Asbestos Pile Parcel	☐ Not Applicable
Are there any breaches to the soil cap or evidence of ACM? *Comments:*	☐ YES ☒ NO
Is the vegetative cover on the Asbestos Pile slopes maintained at a proper height? *Comments:*	☒ YES ☐ NO
Is vegetation on the top (flat portion) of the Asbestos Pile parcel mowed annually to allow access and inspection? *Comments:*	☒ YES ☐ NO
Are there any signs of erosion along the side slopes of the Asbestos Pile? *Comments:* There is standing water in the swale area which looks muddy. Joe McDowell would like us to place 3/4" stone within this swale.	☐ YES ☒ NO
Is there evidence of animal burrowing in the cap along the Asbestos Pile slopes or on the top (flat portion) of the Asbestos Pile? *Comments:* Vegetation too high to see ground in many areas.	☐ YES ☒ NO
Are there any areas of stressed or missing vegetation on the Asbestos Pile parcel cap? *Comments:*	☐ YES ☒ NO

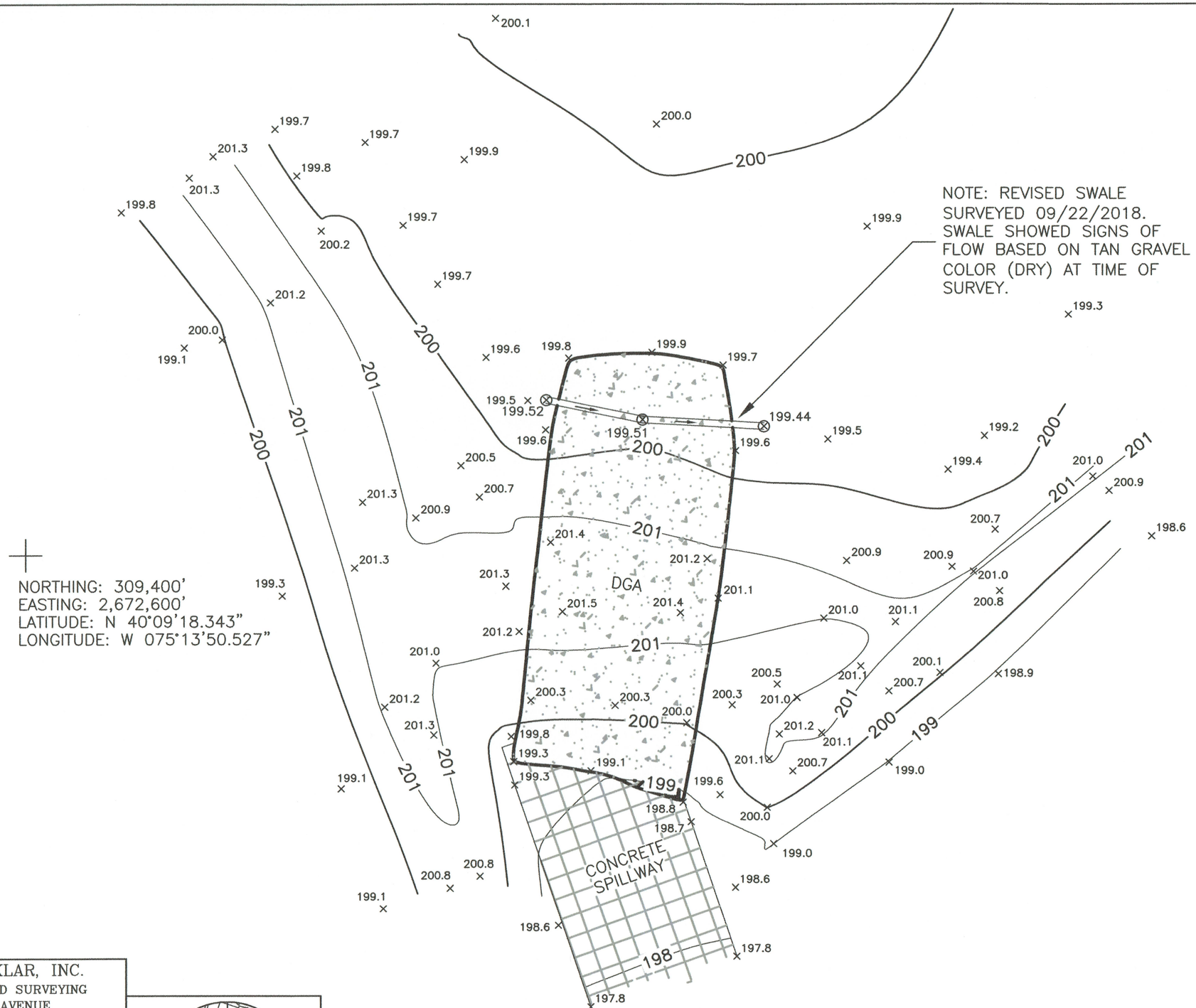
Stream Banks (Wissahickon Creek, Tannery Run, and Rose Valley Creek)	☐ Not Applicable
Is any new tree growth observed along the steep slope of Wissahickon Creek where geocells were installed? *Comments:*	☐ YES ☒ NO
Is any new tree growth observed along the steep slope of Tannery Run where concrete cable mats (CCMs) were installed? *Comments:*	☐ YES ☒ NO
Is any new tree growth observed along the steep slope of Rose Valley Creek where CCMs were installed? *Comments:* Willow tree observed near Rose Valley entrance to Site. Per direction from EPA BTAG this stays.	☒ YES ☐ NO
Is there any indication of erosion or damage along the stream bank slopes?*Comments:*	☐ YES ☒ NO
Is there evidence of erosion of grout or fill material used to infill seams of CCMs for the Rose Valley Creek Ramp? *Comments:*	☐ Yes ☒ NO
Are there any trees located at the bottom of the slope along Wissahickon Creek and its tributaries that exceed 10 inches diameter at breast height (DBH) or that are in imminent danger of toppling? *Comments:*	☐ YES ☒ NO

Are there any signs of stressed or sparse vegetation along the stream banks? *Comments:*	☐ YES ☒ NO

Post-Significant Weather Event	☒ Not Applicable
Note: This section should be completed for each Site parcel and stream banks immediately following a significant storm event.	
Is there evidence of damage to the cap? *Comments:*	☐ YES ☐ NO
Is there any washout of debris, large rocks, or trees that have deposited along the Site creeks? *Comments:*	☐ YES ☐ NO
Is there evidence of damage or obstructions inside of culverts such as debris or trees? *Comments:*	☐ YES ☐ NO
Has public access been restricted to the Site? *Comments:*	☐ YES ☐ NO
Is there any evidence of flooding and did the flooding exceed the current delineation of the 100-year floodplain? Note the approximate flood elevations with respect to Site features or land marks. *Comments:*	☐ YES ☐ NO
Is there any evidence of cracking, heaving, or breaches in culverts, CCMs, or retaining walls? *Comments:*	☐ YES ☐ NO

Appendix E

As-Built Drawings



PENNSYLVANIA GRID NORTH
NAD 83_2011

NORTHING: 309,400'
EASTING: 2,672,600'
LATITUDE: N 40°09'18.343"
LONGITUDE: W 075°13'50.527"

DENNIS W. SKLAR, INC.
PROFESSIONAL LAND SURVEYING
2837 OGDEN AVENUE
BENSALEM, PA 19020
(215) 268-7988

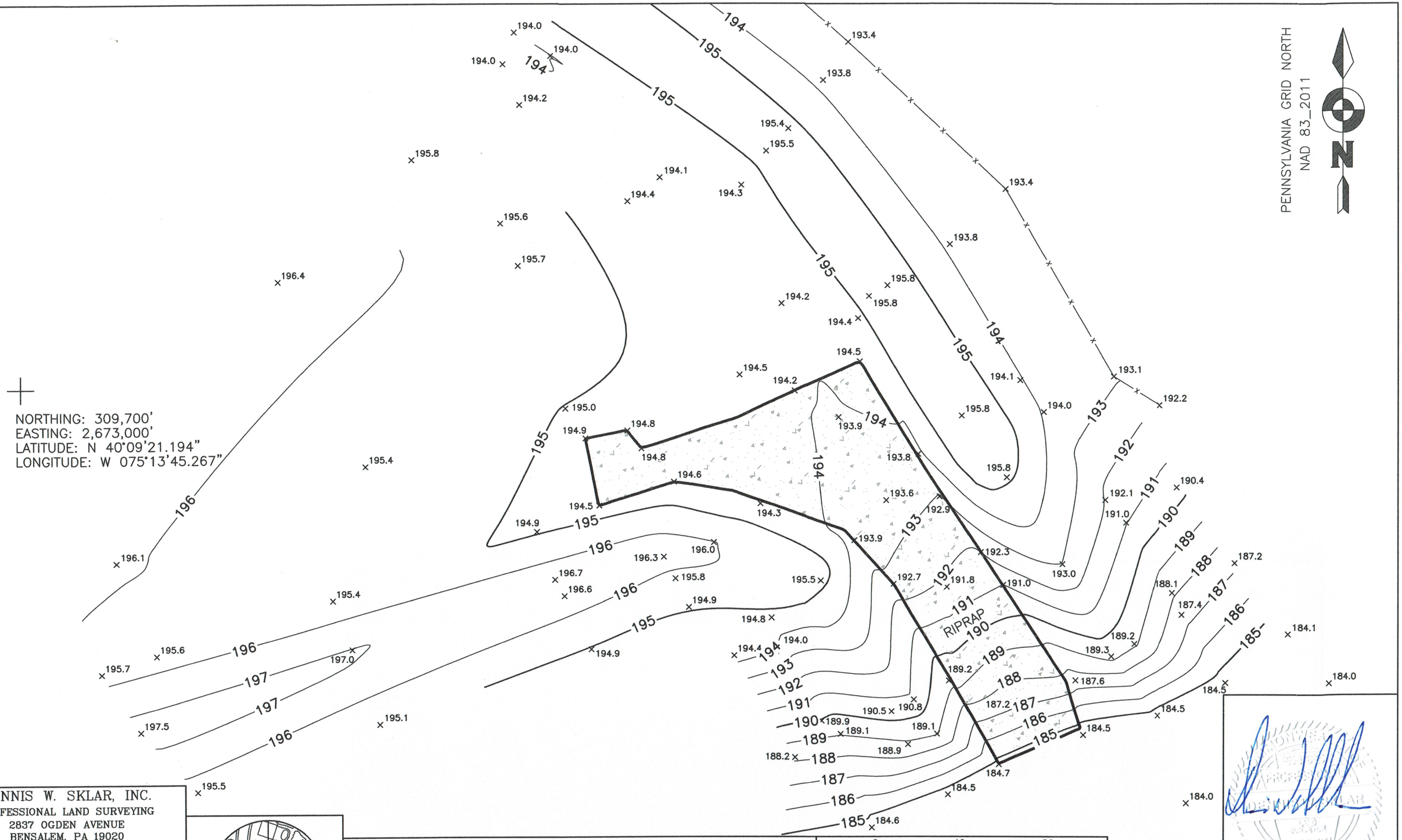
DATE: 09/01/2018
DRAWN BY: DWS
2245-01.DWG
DRAWING NO. 2245
SHEET 1 OF 2

BORIT SUPERFUND SITE
RAMP AREA REPAIR
POST CONSTRUCTION
TOPOGRAPHIC SURVEY
AMBLER – PENNSYLVANIA

0 10 20
SCALE IN FEET – 1" = 10'

DATUM		REVISIONS
PENNSYLVANIA STATE PLANE COORDINATES NAD 83_2011 SOUTH ZONE NAVD 88	1	09/22/2018: SURVEY NEW SWALE CUT THROUGH EXISTING DGA.
	2	
	3	
	4	
	5	

DENNIS W. SKLAR, PLS
LICENSE NO. SU075154



DENNIS W. SKLAR, INC.
PROFESSIONAL LAND SURVEYING
2837 OGDEN AVENUE
BENSALEM, PA 19020
(215) 268-7988

DATE: 09/01/2018
DRAWN BY: DWS
2245-01.DWG
DRAWING NO. 2245
SHEET 2 OF 2

BORIT SUPERFUND SITE
SPILLWAY REPAIR AREA
POST CONSTRUCTION
TOPOGRAPHIC SURVEY
AMBLER - PENNSYLVANIA

0 10 20
SCALE IN FEET - 1" = 10'

DATUM		REVISIONS
PENNSYLVANIA STATE PLANE COORDINATES NAD 83_2011 SOUTH ZONE NAVD 88	1	
	2	
	3	
	4	
	5	

DENNIS W. SKLAR, PLS
LICENSE NO. SU075154

Appendix F

Well and Piezometer Abandonment Reports

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-GT6**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: [redacted]
Address of Well: [redacted]
County: [redacted]
Municipality: [redacted]
Coordinate Method: [redacted]
Quadrangle: [redacted]

Zipcode: **19002**
Municipality Type: **B**
Latitude: **40.15392**
Longitude: **-75.22674**

Well Depth (*ft*): **40**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 80 lbs cement, 4 lbs benseal, 5 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **40** Diameter: **1**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **1** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **40** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-GT7**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: [redacted]
Address of Well:
County:
Municipality:
Coordinate Method:
Quadrangle:

Zipcode: **19002**
Municipality Type: **B**
Latitude: **40.15368**
Longitude: **-75.22678**

Well Depth (*ft*): **24**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 50 lbs cement, 3 lbs benseal, 3 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **24** Diameter: **1**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **1** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **24** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.
EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626
Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW1A**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: **Whitpain Township**
Address of Well: **40 W. Mt. Pleasant Avenue**
Zipcode: **19002**
County: **MONTGOMERY**
Municipality: **WHITPAIN**
Municipality Type: **T**
Coordinate Method: **Commercial Street Atlas Program**
Quadrangle: **AMBLER**
Latitude: **40.15758**
Longitude: **-75.23180**

Well Depth (*ft*): **73**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 240 lbs cement, 13 lbs benseal, 15 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **73** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **73** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW2**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: **Whitpain Township**
Address of Well: **40 W. Mt. Pleasant Avenue**
Zipcode: **19002**
County: **MONTGOMERY**
Municipality: **WHITPAIN**
Municipality Type: **T**
Coordinate Method: **Commercial Street Atlas Program**
Quadrangle: **AMBLER**
Latitude: **40.15514**
Longitude: **-75.23064**

Well Depth (*ft*): **63**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 200 lbs cement, 10 lbs benseal, 12 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **63** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **63** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW3**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: [redacted]
Address of Well:
County:
Municipality:
Coordinate Method:
Quadrangle:

Zipcode: **19002**
Municipality Type: **T**
Latitude: **40.15518**
Longitude: **-75.22978**

Well Depth (*ft*): **53**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 175 lbs cement, 9 lbs benseal, 11 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **53** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **53** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW4**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: [redacted]
Address of Well:
County:
Municipality:
Coordinate Method:
Quadrangle:

Zipcode: **19002**
Municipality Type: **B**
Latitude: **40.15406**
Longitude: **-75.22759**

Well Depth (*ft*): **100**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 330 lbs cement, 17 lbs benseal, 20 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **100** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **100** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW5**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: [redacted]
Address of Well:
County:
Municipality:
Coordinate Method:
Quadrangle:

Zipcode: **19002**
Municipality Type: **T**
Latitude: **40.15511**
Longitude: **-75.22878**

Well Depth (*ft*): **64**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 213 lbs cement, 10 lbs benseal, 13 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **64** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **64** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW6**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: [redacted]
Address of Well:
County:
Municipality:
Coordinate Method:
Quadrangle:

Zipcode: **19002**
Municipality Type: **B**
Latitude: **40.15382** Longitude: **-75.22598**

Well Depth (*ft*): **53**
Use of Well: **ABANDONED** Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 176 lbs cement, 9 lbs benseal, 10 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **53** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **53** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.
EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626
Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller License: **0198**
Type of Activity: **Well Abandonment**
Reason for Abandonment: **Well was unused**
Date Abandoned: **9/14/2018**

Driller Well ID: **DK18086-MW7**
Local Permit #:
Original Well By: **Unknown**
PA Well ID:

Owner: **Whitpain Township**
Address of Well: **256 Maple Avenue** Zipcode: **19002**
County: **MONTGOMERY**
Municipality: **WHITPAIN** Municipality Type: **T**
Coordinate Method: **Commercial Street Atlas Program**
Quadrangle: **AMBLER** Latitude: **40.15669** Longitude: **-75.22890**

Well Depth (*ft*): **40**
Use of Well: **ABANDONED** Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 133 lbs cement, 7 lbs benseal, 8 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **40** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **40** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.
EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626
Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller Well ID: **DK18086-PKPZ-01**
Driller License: **0198**
Local Permit #:
Type of Activity: **Well Abandonment**
Original Well By: **Unknown**
Reason for Abandonment: **Well was unused**
PA Well ID:
Date Abandoned: **9/14/2018**

Owner: **Whitpain Township**
Address of Well: **40 W. Mt. Pleasant Avenue**
Zipcode: **19002**
County: **MONTGOMERY**
Municipality: **WHITPAIN**
Municipality Type: **T**
Coordinate Method: **Commercial Street Atlas Program**
Quadrangle: **AMBLER**
Latitude: **40.15570**
Longitude: **-75.23093**

Well Depth (*ft*): **26**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 80 lbs cement, 4 lbs benseal, 5 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **26** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **26** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.
EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626
Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller Well ID: **DK18086-PKPZ-02**
Driller License: **0198**
Local Permit #:
Type of Activity: **Well Abandonment**
Original Well By: **Unknown**
Reason for Abandonment: **Well was unused**
PA Well ID:
Date Abandoned: **9/14/2018**

Owner: **Whitpain Township**
Address of Well: **40 W. Mt. Pleasant Avenue**
Zipcode: **19002**
County: **MONTGOMERY**
Municipality: **WHITPAIN**
Municipality Type: **T**
Coordinate Method: **Commercial Street Atlas Program**
Quadrangle: **AMBLER**
Latitude: **40.15515**
Longitude: **-75.23068**

Well Depth (*ft*): **27**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 90 lbs cement, 5 lbs benseal, 6 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **27** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **27** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.
EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626
Driller's Signature Date

WATER WELL ABANDONMENT REPORT

Well Driller: **EICHELBERGERS INC.**
Driller Well ID: **DK18086-PKPZ-03**
Driller License: **0198**
Local Permit #:
Type of Activity: **Well Abandonment**
Original Well By: **Unknown**
Reason for Abandonment: **Well was unused**
PA Well ID:
Date Abandoned: **9/14/2018**

Owner: **Whitpain Township**
Address of Well: **40 W. Mt. Pleasant Avenue**
Zipcode: **19002**
County: **MONTGOMERY**
Municipality: **WHITPAIN**
Municipality Type: **T**
Coordinate Method: **Commercial Street Atlas Program**
Quadrangle: **AMBLER**
Latitude: **40.15506**
Longitude: **-75.23036**

Well Depth (*ft*): **25**
Use of Well: **ABANDONED**
Use of Water: **UNUSED**

Description of Well Location and Other Notes:
Pressure grout via tremie pipe from bottom to top. Materials Used: 80 lbs cement, 4 lbs benseal, 5 gallons water.

BOREHOLE

Section 1: Top: **0** Bottom: **25** Diameter: **2**

CASING PULLED

Casing 1:
Top: **0** Bottom: **2** Diameter: **2** Material: **PVC OR OTHER PLASTIC**

WELL FILL MATERIAL

Seal(Grout) 1:
Top: **0** Bottom: **25** Type: **CEMENT GROUT**

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

EICHELBERGERS, INC.
107 TEXACO ROAD
MECHANICSBURG, PA 17050-2626

Driller's Signature Date

Appendix G

Data Validation Reports

Asbestos Data Validation Report

Appendix G

Asbestos Data Verification and Validation Report

List of Attachments

Attachment 1 Data Summary of Field Sample Information

Attachment 2 Data Summary of PLM Analytical Information

Attachment 3 Data Summary of TEM Analytical Information

Attachment 4 Validation Data Qualifiers and Reason Codes

Attachment 5 Summary of Validation Guidelines

Attachment 6 Validated Analyses

G1 Introduction

CDM Smith performed a formal data verification and validation of the BoRit Asbestos Superfund Site (Site) soil, sediment, surface water, ambient air, and activity-based sampling (ABS) personal and perimeter air samples. Samples were collected and analyzed in accordance with the governing document, *Final Site Management Plan (SMP)* (CDM Smith Federal Programs Corporation [CDM Smith] 2018), during confirmation sampling activities on April 24-27 and July 18, 2018.

Soil and sediment samples were prepared and analyzed for asbestos by polarized light microscopy (PLM). Samples were prepared by milling to a particle size of about 250 micrometers (µm) using the preparation procedures described in EPA/600/R-93/116. An aliquot of the prepared material was examined by PLM using point counting in accordance with EPA/600/R-93/116. In total, 1,000 points were examined for each sample which results in an approximate detection limit of 0.1 percent (%).

Surface water samples were analyzed for asbestos by transmission electron microscopy (TEM) using high magnification (~20,000x) in basic accordance with the method and counting rules specified in U.S. Environmental Protection Agency (EPA) Method 100.1.

Ambient air and ABS air samples were analyzed for asbestos by TEM using low magnification (~5,000x) in basic accordance with the counting rules specified in International Organization for Standardization (ISO) 10312:1995(E) (ISO 1995). For filters that could not be evaluated for analysis by direct preparation, indirect filter preparation techniques were performed in basic accordance with methods specified in ISO Method 13794.

All asbestos analyses were performed by EMSL Analytical, Inc. (EMSL) in Cinnaminson, New Jersey.

The following sections summarize the data verification and validation efforts.

G2 Data Verification

Data verification includes checking that the analysts are following the project- and method-specific analysis requirements and to ensure results have been transferred correctly from the original hand-written, hard copy field and analytical laboratory documentation to the project database. The goal of data verification is to identify and correct data reporting errors. The data verification review ensures that any data reporting issues are identified and rectified to limit any impact on overall data quality. This data verification process utilizes Site-specific standard operating procedures (SOPs) developed to ensure TEM and PLM results and field sample information in the project database are accurate and reliable:

- **SOP CDM-BoRit-3**, *Transmission Electron Microscopy (TEM) Verification* (Revision 0; CDM Smith 2011a). This SOP describes the steps for verification of TEM analyses, based on a review of the laboratory benchsheets, and verification of the transfer or results from the benchsheets into the project database.
- **SOP CDM-BoRit-4**, *Polarized Light Microscopy (PLM) Point Counting Verification* (Revision 0; CDM Smith 2011b). This SOP describes the steps for the verification of PLM analyses, based on a review of the laboratory benchsheets, and verification of the transfer of results from the benchsheets into the project database.
- **SOP CDM-BoRit-5**, *Field Sample Data Sheet (FSDS) Verification* (Revision 0; CDM Smith 2011c). This SOP describes the steps for verification of field sample information, based on a review of the FSDS forms, and verification of the transfer of results from the FSDS forms into the project database.

EMSL utilized the National Asbestos Data Entry Spreadsheet (NADES) electronic data deliverable (EDD) spreadsheets for reporting asbestos analysis results for soil, sediment, and air. NADES EDD spreadsheets have not been established for water analyses; therefore, EMSL utilized the water EDD established for the Libby Asbestos Superfund Site. In the water EDD, results are reported for three types of mineral classes: Libby amphibole (LA), other amphibole (OA), and chrysotile (CH).

The NADES EDDs perform standard automated quality control (QC) checks that have been built into the spreadsheets. In addition to these automated checks, more detailed manual data verification efforts were performed by CDM Smith for 100% of samples collected during the Site confirmation sampling activities. The following sections summarize the FSDS, PLM, and TEM verification efforts, respectively.

G2.1 Field Sample Data Sheet (FSDS) Verification

A verification of 41 soil, 5 sediment, 10 surface water, 14 ambient air, and 85 ABS air samples was performed by CDM Smith in basic accordance with SOP CDM-BoRit-5. Both field samples and field QC samples were verified, including field duplicates, field blanks, and lot blanks. The verification was based on the project database and field documentation forms as provided by CDM Smith field personnel.

Any issues identified in the verification process were categorized in the following manner:

- **Critical error**: An error is identified in a critical data field which resulted in an error in the calculation of the sample volume or an error in sample identification. Critical data fields include, but are not limited to, air pump start or stop time, air pump start or stop flow rate, and location information.
- **Potential critical error**: An error is identified in a critical data field which does not result in an error in the calculation of the sample volume or an error in sample identification.
- **Non-critical discrepancy**: A discrepancy is identified in a non-critical data field that does not impact the calculation of sample volume or sample identification. Non-critical data fields include, but are not limited to, sample date, logbook number, FSDS sheet number, and sampler.

Results of the FSDS verification effort are summarized below.

Soil

- No critical or potential critical errors were identified during the verification effort.
- A non-critical discrepancy was identified in which the field comments recorded on the FSDS were not entered in the project database. *Resolution:* The data manager entered the field comments in the project database.

Sediment

- No errors or discrepancies were identified in the verification effort.

Surface Water

- No critical or potential critical errors were identified during this verification effort.
- One non-critical discrepancy was identified in which the same FSDS sheet number was recorded on two different FSDS forms. *Resolution:* Field personnel corrected the FSDS sheet number on one of the forms.

Ambient Air

- One critical error was identified in which the sample volume was incorrectly recorded on the chain-of-custody (COC) due to a typographical error in the sample start time in the volume calculation spreadsheet. As a result, the volume entered in the EDD by EMSL was incorrect, which impacted the achieved analytical sensitivity and reported asbestos concentration. *Resolution:* Field personnel corrected the COC and provided a copy to EMSL. EMSL made the corrections in the EDD and resubmitted the EDD.

ABS Air

- A potential critical error was identified for three samples in which flow rates were incorrectly entered in the volume calculation spreadsheet. Despite this error, the total sample volume was only minimally impacted (i.e., the difference in sample volume was 5

liters or less). *Resolution:* Because the errors did not impact the achieved analytical sensitivity or reported asbestos concentration, this was not deemed to be a critical error and no laboratory corrections were requested. The data manager corrected the flow rates in the project database.

Several non-critical discrepancies were identified:

- The sample numbers for two lot blank and one field blank sample recorded on the FSDS forms did not match the sample numbers recorded on the COC.
- The same FSDS sheet number was recorded on two different FSDS forms.
- It was unclear on the FSDS which flow meter type was used during sample collection.
- The sampler name and cassette lot number were not recorded on several FSDS forms.
- Several data fields were incorrectly transferred from the FSDS to the project database, including: cassette lot number, FSDS sheet number, field book number, and field book page number.

Resolution: All non-critical discrepancies identified have been resolved by field personnel and the necessary corrections have been made to the project database and/or FSDS forms.

The Data Verification Coordinator (DVC) is required to perform a review of a minimum of 5% of the samples selected for verification to ensure that any potential issues were identified correctly. This resulted in a check of three soil, one sediment, one surface water, one ambient air, and four ABS air samples. No deficiencies were identified during the DVC review.

Attachment 1 contains the details of the verification, along with the FSDS forms that were used for this verification effort, including the data verifier's notes.

G2.2 Polarized Light Microscopy (PLM) Verification

A verification of 41 soil and 5 sediment samples analyzed by PLM was performed by CDM Smith in basic accordance with SOP CDM-BoRit-4. The verification was based on the project database and the final laboratory reports as provided by EMSL.

Any issues identified in the verification process were categorized in the following manner:

- **Critical error**: An error is identified in the result information.
- **Potential critical error**: An error is identified in a critical data field which does not result in an error in the result information.
- **Non-critical discrepancy**: A discrepancy is identified in a non-critical data field that does not impact the result information. Non-critical data fields include, but are not limited to, analysis date, analyst, analysis comments, and laboratory job number.

One critical error was identified in which an error was identified in the NADES EDD spreadsheet template used to electronically record results: *NADES PLM SoilBulk v12-d-DRAFT-053017-*

locked.xlsm[1]. Due to the error in the NADES EDD, samples where no asbestos was observed at any of the inspected points and the resulting concentration was reported as less than (<) 0.25%, which assumes that only 400 points were counted. For all PLM analyses performed as part of this investigation, 1,000 points were counted; thus, the results should have been reported as <0.1%. In the EDD spreadsheet, the cell for calculating the reported concentration was locked (meaning the cell contents could not be changed by the laboratory or by CDM Smith). Thus, this critical error is attributed to the error in the NADES EDD, not by the laboratory. *Resolution:* The reported concentration was corrected in the project database, but no correction was made in the EDD or in the laboratory data package. It is recommended that the NADES EDD spreadsheet template be corrected to fix this error.

The DVC is required to perform a review of a minimum of 5% of the analyses selected for verification to ensure that any potential issues were identified correctly. This resulted in a check of three soil PLM analyses and one sediment PLM analysis. No deficiencies were identified during the DVC review.

Attachment 2 contains the details of the verification, along with the laboratory documentation forms that were used for this verification effort, including the data verifier's notes.

G2.3 Transmission Electron Microscopy (TEM) Verification

A verification of 10 surface water, 8 ambient air, and 49 ABS air analyzed by TEM was performed by CDM Smith in basic accordance with SOP CDM-BoRit-3. The verification was based on the project database and the final laboratory reports as provided by EMSL.

Any issues identified in the verification process were categorized in the following manner:

- **Critical error**: An error identified in a critical data field which resulted in an error in the calculation of the achieved analytical sensitivity, concentration, or structure count. Critical data fields include, but are not limited to, effective area of the filter, number of grid openings examined, area of a grid opening, sample quantity (e.g., volume), number of structures observed, and indirect preparation inputs.
- **Potential critical error**: An error identified in a critical data field which does not result in an error in the calculation of the achieved analytical sensitivity, concentration, or structure count.
- **Non-critical discrepancy**: A discrepancy identified in a non-critical data field that does not impact the calculation of the achieved analytical sensitivity, concentration, or structure count. Non-critical data fields include, but are not limited to, preparation details (e.g., number of grids prepared, prepared by) and analytical details (e.g., analyst name, analysis date).

Results of the TEM verification effort are summarized below.

Surface Water

[1] https://response.epa.gov/site/doc_list.aspx?site_id=4525

- A critical error was identified that impacted all surface water analyses. For all EDDs, the effective filter area (EFA) was incorrectly entered in the EDD as 385 square millimeters (mm^2), rather than 1,387 mm^2. The EFA is a critical data field that impacts the achieved analytical sensitivity and reported asbestos concentration. *Resolution:* EMSL corrected all impacted EDDs and reissued the EDDs.

- A potential critical error was identified in which the volume applied to the filter for one analysis was not clearly recorded on the *TEM Asbestos in Water Sample Prep Log*. *Resolution:* EMSL confirmed that the correct volume was entered in the EDD and corrected the volume on the *TEM Asbestos in Water Sample Prep Log.*

- A non-critical discrepancy was identified in which the analysis date on the *Structure Sketch Sheet for Direct Data Entry* form did not match the analysis date entered in the EDD. *Resolution:* No corrections were requested for this non-critical discrepancy.

Ambient Air

- A non-critical discrepancy was identified in which the sample number was incorrectly recorded on the *Structure Sketch Sheet for Direct Data Entry* for one analysis. *Resolution:* The data verifier confirmed the correct sample number based on the laboratory sample recorded on the *Sample Log-In Sheet* provided in the data package; no corrections were requested.

ABS Air

Several non-critical discrepancies were identified:

- The sample number and/or laboratory sample ID was in correctly recorded on the *Structure Sketch Sheet for Direct Data Entry* for several analyses. *Resolution:* These discrepancies were minor in nature (e.g., an extra zero was added to the laboratory sample ID, the sample number was recorded as "ASB" instead of "ABS") and did not impact sample identification; therefore, no corrections were requested from the laboratory.

- The analysis date on the *Structure Sketch Sheet for Direct Data Entry* form did not match the analysis date entered in the EDD. *Resolution:* Because this discrepancy is minor, no corrections were requested from the laboratory.

- The analytical method was incorrectly entered in the EDD for several samples that required indirect preparation. *Resolution:* This discrepancy did not impact any calculations in the EDD; therefore, no corrections were requested from the laboratory. The data manager made the appropriate corrections in the project database.

All the air TEM analyses were performed at low magnification (~5,000-10,000x). EMSL did not properly identify the low magnification status in the NADES EDD. As a result, the EDD reported air concentration results for both total structures and phase contrast microscopy-equivalent (PCME) structures[2]. Because the analysis only recorded PCME structures, it is not possible to

[2] Total structures include all structures with a length greater than 0.5 micrometers (µm), while PCME structures include only those structures with a length greater than 5 µm and a width greater than or equal

quantify concentrations in terms of total structures. *Resolution:* EMSL corrected and resubmitted all impacted EDDs.

The DVC is required to perform a review of a minimum of 5% of the analyses selected for verification to ensure that any potential issues were identified correctly. This resulted in a check of one surface water, one ambient air, and three ABS air analyses. No deficiencies were identified during the DVC review.

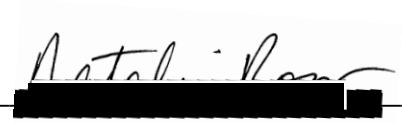
Attachment 3 contains the details of the verification, along with the laboratory documentation forms that were used for this verification effort, including the data verifier's notes.

to 0.25 µm. As demonstrated in the BoRit human health risk assessment, only a small fraction of the total structures present is likely to meet PCME counting rules.

Data Verifier

_____ Date 9/18/2018

Data Verification Coordinator



_____ Date 9/18/2018

Verification Data Manager*

_____ Date 9/18/2018

*The Verification Data Manager acknowledges that all issues discovered during the verification process have been resolved and that the following criteria have been met:

- All necessary corrections have been made to the FSDS forms.
- The corrected FSDS forms have been re-submitted to the appropriate parties (as specified in the governing documents).
- All necessary corrections have been made to the project database.
- All necessary corrections have been made to the laboratory EDD.
- The corrected laboratory EDD has been re-submitted by the analytical laboratory to the appropriate parties (as specified in the governing project documents).
- The corrected laboratory EDD has uploaded to the project database.
- All necessary corrections have been made to the hand-written laboratory benchsheet.
- The corrected hand-written laboratory benchsheet has been re-submitted by the analytical laboratory to the appropriate parties.
- Signatures for the data verifier, DVC, and verification data manager have been added to the verification summary report.

G3 Data Validation

Unlike data verification, where the goal is to identify and correct data reporting errors, the goal of data validation is to evaluate overall data quality and to assign data qualifiers, as appropriate, to alert data users to any potential data quality issues. Data validation was performed by CDM Smith technical support staff that were familiar with project-specific data reporting, analytical methods, and investigation requirements.

This validation was performed in basic accordance with the *PLM Validation Process Guidelines for Asbestos Data Review* (U.S. Environmental Protection Agency [EPA] 2016a) and *TEM Validation Process Guidelines for Asbestos Data Review* (EPA 2016b). **Attachment 4** provides a brief explanation of the data qualifiers and reason codes that may be assigned to results during the data validation process. **Attachment 5** provides a summary of the data requirements that were reviewed in each section. A complete list of validated analyses is detailed in **Attachment 6**. **Attachment 7** contains a scanned copy of the hard copy laboratory documentation used in the validation process. Due to its large size, **Attachment 7** is available electronically by request only.

G3.1 PLM Validation

This validation effort consisted of a review of the NADES EDD for soil and sediment analysis by PLM (EDD version 12d-DRAFT) along with the hard copy laboratory reports (i.e., benchsheets, COC forms, QC data reports, and equipment performance forms). Four PLM data packages were validated during this effort:

- 041812129 – 7 soil samples
- 041812444 – 5 sediment samples and 13 soil samples
- 041812573 – 12 soil samples
- 041821790 – 9 soil samples

This section is organized into ten subsections that present each of the ten PLM data requirement checks specified in the PLM validation guidance (EPA 2016a):

- Sample Receipt
- Sample Preparation
- Microscope Alignment
- Refractive Index (RI) Liquid Calibration
- Fiber Identification Criteria
- Blank Analysis
- Reference Sample Analysis
- Replicate Analysis
- Point Counting
- Overall Assessment of Data

G3.1.1 Sample Receipt

Each laboratory job provided by EMSL included a case narrative, tabulated sample results, worksheets/bench sheets, QC data reports/logs, COC records, equipment performance checks,

National Voluntary Laboratory Accreditation Program (NVLAP)/American Industrial Hygiene Association (AIHA) certifications, customer correspondence, and shipping documentation.

Soil and sediment samples were received intact and in good condition at the EMSL laboratory on the following dates:

- 041812129 – 4/25/2018
- 041812444 – 4/27/2018
- 041812573 – 4/28/2018
- 041821790 – 7/19/2018

COC records were signed and dated and the information recorded on the COC records appear to be complete and in agreement. One deficiency was noted: page 2 of the COC for job 041821790 was not provided in the data package. Data qualifiers were not added due to this deficiency.

G3.1.2 Sample Preparation

The case narrative provided in the data packages indicated that the soil/sediment samples were dried prior to being placed in the puck mill. No deficiencies were identified.

G3.1.3 Microscope Alignment

EMSL provided a *PLM Calibration and Contamination Record* checklist in each data package. This checklist confirmed that the microscopes were properly aligned on each day the samples were analyzed. No deficiencies were identified.

G3.1.4 Refractive Index Liquid Calibration

EMSL did not provide a record of the RI liquid calibration activities with the data packages. However, EMSL is accredited by NIST/NVLAP for the analysis of bulk asbestos by PLM. As part of the NIST/NVLAP requirements, the analytical laboratory must have written procedures for calibrating RI oils to determine whether the actual or calibrated RI values are within ±0.004 of their nominal values. Although the documentation was not available for review during this validation effort, because EMSL is NVLAP-certified, data qualifiers were not assigned to any sample.

G3.1.5 Mineral/Fiber Identification Criteria

All samples validated during this effort were non-detect for asbestos; therefore, it was not necessary to record optical properties.

G3.1.6 Blank Analysis

This section in the PLM validation guidelines (EPA 2016a) indicates that laboratory blanks must be prepared and analyzed before the analysis of each set of samples on days when analysis is performed. However, there are no requirements for the analysis of laboratory blanks in the analytical method (EPA/600/R-93/116); thus, EMSL did not provide documentation for any laboratory blank analyses. The objective of this section in the validation guidelines is to determine the existence and magnitude of contamination resulting from laboratory or field activities. In each data package, EMSL included a *PLM Calibration and Contamination Record* checklist which contains documentation for daily contamination checks on days when analysis

was performed. Daily contamination checks include checks of the following: tools, fine table salt, RI oils, work surfaces, and slides. No deficiencies were identified in this documentation; therefore, no data qualifiers were assigned to any sample on the basis of blank contamination.

G3.1.7 Reference Sample Analysis

EMSL provided documentation on daily reference slide analyses performed by each analyst. Reference slide analyses were performed on the date of sample analyses and results were within the control chart limits. No deficiencies were identified.

G3.1.8 Replicate Analysis

EMSL performed a total of seven laboratory duplicate (i.e., replicate) analyses (~15 % of all analyses). Both the parent sample analyses and the laboratory duplicate analyses were non-detect for asbestos. No deficiencies were identified.

G3.1.9 Point Counting

In accordance with the project-specific requirements, a total of 1,000 points were counted during PLM analysis for each soil and sediment sample.

G3.1.10 Overall Assessment of Data

There were a few typographical errors found in the case narrative in the data packages in which the number of points counted was recorded as 400 or 10,000 rather than 1,000. For each data package, the number of points counted was correctly recorded on the benchsheet as 1,000 and was correctly entered in the EDD as 1,000. This typographical error did not negatively impact data quality; therefore, corrections were not requested from EMSL and no data qualifiers were assigned as a consequence of these typographical issues.

Other than the typographical errors noted above, the data packages were found to be complete and accurate. No qualification of the data is necessary.

G3.2 TEM Validation

This validation effort consisted of a review of the EDD for water[3] and the NADES EDD for air analysis by TEM (EDD version AirDustTEM_v15j) along with the hard copy laboratory reports (i.e., benchsheets, COC forms, QC data reports, and equipment performance forms). Ten TEM data packages were validated during this effort:

- Air (TEM ISO 10312)
  - 041815406 – 2 air samples
  - 041815994 – 9 air samples
  - 041817463 – 5 air samples
  - 041821873 – 19 air samples
  - 041821898 – 9 air samples
  - 041821905 – 9 air samples
  - 041822094 – 18 air samples
  - 041822107 – 28 air samples

[3] A NADES EDD is not available for water sample analysis.

- Water (TEM EPA Method 100.1)
  - 041812555 – 6 water samples
  - 041812291 – 4 water samples

This section is organized into nine subsections that present each of the nine TEM data requirement checks specified in the TEM validation guidance (EPA 2016b):

- Sample Receipt
- Sample Preparation
- Microscope Alignment
- Instrument Calibration
- Analytical Sensitivity
- Structure Recording and Identification
- Blank Analysis
- Recount/Repreparation Analysis
- Overall Assessment of Data

G3.2.1 Sample Receipt

Each laboratory job provided by EMSL included a case narrative, tabulated sample results, worksheets/bench sheets, QC data reports/logs, COC records, equipment performance checks, NVLAP/AIHA certifications, customer correspondence, and shipping documentation.

Air and water samples were received intact and in good condition at the EMSL laboratory on the following dates:

- Air (TEM ISO 10312)
  - 041815406 – 5/23/2018
  - 041815994 – 5/29/2018
  - 041817463 – 6/11/2018
  - 041821873 – 7/20/2018
  - 041821898 – 7/20/2018
  - 041821905 – 7/20/2018
  - 041822094 – 7/21/2018
  - 041822107 – 7/21/2018

- Water (TEM EPA Method 100.1)
  - 041812291 – 4/26/2018
  - 041812555 – 4/28/2018

COC records were signed and dated and the information recorded on the COC records appear to be complete and in agreement. Two deficiencies were identified: page 2 of the COC for jobs 041815994 and 041821905 was not provided in the data packages. No data qualifiers were assigned to any sample as a consequence of this deficiency.

G3.2.2 Sample Preparation

TEM ISO 10312

No deficiencies were identified regarding the quality of the sample filters based on the information available on the laboratory benchsheet and COC records.

In each data package, a laboratory blank analysis was provided. In data packages that included samples requiring indirect preparation (041821898, 041821905, 041822094, and 041822107), an ashing blank and a filtration blank analysis was also provided. No asbestos structures were identified in any blank analysis.

The NADES EDD does not include a data field for particulate loading; therefore, this information is only captured in the Case Narrative. EMSL indicated in each narrative that the filter overloading criterion was greater than or equal to 25% and specified the samples that exceeded this criterion. Communication records indicating that the laboratory contacted an appropriate CDM Smith representative prior to applying the indirect-transfer preparation procedure were provided in each data package except 041822094. No data qualifiers were assigned to any sample as a consequence of this deficiency.

TEM EPA Method 100.1

In each data package, a laboratory blank and a filtration blank analysis was provided; no asbestos structures were identified in any blank analysis.

G3.2.3 Microscope Alignment

TEM ISO 10312

EMSL provided a *Daily TEM Calibration Sheet* for each of the microscopes utilized within each data package, except for job 041821898. This job did not include a calibration sheet for microscope 04-03, which was utilized on 8/3/2018. Review of the other data packages provided for this validation effort shows this microscope was also utilized on 8/3/2018 in job 041822107. The *Daily TEM Calibration Sheet* for microscope 04-03 on 8/3/2018 was included in 041822107; therefore, this issue is not deemed to be a deficiency and no data qualifiers were added.

The checklist provided in each data package confirmed that the microscope was properly aligned on the day on which the samples was analyzed.

TEM EPA Method 100.1

EMSL provided a *Daily TEM Calibration Sheet* for each of the microscopes utilized within each data package. No deficiencies were identified.

G3.2.4 Instrument Calibration

TEM ISO 10312

EMSL provided a *Monthly Report for TEM Calibrations* for each of the microscopes utilized within each laboratory job. These reports include the following:

- Chrysotile Beam Dose Sensitivity
- Camera Constant Calibrations
- Magnification Calibrations
- Spot Size Measurements
- K Factors
- Detector Resolution
- Resolvable Mg-Si and Na Peaks
- Plasma Asher Calibration

No deficiencies were identified.

TEM EPA Method 100.1

EMSL provided a *Monthly Report for TEM Calibrations* which included the reports noted above for the TEM ISO 10312 method. No deficiencies were identified.

G3.2.5 Analytical Sensitivity

TEM ISO 10312

The target analytical sensitivity (TAS) for ambient air samples was 0.00033 per cubic centimeter (cc^{-1}) and was achieved for all analyses. The TAS for ecological ABS air samples was 8.3 cc^{-1} and was achieved for all analyses. The TAS for perimeter and personal ABS air samples was 0.013 cc^{-1}, however, 3 of 18 perimeter ABS air analyses and 5 of 18 personal ABS air analyses did not achieve this sensitivity. In these analyses, in accordance with project stopping rules, the analyst terminated the analysis after a filter area of about 1.0 mm^2 was examined (about 79 grid openings [GOs]). A supplemental analysis was performed for two personal ABS air samples (i.e., additional GOs were examined using grids prepared from the original filter). After this analysis, the two ABS air samples achieved the TAS of 0.013 cc^{-1}. Analyses that did not achieve the TAS followed the appropriate project stopping rules; thus, data qualifiers were not assigned as part of the validation process.

TEM EPA Method 100.1

None of the surface water analyses achieved the TAS (33 per liter [L^{-1}]). This was expected because it was not analytically feasible or cost effective to achieve a meaningful sensitivity relative to the surface water remedial goal. For eight of the nine analyses, the analyst terminated the analysis after a filter area of about 1.25 mm^2 was examined (about 100 grid openings). Asbestos structures were observed in 5 of 10 surface water samples. For one analysis, the analysis was terminated after 25 asbestos structures were observed. Analyses that did not achieve the TAS followed the appropriate project stopping rules; thus, data qualifiers were not assigned.

G3.2.6 Structure Recording and Identification

TEM ISO 10312

For air samples, only one non-regulated amphibole structure (ferro-actinolite) was observed. This structure was recorded and identified appropriately by EMSL. No deficiencies were identified.

TEM EPA Method 100.1

For water samples, there were two separate individuals that performed the analyses. One analyst used TEM Asbestos Hazard Emergency Response Act (AHERA) counting rules, and the other analyst used TEM ISO counting rules. In data package 041812291, the structures were reported in accordance with TEM ISO counting rules, in which complex structures were recorded and broken out into their constituents (e.g., primary structure disperse matrix type MD10 is broken down into an individual MF structure). In data package 041812555, structures were recorded in accordance with TEM AHERA counting rules, in which complex structures were recorded as one structure. This difference in counting rules has the potential to impact the total structure count, particularly if a matrix or cluster counted using TEM AHERA counting rules contains more than one structure. However, a review of all structures recorded on the *Structure Sketch Sheet for Direct Data Entry* shows that each matrix consisted of a single structure. Thus, there was no negative impact to the total structure count, and no data qualifiers were assigned to any sample.

G3.2.7 Blank Analysis

TEM ISO 10312

For air samples, a total of nine laboratory blank analyses were performed (one per laboratory job). In addition, four ashing blanks and four filtration blanks were analyzed in laboratory jobs where air samples required indirect preparation. All laboratory blank analyses were reported as non-detect. No deficiencies were identified.

TEM EPA Method 100.1

For water samples, two laboratory blank analyses and two filtration blank analyses were performed (one per laboratory job). All laboratory blank analyses were reported as non-detect. No deficiencies were identified.

G3.2.8 Recount/Repreparation Analysis

TEM ISO 10312

EMSL performed a total of three recount same (RS) and two recount different (RD) analyses. Grid openings were non-detect in the original analysis as well as the RS and RD analysis. No deficiencies were identified.

TEM EPA Method 100.1

EMSL performed one RS analysis and one repreparation (RP). Grid openings were non-detect in the original analysis as well as the RS analysis. For the RP analysis, no asbestos structures were observed in the original analysis, and three chrysotile structures were observed in the RP

analysis, two of which had a structure length greater than 10 µm. However, a Poisson ratio comparison test (Nelson 1982) shows the RP analysis was not statistically different at the 95% confidence interval (CI). No deficiencies were identified.

G3.2.9 Other

One ambient air sample (CSCMAA-107B-AH101) was rejected during validation due to uncertainty surrounding the sample volume for the high volume (HV) filter; the corresponding low volume (LV) filter (CSCMAA-107B-AL101) for this location was subsequently analyzed and the LV results replaced the HV results. One ambient air sample (CSCMAA-103-AH101) was UJ-qualified during validation because a pump fault occurred during sample collection and the stop flow rate was estimated. No other air or water samples were qualified.

G3.2.10 Overall Assessment of Data

There were several typographical errors found in the case narrative in the data packages for air. The types of errors included the number of grid openings analyzed for lab blanks, the required TAS, and the EDD version number. None of these typographical errors negatively impacted data quality; therefore, corrections were not requested from EMSL. Other than the typographical errors, the data packages were found to be complete and accurate.

Other than the two samples noted in Section G3.2.9, no other TEM analyses were qualified during the data validation.

G3.3 Field Quality Control Evaluation

As part of the validation, field quality control samples were evaluated. Detailed results can be found in Appendix H of the Remedial Action Completion Report. In brief, lot blanks, field blanks, and field duplicate samples were collected and analyzed for asbestos. No asbestos was observed in any of the lot blank or field blank samples. For soil and sediment, both the parent and duplicate sample were non-detect for asbestos. These results support the conclusion that no contamination was introduced as a consequence of field collection activities and there are no potential accuracy or bias concerns due to blank contamination.

The surface water field duplicate was statistically different from its parent sample based on a Poisson ratio comparison test (Nelson 1982) at the 95% CI. Based on consultation with the field sampler, it is thought that repeated use of the discrete sampler to collect the surface water field samples and the corresponding field duplicate may have stirred up the creek bed sediment during sample collection. Both surface water results are valid, but each result represents different environmental conditions (i.e., before and after disturbing bottom sediment).

G4 Conclusions and Recommendations

No soil, sediment, surface water, or ABS air samples were qualified during validation; one ambient air sample was R-qualified, and one ambient air sample was UJ-qualified.

Taken together, these results indicate that data collected as part of the 2018 confirmation sampling effort are of acceptable quality and are considered to be reliable and appropriate for their intended use.

Although not necessarily a project-specific recommendation, several errors or omissions were identified in the EPA NADES EDDs that should be addressed to improve data quality for future Site investigations. The following list includes recommendations for corrections or additions to the EDDs:

- In the *Bulk & Soil Analysis by PLM* EDD, the reported concentration for PLM point count should be revised such that the number of points counted is included in the calculation.
- In the *Air & Dust Analysis by TEM* EDD, a new data field for the estimated particulate loading should be added so this information be tracked. Also, the version number of the EDD should be updated to reflect the most recent version (version 15j is the latest version but still shows as version 15i).
- A TEM NADES EDD should be prepared for water sample analysis.

G5 References

U.S. Environmental Protection Agency (EPA). 2016a. *PLM Validation Process Guidelines for Asbestos Data Review*. OLEM Directive: 9200.2-179. October.

EPA. 2016b. *TEM Validation Process Guidelines for Asbestos Data Review.* OLEM Directive: 9200.2-180. October.

CDM Federal Programs Corporation. (CDM Smith). 2011a. *Site Specific Standard Operating Procedure, Field Sample Data Sheet Verification.* November 1.

CDM Smith. 2011b. *Site Specific Standard Operating Procedure, Polarized Light Microscopy (PLM) Point Counting Verification* November 2.

CDM Smith. 2018. *Final Site Management Plan*. BoRit Asbestos Superfund Site, Operable Unit 1, Ambler, Pennsylvania. April.

Nelson, W. 1982. *Applied Life Data Analysis*. John Wiley & Sons, New York. pp 438-446.

Attachments

Attachment 1 Data Summary of Field Information

Attachment 2 Data Summary of PLM Analytical Information

Attachment 3 Data Summary of TEM Analytical Information

Attachment 4 Validation Data Qualifiers and Reason Codes

Attachment 5 Summary of Validation Guidelines

Attachment 6 Validated Analyses

Attachment 1

Data Summary of Field Information

ATTACHMENT 1A
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR SOIL
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Index ID	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Sample Type	Parent ID	Collection Type	Composite Count	Sample Time	Top Depth (in.)	Bottom Depth (in.)	Field Comments	ACM Observed YN	Percent ACM Observed	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)	Date Corrected
CSPKSS-101	S-001	4/24/2018	1	10	CDM Smith	[redacted]	PK01-01	Park	Field Sample		Composite	30	10:45	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-201	S-001	4/24/2018	1	10	CDM Smith	[redacted]	PK01-01	Park	Field Duplicate	CSPKSS-101	Composite	30	10:45	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-103	S-001	4/24/2018	1	10	CDM Smith	[redacted]	PK02-01	Park	Field Sample		Composite	30	13:40	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-105	S-002	4/24/2018	1	10-11	CDM Smith	[redacted]	PK03-01	Park	Field Sample		Composite	30	14:45	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-102	S-002	4/24/2018	1	10-11	CDM Smith	[redacted]	PK01-02	Park	Field Sample		Composite	30	15:50	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-106	S-002	4/24/2018	1	10-11	CDM Smith	[redacted]	PK03-02	Park	Field Sample		Composite	30	16:20	0	6		No	0%	CDM Smith/[redacted]	6/4/2018		x-NR	
CSPKSS-104	S-003	4/24/2018	1	11	CDM Smith	[redacted]	PK02-02	Park	Field Sample		Composite	30	17:15	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-108	S-004	4/25/2018	1	13	CDM Smith	[redacted]	PK04-02	Park	Field Sample		Composite	30	13:05	0	6	Composite From Sub Area. 1-inch triangular blue tile encountered at approx. 5 in. bgs from 1 grab location.	No	0%	CDM Smith/[redacted]	6/4/2018	The Field Comment recorded on the FSDS is missing from the database.		6/5/2018
CSPKSS-107	S-004	4/25/2018	1	13	CDM Smith	[redacted]	PK04-01	Park	Field Sample		Composite	30	15:55	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-109	S-005	4/26/2018	1	14	CDM Smith	[redacted]	PK05-01	Park	Field Sample		Composite	30	8:30	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-110	S-005	4/26/2018	1	14	CDM Smith	[redacted]	PK05-02	Park	Field Sample		Composite	30	9:25	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKSS-210	S-005	4/26/2018	1	14	CDM Smith	[redacted]	PK05-02	Park	Field Duplicate	CSPKSS-110	Composite	30	9:25	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-103	S-008	4/26/2018	1	18	CDM Smith	[redacted]	RV02-01	Reservoir	Field Sample		Composite	30	13:55	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-106	S-006	4/26/2018	1	15-17	CDM Smith	[redacted]	RV03-02	Reservoir	Field Sample		Composite	30	11:10	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-104	S-006	4/26/2018	1	15-17	CDM Smith	[redacted]	RV02-02	Reservoir	Field Sample		Composite	30	12:05	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-105	S-006	4/26/2018	1	15-17	CDM Smith	[redacted]	RV03-01	Reservoir	Field Sample		Composite	30	11:40	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-101	S-007	4/26/2018	1	18	CDM [redacted]	[redacted]	RV01-01	Reservoir	Field Sample		Composite	30	14:25	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-102	S-007	4/26/2018	1	18	CDM Smith	[redacted]	RV01-02	Reservoir	Field Sample		Composite	30	14:45	0	6		No	0%	CDM Smith/[redacted]	6/4/2018		x-NR	
CSRVSS-110	S-007	4/26/2018	1	18	CDM Smith	[redacted]	RV05-02	Reservoir	Field Sample		Composite	30	15:36	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-109	S-008	4/26/2018	1	18	CDM Smith	[redacted]	RV05-01	Reservoir	Field Sample		Composite	30	16:11	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-108	S-009	4/27/2018	1	20	CDM Smith	[redacted]	RV04-02	Reservoir	Field Sample		Composite	30	8:47	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSRVSS-107	S-009	4/27/2018	1	20	CDM Smith	[redacted]	RV04-01	Reservoir	Field Sample		Composite	30	9:08	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-110	S-009	4/27/2018	1	20	CDM Smith	[redacted]	AP05-01	Asbestos Pile	Field Sample		Composite	30	9:45	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-108	S-010	4/27/2018	1	21	CDM Smith	[redacted]	AP04-01	Asbestos Pile	Field Sample		Composite	30	10:10	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-107	S-010	4/27/2018	1	21	CDM Smith	[redacted]	AP03-02	Asbestos Pile	Field Sample		Composite	30	10:35	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-106	S-010	4/27/2018	1	21	CDM Smith	[redacted]	AP03-01	Asbestos Pile	Field Sample		Composite	30	10:57	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-102	S-011	4/27/2018	1	21	CDM Smith	[redacted]	AP01-02	Asbestos Pile	Field Sample		Composite	30	11:23	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-101	S-012	4/27/2018	1	22	CDM Smith	[redacted]	AP01-01	Asbestos Pile	Field Sample		Composite	30	12:30	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-104	S-012	4/27/2018	1	22	CDM Smith	[redacted]	AP02-01	Asbestos Pile	Field Sample		Composite	30	12:50	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-105	S-012	4/27/2018	1	22	CDM Smith	[redacted]	AP02-02	Asbestos Pile	Field Sample		Composite	30	13:41	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-109	S-013	4/27/2018	1	23	CDM Smith	[redacted]	AP04-02	Asbestos Pile	Field Sample		Composite	30	14:12	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSAPSS-111	S-013	4/27/2018	1	23	CDM Smith	[redacted]	AP05-02	Asbestos Pile	Field Sample		Composite	30	14:35	0	6		No	0%	CDM Smith/[redacted]	6/4/2018			
CSPKABSS-101	ABSS-001	7/18/2018	1	99	CDM Smith	[redacted]	PKABS-101	Park	Field Sample		Composite	30	10:08	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSPKABSS-102	ABSS-001	7/18/2018	1	99	CDM Smith	[redacted]	PKABS-102	Park	Field Sample		Composite	30	9:55	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSPKABSS-103	ABSS-001	7/18/2018	1	99	CDM Smith	[redacted]	PKABS-103	Park	Field Sample		Composite	30	10:58	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSPKABSS-104	ABSS-002	7/18/2018	1	100	CDM Smith	[redacted]	PKABS-104	Park	Field Sample		Composite	30	12:22	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018		x-NR	
CSPKABSS-105	ABSS-002	7/18/2018	1	100	CDM Smith	[redacted]	PKABS-105	Park	Field Sample		Composite	30	11:11	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSPKABSS-106	ABSS-002	7/18/2018	1	100	CDM Smith	[redacted]	PKABS-106	Park	Field Sample		Composite	30	12:37	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSAPABSS-101	ABSS-003	7/18/2018	1	100-101	CDM Smith	[redacted]	APABS-101	Asbestos Pile	Field Sample		Composite	30	15:40	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSAPABSS-102	ABSS-003	7/18/2018	1	100-101	CDM Smith	[redacted]	APABS-102	Asbestos Pile	Field Sample		Composite	30	15:07	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			
CSAPABSS-103	ABSS-003	7/18/2018	1	100-101	CDM Smith	[redacted]	APABS-103	Asbestos Pile	Field Sample		Composite	30	15:16	0	3	10x10 ft grid around center point	No	0%	CDM Smith/[redacted]	8/14/2018			

Notes:
% = percent
DVC = Data Verification Coordinator
FSDS = field sample data sheet
ft = feet
ID = identification
in. = inch

ATTACHMENT 1B
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Location Description 2	Sample Type	Parent ID	Collection Type	Composite Count	Sample Time	Top Depth (in.)	Bottom Depth (in.)	Field Comments	ACM Observed YN	Percent ACM Observed	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)
CSRVSD-101	W-000004	4/26/2018	001	117	CDM Smith	[redacted]	RV-101	Reservoir	Northern Quadrant of Reservoir	Field Sample		Composite	4	14:00	0	6	Composite from center of northern quadrant. Medium to dark brown sandy silt. 4 dredge grabs used to collect sample volume. VOCs collected from 1st dredge only. Sample not dry enough to collect w/encore sampler. 40 mL vial used for VOC samples.	No	0%	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-201	W-000004	4/26/2018	001	117	CDM Smith	[redacted]	RV-101	Reservoir	Northern Quadrant of Reservoir	Field Duplicate	CSRVSD-101	Composite	4	14:00	0	6	Composite from center of northern quadrant.	No	0%	CDM Smith/[redacted]	6/15/2018		
CSRVSD-102	W-000003	4/26/2018	001	015-016	CDM Smith	[redacted]y	RV-102	Reservoir	Eastern Quadrant of Reservoir	Field Sample		Composite	3	12:50	0	6	MS/MSD Sample, Composite from center of eastern quadrant. Mostly black sandy silt w/some medium to dark brown sandy silt. 3 dredge grabs used to collect sample volume. VOCs collected from 1st dredge only. Difficult to collect with encores.	No	0%	CDM Smith/[redacted]	6/15/2018		
CSRVSD-103	W-000003	4/26/2018	001	015-016	CDM Smith	[redacted]	RV-103	Reservoir	Western Quadrant of Reservoir	Field Sample		Composite	3	10:45	0	6	Composite from center of western quadrant. Sample is very dark, almost black brown. Sediment was silty with gravel. 3 dredge grabs were used to collect sample volume. VOCs collected from first dredge	No	0%	CDM Smith/[redacted]	6/15/2018		
CSRVSD-104	W-000003	4/26/2018	001	015-016	CDM Smith	[redacted]	RV-104	Reservoir	Southern Quadrant of Reservoir	Field Sample		Composite	3	11:35	0	6	Composite from center of southern quadrant. Mostly black silt w/some medium to dark brown silt & fine gravel. 3 dredge grabs to collect sample volume. VOCs from 1st dredge only. Black plastic mesh pulled up w/2nd dredge.	No	0%	CDM Smith/[redacted]	6/15/2018		

Notes:
% = percent
ACM = asbestos containing material
DVC = Data Verification Coordinator
FSDS = field sample data sheet
ft = feet
ID = identification
in. = inch

ATTACHMENT 1C
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Location Desc. 2	Sample Type	Parent ID	CollectionType	Sample Time	Field Comments	Water Depth (ft)	pH	Turbidity (NTU)	Oxidation Reduction Potential (mv)	Temperature (°C)	Dissolved Oxygen (mg/L)	Conductivity (mS/cm)	Verifier's Company	Verifier's Name	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)	Correction Date
CSRVSW-103	W-000001	4/25/2018	1	12	CDM Smith	[redacted]	RVSW-103	Reservoir	Western quadrant of Reservoir	Field Sample		Grab	12:33		5.8	8.90	16.50	61.70	14.57	12.29	0.45	CDM	[redacted]	CDM Smith/T. Mille	6/15/2018		x-NR	
CSRVSW-104	W-000001	4/25/2018	1	12	CDM	[redacted]	RVSW-104	Reservoir	Southern quadrant of Reservoir	Field Sample		Grab	13:05		6	7.68	19.00	-37.70	9.58	1.41	0.50	CDM	[redacted]	CDM Smith/T. Mille	6/15/2018			
CSRVSW-102	W-000001	4/25/2018	1	12	CDM Smith	[redacted]	RVSW-102	Reservoir	Eastern quadrant of Reservoir	Field Sample		Grab	13:33		2.5	9.26	21.20	0.71	14.62	13.99	0.45	CDM	[redacted]	CDM Smith/T. Mille	6/15/2018			
CSRVSW-101	W-000002	4/25/2018	1	13	CDM Smith	[redacted]	RVSW-101	Reservoir	Northern quadrant of Reservoir	Field Sample		Grab	13:56		3.01	9.41	15.60	20.30	14.58	13.32	0.45	CDM	[redacted]	CDM Smith/T. Mille	6/15/2018			
CSCKSW-104	W-000005	4/27/2018	1	21-22	CDM Smith	[redacted]	CKSW-104	Wissahickon Creek	West of Reservoir parcel	Field Sample		Grab	11:05	Collected using a "bomb" discreet water sampler approx 6 inches above bottom. DTB = 16 in.	1.33							CDM	[redacted]	CDM Smith/T. Mille	6/15/2018			
CSCKSW-204	W-000005	4/27/2018	1	21-22	CDM Smith	[redacted]	CKSW-104	Wissahickon Creek	West of Reservoir parcel	Field Duplicate	CSCKSW-104	Grab	11:05	Collected using a "bomb" discreet water sampler approx 6 inches above bottom. DTB = 16 in.	1.33							CDM	[redacted]	CDM Smith/T. Mille	6/15/2018			
CSCKSW-105	W-000005	4/27/2018	1	21-22	CDM Smith	[redacted]	CKSW-105	Wissahickon Creek	Southwest of asbestos pile parcel	Field Sample		Grab	12:45	Water collected directly in bottle at approx 2" below water surface. DTB = 7.5 in.	0.625							CDM	[redacted]	CDM Smith/T. Mille	6/15/2018			
CSCKSW-107	W-000006	4/27/2018	1	23	CDM Smith	[redacted]	CKSW-107	Wissahickon Creek	South of BoRit site, before Butler St. Bridge	Field Sample		Grab	14:25	Collected directly in bottles 0.5 in. below water surface. Sample moved toward center of creed to reach depth. DTB=6.5 in.	0.54							CDM	[redacted]	CDM Smith/T. Mille	6/15/2018	FSDS should likely be W-000006 not W-000005.		8/29/2018
CSCKSW-108	W-000006	4/27/2018	1	23	CDM Smith	[redacted]	CKSW-108	Wissahickon Creek	Just south of Butler St. Bridge	Field Sample		Grab	15:05	Collected directly in bottles approx. 6 in. above bottom of creek bottom. DTB=13.5 in.	1.13							CDM	[redacted]	CDM Smith/T. Mille	6/15/2018	FSDS should likely be W-000006 not W-000005.		8/29/2018
CSCKSW-401	W-000006	4/27/2018	1	23	CDM Smith	[redacted]	FB-01	Field QC		Field Blank		Grab	15:30									CDM	[redacted]	CDM Smith/T. Mille	9/6/2018	*No FSDS provided for this sample. 9/5/2018- Field Blank Sample was added to FSDS W-000006.*		9/6/2018

Notes:
% = percent
°C = degrees Celcius
DVC = Data Verification Coordinator
FSDS = field sample data sheet
ft = feet
ID = identification
in. = inch
mg/L = milligrams per liter
mS/cm = millisiemens per centimeter
mV = millivolts
NTU = Nephelometric Turbidity Unit

ATTACHMENT 1D
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AMBIENT AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Location Description 2	Sample Type	Air Sample Type	Parent ID	Flow Meter Type	Flow Meter ID	Pump ID	Pump Fault	Cassette Lot	Filter Diameter (mm)	Pore Size (µm)	Field Comments	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)	Correction Date
CSCMAA-101-AH101	AA-000101	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-101		End of easement, on Green Ribbon Trail. Adjacent to sewer manhole	Field Sample	High Volume	CSCMAA-101-AL101	DryCal	120566	SA5258	No	180413	25	0.8	Total volume = 4320 L	CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-AL101	AA-000101	5/25/2018	1	33-47	CDM Smith	[redacted]	[redacted]-101		End of easement, on Green Ribbon Trail. Adjacent to sewer manhole	Field Sample	Low Volume		DryCal	120566	SA5258	No	180413	25	0.8	Total Volume = 2139 L	CDM Smith/[redacted]	6/15/2018			
CSCMAA-102-AH101	AA-000102	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-102		Post Office employee parking lot, lamp post near exit to Chestnut ST	Field Sample	High Volume	CSCMAA-102-AL101	DryCal	106966	SA5259	No	180413	25	0.8	Total volume = 4300 L	CDM Smith/[redacted]	6/15/2018		x-NR	
CSCMAA-102-AL101	AA-000102	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-102		Post Office employee parking lot, lamp post near exit to Chestnut ST	Field Sample	Low Volume		DryCal	106966	SA5259	No	180413	25	0.8	Total Volume = 2228 L	CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AH101	AA-000103	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-103		Church. Grassy area in front of parking lot, adjacent to sidewalk on Spring Garden St.	Field Sample	High Volume	CSCMAA-103-AL101	DryCal	106966	SA5256 / SA5257	Yes	180413	25	0.8	Pump was not running at 15:59. Timer shows 15:54 remaining, indicating it had run for 8:06 before shutting off. Pump SA5256 replaced with SA5257 and set to 15:54. Same cassettes used. HV = 4160 L; LV = 2137 L.	CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AL101	AA-000103	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-103		Church. Grassy area in front of parking lot, adjacent to sidewalk on Spring	Field Sample	Low Volume		DryCal	106966	SA5256 / SA5257	Yes	180413	25	0.8		CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AH101	AA-000103	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-104		Community center next to parking sign	Field Sample	High Volume	CSCMAA-104-AL101	DryCal	106966	SA5255	No	180413	25	0.8	Concrete on sidewalk being repaired approx. 5 ft from sample pump. HV = 4394 L, LV = 2189 L	CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AL101	AA-000104	5/25/2018	1	33-47	CDM Smith	[redacted]	CM-104		Community center next to parking sign	Field Sample	Low Volume		DryCal	106966	SA5255	No	180413	25	0.8		CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-400	AA-000105	5/25/2018	1	43	CDM Smith	[redacted]	FB-01	Field QC		Field Blank						NA	180413	25	0.8	Collected on Park parcel	CDM Smith/[redacted]	6/15/2018			
CSCMAA-105-400	AA-000106	6/8/2018	1	78-82	CDM Smith	[redacted]	FB-01	Field QC		Field Blank										Collected on Park parcel	CDM Smith/[redacted]	6/15/2018			
CSCMAA-105-AH101	AA-000106	6/8/2018	1	78-82	CDM Smith	[redacted]	CM-105		Basketball court on Maple Ave and Mt Pleasant Ave. Adjacent to basketball court, no parking sign	Field Sample	High Volume	CSCMAA-105-AL101	DryCal	R3522	SA5259	No	180413	25	0.8	Total Volume = 3944 L	CDM Smith/[redacted]	6/15/2018	The start time is 14:47, not 16:47. This impacts the total sample volume on the chain-of-custody (COC). The COC needs to be corrected and sent to the analytical laboratory.		6/20/2018
CSCMAA-105-AL101	AA-000106	6/8/2018	1	78-82	CDM Smith	[redacted]	CM-105		Basketball court on Maple Ave and Mt Pleasant Ave. Adjacent to basketball court, no parking sign	Field Sample	Low Volume		DryCal	R3522	SA5259	No	180413	25	0.8	Total Volume = 2022 L	CDM Smith/[redacted]	6/15/2018	The start time is 14:47, not 16:47. This impacts the total sample volume on the chain-of-custody (COC). The COC needs to be corrected and sent to the analytical laboratory.		6/20/2018
CSCMAA-107B-AH10	AA-000107	6/8/2018	1	78-82	CDM Smith	[redacted]	CM-107B		Vacant lot, 5 ft from Maple Ave in-between 2 jersey barriers	Field Sample	High Volume	CSCMAA-107B-AL101		R3522	SA5255	No	180413	25	0.8	Black cap left on for first 8.5 hours. Removed at 22:46.Total Volume = 4396 L.	CDM Smith/[redacted]	6/15/2018			
CSCMAA-107B-AL101	AA-000107	6/8/2018	1	78-82	CDM Smith	[redacted]	CM-107B		Vacant lot, 5 ft from Maple Ave in-between 2 jersey barriers	Field Sample	Low Volume			R3522	SA5255	No	180413	25	0.8	Total Volume = 2177 L	CDM Smith/[redacted]	6/15/2018			

Notes:
µm = micrometer
DVC = Data Verification Coordinator
FSDS = field sample data sheet
ID = identification
mm = millimeter
QC = quality control

ATTACHMENT 1E
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR ACTIVITY-BASED SAMPLING AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Media	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Location Description 2	Sample Type	Air Sample Type	Parent ID	Air Sample Height	Air Sample Group	Flow Meter Type	Flow Meter ID	Pump ID	Pump Fault	Cassette Lot	Filter Diameter (mm)	Pore Size (µm)	Field Comments	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)	Correction Date
CSPKABS-601	Air	PE-000101LB	5/21/2018	1	NA	CDM Smith	[redacted]	LB-01	Field QC		Lot Blank									180413	25	0.8	Collected in office prior to sampling event	CDM Smith[redacted]	8/27/2018	1) The sample number recorded on the FSDS is CS-601, but should be CSPKABS-601 (CSPKABS-601 was also recorded on the COC). 2) There are two FSDSs numbered PE-000101. One contains lot blank CS-601, the other contains personal air samples.		8/29/2018
CSPKABS-602	Air	PE-000102LB	5/21/2018	1	NA	CDM Smith	[redacted]	LB-01	Field QC		Lot Blank									180417	25	0.8	Collected in office prior to sampling event	CDM Smith[redacted]	8/27/2018	1) The sample number recorded on the FSDS is CS-602, not CSPKABS-602 (CSPKABS-602 was also recorded on the COC). 2) There are two FSDSs numbered PE-000102. One contains the lot blank sample, CS-602, and the other contains a personal air sample and a field blank sample. 3) The cassette lot is 180417, not 180413, according to the FSDS. 4) The FSDS sheet number is PE-000102, not PE-000101, according to the FSDS.		9/6/2018
CSAPABSA-101-AH101	ABS Air-Personal	PE-000125	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	High Volume	CSAPABSA-101-AL101	Adult Height		DryCal	106996	33838	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-101-AL101	ABS Air-Personal	PE-000125	7/20/2018	2	NA	CDM Smith	[redacted]	[redacted]-101	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Adult Height		DryCal	106996	644230	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-101-CH101	ABS Air-Personal	PE-000125	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	High Volume	CSAPABSA-101-CL101	Child Height		DryCal	106996	R12104	Yes	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-101-CL101	ABS Air-Personal	PE-000126	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Child Height		DryCal	106996	644259	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-102-AH101	ABS Air-Personal	PE-000129	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	High Volume	CSAPABSA-102-AL101	Adult Height		DryCal	106996	33838	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-102-AL101	ABS Air-Personal	PE-000129	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Adult Height		DryCal	106996	644230	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-102-CH101	ABS Air-Personal	PE-000129	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	High Volume	CSAPABSA-102-CL101	Child Height		DryCal	106996	R12104	Yes	180413	25	0.8	Pump 8 cassette fell during transfer of actors	CDM Smith[redacted]	8/27/2018			
CSAPABSA-102-CL101	ABS Air-Personal	PE-000130	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Child Height		DryCal	106996	516287	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-103-AH101	ABS Air-Personal	PE-000133	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	High Volume	CSAPABSA-103-AL101	Adult Height		DryCal	106996	33838	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-103-AL101	ABS Air-Personal	PE-000133	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	Low Volume		Adult Height		DryCal	106996	644230	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-103-CH101	ABS Air-Personal	PE-000133	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	High Volume	CSAPABSA-103-CL101	Child Height		DryCal	106996	R12104	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSA-103-CL101	ABS Air-Personal	PE-000134	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	Low Volume		Child Height		DryCal	106996	516287	Yes	180413	25	0.8	Pump shut off 15 min prior to test termination this pump test was extended for 15 min.	CDM Smith[redacted]	8/27/2018			
CSAPABSE-101-ML101	ABS Air-Ecological	PA-000127	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile		Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	31034199	644470	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018		x-NR	
CSAPABSE-102-ML101	ABS Air-Ecological	PA-000131	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	31034199	644470	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSE-103-ML101	ABS Air-Ecological	PA-000135	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	31034199	644470	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-101-AH101	ABS Air-Perimeter	PA-000127	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile		Field Sample	High Volume	CSAPABSP-101-AL101	Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-101-AH102	ABS Air-Perimeter	PA-000128	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile		Field Sample	High Volume	CSAPABSP-102-AL102	Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-101-AL102	ABS Air-Perimeter	PA-000128	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile		Field Sample	Low Volume		Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-102-AH102	ABS Air-Perimeter	PA-000132	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	High Volume	CSAPABSP-101-AL102	Adult Height	Downwind	Rotometer	106996	EPA SA5255	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.	x-NR	8/29/2018
CSAPABSP-102-AL102	ABS Air-Perimeter	PA-000132	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Adult Height	Downwind	Rotometer	106996	EPA SA5255	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.		8/29/2018
CSAPABSP-101-AL101	ABS Air-Perimeter	PA-000127	7/20/2018	2	NA	CDM Smith	[redacted]	AP-101	Asbestos Pile		Field Sample	Low Volume		Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-102-AH101	ABS Air-Perimeter	PA-000131	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	High Volume	CSAPABSP-102-AL101	Adult Height	Upwind	Rotometer	31034199	EPA SA5259	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-102-AL101	ABS Air-Perimeter	PA-000131	7/19/2018	2	NA	CDM Smith	[redacted]	AP-102	Asbestos Pile	10x10 ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occured on 7/18	Field Sample	Low Volume		Adult Height	Upwind	Rotometer	31034199	EPA SA5259	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-103-AH101	ABS Air-Perimeter	PA-000135	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	High Volume	CSAPABSP-103-AL101	Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-103-AH102	ABS Air-Perimeter	PA-000136	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	High Volume	CSAPABSP-103-AL102	Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-103-AL101	ABS Air-Perimeter	PA-000135	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	Low Volume		Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSAPABSP-103-AL102	ABS Air-Perimeter	PA-000136	7/19/2018	2	NA	CDM Smith	[redacted]	AP-103	Asbestos Pile		Field Sample	Low Volume		Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180413	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABS-401	ABS Air	PE-000102	7/19/2018	1	105	CDM Smith	[redacted]	FB-01	Field QC		Field Blank			NA						180417	25	0.8		CDM Smith[redacted]	8/27/2018	The sample number recorded on the FSDS (CSPKABSA) does not match the sample number recorded on the COC (CSPKABS)		9/6/2018
CSPKABSA-101-AH101	ABS Air-Personal	PE-000121	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	High Volume	CSPKABSA-101-AL101	Adult Height		DryCal	106996	33838	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-101-AL101	ABS Air-Personal	PE-000121	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	Low Volume		Adult Height		DryCal	106996	644230	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-101-CH101	ABS Air-Personal	PE-000121	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	High Volume	CSPKABSA-101-CL101	Child Height		DryCal	106996	R12104	Yes	180417	25	0.8	Pump was shutting off and on. Approx between 2 min. and 30 min. Pump was canged after 36 min.	CDM Smith[redacted]	8/27/2018			
CSPKABSA-101-CL101	ABS Air-Personal	PE-000122	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	Low Volume		Child Height		DryCal	106996	644259	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-102-AH101	ABS Air-Personal	PE-000101	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	High Volume	CSPKABSA-102-AL101	Adult Height		DryCal	11030	33803	No	180417	25	0.8	Dirty filter at 1 hr mark (11:41)	CDM Smith[redacted]	8/27/2018	The field book number and field book page number recorded on the FSDS is 001 and 105, not 2 and "NA", respectively.		8/27/2018
CSPKABSA-102-AL101	ABS Air-Personal	PE-000101	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	Low Volume		Adult Height		DryCal	11030	644260	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The field book number and field book page number recorded on the FSDS is 001 and 105, not 2 and "NA", respectively.		8/27/2018
CSPKABSA-102-CH101	ABS Air-Personal	PE-000101	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	High Volume	CSPKABSA-102-CL101	Child Height		DryCal	11030	41852	No	180417	25	0.8	Dirty filter at 1 hr mark (11:41)	CDM Smith[redacted]	8/27/2018	The field book number and field book page number recorded on the FSDS is 001 and 105, not 2 and "NA", respectively.		8/27/2018
CSPKABSA-102-CL101	ABS Air-Personal	PE-000102	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	Low Volume		Child Height		DryCal	11030	518073	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018		x-NR	
CSPKABSA-103-AH101	ABS Air-Personal	PE-000105	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	High Volume	CSPKABSA-103-AL101	Adult Height		DryCal	106996	33838	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The cassette lot number was not recorded on the FSDS.		8/29/2018
CSPKABSA-103-AL101	ABS Air-Personal	PE-000105	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	Low Volume		Adult Height		DryCal	106996	644230	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The cassette lot number was not recorded on the FSDS.		8/29/2018
CSPKABSA-103-CH101	ABS Air-Personal	PE-000105	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	High Volume	CSPKABSA-103-CL101	Child Height		DryCal	106996	R12104	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The cassette lot number was not recorded on the FSDS.		8/29/2018

ATTACHMENT 1E
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR ACTIVITY-BASED SAMPLING AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Media	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Location Description 2	Sample Type	Air Sample Type	Parent ID	Air Sample Height	Air Sample Group	Flow Meter Type	Flow Meter ID	Pump ID	Pump Fault	Cassette Lot	Filter Diameter (mm)	Pore Size (µm)	Field Comments	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)	Correction Date
CSPKABSA-103-CL101	ABS Air-Personal	PE-000106	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	Low Volume		Child Height		DryCal	106996	644259	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The start flow rate for the third interval was incorrectly entered in the volume calculator spreadsheet. It should be 2.638, not 2.658. The total sample volume should be 306, not 307		NA
CSPKABSA-104-AH101	ABS Air-Personal	PE-000109	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	High Volume	CSPKABSA-104-AL101	Adult Height		DryCal	11030	33803	No	180417	25	0.8	0919 -issue with downwind pump battery. Turn off all pumps and restart sampling.	CDM Smith[redacted]	8/27/2018			
CSPKABSA-104-AL101	ABS Air-Personal	PE-000109	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	Low Volume		Adult Height		DryCal	11030	644260	No	180417	25	0.8	0919 -issue with downwind pump battery. Turn off all pumps and restart sampling.	CDM Smith[redacted]	8/27/2018			
CSPKABSA-104-CH101	ABS Air-Personal	PE-000109	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	High Volume	CSPKABSA-104-CL101	Child Height		DryCal	11030	41852	No	180417	25	0.8	0919 -issue with downwind pump battery. Turn off all pumps and restart sampling.	CDM Smith[redacted]	8/27/2018			
CSPKABSA-104-CL101	ABS Air-Personal	PE-000110	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	Low Volume		Child Height		DryCal	11030	518073	No	180417	25	0.8	0919 -issue with downwind pump battery. Turn off all pumps and restart sampling.	CDM Smith[redacted]	8/27/2018			
CSPKABSA-105-AH101	ABS Air-Personal	PE-000113	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	High Volume	CSPKABSA-105-AL101	Adult Height		DryCal	11030	33803	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-105-AL101	ABS Air-Personal	PE-000113	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	Low Volume		Adult Height		DryCal	11030	644260	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-105-CH101	ABS Air-Personal	PE-000113	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	High Volume	CSPKABSA-105-CL101	Child Height		DryCal	11030	41852	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-105-CL101	ABS Air-Personal	PE-000114	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	Low Volume		Child Height		DryCal	11030	518073	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.	x-NR	8/29/2018
CSPKABSA-106-AH101	ABS Air-Personal	PE-000117	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	High Volume	CSPKABSA-106-AL101	Adult Height		DryCal	11030	33803	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-106-AL101	ABS Air-Personal	PE-000117	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	Low Volume		Adult Height		DryCal	11030	644260	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-106-CH101	ABS Air-Personal	PE-000117	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	High Volume	CSPKABSA-106-CL101	Child Height		DryCal	11030	41852	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-106-CL101	ABS Air-Personal	PE-000118	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	Low Volume		Child Height		DryCal	11030	518073	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSA-402	ABS Air	PE-000110	7/20/2018	1	110-113	CDM Smith	[redacted]	FB-01	Field QC		Field Blank			NA						180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSE-101-ML101	ABS Air-Ecological	PA-000123	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	31034199	644470	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSE-102-ML101	ABS Air-Ecological	PA-000103	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	R359	644170	No	180417	25	0.8	Dusty Filter at 1 hr. Mark(1141)	CDM Smith[redacted]	8/27/2018			
CSPKABSE-103-ML101	ABS Air-Ecological	PA-000107	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	31034199	644470	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The cassette lot number was not recorded on the FSDS.		8/29/2018
CSPKABSE-104-ML101	ABS Air-Ecological	PA-000111	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	R359	644170	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The stop flow rate for the second interval was incorrectly entered in the volume calculator spreadsheet. It should be 2.3, not 2.13. The total sample volume should be 269, not 266.		NA
CSPKABSE-105-ML101	ABS Air-Ecological	PA-000115	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	R359	644170	No	180417	25	0.8	Very dark filter at 16:49	CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.		8/29/2018
CSPKABSE-106-ML101	ABS Air-Ecological	PA-000119	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	Low Volume		Mammal Heigh	Upwind	Rotometer	R359	644170	No	180417	25	0.8	Dust on filter. Very overloaded	CDM Smith[redacted]	8/27/2018			
CSPKABSP-101-AH101	ABS Air-Perimeter	PA-000123	7/20/2018	2	NA	CDM Smith	L[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	High Volume	CSPKABSP-101-AL101	Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-101-AH102	ABS Air-Perimeter	PA-000124	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	High Volume	CSPKABSP-101-AL102	Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-101-AL101	ABS Air-Perimeter	PA-000123	7/20/2018	2	NA	CDM Smith	L[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	Low Volume		Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The start flow rate for the second interval was incorrectly entered in the volume calculator spreadsheet. It should be 2.143, not 2.43. The total sample volume should be 242, not 247.		NA
CSPKABSP-101-AL102	ABS Air-Perimeter	PA-000124	7/20/2018	2	NA	CDM Smith	[redacted]	PK-101	Park	10x10 ft square - fully vegetated	Field Sample	Low Volume		Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-102-AH101	ABS Air-Perimeter	PA-000103	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	High Volume	CSPKABSP-102-AL101	Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-102-AH102	ABS Air-Perimeter	PA-000104	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	High Volume	CSPKABSP-102-AL102	Adult Height	Downwind	Rotometer	R359	EPA SA5257	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-102-AL101	ABS Air-Perimeter	PA-000103	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	Low Volume		Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-102-AL102	ABS Air-Perimeter	PA-000104	7/19/2018	1	105	CDM Smith	[redacted]	PK-102	Park		Field Sample	Low Volume		Adult Height	Downwind	Rotometer	R359	EPA SA5257	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-103-AH101	ABS Air-Perimeter	PA-000107	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	High Volume	CSPKABSP-103-AL101	Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The cassette lot number was not recorded on the FSDS.		8/29/2018
CSPKABSP-103-AH102	ABS Air-Perimeter	PA-000108	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	High Volume	CSPKABSP-103-AL102	Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-103-AL101	ABS Air-Perimeter	PA-000107	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	Low Volume		Adult Height	Upwind	Rotometer	31034199	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	The cassette lot number was not recorded on the FSDS.		8/29/2018
CSPKABSP-103-AL102	ABS Air-Perimeter	PA-000108	7/20/2018	2	NA	CDM Smith	[redacted]	PK-103	Park	10x10 ft square - complete vegetative cover	Field Sample	Low Volume		Adult Height	Downwind	Rotometer	31034199	EPA SA5255	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-104-AH101	ABS Air-Perimeter	PA-000111	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	High Volume	CSPKABSP-104-AL101	Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	"Rotameter" and "DryCal" are both circled on the FSDS for the flow meter type. Please specify the flow meter type that was used and correct the FSDS accordingly.		8/29/2018
CSPKABSP-104-AH102	ABS Air-Perimeter	PA-000112	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	High Volume	CSPKABSP-104-AL102	Adult Height	Downwind	Rotometer/DryCal	R359/11030	EPA SA5257	No	180417	25	0.8	Battery not working - changed at 09:40	CDM Smith[redacted]	8/27/2018	"Rotameter" and "DryCal" are both circled on the FSDS for the flow meter type. Please specify the flow meter type that was used and correct the FSDS accordingly.		8/29/2018
CSPKABSP-104-AL101	ABS Air-Perimeter	PA-000111	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	Low Volume		Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	"Rotameter" and "DryCal" are both circled on the FSDS for the flow meter type. Please specify the flow meter type that was used and correct the FSDS accordingly.		8/29/2018
CSPKABSP-104-AL102	ABS Air-Perimeter	PA-000112	7/20/2018	1	110-113	CDM Smith	[redacted]	PK-104	Park	On berm along maple ave on park parcel next to gate. Vegetated with short grass and some shrubs. Shrubs and Grass cut down to approx 3 in. before sampling. Light dust during raking	Field Sample	Low Volume		Adult Height	Downwind	Rotometer/DryCal	R359/11030	EPA SA5257	No	180417	25	0.8	Battery not working - changed at 09:40	CDM Smith[redacted]	8/27/2018	"Rotameter" and "DryCal" are both circled on the FSDS for the flow meter type. Please specify the flow meter type that was used and correct the FSDS accordingly.		8/29/2018
CSPKABSP-105-AH101	ABS Air-Perimeter	PA-000115	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	High Volume	CSPKABSP-105-AL101	Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.		8/29/2018
CSPKABSP-105-AH102	ABS Air-Perimeter	PA-000116	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	High Volume	CSPKABSP-105-AL102	Adult Height	Downwind	Rotometer	R359	EPA SA5259	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.		8/29/2018
CSPKABSP-105-AL101	ABS Air-Perimeter	PA-000115	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	Low Volume		Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.		8/29/2018
CSPKABSP-105-AL102	ABS Air-Perimeter	PA-000116	7/19/2018	1	103-109	CDM Smith	[redacted]	PK-105	Park		Field Sample	Low Volume		Adult Height	Downwind	Rotometer	R359	EPA SA5259	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018	Sampler names were not recorded on the FSDS.		8/29/2018
CSPKABSP-106-AH101	ABS Air-Perimeter	PA-000119	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	High Volume	CSPKABSP-106-AL101	Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8	Dust on filter	CDM Smith[redacted]	8/27/2018			
CSPKABSP-106-AH102	ABS Air-Perimeter	PA-000120	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	High Volume	CSPKABSP-106-AL102	Adult Height	Downwind	Rotometer	R359	EPA SA5257	No	180417	25	0.8	Moderate dust on filter	CDM Smith[redacted]	8/27/2018			

ATTACHMENT 1E
DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR ACTIVITY-BASED SAMPLING AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Media	FSDS Number	Sampling Date	Field Logbook	Logbook Page	Sampling Team	Sampler	Location ID	Locaction Description	Location Description 2	Sample Type	Air Sample Type	Parent ID	Air Sample Height	Air Sample Group	Flow Meter Type	Flow Meter ID	Pump ID	Pump Fault	Cassette Lot	Filter Diameter (mm)	Pore Size (µm)	Field Comments	Verifier's Company/Name	Verification Date	Verification Comments	DVC Check (5%)	Correction Date
CSPKABSP-106-AL101	ABS Air-Perimeter	PA-000119	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	Low Volume		Adult Height	Upwind	Rotometer	R359	EPA SA5258	No	180417	25	0.8		CDM Smith[redacted]	8/27/2018			
CSPKABSP-106-AL102	ABS Air-Perimeter	PA-000120	7/20/2018	1	114	CDM Smith	[redacted]	PK-106	Park	Dry, very rocky soil with very little vegetation	Field Sample	Low Volume		Adult Height	Downwind	Rotometer	R359	EPA SA5257	No	180417	25	0.8	Light dust on filter	CDM Smith[redacted]	8/27/2018			

Notes:
µm = micrometer
ABS = activity-based sampling
DVC = Data Verification Coordinator
FSDS = field sample data sheet
ID = identification
mm = millimeter
QC = quality control

ATTACHMENT 1F

DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSCMAA-101-AH101	5/24/2018	6:38	3.069	5/24/2018	15:12	3.123	514	1,591	1,444	4,320	CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-AH101	5/24/2018	15:13	3.057	5/24/2018	23:40	2.764	507	1,476			CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-AH101	5/24/2018	23:41	3.023	5/25/2018	6:44	2.899	423	1,253			CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-AL101	5/24/2018	6:38	1.495	5/24/2018	15:12	1.601	514	796	1,444	2,139	CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-AL101	5/24/2018	15:13	1.536	5/24/2018	23:40	1.303	507	720			CDM Smith/[redacted]	6/15/2018			
CSCMAA-101-AL101	5/24/2018	23:41	1.521	5/25/2018	6:44	1.427	423	624			CDM Smith/[redacted]	6/15/2018			
CSCMAA-102-AH101	5/24/2018	9:00	2.998	5/24/2018	16:51	3.274	471	1,477	1,444	4,300	CDM Smith/[redacted]	6/15/2018		x-NR	
CSCMAA-102-AH101	5/24/2018	16:52	2.990	5/25/2018	0:45	2.518	473	1,303			CDM Smith/[redacted]	6/15/2018		x-NR	
CSCMAA-102-AH101	5/25/2018	0:46	2.997	5/25/2018	9:06	3.084	500	1,520			CDM Smith/[redacted]	6/15/2018		x-NR	
CSCMAA-102-AL101	5/24/2018	9:00	1.535	5/24/2018	16:51	1.973	471	826	1,444	2,230	CDM Smith/[redacted]	6/15/2018			
CSCMAA-102-AL101	5/24/2018	16:52	1.506	5/25/2018	0:45	1.177	473	635			CDM Smith/[redacted]	6/15/2018			
CSCMAA-102-AL101	5/25/2018	0:46	1.512	5/25/2018	9:06	1.566	500	769			CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AH101	5/24/2018	8:05	2.993	5/24/2018	15:59	3.103	474	1,445	1,429	4,159	CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AH101	5/24/2018	16:17	2.960	5/25/2018	0:20	2.187	483	1,243			CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AH101	5/25/2018	0:22	3.042	5/25/2018	8:14	3.190	472	1,471			CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AL101	5/24/2018	8:05	1.511	5/24/2018	15:59	1.704	474	762	1,429	2,137	CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AL101	5/24/2018	16:17	1.522	5/25/2018	0:20	1.174	483	651			CDM Smith/[redacted]	6/15/2018			
CSCMAA-103-AL101	5/25/2018	0:22	1.522	5/25/2018	8:14	1.546	472	724			CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AH101	5/24/2018	8:40	3.044	5/24/2018	16:36	3.047	476	1,450	1,437	4,390	CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AH101	5/24/2018	16:37	3.043	5/25/2018	0:31	2.792	474	1,383			CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AH101	5/25/2018	0:32	3.061	5/25/2018	8:39	3.337	487	1,558			CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AL101	5/24/2018	8:40	1.509	5/24/2018	16:36	1.548	476	728	1,437	2,191	CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AL101	5/24/2018	16:37	1.534	5/25/2018	0:31	1.387	474	692			CDM Smith/[redacted]	6/15/2018			
CSCMAA-104-AL101	5/25/2018	0:32	1.508	5/25/2018	8:39	1.661	487	772			CDM Smith/[redacted]	6/15/2018			
CSCMAA-105-AH101	6/7/2018	14:47	2.994	6/7/2018	23:06	2.588	499	1,393	1,439	4,282	CDM Smith/[redacted]	6/15/2018	The start time is 14:47, not 16:47. This impacts the total sample volume on the chain-of-custody (COC). The COC needs to be corrected and sent to the analytical laboratory.		6/20/2018
CSCMAA-105-AH101	6/7/2018	23:10	3.044	6/8/2018	7:58	2.980	528	1,590			CDM Smith/[redacted]	6/15/2018			
CSCMAA-105-AH101	6/8/2018	8:03	3.069	6/8/2018	14:55	3.235	412	1,299			CDM Smith/[redacted]	6/15/2018			
CSCMAA-105-AL101	6/7/2018	14:47	1.500	6/7/2018	23:06	1.244	499	685	1,439	2,185	CDM Smith/[redacted]	6/15/2018	The start time is 14:47, not 16:47. This impacts the total sample volume on the chain-of-custody (COC). The COC needs to be corrected and sent to the analytical laboratory.		6/20/2018
CSCMAA-105-AL101	6/7/2018	23:10	1.541	6/8/2018	7:58	1.491	528	800			CDM Smith/[redacted]	6/15/2018			
CSCMAA-105-AL101	6/8/2018	8:03	1.508	6/8/2018	14:55	1.889	412	700			CDM Smith/[redacted]	6/15/2018			

ATTACHMENT 1F

DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSCMAA-107B-AH101	6/7/2018	14:20	3.055	6/7/2018	22:44	2.777	504	1,470	1,437	4,394	CDM Smith/[redacted]	6/15/2018	Black cap was on for first 8 hours. Reject the high volume and analyze the low volume.		
CSCMAA-107B-AH101	6/7/2018	22:46	3.056	6/8/2018	7:40	2.911	534	1,593			CDM Smith/[redacted]	6/15/2018			
CSCMAA-107B-AH101	6/8/2018	7:41	3.096	6/8/2018	14:20	3.578	399	1,331			CDM Smith/[redacted]	6/15/2018			
CSCMAA-107B-AL101	6/7/2018	14:20	1.542	6/7/2018	22:44	1.340	504	726	1,437	2,175	CDM Smith/[redacted]	6/15/2018			
CSCMAA-107B-AL101	6/7/2018	22:46	1.502	6/8/2018	7:40	1.428	534	782			CDM Smith/[redacted]	6/15/2018			
CSCMAA-107B-AL101	6/8/2018	7:41	1.515	6/8/2018	14:20	1.824	399	666			CDM Smith/[redacted]	6/15/2018			
CSPKABSA-101-AH101	7/20/2018	16:28	4.327	7/20/2018	16:58	4.315	30	130	120	521	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-AH101	7/20/2018	16:58	4.315	7/20/2018	17:28	4.335	30	130			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-AH101	7/20/2018	17:28	4.335	7/20/2018	17:58	4.354	30	130			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-AH101	7/20/2018	17:58	4.354	7/20/2018	18:28	4.409	30	131			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-AL101	7/20/2018	16:28	2.476	7/20/2018	16:58	2.564	30	76	120	301	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-AL101	7/20/2018	16:58	2.564	7/20/2018	17:28	2.460	30	75			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-AL101	7/20/2018	17:28	2.460	7/20/2018	17:58	2.520	30	75			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-AL101	7/20/2018	17:58	2.520	7/20/2018	18:28	2.484	30	75			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-CH101	7/20/2018	16:28	4.251	7/20/2018	16:58	4.589	30	133	120	530	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-CH101	7/20/2018	16:58	4.589	7/20/2018	17:28	4.389	30	135			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-CH101	7/20/2018	17:28	4.389	7/20/2018	17:58	4.385	30	132			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-CH101	7/20/2018	17:58	4.385	7/20/2018	18:28	4.377	30	131			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-101-CL101	7/20/2018	16:28	2.529	7/20/2018	16:58	2.534	30	76	120	302	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-CL101	7/20/2018	16:58	2.534	7/20/2018	17:28	2.517	30	76			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-CL101	7/20/2018	17:28	2.517	7/20/2018	17:58	2.481	30	75			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-101-CL101	7/20/2018	17:58	2.481	7/20/2018	18:28	2.508	30	75			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-101-ML101	7/20/2018	16:28	2.143	7/20/2018	16:58	2.143	30	64	120	243	CDM Smith/[redacted]	8/10/2018			
CSPKABSE-101-ML101	7/20/2018	16:58	2.143	7/20/2018	17:28	2.026	30	63			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-101-ML101	7/20/2018	17:28	2.026	7/20/2018	17:58	1.908	30	59			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-101-ML101	7/20/2018	17:58	1.908	7/20/2018	18:28	1.908	30	57			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AH101	7/20/2018	16:28	3.991	7/20/2018	16:58	3.991	30	120	120	479	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AH101	7/20/2018	16:58	3.991	7/20/2018	17:28	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AH101	7/20/2018	17:28	3.991	7/20/2018	17:58	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AH101	7/20/2018	17:58	3.991	7/20/2018	18:28	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AL101	7/20/2018	16:28	2.143	7/20/2018	16:58	2.143	30	64	120	243	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AL101	7/20/2018	16:58	2.143	7/20/2018	17:28	2.026	30	63			CDM Smith/[redacted]	8/10/2018	Flow start = 2.143, not 2.43		NA
CSPKABSP-101-AL101	7/20/2018	17:28	2.026	7/20/2018	17:58	1.908	30	59			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AL101	7/20/2018	17:58	1.908	7/20/2018	18:28	1.908	30	57			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AH102	7/20/2018	16:28	3.991	7/20/2018	16:58	3.991	30	120	120	480	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AH102	7/20/2018	16:58	3.991	7/20/2018	17:28	3.877	30	118			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AH102	7/20/2018	17:28	3.877	7/20/2018	17:58	3.991	30	118			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AH102	7/20/2018	17:58	3.991	7/20/2018	18:28	4.324	30	125			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-101-AL102	7/20/2018	16:28	2.143	7/20/2018	16:58	2.026	30	63	120	250	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AL102	7/20/2018	16:58	2.026	7/20/2018	17:28	1.908	30	59			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AL102	7/20/2018	17:28	1.908	7/20/2018	17:58	2.143	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-101-AL102	7/20/2018	17:58	2.143	7/20/2018	18:28	2.397	30	68			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-102-AH101	7/19/2018	10:41	4.898	7/19/2018	11:11	4.681	30	144	120	551	CDM Smith/[redacted]	8/10/2018			

ATTACHMENT 1F

DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSPKABSA-102-AH101	7/19/2018	11:11	4.681	7/19/2018	11:41	4.509	30	138			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-AH101	7/19/2018	11:41	4.509	7/19/2018	12:11	4.521	30	135			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-AH101	7/19/2018	12:11	4.521	7/19/2018	12:41	4.446	30	135			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-AL101	7/19/2018	10:41	2.486	7/19/2018	11:11	2.481	30	75	120	300	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-102-AL101	7/19/2018	11:11	2.481	7/19/2018	11:41	2.393	30	73			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-102-AL101	7/19/2018	11:41	2.490	7/19/2018	12:11	2.505	30	75			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-102-AL101	7/19/2018	12:11	2.505	7/19/2018	12:41	2.691	30	78			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-102-CH101	7/19/2018	10:41	4.921	7/19/2018	11:11	4.614	30	143	120	544	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-CH101	7/19/2018	11:11	4.614	7/19/2018	11:41	4.490	30	137			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-CH101	7/19/2018	11:41	4.490	7/19/2018	12:11	4.393	30	133			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-CH101	7/19/2018	12:11	4.393	7/19/2018	12:41	4.356	30	131			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-102-CL101	7/19/2018	10:41	2.532	7/19/2018	11:11	2.553	30	76	120	303	CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSA-102-CL101	7/19/2018	11:11	2.553	7/19/2018	11:41	2.493	30	76			CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSA-102-CL101	7/19/2018	11:41	2.493	7/19/2018	12:11	2.527	30	75			CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSA-102-CL101	7/19/2018	12:11	2.527	7/19/2018	12:41	2.500	30	75			CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSE-102-ML101	7/19/2018	10:41	2.017	7/19/2018	11:11	2.017	30	61	120	245	CDM Smith/[redacted]	8/10/2018			
CSPKABSE-102-ML101	7/19/2018	11:11	2.017	7/19/2018	11:41	2.200	30	63			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-102-ML101	7/19/2018	11:41	2.017	7/19/2018	12:11	2.017	30	61			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-102-ML101	7/19/2018	12:11	2.017	7/19/2018	12:41	2.017	30	61			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH101	7/19/2018	10:41	4.037	7/19/2018	11:11	3.900	30	119	120	480	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH101	7/19/2018	11:11	4.037	7/19/2018	11:41	3.900	30	119			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH101	7/19/2018	11:41	4.037	7/19/2018	12:11	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH101	7/19/2018	12:11	4.037	7/19/2018	12:41	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AL101	7/19/2018	10:41	2.017	7/19/2018	11:11	2.017	30	61	120	240	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AL101	7/19/2018	11:11	2.017	7/19/2018	11:41	1.818	30	58			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AL101	7/19/2018	11:41	2.017	7/19/2018	12:11	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AL101	7/19/2018	12:11	2.017	7/19/2018	12:41	2.100	30	62			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AH102	7/19/2018	10:41	4.037	7/19/2018	11:11	3.892	30	119	120	482	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH102	7/19/2018	11:11	4.037	7/19/2018	11:41	3.900	30	119			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH102	7/19/2018	11:41	4.037	7/19/2018	12:11	4.116	30	122			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AH102	7/19/2018	12:11	4.048	7/19/2018	12:41	4.043	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-102-AL102	7/19/2018	10:41	2.017	7/19/2018	11:11	2.017	30	61	120	240	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AL102	7/19/2018	11:11	2.017	7/19/2018	11:41	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AL102	7/19/2018	11:41	2.017	7/19/2018	12:11	1.869	30	58			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-102-AL102	7/19/2018	12:11	2.011	7/19/2018	12:41	2.038	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-AH101	7/20/2018	13:07	4.315	7/20/2018	13:37	4.185	30	127	120	503	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-AH101	7/20/2018	13:37	4.185	7/20/2018	14:07	4.185	30	126			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-AH101	7/20/2018	14:07	4.185	7/20/2018	14:37	4.167	30	125			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-AH101	7/20/2018	14:37	4.167	7/20/2018	15:07	4.160	30	125			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-AL101	7/20/2018	13:07	2.601	7/20/2018	13:37	2.584	30	78	120	313	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-103-AL101	7/20/2018	13:37	2.584	7/20/2018	14:07	2.651	30	79			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-103-AL101	7/20/2018	14:07	2.651	7/20/2018	14:37	2.580	30	78			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-103-AL101	7/20/2018	14:37	2.580	7/20/2018	15:07	2.634	30	78			CDM Smith/[redacted]	8/10/2018			

ATTACHMENT 1F

DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSPKABSA-103-CH101	7/20/2018	13:07	4.446	7/20/2018	13:37	4.109	30	128	120	516	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-CH101	7/20/2018	13:37	4.109	7/20/2018	14:07	4.650	30	131			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-CH101	7/20/2018	14:07	4.650	7/20/2018	14:37	4.203	30	133			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-CH101	7/20/2018	14:37	4.203	7/20/2018	15:07	4.025	30	123			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-103-CL101	7/20/2018	13:07	2.504	7/20/2018	13:37	2.506	30	75	120	307	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-103-CL101	7/20/2018	13:37	2.506	7/20/2018	14:07	2.638	30	77			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-103-CL101	7/20/2018	14:07	2.638	7/20/2018	14:37	2.516	30	77			CDM Smith/[redacted]	8/10/2018	Start flow = 2.638, not 2.658		NA
CSPKABSA-103-CL101	7/20/2018	14:37	2.516	7/20/2018	15:07	2.635	30	77			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-103-ML101	7/20/2018	13:07	2.397	7/20/2018	13:37	2.143	30	68	120	261	CDM Smith/[redacted]	8/10/2018			
CSPKABSE-103-ML101	7/20/2018	13:37	2.143	7/20/2018	14:07	2.143	30	64			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-103-ML101	7/20/2018	14:07	2.143	7/20/2018	14:37	2.143	30	64			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-103-ML101	7/20/2018	14:37	2.143	7/20/2018	15:07	2.143	30	64			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AH101	7/20/2018	13:07	3.991	7/20/2018	13:37	3.991	30	120	120	479	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AH101	7/20/2018	13:37	3.991	7/20/2018	14:07	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AH101	7/20/2018	14:07	3.991	7/20/2018	14:37	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AH101	7/20/2018	14:37	3.991	7/20/2018	15:07	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AL101	7/20/2018	13:07	2.397	7/20/2018	13:37	1.908	30	65	120	236	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AL101	7/20/2018	13:37	1.908	7/20/2018	14:07	1.908	30	57			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AL101	7/20/2018	14:07	1.908	7/20/2018	14:37	1.908	30	57			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AL101	7/20/2018	14:37	1.908	7/20/2018	15:07	1.908	30	57			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AH102	7/20/2018	13:07	3.991	7/20/2018	13:37	3.991	30	120	120	482	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AH102	7/20/2018	13:37	3.991	7/20/2018	14:07	3.991	30	120			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AH102	7/20/2018	14:07	3.991	7/20/2018	14:37	4.324	30	125			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AH102	7/20/2018	14:37	3.991	7/20/2018	15:07	3.837	30	117			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-103-AL102	7/20/2018	13:07	2.143	7/20/2018	13:37	2.143	30	64	120	257	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AL102	7/20/2018	13:37	2.143	7/20/2018	14:07	2.143	30	64			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AL102	7/20/2018	14:07	2.143	7/20/2018	14:37	2.143	30	64			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-103-AL102	7/20/2018	14:37	2.143	7/20/2018	15:07	2.143	30	64			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-AH101	7/20/2018	9:10	4.771	7/20/2018	9:19	4.771	9	43	129	589	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-AH101	7/20/2018	9:40	4.799	7/20/2018	10:10	4.610	30	141			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-AH101	7/20/2018	10:10	4.610	7/20/2018	10:40	4.415	30	135			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-AH101	7/20/2018	10:40	4.415	7/20/2018	11:10	4.543	30	134			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-AH101	7/20/2018	11:10	4.543	7/20/2018	11:40	4.490	30	135			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-AL101	7/20/2018	9:10	2.492	7/20/2018	9:19	2.492	9	22	129	321	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-AL101	7/20/2018	9:40	2.570	7/20/2018	10:10	2.495	30	76			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-AL101	7/20/2018	10:10	2.495	7/20/2018	10:40	2.362	30	73			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-AL101	7/20/2018	10:40	2.493	7/20/2018	11:10	2.521	30	75			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-AL101	7/20/2018	11:10	2.521	7/20/2018	11:40	2.480	30	75			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-CH101	7/20/2018	9:10	4.710	7/20/2018	9:19	4.710	9	42	129	602	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-CH101	7/20/2018	9:40	4.770	7/20/2018	10:10	4.559	30	140			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-CH101	7/20/2018	10:10	4.559	7/20/2018	10:40	4.683	30	139			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-CH101	7/20/2018	10:40	4.683	7/20/2018	11:10	4.715	30	141			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-104-CH101	7/20/2018	11:10	4.715	7/20/2018	11:40	4.637	30	140			CDM Smith/[redacted]	8/10/2018			

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DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSPKABSA-104-CL101	7/20/2018	9:10	2.516	7/20/2018	9:19	2.516	9	23	129	334	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-CL101	7/20/2018	9:40	2.552	7/20/2018	10:10	2.602	30	77			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-CL101	7/20/2018	10:10	2.602	7/20/2018	10:40	2.580	30	78			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-CL101	7/20/2018	10:40	2.580	7/20/2018	11:10	2.599	30	78			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-104-CL101	7/20/2018	11:10	2.599	7/20/2018	11:40	2.621	30	78			CDM Smith/[redacted]	8/27/2018			
CSPKABSE-104-ML101	7/20/2018	9:10	2.100	7/20/2018	9:19	2.100	9	19	129	268	CDM Smith/[redacted]	8/10/2018			
CSPKABSE-104-ML101	7/20/2018	9:40	2.017	7/20/2018	10:10	2.300	30	65			CDM Smith/[redacted]	8/10/2018	Stop flow = 2.3, not 2.13		NA
CSPKABSE-104-ML101	7/20/2018	10:10	2.017	7/20/2018	10:40	2.017	30	61			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-104-ML101	7/20/2018	10:40	2.017	7/20/2018	11:10	2.100	30	62			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-104-ML101	7/20/2018	11:10	2.100	7/20/2018	11:40	2.017	30	62			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH101	7/20/2018	9:10	4.037	7/20/2018	9:19	4.037	9	36	129	521	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH101	7/20/2018	9:40	4.037	7/20/2018	10:10	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH101	7/20/2018	10:10	4.037	7/20/2018	10:40	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH101	7/20/2018	10:40	4.037	7/20/2018	11:10	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH101	7/20/2018	11:10	4.037	7/20/2018	11:40	4.020	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AL101	7/20/2018	9:10	2.100	7/20/2018	9:19	2.100	9	19	129	263	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL101	7/20/2018	9:40	2.100	7/20/2018	10:10	2.100	30	63			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL101	7/20/2018	10:10	2.100	7/20/2018	10:40	2.017	30	62			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL101	7/20/2018	10:40	2.017	7/20/2018	11:10	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL101	7/20/2018	11:10	2.017	7/20/2018	11:40	1.914	30	59			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AH102	7/20/2018	9:40	4.037	7/20/2018	10:10	4.037	30	121	120	490	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH102	7/20/2018	10:10	4.037	7/20/2018	10:40	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH102	7/20/2018	10:40	4.037	7/20/2018	11:10	4.380	30	126			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AH102	7/20/2018	11:10	4.098	7/20/2018	11:40	4.037	30	122			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-104-AL102	7/20/2018	9:40	2.217	7/20/2018	10:10	2.100	30	65	120	263	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL102	7/20/2018	10:10	2.100	7/20/2018	10:40	2.300	30	66			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL102	7/20/2018	10:40	2.300	7/20/2018	11:10	2.405	30	71			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-104-AL102	7/20/2018	11:10	2.034	7/20/2018	11:40	2.100	30	62			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-105-AH101	7/19/2018	14:49	4.840	7/19/2018	15:19	4.621	30	142	120	547	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-AH101	7/19/2018	15:19	4.621	7/19/2018	15:49	4.542	30	137			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-AH101	7/19/2018	15:49	4.542	7/19/2018	16:19	4.432	30	135			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-AH101	7/19/2018	16:19	4.432	7/19/2018	16:49	4.439	30	133			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-AL101	7/19/2018	14:49	2.504	7/19/2018	15:19	2.555	30	76	120	303	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-105-AL101	7/19/2018	15:19	2.555	7/19/2018	15:49	2.466	30	75			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-105-AL101	7/19/2018	15:49	2.466	7/19/2018	16:19	2.531	30	75			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-105-AL101	7/19/2018	16:19	2.531	7/19/2018	16:49	2.573	30	77			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-105-CH101	7/19/2018	14:49	4.758	7/19/2018	15:19	4.489	30	139	120	534	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-CH101	7/19/2018	15:19	4.489	7/19/2018	15:49	4.343	30	132			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-CH101	7/19/2018	15:49	4.343	7/19/2018	16:19	4.434	30	132			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-CH101	7/19/2018	16:19	4.434	7/19/2018	16:49	4.332	30	131			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-105-CL101	7/19/2018	14:49	2.578	7/19/2018	15:19	2.497	30	76	120	304	CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSA-105-CL101	7/19/2018	15:19	2.497	7/19/2018	15:49	2.542	30	76			CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSA-105-CL101	7/19/2018	15:49	2.542	7/19/2018	16:19	2.532	30	76			CDM Smith/[redacted]	8/27/2018		x-NR	

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DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSPKABSA-105-CL101	7/19/2018	16:19	2.532	7/19/2018	16:49	2.520	30	76			CDM Smith/[redacted]	8/27/2018		x-NR	
CSPKABSE-105-ML101	7/19/2018	14:49	2.017	7/19/2018	15:19	2.100	30	62	120	248	CDM Smith/[redacted]	8/10/2018			
CSPKABSE-105-ML101	7/19/2018	15:19	2.017	7/19/2018	15:49	2.017	30	61			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-105-ML101	7/19/2018	15:49	2.017	7/19/2018	16:19	2.017	30	61			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-105-ML101	7/19/2018	16:19	2.017	7/19/2018	16:49	2.317	30	65			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH101	7/19/2018	14:49	4.037	7/19/2018	15:19	3.900	30	119	120	482	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH101	7/19/2018	15:19	4.037	7/19/2018	15:49	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH101	7/19/2018	15:49	4.037	7/19/2018	16:19	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH101	7/19/2018	16:19	4.037	7/19/2018	16:49	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AL101	7/19/2018	14:49	2.017	7/19/2018	15:19	1.900	30	59	120	240	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AL101	7/19/2018	15:19	2.017	7/19/2018	15:49	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AL101	7/19/2018	15:49	2.017	7/19/2018	16:19	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AL101	7/19/2018	16:19	2.017	7/19/2018	16:49	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AH102	7/19/2018	14:49	4.037	7/19/2018	15:19	4.037	30	121	120	484	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH102	7/19/2018	15:19	4.037	7/19/2018	15:49	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH102	7/19/2018	15:49	4.037	7/19/2018	16:19	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AH102	7/19/2018	16:19	4.037	7/19/2018	16:49	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-105-AL102	7/19/2018	14:49	2.017	7/19/2018	15:19	2.017	30	61	120	242	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AL102	7/19/2018	15:19	2.017	7/19/2018	15:49	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AL102	7/19/2018	15:49	2.017	7/19/2018	16:19	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-105-AL102	7/19/2018	16:19	2.017	7/19/2018	16:49	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-AH101	7/20/2018	13:33	4.673	7/20/2018	14:03	4.526	30	138	120	535	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-AH101	7/20/2018	14:03	4.526	7/20/2018	14:33	4.327	30	133			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-AH101	7/20/2018	14:33	4.327	7/20/2018	15:03	4.427	30	131			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-AH101	7/20/2018	15:03	4.427	7/20/2018	15:33	4.415	30	133			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-AL101	7/20/2018	13:33	2.467	7/20/2018	14:03	2.471	30	74	120	297	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-AL101	7/20/2018	14:03	2.471	7/20/2018	14:33	2.483	30	74			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-AL101	7/20/2018	14:33	2.483	7/20/2018	15:03	2.477	30	74			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-AL101	7/20/2018	15:03	2.477	7/20/2018	15:33	2.454	30	74			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-CH101	7/20/2018	13:33	4.709	7/20/2018	14:03	4.451	30	137	120	525	CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-CH101	7/20/2018	14:03	4.451	7/20/2018	14:33	4.375	30	132			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-CH101	7/20/2018	14:33	4.375	7/20/2018	15:03	4.228	30	129			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-CH101	7/20/2018	15:03	4.228	7/20/2018	15:33	4.200	30	126			CDM Smith/[redacted]	8/10/2018			
CSPKABSA-106-CL101	7/20/2018	13:33	2.584	7/20/2018	14:03	2.650	30	79	120	308	CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-CL101	7/20/2018	14:03	2.545	7/20/2018	14:33	2.508	30	76			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-CL101	7/20/2018	14:33	2.508	7/20/2018	15:03	2.622	30	77			CDM Smith/[redacted]	8/27/2018			
CSPKABSA-106-CL101	7/20/2018	15:03	2.622	7/20/2018	15:33	2.505	30	77			CDM Smith/[redacted]	8/27/2018			
CSPKABSE-106-ML101	7/20/2018	13:33	2.017	7/20/2018	14:03	2.017	30	61	120	237	CDM Smith/[redacted]	8/10/2018			
CSPKABSE-106-ML101	7/20/2018	14:03	2.017	7/20/2018	14:33	2.017	30	61			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-106-ML101	7/20/2018	14:33	2.017	7/20/2018	15:03	1.900	30	59			CDM Smith/[redacted]	8/10/2018			
CSPKABSE-106-ML101	7/20/2018	15:03	1.900	7/20/2018	15:33	1.900	30	57			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AH101	7/20/2018	13:33	4.037	7/20/2018	14:03	4.037	30	121	120	478	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AH101	7/20/2018	14:03	4.037	7/20/2018	14:33	4.037	30	121			CDM Smith/[redacted]	8/10/2018			

ATTACHMENT 1F

DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSPKABSP-106-AH101	7/20/2018	14:33	4.037	7/20/2018	15:03	3.900	30	119			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AH101	7/20/2018	15:03	3.900	7/20/2018	15:33	3.900	30	117			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AL101	7/20/2018	13:33	1.900	7/20/2018	14:03	1.900	30	57	120	234	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AL101	7/20/2018	14:03	1.900	7/20/2018	14:33	2.017	30	59			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AL101	7/20/2018	14:33	2.017	7/20/2018	15:03	1.818	30	58			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AL101	7/20/2018	15:03	2.017	7/20/2018	15:33	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AH102	7/20/2018	13:33	4.037	7/20/2018	14:03	4.037	30	121	120	486	CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AH102	7/20/2018	14:03	4.037	7/20/2018	14:33	4.100	30	122			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AH102	7/20/2018	14:33	4.100	7/20/2018	15:03	4.037	30	122			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AH102	7/20/2018	15:03	4.037	7/20/2018	15:33	4.037	30	121			CDM Smith/[redacted]	8/10/2018			
CSPKABSP-106-AL102	7/20/2018	13:33	2.017	7/20/2018	14:03	2.017	30	61	120	246	CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AL102	7/20/2018	14:03	2.017	7/20/2018	14:33	2.017	30	61			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AL102	7/20/2018	14:33	2.017	7/20/2018	15:03	2.100	30	62			CDM Smith/[redacted]	8/27/2018			
CSPKABSP-106-AL102	7/20/2018	15:03	2.100	7/20/2018	15:33	2.100	30	63			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-AH101	7/19/2018	12:06	4.924	7/19/2018	12:45	4.755	39	189	120	568	CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-AH101	7/19/2018	12:45	4.755	7/19/2018	13:20	4.682	35	165			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-AH101	7/19/2018	13:20	4.682	7/19/2018	14:06	4.646	46	215			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-AL101	7/19/2018	12:06	2.629	7/19/2018	12:45	2.508	39	100	120	308	CDM Smith/[redacted]	8/10/2018			
CSAPABSA-102-AL101	7/19/2018	12:45	2.508	7/19/2018	13:20	2.629	35	90			CDM Smith/[redacted]	8/10/2018			
CSAPABSA-102-AL101	7/19/2018	13:20	2.629	7/19/2018	14:06	2.495	46	118			CDM Smith/[redacted]	8/10/2018			
CSAPABSA-102-CH101	7/19/2018	12:06	4.714	7/19/2018	12:45	4.624	39	182	120	559	CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-CH101	7/19/2018	12:45	4.624	7/19/2018	13:20	4.686	35	163			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-CH101	7/19/2018	13:20	4.686	7/19/2018	14:06	4.606	46	214			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-102-CL101	7/19/2018	12:06	2.397	7/19/2018	12:45	2.431	39	94	120	289	CDM Smith/[redacted]	8/10/2018			
CSAPABSA-102-CL101	7/19/2018	12:45	2.431	7/19/2018	13:20	2.397	35	84			CDM Smith/[redacted]	8/10/2018			
CSAPABSA-102-CL101	7/19/2018	13:20	2.397	7/19/2018	14:06	2.419	46	111			CDM Smith/[redacted]	8/10/2018			
CSAPABSE-102-ML101	7/19/2018	12:06	2.143	7/19/2018	12:45	2.397	39	89	120	255	CDM Smith/[redacted]	8/10/2018			
CSAPABSE-102-ML101	7/19/2018	12:45	2.143	7/19/2018	13:20	2.030	35	73			CDM Smith/[redacted]	8/10/2018			
CSAPABSE-102-ML101	7/19/2018	13:20	2.030	7/19/2018	14:06	2.030	46	93			CDM Smith/[redacted]	8/10/2018			
CSAPABSP-102-AH101	7/19/2018	12:06	4.150	7/19/2018	12:45	4.150	39	162	120	488	CDM Smith/[redacted]	8/27/2018			
CSAPABSP-102-AH101	7/19/2018	12:45	4.150	7/19/2018	13:20	3.991	35	142			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-102-AH101	7/19/2018	13:20	3.991	7/19/2018	14:06	3.991	46	184			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-102-AL101	7/19/2018	12:06	2.143	7/19/2018	12:45	2.030	39	81	120	241	CDM Smith/[redacted]	8/13/2018			
CSAPABSP-102-AL101	7/19/2018	12:45	2.030	7/19/2018	13:20	1.908	35	69			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-102-AL101	7/19/2018	13:20	1.908	7/19/2018	14:06	2.030	46	91			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-102-AH102	7/19/2018	12:06	3.917	7/19/2018	12:45	4.559	39	165	120	512	CDM Smith/[redacted]	8/27/2018		x-NR	
CSAPABSP-102-AH102	7/19/2018	12:45	4.145	7/19/2018	13:20	4.270	35	147			CDM Smith/[redacted]	8/27/2018		x-NR	
CSAPABSP-102-AH102	7/19/2018	13:20	4.270	7/19/2018	14:06	4.417	46	200			CDM Smith/[redacted]	8/27/2018		x-NR	
CSAPABSP-102-AL102	7/19/2018	12:06	2.158	7/19/2018	12:45	2.471	39	90	120	262	CDM Smith/[redacted]	8/10/2018			
CSAPABSP-102-AL102	7/19/2018	12:45	2.089	7/19/2018	13:20	2.149	35	74			CDM Smith/[redacted]	8/10/2018			
CSAPABSP-102-AL102	7/19/2018	13:20	2.149	7/19/2018	14:06	2.085	46	97			CDM Smith/[redacted]	8/10/2018			
CSAPABSA-103-AH101	7/19/2018	15:03	4.714	7/19/2018	15:33	4.624	30	140	120	557	CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-AH101	7/19/2018	15:33	4.624	7/19/2018	16:03	4.682	30	140			CDM Smith/[redacted]	8/27/2018			

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DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSAPABSA-103-AH101	7/19/2018	16:03	4.682	7/19/2018	16:33	4.624	30	140			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-AH101	7/19/2018	16:33	4.624	7/19/2018	17:03	4.529	30	137			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-AL101	7/19/2018	15:03	2.587	7/19/2018	15:33	2.610	30	78	120	315	CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-AL101	7/19/2018	15:33	2.610	7/19/2018	16:03	2.627	30	79			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-AL101	7/19/2018	16:03	2.627	7/19/2018	16:33	2.617	30	79			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-AL101	7/19/2018	16:33	2.617	7/19/2018	17:03	2.680	30	79			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-CH101	7/19/2018	15:03	4.732	7/19/2018	15:33	4.741	30	142	120	560	CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-CH101	7/19/2018	15:33	4.741	7/19/2018	16:03	4.615	30	140			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-CH101	7/19/2018	16:03	4.615	7/19/2018	16:33	4.602	30	138			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-CH101	7/19/2018	16:33	4.602	7/19/2018	17:03	4.655	30	139			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-103-CL101	7/19/2018	15:03	2.457	7/19/2018	15:33	2.530	30	75	120	301	CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-CL101	7/19/2018	15:33	2.530	7/19/2018	16:03	2.479	30	75			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-CL101	7/19/2018	16:03	2.479	7/19/2018	16:33	2.558	30	76			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-CL101	7/19/2018	16:33	2.558	7/19/2018	16:48	2.480	15	38			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-103-CL101	7/19/2018	17:03	2.480	7/19/2018	17:18	2.517	15	37			CDM Smith/[redacted]	8/13/2018			
CSAPABSE-103-ML101	7/19/2018	15:03	2.143	7/19/2018	15:33	2.143	30	64	120	257	CDM Smith/[redacted]	8/13/2018			
CSAPABSE-103-ML101	7/19/2018	15:33	2.143	7/19/2018	16:03	2.143	30	64			CDM Smith/[redacted]	8/13/2018			
CSAPABSE-103-ML101	7/19/2018	16:03	2.143	7/19/2018	16:33	2.143	30	64			CDM Smith/[redacted]	8/13/2018			
CSAPABSE-103-ML101	7/19/2018	16:33	2.143	7/19/2018	17:03	2.143	30	64			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AH101	7/19/2018	15:03	3.991	7/19/2018	15:33	3.991	30	120	120	474	CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AH101	7/19/2018	15:33	3.991	7/19/2018	16:03	3.914	30	119			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AH101	7/19/2018	16:03	3.914	7/19/2018	16:33	3.991	30	119			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AH101	7/19/2018	16:33	3.991	7/19/2018	17:03	3.837	30	117			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AL101	7/19/2018	15:03	2.143	7/19/2018	15:33	2.143	30	64	120	247	CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AL101	7/19/2018	15:33	2.143	7/19/2018	16:03	2.143	30	64			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AL101	7/19/2018	16:03	2.143	7/19/2018	16:33	1.908	30	61			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AL101	7/19/2018	16:33	1.908	7/19/2018	17:03	1.908	30	57			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AH102	7/19/2018	15:03	4.150	7/19/2018	15:33	4.150	30	125	120	496	CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AH102	7/19/2018	15:33	4.150	7/19/2018	16:03	4.324	30	127			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AH102	7/19/2018	16:03	4.150	7/19/2018	16:33	3.991	30	122			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AH102	7/19/2018	16:33	3.991	7/19/2018	17:03	4.150	30	122			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-103-AL102	7/19/2018	15:03	2.143	7/19/2018	15:33	2.030	30	63	120	254	CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AL102	7/19/2018	15:33	2.030	7/19/2018	16:03	2.143	30	63			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AL102	7/19/2018	16:03	2.143	7/19/2018	16:33	2.143	30	64			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-103-AL102	7/19/2018	16:33	2.143	7/19/2018	17:03	2.143	30	64			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-AH101	7/20/2018	9:08	4.826	7/20/2018	9:38	4.765	30	144	120	563	CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-AH101	7/20/2018	9:38	4.765	7/20/2018	10:08	4.529	30	139			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-AH101	7/20/2018	10:08	4.529	7/20/2018	10:38	4.678	30	138			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-AH101	7/20/2018	10:38	4.678	7/20/2018	11:08	4.732	30	141			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-AL101	7/20/2018	9:08	2.444	7/20/2018	9:38	2.433	30	73	120	288	CDM Smith/[redacted]	8/27/2018			
CSAPABSA-101-AL101	7/20/2018	9:38	2.433	7/20/2018	10:08	2.444	30	73			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-101-AL101	7/20/2018	10:08	2.444	7/20/2018	10:38	2.323	30	72			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-101-AL101	7/20/2018	10:38	2.323	7/20/2018	11:08	2.347	30	70			CDM Smith/[redacted]	8/27/2018			

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DATA SUMMARY OF FIELD SAMPLE INFORMATION FOR AIR PUMP INFORMATION

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Index ID	Start Date	Start Time	Start Flow (L/min)	Stop Date	Stop Time	Stop Flow (L/min)	Sample Duration (min)	Sample Volume (L)	Total Sample Duration (min)	Total Sample Volume (L)	Verifier's Company/Name	Verified Date	Verifier's Comments	DVC - 5%	Date Corrected
CSAPABSA-101-CH101	7/20/2018	9:08	4.822	7/20/2018	9:38	4.846	30	145	120	574	CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-CH101	7/20/2018	9:38	4.846	7/20/2018	10:08	4.808	30	145			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-CH101	7/20/2018	10:08	4.808	7/20/2018	10:38	4.705	30	143			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-CH101	7/20/2018	10:38	4.705	7/20/2018	11:08	4.696	30	141			CDM Smith/[redacted]	8/13/2018			
CSAPABSA-101-CL101	7/20/2018	9:08	2.536	7/20/2018	9:38	2.648	30	78	120	316	CDM Smith/[redacted]	8/27/2018			
CSAPABSA-101-CL101	7/20/2018	9:38	2.648	7/20/2018	10:08	2.732	30	81			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-101-CL101	7/20/2018	10:08	2.732	7/20/2018	10:38	2.570	30	80			CDM Smith/[redacted]	8/27/2018			
CSAPABSA-101-CL101	7/20/2018	10:38	2.570	7/20/2018	11:08	2.614	30	78			CDM Smith/[redacted]	8/27/2018			
CSAPABSE-101-ML101	7/20/2018	9:08	2.143	7/20/2018	9:38	2.143	30	64	120	259	CDM Smith/[redacted]	8/13/2018		x-NR	
CSAPABSE-101-ML101	7/20/2018	9:38	2.143	7/20/2018	10:08	2.397	30	68			CDM Smith/[redacted]	8/13/2018		x-NR	
CSAPABSE-101-ML101	7/20/2018	10:08	2.270	7/20/2018	10:38	2.143	30	66			CDM Smith/[redacted]	8/13/2018		x-NR	
CSAPABSE-101-ML101	7/20/2018	10:38	2.143	7/20/2018	11:08	1.908	30	61			CDM Smith/[redacted]	8/13/2018		x-NR	
CSAPABSP-101-AH101	7/20/2018	9:08	3.991	7/20/2018	9:38	3.837	30	117	120	466	CDM Smith/[redacted]	8/13/2018			
CSAPABSP-101-AH101	7/20/2018	9:38	3.837	7/20/2018	10:08	3.917	30	116			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-101-AH101	7/20/2018	10:08	3.917	7/20/2018	10:38	3.837	30	116			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-101-AH101	7/20/2018	10:38	3.837	7/20/2018	11:08	3.917	30	116			CDM Smith/[redacted]	8/13/2018			
CSAPABSP-101-AL101	7/20/2018	9:08	2.030	7/20/2018	9:38	1.819	30	58	120	232	CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL101	7/20/2018	9:38	1.819	7/20/2018	10:08	2.030	30	58			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL101	7/20/2018	10:08	2.030	7/20/2018	10:38	1.908	30	59			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL101	7/20/2018	10:38	1.908	7/20/2018	11:08	1.908	30	57			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AH102	7/20/2018	9:08	4.150	7/20/2018	9:38	3.991	30	122	120	479	CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AH102	7/20/2018	9:38	3.991	7/20/2018	10:08	4.150	30	122			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AH102	7/20/2018	10:08	4.150	7/20/2018	10:38	3.837	30	120			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AH102	7/20/2018	10:38	3.837	7/20/2018	11:08	3.837	30	115			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL102	7/20/2018	9:08	2.143	7/20/2018	9:38	2.143	30	64	120	261	CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL102	7/20/2018	9:38	2.143	7/20/2018	10:08	2.270	30	66			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL102	7/20/2018	10:08	2.270	7/20/2018	10:38	2.143	30	66			CDM Smith/[redacted]	8/27/2018			
CSAPABSP-101-AL102	7/20/2018	10:38	2.143	7/20/2018	11:08	2.143	30	64			CDM Smith/[redacted]	8/27/2018			

Notes:

% = percent

ID = identification

L = liter

L/min = liter per minute

min = minute

Attachment 1G

Field Documentation Forms

Soil

Activity-Based Sampling Soil

Surface Water and Sediment

Ambient air and Activity-Based Sampling Air

Sheet No.: PE-0001(1)

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CS PK ABS - 102 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 105

Sampling Team: CDM Smith Other _____ Names: PV, AG, SC, KO

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-102-AH101	CSPKABSA-102-AL101	CSPKABSA-102-CH101
Location ID	CSPKABS-102	CSPKABS-102	CSPKABS-102
Sample Group			
Location Description	ADULT HIGH VOLUME	ADULT LOW VOLUME	CHILD HIGH VOLUME
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033803	644260	041852
Flow Meter ID No.	11030	11030	11030
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1041 / 1111 / 1141 / 1211	1041 / 1111 / 1141 / 1211	1041 / 1111 / 1141 / 1211
Start Flow (L/min)	4.898 / 4.681 / 4.509 / 4.521	2.486 / 2.481 / 2.490 / 2.505	4.921 / 4.614 / 4.490 / 4.393
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1111 / 1141 / 1211 / 1241	1111 / 1141 / 1211 / 1241	1111 / 1141 / 1211 / 1241
Stop Flow (L/min)	4.681 / 4.509 / 4.521 / 4.446	2.481 / 2.393 / 2.505 / 2.691	4.614 / 4.490 / 4.393 / 4.356
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments	DIRTY FILTER @ 1 hr MARK (1141)		DIRTY FILTER @ 1 HR MARK (1141)
Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDM

Sheet No.: PE-000101 KMB 5/21/18

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/21/18

Field Logbook No: 001

Page No: NA

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled NA Co. Name: NA ID: NA Task: NA

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CS-601		
Location ID	LOT BLANK		
Sample Group	NA		
Location Description	NA		
Category (circle)	FS FB-(field blank) (LB-(lot blank)) KMB 5/21/18	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both (NA)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer DryCal (NA)	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date			
Start Time			
Start Flow (L/min)			
Stop Date			
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes (NA)	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 18041 3	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

5/21/18

5/21/18

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For Field Team Completion (Initials)	Completed by: KMB QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Revised

Sheet No.: PE ~~000001~~ 000101LB
KMB 5/21/18

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/21/18

Field Logbook No: 001

Page No: NA

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled NA Co. Name: NA ID: NA Task: NA

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABS-601 ~~CS-601~~		
Location ID	LOT BLANK		
Sample Group	NA		
Location Description	NA		
Category (circle)	FS FB-(field blank) (LB-(lot blank)) KMB 5/21/18	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor ~~Outdoor~~ Both (NA)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer DryCal (NA)	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date	5/21/18		
Start Time			
Start Flow (L/min)			
Stop Date		5/21/18	
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes (NA)	No Yes NA	No Yes NA
MET Station onsite?	No [Yes] NA	No [Yes] NA	No [Yes] NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: KMB QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

CDM

Sheet No.: PE-000107

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-102 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 105

Sampling Team: CDM Smith Other _____ Names: PV, AG, SC, RP

Person Sampled [redacted] Co. Name: CDMS ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-102-CL101	CSPKABSA-401	
Location ID	CSPKABSA-107	Field Blank	
Sample Group		Field Blank	
Location Description	CHILD low volume		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073		
Flow Meter ID No.	110830		
Start Date	7-19-18	7-19-18	
Start Time	1041 / 1111 / 1141 / 1211		
Start Flow (L/min)	2.532 / 2.553 / 2.493 / 2.527		
Stop Date	7-19-18	7-19-18	
Stop Time	1111 / 1141 / 1211 / 1241		
Stop Flow (L/min)	2.553 / 2.493 / 2.527 / 2.5		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments		Field Blank	
Cassette Lot Number: 180417			
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE- 000102

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-102 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 105

Sampling Team: CDM Smith Other _____ Names: PV, AG, SC, KP

Person Sampled [redacted] Co. Name: CDM S ID: _____ Task: _____

Data Item	Cassette 1	CSPKABS-401 PV 9-5-18 ✓	Cassette 3
Index ID	CSPKABSA-102-CL101	~~CSPKABSA-001~~ 401	
Location ID	CSPKABSA-102	Field Blank	
Sample Group		Field Blank	
Location Description	CHILD LOW VOLUME	—	
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS (FB-(field blank)) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073	—	
Flow Meter ID No.	11030	—	
Start Date	7-19-18	7-19-18	
Start Time	1041 / 1111 / 1141 / 1211		
Start Flow (L/min)	2.532 / 2.553 / 2.493 / 2.527		
Stop Date	7-19-18	7-19-18	
Stop Time	1111 / 1141 / 1211 / 1241		
Stop Flow (L/min)	2.553 / 2.493 / 2.527 / 2.5		
Pump fault? (circle)	(No) Yes NA	No Yes (NA)	No Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC (NA)	TWA EXC NA
Field Comments		Field Blank	
Cassette Lot Number: 180417			
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No. PE-000102 KMB 5/21/18

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/21/18

Field Logbook No: 001

Page No: NA

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled NA Co. Name: NA ID: NA Task: NA

Data Item	~~Cassette 1~~	Cassette 2	Cassette 3
Index ID	CS-602		
Location ID	LOT BLANK		
Sample Group	NA		
Location Description	NA		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date			
Start Time			
Start Flow (L/min)			
Stop Date			
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

5/21/18

5/21/18

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For Field Team Completion (Initials)	Completed by: KMB QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Revised

Sheet No.: PE-~~000002~~ 000102 LB
KMB 5/21/18

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/21/18

Field Logbook No: 001

Page No: NA

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled NA Co. Name: NA ID: NA Task: NA

Data Item	~~Cassette 1~~ CSPKABS-602 PV 9-5-18	Cassette 2	Cassette 3
Index ID	~~CS-602~~		
Location ID	LOT BLANK		
Sample Group	NA		
Location Description	NA		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor ~~Outdoor~~ Both NA KMB 5/21/18	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number			
Flow Meter ID No.			
Start Date			
Start Time	5/21/18	5/21/18	
Start Flow (L/min)			
Stop Date			
Stop Time			
Stop Flow (L/min)			
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: KMB QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE- 000105

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS - 103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM ~~Smith~~ Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-103-AH101	CSPKABSA-103-AL101	CSPKABSA-103-CH101
Location ID	PK 103	PK 103	PK 103
Sample Group	ADULT HIGH	ADULT LOW	CHILD HIGH
Location Description	10 x 10 FT SQUARE COMPLETE VEGETATIVE COVER	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	10 6996	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437
Start Flow (L/min)	4.315 / 4.185 / 4.185 / 4.167	2.601 / 2.584 / 2.651 / 2.580	4.446 / 4.109 / 4.650 / 4.203
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507
Stop Flow (L/min)	4.185 / 4.185 / 4.167 / 4.160	2.584 / 2.651 / 2.580 / 2.634	4.109 / 4.650 / 4.203 / 4.025
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments	—	—	—
Cassette Lot Number: _____	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE- 000105

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS - 103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-103-AH101	CSPKABSA-103-AL101	CSPKABSA-103-CH101
Location ID	PK 103	PK 103	PK 103
Sample Group	ADULT HIGH	ADULT LOW	CHILD HIGH
Location Description	10 X 10 FT SQUARE COMPLETE VEGETATIVE COVER	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	10 6996	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437
Start Flow (L/min)	4.315 / 4.185 / 4.185 / 4.167	2.601 / 2.584 / 2.651 / 2.580	4.446 / 4.109 / 4.650 / 4.203
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507
Stop Flow (L/min)	4.185 / 4.185 / 4.167 / 4.160	2.584 / 2.651 / 2.580 / 2.634	4.109 / 4.650 / 4.203 / 4.025
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PE- 000106

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-103-CL101		
Location ID	PK 103		
Sample Group	CHILD LOW		
Location Description	10x10 Ft SQUARE COMPLETE VEGETATIVE COVER		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	649259		
Flow Meter ID No.	106996		
Start Date	7/20/18		
Start Time	1307 / 1337 / 1407 / 1437		
Start Flow (L/min)	2.504 / 2.504 / 2.658 / 2.516		
Stop Date	7/20/18		
Stop Time	1337 / 1407 / 1437 / 1509		
Stop Flow (L/min)	2.504 / 2.638 / 2.516 / 2.635		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PE-000109

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-104-AH101	CSPKABSA-104-AL101	CSPKABSA-104-CH101
Location ID	~~Adult High~~	~~Adult~~	CSPKABS-104
Sample Group	Adult High	Adult Low	Child High
Location Description	on berm along Maple Ave short grass and some before sampling. Light dust during raking	on Park parcel, next to gate. Vegetated with shrubs. shrubs and grass cut down to ~3in	
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033803	644260	041852
Flow Meter ID No.	11030	11030	11030
Start Date	7-20-18	7-20-18	7-20-18
Start Time	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110
Start Flow (L/min)	4.771 / 4.779 / 4.610 / 4.415 / 4.523	2.492 / 2.570 / 2.495 / 2.413 / 2.498	4.710 / 4.770 / 4.559 / 4.603 / 4.715
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140
Stop Flow (L/min)	4.771 / 4.610 / 4.415 / 4.523 / 4.490	2.492 / 2.495 / 2.362 / 2.511 / 2.490	4.710 / 4.559 / 4.683 / 4.715 / 4.637
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments	0919 - issue with downpump	pump battery. Turn off all pumps & restart sampling	
Cassette Lot Number:	180417		
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PE-0001 10

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS - 104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-104-CL101	CSPKABSA-402	
Location ID	~~Child Low~~ CSPKABS104	Field Blank	
Sample Group	Child Low		
Location Description	see PE 0001 09		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS (FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal (NA)	Rotometer DryCal NA
Pump ID Number	518073 (EPA 001 748)	—	
Flow Meter ID No.	11030	—	
Start Date	7-20-18	7-20-18	
Start Time	0910 / 0940 / 1010 / 1040 / 1110		
Start Flow (L/min)	2.516 / 2.552 / 2.602 / 2.558 / 2.521		
Stop Date	7-20-18	7-20-18	
Stop Time	0919 / 1010 / 1040 / 1110 / 1140		
Stop Flow (L/min)	2.516 / 2.602 / 2.580 / 2.539 / 2.621		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RR	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE-0001 13

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 1

Page No: ~~110 113~~ 103-105

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-105-AH101	CSPKABSA-105-AL101	CSPKABSA-105-CH101
Location ID	CSPKABS-105	CSPKABS-105	CSPKABS-105
Sample Group			
Location Description	ADULT HIGH	ADULT LOW	CHILD HIGH
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033803	644260	041852
Flow Meter ID No.	~~P359~~ 11030	11030	11030
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619
Start Flow (L/min)	4.84 / 4.621 / 4.542 / 4.432	2.632 / 2.555 / 2.466 / 2.531	4.758 / 4.489 / 4.343 / 4.434
Stop Date	7/19/18	2,504 7/19/18	7/19/18
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649
Stop Flow (L/min)	4.621 / 4.542 / 4.432 / 4.439	2.555 / 2.466 / 2.531 / 2.573	4.489 / 4.343 / 4.434 / 4.332
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PE- 0001/4

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-105-CL101		
Location ID	CSPKABS-105		
Sample Group			
Location Description	Camp Low		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073 (EPA 061748)		
Flow Meter ID No.	11030		
Start Date	7/19/18		
Start Time	1444 | 1519 | 1549 | 1619	1449	1442
Start Flow (L/min)	2.518 | 2.497 | 2.512 | 2.532		
Stop Date	7/19/18		
Stop Time	1519 | 1549 | 1619 | 1649		
Stop Flow (L/min)	2.497 | 2.512 | 2.532 | 2.520		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE- 0001/4

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 00)

Page No: 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-105-CL101		
Location ID	CSPKABS-105		
Sample Group			
Location Description	CANCO LOW		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	518073 (EPA 061748)		
Flow Meter ID No.	11030		
Start Date	7/19/18		
Start Time	1444 / 1519 / 1549 / 1619	1449	1449
Start Flow (L/min)	2.578 / 2.497 / 2.512 / 2.532		
Stop Date	7/19/18		
Stop Time	1519 / 1549 / 1619 / 1649		
Stop Flow (L/min)	2.497 / 2.512 / 2.532 / 2.520		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE-000117

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 014-

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-106-AH101	CSPKABSA-106-AL101	CSPKABSA-106-CH101
Location ID	~~Adult High~~ CSPKABS-106		
Sample Group	Adult High	Adult low	Child High
Location Description	Dry, very rocky soil with very little vegetation. Much di		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	033903	644260 ~~033903~~	~~033903~~ 041852
Flow Meter ID No.	11030	~~644260~~ 11030	11030
Start Date	7-20-18	7-20-18	7-20-18
Start Time	1333 1403 1433 1503	1333 1403 1433 1503	1333 1403 1433 1503
Start Flow (L/min)	4.673 4.526 4.387 4.427	2.467 2.471 2.483 2.477	4.709 4.451 4.375 4.228
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	1403 1433 1503 1533	1403 1433 1503 1533	1403 1433 1503 1533
Stop Flow (L/min)	4.526 4.387 4.427 4.415	2.471 2.483 2.477 2.454	4.451 4.375 4.228 4.200
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments	All personal		
Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PE- 000118

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: 93

Page No: 114-

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled [redacted] Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-106-CL101		
Location ID	CSPKABSF106		
Sample Group	Child Low		
Location Description	See PE-000117		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	~~077803~~ 518073		
Flow Meter ID No.	~~518073~~ 11030		
Start Date	~~7-20-18~~ 7-20-18		
Start Time	1333 / 1403 / 1433 / 1503		
Start Flow (L/min)	2.584 / 2.545 / 2.566 / 2.622		
Stop Date	7-20-18		
Stop Time	1403 / 1433 / 1503 / 1533		
Stop Flow (L/min)	2.65 / 2.508 / 2.622 / 2.505		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE- 000121

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-101 Sampling Date: 7/20/2018

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSA-101-AH101	CSPKABSA-101-AL101	CSPKABSA-101-CH101
Location ID	PK101	PK-101	PK-101
Sample Group	ADULT HIGH	ADULT LOW	CHILD HIGH
Location Description	10X10 FT SQUARE FULLY VEGETATED	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	106996	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758
Start Flow (L/min)	4.327 / 4.315 / 4.335 / 4.359	2.476 / 2.564 / 2.460 / 2.520	4.251 / 4.589 / 4.389 / 4.385
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828
Stop Flow (L/min)	4.315 / 4.335 / 4.359 / 4.409	2.564 / 2.460 / 2.520 / 2.484	4.589 / 4.389 / 4.385 / 4.377
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No (Yes) NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			CH PUMP WAS SHUTTING OFF AND ON BETWEEN APPROX 2 MIN & 30 MIN. APPROX 10 MIN. PUMP WAS CHANGED AFTER 36 MIN.
Cassette Lot Number: 180417	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PE-0001 22

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSPKABS-101 Sampling Date: 7/20/2018

Field Logbook No: 002

Page No: [redacted]

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID.	CSPKABSA-101-CL101		
Location ID	PK-101		
Sample Group	CHILD LOW		
Location Description	10X10FT SQUARE ENTIRELY VEGETATED		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	644259		
Flow Meter ID No.	106996		
Start Date	7/20/18		
Start Time	1628 / 1658 / 1728 / 1758		
Start Flow (L/min)	~~2.529~~ 2.534 / 2.517 / 2.481		
Stop Date	7/20/18		
Stop Time	1658 / 1728 / 1758 / 1828		
Stop Flow (L/min)	~~2.534~~ 2.517 / 2.481 / 2.508		
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			
Cassette Lot Number: 18017	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

Sheet No.: PE- 000125

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-101-AH101	CSAPABSA-101-AL101	CSAPABSA-101-CH101
Location ID	AP 101	AP 101	AP 101
Sample ~~Group~~ Desc.	Adult High	Adult Low	Child High
Location Description	10X10 FT SQUARE W/ VEGETATIVE COVER OVER ENTIRE SQUARE SOIL EXPOSED WHERE SOIL SAMPLING OCCURED ON 7/18		
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor Outdoor Both NA	Indoor Outdoor Both NA	Indoor Outdoor Both NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	033838	644230	R12104
Flow Meter ID No.	106996	106996	106996
Start Date	7/20/18	7/20/18	7/20/18
Start Time	0908 / 0938 / 1008 / 1038	0908 / 0938 / 1008 / 1038	0908 / 0938 / 1008 / 1038
Start Flow (L/min)	4.826 / 4.765 / 4.529 / 4.678	2.444 / 2.433 / 2.447 / 2.323	4.822 / 4.846 / 4.808 / 4.705
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108
Stop Flow (L/min)	4.765 / 4.529 / 4.678 / 4.732	2.433 / 2.444 / 2.323 / 2.347	4.846 / 4.808 / 4.705 / 4.696
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No Yes NA	No Yes NA	No Yes NA
Sample Type	TWA EXC NA	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PE- 000126

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAP ABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-101-CL101		
Location ID	AP 101		
Sample ~~Group~~ Desc.	Child: Low		
Location Description			
Category (circle)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor **Outdoor** Both NA	Indoor **Outdoor** Both NA	Indoor **Outdoor** Both NA
Filter Diameter (circle)	**25mm** Other _____	**25mm** Other _____	**25mm** Other _____
Pore Size (circle)	**PCM- 0.80** Other _____	**PCM- 0.80** Other _____	**PCM- 0.80** Other _____
Flow Meter Type (circle)	Rotometer **DryCal** NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	649259		
Flow Meter ID No.	106996		
Start Date	7/20/18		
Start Time	0908 / 0938 / 1008 / 1038		
Start Flow (L/min)	2.536 / 2.648 / 2.732 / 2.510		
Stop Date	7/20/18		
Stop Time	0938 / 1008 / 1038 / 1108		
Stop Flow (L/min)	2.648 / 2.732 / 2.510 / 2.614		
Pump fault? (circle)	**No** Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No **Yes** NA	No Yes NA	No Yes NA
Sample Type	TWA EXC **NA**	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PE- 0001 29

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-102-AH101	CSAPABSA-102-AL101	CSAPABSA-102-CH101
Location ID	AP 102	AP 102	AP 102
Sample ~~Group~~ Desc	Adult High	Adult Low	Child High
Location Description	10x10ft square w/ vegetation cover over entire square. Dirt is visible where soil sampling occurred on 7/18	10x10ft square w/ vegetation cover over entire square. Dirt exposed where soil sampling occurred on 7/18	~~10x10 ft square of Adult~~ See ~~Cassette~~ location description
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	033838	644230	R1 21 04
Flow Meter ID No.	106996	106996	106996
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1206 / 1245 / 1320 / ~~1408~~	1206 / 1245 / 1325 / ~~1408~~	1206 / 1245 / 1320 / ~~1408~~
Start Flow (L/min)	4.924 / 4.755 / 4.682	2.629 / 2.508 / 2.629	4.714 / 4.624 / 4.686
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1245 / 1320 / 1408	1245 / ~~1325~~ / 1408	1245 / 1320 / 1408
Stop Flow (L/min)	4.755 / 4.682 / 4.646	2.508 / 2.629 / 2.495	4.624 / 4.686 / 4.606
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No (Yes) NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			Pump & Cassette fell during transfer of rotors
Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE- 0001 30

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-102-CL101		
Location ID	AP 102		
Sample ~~Group~~ Desc	Child Low		
Location Description	See Adult High location description		
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA	Indoor [Outdoor] Both NA
Filter Diameter (circle)	[25mm] Other _____	[25mm] Other _____	[25mm] Other _____
Pore Size (circle)	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____	[PCM- 0.80] Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	516287 (011092 EPA II)		
Flow Meter ID No.	106996		
Start Date	7/19/18		
Start Time	12:06 | 1245 | 1320 | ~~1405~~		
Start Flow (L/min)	2.394 | 2.431 | 2.397		
Stop Date	7/19/18		
Stop Time	1245 | 1320 | 1405		
Stop Flow (L/min)	2.431 | 2.397 | 2.419		
Pump fault? (circle)	(No) Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No (Yes) NA	No Yes NA	No Yes NA
Sample Type	TWA EXC (NA)	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PE-0001 33

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-103-AH101	CSAPABSA-103-AL101	CSAPABSA-103-CH101
Location ID	AP 103	AP 103	AP103
Sample ~~Group~~ Desc.	Adult High	Adult Low	Child High
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)	(FS) FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA	Indoor (Outdoor) Both NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	~~033853~~ 033838	644230	R12104
Flow Meter ID No.	~~[illegible]~~ 106996	106996	106996
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633
Start Flow (L/min)	4.714 / 4.624 / 4.682 / 4.624	2.581 / 2.610 / 2.627 / 2.617	4.732 / 4.741 / 4.615 / 4.602
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1533 / 1603 / 1633 / ~~1703~~ ~~4.624~~	1533 / 1603 / 1633 / 1703	1533 / 1603 / 1633 / 1703
Stop Flow (L/min)	4.624 / 4.682 / 4.624 / 4.529	2.610 / 2.627 / 2.617 / 2.680	4.741 / 4.615 / 4.602 / 4.655
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite?	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type	TWA EXC (NA)	TWA EXC (NA)	TWA EXC (NA)
Field Comments			
Cassette Lot Number: 180413	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PE- 0001 34

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERSONAL AIR

Location: CSAPABS-103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Person Sampled _____ Co. Name: _____ ID: _____ Task: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSA-103-CL101		
Location ID	AP 103		
Sample Group	Child Low		
Location Description			
Category (circle)	FS ~~FB-(field blank)~~ LB-(lot blank)	FS FB-(field blank) LB-(lot blank)	FS FB-(field blank) LB-(lot blank)
Matrix Type (circle)	Indoor **Outdoor** Both NA	Indoor **Outdoor** Both NA	Indoor **Outdoor** Both NA
Filter Diameter (circle)	**25mm** Other _____	**25mm** Other _____	**25mm** Other _____
Pore Size (circle)	**PCM- 0.80** Other _____	**PCM- 0.80** Other _____	**PCM- 0.80** Other _____
Flow Meter Type (circle)	Rotometer **DryCal** NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	516287 (071092-EPA)		
Flow Meter ID No.	106996		
Start Date	7/19/18		
Start Time	1503 / 1533 / 1603 / 1633	1703	
Start Flow (L/min)	2.457 / 2.530 / 2.479 / 2.558	2.480	
Stop Date	7/19/18		
Stop Time	1533 / 1603 / ~~1633~~ 1648 / ~~1703~~ 1718		
Stop Flow (L/min)	2.530 / 2.479 / ~~2.558~~ 2.480	2.517	
Pump fault? (circle)	~~No~~ Yes NA	No Yes NA	No Yes NA
MET Station onsite?	No **Yes** NA	No Yes NA	No Yes NA
Sample Type	TWA EXC **NA**	TWA EXC NA	TWA EXC NA
Field Comments Cassette Lot Number: 180413	PUMP SHUT OFF FIFTEEN MINUTES PRIOR TO TEST TERMINATION. THIS PUMP WAS EXTENDED FOR FIFTEEN TEST MINUTES. Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-102 Sampling Date: 7/19/18

Field Logbook No: 1

Page No: 105

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-102-ML101	CSPKABSP-102-AH101	CSPKABSP-102-AL101
Location ID	CSPKABS-102	CSPKABS-102	CSPKABS-102
Sample Group			
Location Description	ECO	~~ADULT HIGH VOLUME~~ UPWIND HIGH	~~ADULT LOW VOLUME~~ UPWIND LOW
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644170	EPA SA5258	EPA SA5258
Flow Meter ID No.	~~3-1034199~~ R359	~~3103411999~~ R359	~~3103411999~~ R359
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1041 / 1111 / 1141 / 1211	1041 / 1111 / 1126 / 1211	1041 / 1111 / ~~1126~~ 1141 / 1211
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 2.017	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1111 / 1141 / 1211 / 1241	1111 / ~~1126~~ 1141 / 1211 / 1241	1111 / ~~1126~~ 1141 / 1211 / 1241
Stop Flow (L/min)	2.017 / 2.2 / 2.017 / 2.017	3.9 / 3.9 / 4.037 / 4.037	2.017 / ~~2.935~~ 2.810 / 2.017 / 2.10
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	DUSTY FILTER @ 1141 MARK (1141)		
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000104

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-102 Sampling Date: 7/19/18

Field Logbook No: 1

Page No: 105

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-102-AH102	CSPKABSP-102-AL102	
Location ID	CSPKABS-102	CSPKABS-102	
Sample Group			
Location Description	DOWNWIND HIGH	DOWNWIND LOW	
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA5257	EPA SA5257	
Flow Meter ID No.	31034199 R359	31034199 R359	
Start Date	7/19/18	7/19/18	
Start Time	1041 1111 1141 1211	1041 1111 1141 1211	
Start Flow (L/min)	4.037 4.037 4.037 4.048	2.017 2.017 2.017 2.011	
Stop Date	7/19/18	7/19/18	
Stop Time	1111 1141 1211 1241	1111 1141 1211 1241	
Stop Flow (L/min)	3.892 3.90 4.116 4.043	2.017 2.017 1.864 2.038	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA-000107

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-103-ML101	CSPKABSP-103-AH101	CSPKABSP-103-AL101
Location ID	PK 103	PK 103	PK 103
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	10X10 FT SQUARE COMPLETE VEGETATIVE COVER		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPASA5258	
Flow Meter ID No.	31034199		
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437
Start Flow (L/min)	2.397 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 3.991 / 3.991	2.397 / 1.908 / 1.908 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507
Stop Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 3.991 / 3.991	1.908 / 1.908 / 1.908 / 1.908
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
~~Cassette Lot~~ Number: _____	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Revised

Sheet No.: PA- 000107

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No: ———

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-103-ML101	CSPKABSP-103-AH101	CSPKABSP-103-AL101
Location ID	PK 103	PK 103	PK 103
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	10 X 10 FT SQUARE COMPLETE VEGETATIVE COVER	→	→
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EDASA5258 →	→
Flow Meter ID No.	31034199 →	→	→
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437
Start Flow (L/min)	2.397 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 3.991 / 3.991	2.397 / 1.908 / 1.908 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507
Stop Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 3.991 / 3.991	1.908 / 1.908 / 1.908 / 1.908
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre 2nd Clear 3rd Clear (NA)	Pre 2nd Clear 3rd Clear (NA)	Pre 2nd Clear 3rd Clear (NA)
Field Comments Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PA- 000108

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-103 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-103-AH102	CSPKABSP-103-AL102	
Location ID	PK 103	PK 103	
Sample Group	DOWNWIND HIGH	DOWNWIND LOW	
Location Description	10X10FT SQUARE COMPLETE VEGETATIVE COVER	→	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	EPA SA5255	→	
Flow Meter ID No.	31034199	→	
Start Date	7/20/18	7/20/18	
Start Time	1307 / 1337 / 1407 / 1437	1307 / 1337 / 1407 / 1437	
Start Flow (L/min)	3.991 / 3.991 / 3.991 / 3.991	2.143 / 2.143 / 2.143 / 2.143	
Stop Date	7/20/18	7/20/18	
Stop Time	1337 / 1407 / 1437 / 1507	1337 / 1407 / 1437 / 1507	
Stop Flow (L/min)	3.991 / 3.991 / 4.324 / 3.837	2.143 / 2.143 / 2.143 / 2.143	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180917	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA-0001

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110 - 112

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-104-ML101	CSPKABSP-104-AH101	CSPKABSP-104-AL101
Location ID	ECO CSPKABS-104	UPWIND HIGH	UPWIND LOW
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	See PE-000109		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	644170	EPA SA5258	EPA SA 5258
Flow Meter ID No.	R 359	R 359	R 359
Start Date	7-20-18	7-20-18	7-20-18
Start Time	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110
Start Flow (L/min)	2.1 / 2.017 / 2.017 / 2.017 / 2.1	4.037 / 4.037 / 4.037 / 4.037 / 4.037	2.1 / 2.1 / 2.1 / 2.017 / 2.1
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140
Stop Flow (L/min)	2.1 / 0.3 / 2.017 / 2.017 / 2.017	4.037 / 4.037 / 4.037 / 4.037 / 4.037	2.1 / 2.1 / 2.017 / 2.017 / 2.017
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDM

Revised

Sheet No.: PA-0001/1

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-104 Sampling Date: 7/20/18

Field Logbook No: 001

Page No: 110-113

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-104-ML101	CSPKABSP-104-AH101	CSPKABSP-104-AL101
Location ID	~~ECO CSPKABS-104~~	~~UPWIND HIGH~~	~~UPWIND LOW~~
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	See PE-000109		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	Rotometer (DryCal) NA	Rotometer (DryCal) NA
Pump ID Number	644170	EPA SA5258	EPA SA 5258
Flow Meter ID No.	R 359	R 359	R 359
Start Date	7-20-18	7-20-18	7-20-18
Start Time	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110	0910 / 0940 / 1010 / 1040 / 1110
Start Flow (L/min)	2.1 / 2.017 / 2.017 / 2.017 / 2.1	4.037 / 4.037 / 4.037 / 4.037 / 4.037	2.1 / 2.1 / 2.1 / 2.017 / 2.017
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140	0919 / 1010 / 1040 / 1110 / 1140
Stop Flow (L/min)	2.1 / 2.3 / 2.017 / 2.1 / 2.017	4.037 / 4.037 / 4.037 / 4.037 / 4.020	2.1 / 2.1 / 2.017 / 2.017 / 2.017
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

CDM

Sheet No.: PA- 000112

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-104 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 110-113

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-104-AH102	CSPKABSP-104-AL102	
Location ID	DOWNWIND HIGH	DOWNWIND LOW	
Sample Group	CSPKABS-104	CSPKABS-104	
Location Description	See PE 000104		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5257	EPA SA 5257	
Flow Meter ID No.	R359/11030	R359/11030	
Start Date	7-20-18	7-20-18	
Start Time	0940 1010 1040 1110	0940 1010 1040 1110	
Start Flow (L/min)	4.037 4.037 4.037 4.038	1.9 2.1 2.3 2.034	
Stop Date	7-20-18	7-20-18	
Stop Time	1010 1040 1110 1140	1010 1040 1110 1140	
Stop Flow (L/min)	4.037 4.037 4.38 4.037	2.1 2.3 2.405 2.1	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	battery not working change and start sampling at 0940		
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PA- 000112

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS - 104 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 110 - 113

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-104-AH102	CSPKABSP-104-AL102	
Location ID	DOWNWIND HIGH	DOWNWIND LOW	
Sample Group	CSPKABS-104	CSPKABS-104	
Location Description	See PE 000104		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other OK	(PCM- 0.80) Other OK	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) (DryCal) NA	(Rotometer) (DryCal) NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5257	EPA SA 5257	
Flow Meter ID No.	R359/11030	R359/11030	
Start Date	7-20-18	7-20-18	
Start Time	0940 / 1010 / 1040 / 1110	0940 / 1010 / 1040 / 1110	
Start Flow (L/min)	4.037 / 4.037 / 4.037 / 4.098	1.9 / 2.1 / 2.3 / 2.034	
Stop Date	7-20-18	7-20-18	
Stop Time	1010 / 1040 / 1110 / 1140	1010 / 1040 / 1110 / 1140	
Stop Flow (L/min)	4.037 / 4.037 / 4.38 / 4.037	2.1 / 2.3 / 2.405 / 2.1	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Battery not working change and start sampling at 0940		
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: CDM Smith Other _____ Names: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-105-ML101	CSPKABSP-105-AH101	CSPKABSP-105-AL101
Location ID	CSPKABS-105	CSPKABS-105	CSPKABS-105
Sample Group			
Location Description	ECO	UPWIND HIGH	UPWIND LOW
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	644170	EPA SA5258	EPA SA5258
Flow Meter ID No.	R359	R359	R359
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 2.017	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.019 / 2.017
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649
Stop Flow (L/min)	2.1 / 2.017 / 2.017 / 2.317	3.9 / 4.037 / 4.037 / 4.037	1.9 / 2.017 / 2.017 / 2.017
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	VERY DARK FILTER @ 1649		
Cassette Lot Number: 180417 180417 SC	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA-0001/5

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-105-ML101	CSPKABSP-105-AH101	CSPKABSP-105-AL101
Location ID	CSPKABS-105	CSPKABS-105	CSPKABS-105
Sample Group			
Location Description	ECO	UPWIND HIGH	UPWIND LOW
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644170	EPA SA5258	EPA SA5258
Flow Meter ID No.	R359	R359	R359
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 2.017	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649
Stop Flow (L/min)	2.1 / 2.017 / 2.017 / 2.317	3.9 / 4.037 / 4.037 / 4.037	1.9 / 2.017 / 2.017 / 2.017
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments	VERY DARK FILTER @ 1649		
Cassette Lot Number: 180417 180417 SC	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA- 000116

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: CDM Smith Other _____ Names: _____

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-105-AH102	CSPKABSP-105-AL102	
Location ID	CSPKABSP-105	CSPKABSP-105	
Sample Group			
Location Description	DOWNWIND HIGH	DOWNWIND LOW	
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA5259	EPA SA5259	
Flow Meter ID No.	R359	R359	
Start Date	7/19/18	7/19/18	
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	
Start Flow (L/min)	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017	
Stop Date	7/19/18	7/19/18	
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	
Stop Flow (L/min)	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

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Sheet No.: PA- 000116

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-105 Sampling Date: 7/19/18

Field Logbook No: 001

Page No: 103-109

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-105-AH102	CSPKABSP-105-AL102	
Location ID	CSPKABSP-105	CSPKABSP-105	
Sample Group			
Location Description	DOWNWIND HIGH	DOWNWIND LOW	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	EPA SA5259	EPA SA5259	
Flow Meter ID No.	R359	R359	
Start Date	7/19/18	7/19/18	
Start Time	1449 / 1519 / 1549 / 1619	1449 / 1519 / 1549 / 1619	
Start Flow (L/min)	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017	
Stop Date	7/19/18	7/19/18	
Stop Time	1519 / 1549 / 1619 / 1649	1519 / 1549 / 1619 / 1649	
Stop Flow (L/min)	4.037 / 4.037 / 4.037 / 4.037	2.017 / 2.017 / 2.017 / 2.017	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	No Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename:_____ NA	Filename:_____ NA	Filename:_____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA- 000119

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: 001

Page No: 114

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-106-ML101	CSPKABSP-106-AH101	CSPKABSP-106-AL101
Location ID	CSPKABS-106		
Sample Group	ECO	Upwind High	Upwind Low
Location Description	See PE-000117		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	644170	EPA SA 5258	EPA SA 5258
Flow Meter ID No.	R359	R359	R359
Start Date	7-20-18	7-20-18	7-20-18
Start Time	1333 / 1403 / 1433 / 1503	1333 / 1403 / 1433 / 1503	1333 / 1403 / 1433 / 1503
Start Flow (L/min)	2.017 / 2.017 / 2.017 / 1.9	4.037 / 4.037 / 4.037 / 3.9	1.9 / 1.9 / 2.017 / 2.017
Stop Date	7-20-18	7-20-18	7-20-18
Stop Time	1403 / 1433 / 1503 / 1533	1403 / 1433 / 1503 / 1533	1403 / 1433 / 1503 / 1533
Stop Flow (L/min)	2.017 / 2.017 / 1.9 / 1.9	4.037 / 4.037 / 3.9 / 3.9	1.9 / 2.017 / 1.818 / 2.017
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Dust on filter - very overloaded	Dust on filter	
Cassette Lot Number:	180417		
	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA- 000120

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-106 Sampling Date: 7-20-18

Field Logbook No: (x)

Page No: 114

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-106-AH102	CSPKABSP-106-AL102	
Location ID	Downwind High	Downwind Low	
Sample Group	CSPKABS-106		
Location Description	see PE-00117		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5257	EPA SA 5257	
Flow Meter ID No.	R359	R359	
Start Date	7-20-18	7-20-18	
Start Time	1333 / 1403 / 1433 / 1503	1333 / 1403 / 1433 / 1503	
Start Flow (L/min)	4.037 / 4.037 / 4.1 / 4.037	2.017 / 2.017 / 2.017 / 2.1	
Stop Date	7-20-18	7-20-18	
Stop Time	1403 / 1433 / 1503 / 1533	1403 / 1433 / 1503 / 1533	
Stop Flow (L/min)	4.037 / 4.1 / 4.037 / 4.037	2.017 / 2.017 / 2.1 / 2.1	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Moderate dust on filter	light dust on	-
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

1348

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: RP	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000123

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSE-101-ML101	CSPKABSP-101-AH101	CSPKABSP-101-AL101
Location ID	PK-101	PK-101	PK-101
Sample Group	ECO	UPWIND HIGH	UPWIND LOW
Location Description	10X10 FT SQUARE FULLY VEGETATED	30'	
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	644470	EPA SA5258	
Flow Meter ID No.	31034199		
Start Date	7/20/18	7/20/18	7/20/18
Start Time	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758
Start Flow (L/min)	2.143 / 2.143 / 2.026 / 1.908	3.991 / 3.991 / 3.991 / 3.991	2.143 / 2.143 / 2.026 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828
Stop Flow (L/min)	2.143 / 2.026 / 1.908 / 1.908	3.991 / 3.991 / 3.991 / 3.991	2.143 / 2.026 / 1.908 / 1.908
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDM

Sheet No.: PA-0001 24

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSPKABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSPKABSP-101-AH102	CSPKABSP-101-AL102	
Location ID	PK-101	PK-101	
Sample Group	DOWNWIND HIGH	DOWNWIND LOW	
Location Description	10X10FT SQUARE FULLY VEGETATED	→	
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	EPA SA5255 →	→	
Flow Meter ID No.	31034199 →	→	
Start Date	7/20/18	7/20/18	
Start Time	1628 / 1658 / 1728 / 1758	1628 / 1658 / 1728 / 1758	
Start Flow (L/min)	3.991 / 3.991 / 3.877 / 3.991	2.143 / 2.026 / 1.908 / 2.143	
Stop Date	7/20/18	7/20/18	
Stop Time	1658 / 1728 / 1758 / 1828	1658 / 1728 / 1758 / 1828	
Stop Flow (L/min)	3.991 / 3.877 / 3.991 / 4.324	2.026 / 1.908 / 2.143 / 2.397	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180417	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

1.908
2.143

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

TDM

Sheet No.: PA- 0001 27

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS - 101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSE-101-ML101	CSAPABSP-101-AH101	CSAPABSP-101-AL101
Location ID	AP 101	AP 101	AP 101
Sample ~~Group~~ Desc.	Eco	Upwind High	Upwind Low
Location Description			
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	64470	EPA SA5258	EPA SA5258
Flow Meter ID No.	31034199	31034199	31034199
Start Date	7/20/18	7/20/18	7/20/18
Start Time	0908 / 0938 / 1008 / 1038	0908 / 0958 / 1008 / 1038	0908 / 0938 / 1008 / 1038
Start Flow (L/min)	2.143 / 2.145 / 2.27 / 2.143	3.991 / 3.837 / 3.911 / 3.837	2.03 / 1.819 / 2.03 / 1.908
Stop Date	7/20/18	7/20/18	7/20/18
Stop Time	0938 / ~~0938~~ 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108
Stop Flow (L/min)	2.149 / 2.397 / 2.143 / 1.908	~~3.837~~ 3.837 / 3.991 / 3.837 / 3.917	1.729 / 1.903 / 2.03 / 1.908 / 1.908
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA-000128

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-101 Sampling Date: 7/20/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-101-AH102	CSAPABSP-101-AL102	
Location ID	AP 101	AP-101	
Sample ~~Group~~ Desc.	Downwind High	Downwind Low	
Location Description			
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5255	EPA SA 5255	
Flow Meter ID No.	31034199	31034199	
Start Date	7/20/18	7/20/18	
Start Time	0906 / 0938 / 1008 / 1038	0908 / 0938 / 1008 / 1038	
Start Flow (L/min)	4.15 / 3.991 / 4.15 / 3.837	2.143 / 2.149 / 2.27 / 2.143	
Stop Date	7/20/18	7/20/18	
Stop Time	0938 / 1008 / 1038 / 1108	0938 / 1008 / 1038 / 1108	
Stop Flow (L/min)	3.991 / 4.15 / 3.837 / 3.837	2.143 / 2.143 2.397 / 2.143 / 2.143	
Pump fault? (circle)	No Yes NA	No Yes 2.27 NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: SP QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA-0001 31

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSE-102-ML101	CSAPABSP-102-AH101	CSAPABSP-102-AL101
Location ID	AP 102	AP 102	AP 102
Sample ~~Group~~ Des	Eco	Upwind High	Upwind Low
Location Description	See Adult High location description		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	644470	EPA SA5259	EPA SA5259
Flow Meter ID No.	31034199	31034199	31034199
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1206 | 1245 | 1320 | ~~1406~~	1206 | 1245 | 1320 | ~~1406~~	1206 | 1245 | 1320 | ~~1406~~
Start Flow (L/min)	2.143 | 2.143 | 2.03	3.991 4.324 4.15 | 4.15 | 3.991	2.143 | 2.03 | 1.908
Stop Date	7/19/18	4.15 1320 7/19/18	1320 7/19/18
Stop Time	1245 | 1320 | ~~1406~~	1245 | ~~1320~~ | 1406	1245 | ~~1320~~ | 1408
Stop Flow (L/min)	2.397 | 2.143 | 2.03	4.15 | 3.991 | 3.991	1.908 2.143 | 1.908 | 2.03
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA-0001 32

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names:

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-102-AH102	CSAPABSP-102-AL102	
Location ID	AP 102	AP 102	
Sample ~~Group~~ Desc.	Downwind High	Downwind Low	
Location Description	See Adult High location description		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	EPA SA 5255	EPA SA 5255	
Flow Meter ID No.	106996	106996	
Start Date	7/19/18	7/19/18	
Start Time	1206 1245 1320 1405	1206 1245 1320 1405	
Start Flow (L/min)	~~4.850~~ 4.145 4.270 4.103	~~2.824~~ 2.089 2.149 2.112	
Stop Date	~~3.917~~ 7/19/18	~~2.134~~ 7/19/18	
Stop Time	1245 1320 1405	1245 1320 1405	
Stop Flow (L/min)	4.559 4.270 4.417	2.471 2.149 2.085	
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated		Validated _____

Revised

Sheet No.: PA- 0001 32

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-102 Sampling Date: 7/19/18

~~Field~~ Logbook No: 002

Page No: —

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-102-AH102	CSAPABSP-102-AL102	
Location ID	AP 102	AP 102	
Sample ~~Group~~ Desc.	Downwind High	Downwind Low	
Location Description	See Adult High location description →		
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	Rotometer (DryCal) NA	Rotometer (DryCal) NA	Rotometer DryCal NA
Pump ID Number	EPA SA5255	EPA SA 5255	
Flow Meter ID No.	106996	106996	
Start Date	7/19/18	7/19/18	
Start Time	1206 / 1245 / 1320 / ~~1406~~	~~1206~~ / 1245 / 1320 / ~~1406~~	
Start Flow (L/min)	~~4.850~~ / 4.145 / 4.270 / 4.103	~~2.824~~ / 2.089 / 2.149 / 2.112	
Stop Date	~~4.656~~ 3.917 7/19/18	~~2.194~~ 2.154 7/19/18	
Stop Time	1245 / 1320 / 1406	1245 / 1320 / 1406	
Stop Flow (L/min)	4.559 / 4.270 / 4.417	2.471 / 2.149 / 2.085	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: PA-0001 35

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAPABS-103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSE-103-ML101	CSAPABSP-103-AH101	CSAPABSP-103-AL101
Location ID	AP103	AP 103	AP 103
Sample Group	Eco	Upwind High	Upwind Low
Location Description			
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	644470	EPA SA5258	EPA SA5258
Flow Meter ID No.	31034199	31034199	3104199
Start Date	7/19/18	7/19/18	7/19/18
Start Time	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633
Start Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.991 / 1633 / 3.991	2.143 / 2.143 / 2.143 / 1.908
Stop Date	7/19/18	7/19/18	7/19/18
Stop Time	1533 / 1603 / 1633 / 1705	1533 / 1603 / 1638 / 1705	1533 / 1603 / 1633 / 1703
Stop Flow (L/min)	2.143 / 2.143 / 2.143 / 2.143	3.991 / 3.837 3.991 / 3.991 / 3.837	2.143 / 2.143 / 1.908 / 1.908
Pump fault? (circle)	No Yes NA	No Yes 3.914 NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: i NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: PA- 000136

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR PERIMETER AIR

Location: CSAP ABS 103 Sampling Date: 7/19/18

Field Logbook No: 002

Page No:

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSAPABSP-103-AH102	CSAPABSP-103-AL102	
Location ID	AP 103	AP 103	
Sample ~~Group~~ Desc	Downwind ~~Low~~ High	Downwind Low	
Location Description			
Category (circle)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	(FS) FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor (Outdoor) NA	Indoor (Outdoor) NA	Indoor (Outdoor) NA
Filter Diameter (circle)	(25mm) Other _____	(25mm) Other _____	(25mm) Other _____
Pore Size (circle)	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____	(PCM- 0.80) Other _____
Flow Meter Type (circle)	(Rotometer) DryCal NA	(Rotometer) DryCal NA	(Rotometer) DryCal NA
Pump ID Number	EPA SA5255	EPA SA5255	
Flow Meter ID No.	31034199	31034199	
Start Date	7/19/18	7/19/18	
Start Time	1503 / 1533 / 1603 / 1633	1503 / 1533 / 1603 / 1633	
Start Flow (L/min)	3.991 4.324 / 4.15 / 4.15 / 3.991	2.143 / 2.03 / 2.143 / 2.143	
Stop Date	4.15 7/19/18	7/19/18	
Stop Time	1533 / 1603 / 1633 / 1703	1533 / 1603 / 1633 / ~~1703~~	
Stop Flow (L/min)	~~2.03~~ 4.15 / 4.324 / 3.991	2.03 / 2.143 / 2.143 / 2.143	
Pump fault? (circle)	(No) Yes NA	(No) Yes NA	(No) Yes NA
MET Station onsite? (circle)	No (Yes) NA	No (Yes) NA	No (Yes) NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)	Pre Post Clear 2nd Clear 3rd Clear (NA)
Field Comments			
Cassette Lot Number: 18043	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: LA QC by: PV	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: ABSS- 001

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR ABS SOIL

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 7/18/2018

Field Logbook No: 001

Page No: 99

Sampling Team: [CDM Smith] Other _____ Name(s): ~~Kara Beaudoin, Seth Cleaver~~ Paloma Vila ~~Andrew Galvin~~ [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKABSS-101	CSPKABSS-102	CSPKABSS-103
Location ID	PKABS-101	PKABS-102	PKABS-103
Sample Group	N/A	N/A	N/A
Location Description (circle)	[Park] Reservoir Asbestos Pile Other _____	[Park] Reservoir Asbestos Pile Other _____	[Park] Reservoir Asbestos Pile Other _____
Category (circle)	[FS] FD of _____ EB LB	[FS] FD of _____ EB LB	[FS] FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	[Surface Soil] Other _____	[Surface Soil] Other _____	[Surface Soil] Other _____
Type (circle)	Grab # subsamples = 0 [Comp.] # subsamples 30	Grab # subsamples = 0 [Comp.] # subsamples 30	Grab # subsamples = 0 [Comp.] # subsamples 30
Sample Time	1008	0955	1058
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	3	3	3
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	10x10ft grid around center point [X] no ACM observed % ACM: ____	10x10ft grid around center point [X] no ACM observed % ACM: ____	10x10ft grid around center point [X] no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

← BORIT ABS_Final_072318 →

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: ABSS- 002

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR ABS SOIL

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 7/18/2018

Field Logbook No: 001

Page No: 100

Sampling Team: CDM Smith Other _____ Nam [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKABSS-104	CSPKABSS-105	CSPKABSS-106
Location ID	PKABS-104	PKABS-105	PKABS-106
Sample Group	NA	NA	NA
Location Description (circle)	(Park) Reservoir Asbestos Pile Other _____	(Park) Reservoir Asbestos Pile Other _____	(Park) Reservoir Asbestos Pile Other _____
Category (circle)	(FS) FD of _____ EB LB	(FS) FD of _____ EB LB	(FS) FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab # subsamples = 0 (Comp.) # subsamples 30	Grab # subsamples = 0 (Comp.) # subsamples 30	Grab # subsamples = 0 (Comp.) # subsamples 30
Sample Time	1222	1111	1237
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	3	3	3
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	10x10ft grid around center point ☒ no ACM observed % ACM: ____	10x10 ft grid around center point ☒ no ACM observed % ACM: ____	10x10ft grid around center point ☒ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

← Borit ABS_Final_072318 →

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

5% DVC

Sheet No.: ABSS-003

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR ABS SOIL

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 7/18/2018

Field Logbook No: 001

Page No: 100-101

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPABSS-101	CSAPABSS-102	CSAPABSS-103
Location ID	APABS-101	APABS-102	APABS-103
Sample Group	NA	NA	NA
Location Description (circle)	Park Reservoir (Asbestos Pile) Other _____	Park Reservoir (Asbestos Pile) Other _____	Park Reservoir (Asbestos Pile) Other _____
Category (circle)	(FS) FD of _____ EB LB	(FS) FD of _____ EB LB	(FS) FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab # subsamples = 0 (Comp.) # subsamples 30	Grab # subsamples = 0 (Comp.) # subsamples 30	Grab # subsamples = 0 (Comp.) # subsamples 30
Sample Time	1540	1507	1516
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	3	3	3
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	10x10 ft grid around center point ☒ no ACM observed % ACM: ____	10x10 ft grid around center point ☒ no ACM observed % ACM: ____	10x10 ft grid around center point ☒ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: _____ NA	Filename: _____ NA	Filename: _____ NA

← Borit ABS_Final_07 2318 →

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

VDM

Sheet No.: AA-000101

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/24/18

Field Logbook No: 001

Page No: 033-047

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-101-AH101	CSCMAA-101-AL101	CSCMAA-107B-AH101
Location ID	CM-101	CM-101	CM-107B
Sample Group	NA	NA	NA
Location Description	Adjacent to sewer manhole. End of easement Green Ribbon Trail	pump manifolded w/ AH101	vacant lot in-between 2 jersey barriers, 5ft from Maple Ave
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	~~Rotometer~~ DryCal NA	~~Rotometer~~ DryCal NA	Rotometer DryCal NA
Pump ID Number	SA5258	SA5258	4
Flow Meter ID No.	~~120566/5.32mm~~ 120566	120566 ~~T485~~	~~120566/5.32mm~~ 106996
Start Date	5/24/18	5/24/18	5/24/18
Start Time	0638 / 1513 / 2341	0638 / 1513 / 2341	0731 / 1551 / KMB 5/25/18
Start Flow (L/min)	3.092 / 3.057 / 3.023	1.4947 / 1.536 / 1.521	3.067 / 3.043
Stop Date	~~5/24/18~~ KMB 5/24/18 5/25/18	5/25/18	~~5/25/18~~ PV 5/24/18
Stop Time	1517 / 2340 / 0644	1512 / 2340 / 0644	1549 / KMB 5/25/18
Stop Flow (L/min)	3.123 / 2.964 / 2.899	1.601 / 1.303 / 1.427	3.063
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Total Volume: 4320 L	Total Volume: 2139 L	Pump off when field team arrived. Timer did not indicate run time before shut off. Cassette replaced. 2.353
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

CDM

Sheet No.: AA-000102

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/28/18

Field Logbook No: 001

Page No: ~~034, 036~~ 033 - 047 KMB 5/25/18

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-107B-AL101	CSCMAA-102-AH101	CSCMAA-102-AL101
Location ID	CM-107B	CM-102	CM-102
Sample Group	NA	NA	NA
Location Description	Pump manifolded w/ AA101	Post office employee parking lot, lamp post near exit to	Pump manifold w/ AH101
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	~~Rotometer~~ DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	~~712056 / 14985~~ 1066996	SA5259	SA5259
Flow Meter ID No.	4	1066966	1066966
Start Date	5/24/18	5/24/18	5/24/18
Start Time	0731 / 1551	0900 / 1652 / 0046	0900 / 1652 / 0046
Start Flow (L/min)	1.502 / 1.533 KMB 5/25/18	2.998 / 2.990 / 2.997	1.535 / 1.506 / 1.512
Stop Date	5/24/18	5/25/18	5/25/18
Stop Time	1549	1654 / 0045 / 0906	1651 / 0045 / 0906
Stop Flow (L/min)	2.516 KMB 5/25/18	3.274 / 2.518 / 3.084	1.973 / 1.177 / 1.566
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	See AA-000101	Total Volume: 4300	Total Volume: 2228
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____	
For eFSDS validation	Validated _____	Validated _____		Validated _____

NN 5/30 DVC TDM

Sheet No.: AA000153

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/24/18

Field Logbook No: 001

Page No: 035 033-047

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-103-AH101	CSCMAA-103-AL101	CSCMAA-104-AH101
Location ID	CM-103	CM-103	CM-104
Sample Group	NA	NA	NA
Location Description	Church, Grassy area in front of parking lot, adjacent to sidewalk on Spring Garden St.	Church, manifolded w/ AH101	Comm. Center. Next to parking sign
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	SA5256	SA5256	SA5255
Flow Meter ID No.	106966	106966	106966
Start Date	5/24/18	5/24/18	5/24/18
Start Time	0805 / 1617 / 0022	0805 / 1617 / 0022	0840 / 1637 / 0032
Start Flow (L/min)	2.993 / 2.960 / 3.042	1.511 / 1.522 / 1.522	3.044 / 3.043 / 3.061
Stop Date	5/25/18	5/25/18	
Stop Time	1559 / ~~0022~~ / 0814	1559 / 0020 / 0814	1636 / 0031 / 0839
Stop Flow (L/min)	~~3.190~~ / 2.187 / 3.190	[illegible] / 1.174 / 1.546	3.047 / 2.792 / 3.337
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	1603: Pump not running. Replace pump. Same cassette. Total volume: 4160	Timer shows 15:54 rem. New pump # SA5257 Total Volume: 2137	Concrete on sidewalk being repaired ~ 5ft from pump Total Volume: 4394
Cassette Lot Number: 180413	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORIT ABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-000164

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA

Sampling Date: 5/24/18 (end sample 5/25/18)

Field Logbook No: 001

Page No: ~~035-036~~ 033-047 (KMB 5/25/18)

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2 (VOID)	Cassette 3 (VOID)
Index ID	CSCMAA-104-AL101	CSCMAA-107B-AH101B	CSCMAA-107B-AL101B
Location ID	CM-104	CM-107B	CM-107B
Sample Group	NA	NA	NA
Location Description	Comm. Center. manifolded w/ AH101	Vacant lot. cassette replaced after 16 hrs due to pump fault and	uncertainty over how long pump was running before fault
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	SA6255	4	4
Flow Meter ID No.	106966	106966	106966
Start Date	5/24/18	5/25/18	5/25/18
Start Time	0840 / 1637 / 0032	0009 / KMB 5/25/18	0009 / KMB 5/25/18
Start Flow (L/min)	1.509 / 1.534 / 1.504	2.984 / KMB 5/25/18	1.564 / KMB 5/25/18
Stop Date	5/25/18	5/25/18	5/25/18
Stop Time	1636 / 0831 / 0839	0733 / KMB 5/25/18	0733 / KMB 5/25/18
Stop Flow (L/min)	1.548 / 1.387 / 1.661	2.683 / KMB 5/25/18	1.442 / KMB 5/25/18
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre 2nd Clear 3rd Clear NA	Pre 2nd Clear 3rd Clear NA	Pre 2nd Clear 3rd Clear NA
Field Comments	Total volume = 2189	2 rolls of impermeable fabric building material noted in front of sample location	
Cassette Lot Number: 186413	Sample Type:	Sample Type:	Sample Type:
	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No	Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ABS NA	Filename: BORITABS NA	Filename: BORIT ABS NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDT

Sheet No.: AA-000105

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 5/25/18

Field Logbook No: 001

Page No: 043

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-101-400		
Location ID	NA		
Sample Group	NA		
Location Description	near CSCMAA-107		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	NA		
Flow Meter ID No.	NA		
Start Date	5/25/18		
Start Time	NA		
Start Flow (L/min)	NA		
Stop Date	5/25/18		
Stop Time	NA		
Stop Flow (L/min)	NA		
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments			
Cassette Lot Number: 180413	Sample Type: FB Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Filename: BORIT ARS NA	Filename: _____ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: AV QC by: KMB	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

CDM

Sheet No.: AA-000106

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: _____

Field Logbook No: 001

Page No: _____

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCMAA-105-AH101	CSCMAA-105-AL101	CSCMAA-105-400
Location ID	CM-105	CM-105	NA
Sample Group	NA	NA	NA
Location Description	Adjacent to basket ball court. Chained to no parking sign.	near CSCMAA-105	
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	SA5259	SA5259	NA
Flow Meter ID No.	R3502	R3502	NA
Start Date	6/7/18	6/7/18	6/7/18
Start Time	1447 / 2310 / 0803	1447 / 2310 / 0803	NA
Start Flow (L/min)	2.994 / 3.044 / 3.064	1.500 / 1.541 / 1.508	NA
Stop Date	6/8/18	6/8/18	6/7/18
Stop Time	2306 / 0758 / 1455	2306 / 0758 / 1455	NA
Stop Flow (L/min)	2.588 / 2.980 / 3.235	1.244 / 1.498 / 1.889	NA
Pump fault? (circle)	No Yes NA	No Yes NA	No Yes NA
MET Station onsite? (circle)	No Yes NA	No Yes NA	No Yes NA
Sample Type (circle)	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA	Pre Post Clear 2nd Clear 3rd Clear NA
Field Comments	Volume calc = 3944L	Volume calc = 2022L	
Cassette Lot Number:	180483		
Sample Type:	high vol	low vol	FB
Archive Blank (circle):	Yes No	Yes No	Yes No
GPS File (fill in or circle)	Filename: [illegible] (NA)	Filename: [illegible] (NA)	Filename: [illegible] NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: AA-[illegible]

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR AMBIENT AIR

Location: BoRit Asbestos Superfund Site, Ambler PA Sampling Date: 6/7/18

Field Logbook No: 001

Page No: [illegible]

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Cassette 1	Cassette 2	Cassette 3
Index ID	CSCmAA-107B-AH101	CSCmAA-107B-AL101	
Location ID	CM-107B	CM-107B	
Sample Group	NA	NA	
Location Description	Along Maple Ave, in-between 2 Jersey Bariers. No activity on-site.		
Category (circle)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)	FS FB-(field blank) LB-(lot blank) DB-(prep-dry blank)
Matrix Type (circle)	Indoor Outdoor NA	Indoor Outdoor NA	Indoor Outdoor NA
Filter Diameter (circle)	25mm Other _____	25mm Other _____	25mm Other _____
Pore Size (circle)	PCM- 0.80 Other _____	PCM- 0.80 Other _____	PCM- 0.80 Other _____
Flow Meter Type (circle)	Rotometer DryCal NA	Rotometer DryCal NA	Rotometer DryCal NA
Pump ID Number	SA5255	SA5255	
Flow Meter ID No.	R3522	R3522	
Start Date	6/7/18	6/7/18	
Start Time	1420 / 2246 / 0741	1420 / 2246 / 0741	
Start Flow (L/min)	3.055 / 3.056 / 3.096	1.[illegible] / 1.502 / 1.515	
[illegible]	6/8/18	6/8/18	
[illegible]	2244 / 0740 / 1420	2244 / 0740 / 1420	
[illegible]	2.777 / 2.911 / 3.578	1.340 / 1.428 / 1.824	
[illegible] (circle)	No Yes NA	No Yes NA	No Yes NA
[illegible]te? (circle)	No Yes NA	No Yes NA	No Yes NA
[illegible]circle)	Pre 2nd Clear Post 3rd Clear Clear NA	Pre 2nd Clear Post 3rd Clear Clear NA	Pre 2nd Clear Post 3rd Clear NA
[illegible]s	Black cap left on for 4.5 hrs. Volume calc = 4396 L	Volume calc = 2177 L	
Cassette Lot Number: 180413	Sample Type: high vol Archive Blank (circle): Yes No	Sample Type: low vol Archive Blank (circle): Yes No	Sample Type: Archive Blank (circle): Yes No
GPS File (fill in or circle)	Could not collect Filename: ~~BOR1_FA21~~ NA	Could not collect Filename: ~~BOR1_AL21~~ NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: RV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

blackcap was on but blue cap was off

Sheet No.: S- 001

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 24, 2018

Field Logbook No: 001

Page No: 010

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-101	CSPKSS-201	CSPKSS-103
Location ID	PK01-01	PK01-01	PK02-01
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of CSPKSS-101 EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1045	1045	1340
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDM

Sheet No.: S- 002

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 24, 2018

Field Logbook No: 001

Page No: 010-011

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-105	CSPKSS-102	CSPKSS-106
Location ID	PK03-01	PK01-02	PK03-02
Sample Group			
Location Description (circle)	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	**Surface Soil** Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**
Sample Time	1445	1550	1620
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA

v 090210

For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

✓ MP 5/9/0 DVC VDM

Sheet No.: S- 003

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 24, 2018

Field Logbook No: 001

Page No: 011

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-501	CSPKSS-104	
Location ID	PK01-01	PK02-02	
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other WATER	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples _____	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1710	1715	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	☐ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

VTDR

Sheet No.: S- 004

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 25, 2018

Field Logbook No: 001

Page No: 013

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-108	CSPKSS-107	
Location ID	PK04-02	PK04-01	
Sample Group			
Location Description (circle)	**Park** Reservoir Asbestos Pile Other _____	**Park** Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1305	1555	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	1-inch triangular blue tile encountered at approx. 5 inches bgs from 1 grab location ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☐ no ACM observed % ACM: ____
GPS File (fill in or circle)	**Filename: BORIT CS 4-24-18 NA**	**Filename: BORIT CS 4-24-18 NA**	Filename: BORIT CS 4-24-18 NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDM

Sheet No.: S- 005

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site

Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 014

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSPKSS-109	CSPKSS-110	CSPKSS-210
Location ID	PK05-01	PK05-02	PK05-02
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of CSPKSS-110 EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	0830	0925	0925
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 006

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 015-017

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-106	CSRVSS-104	CSRVSS-105
Location ID	RV03-02	RV02-02	RV03-01
Sample Group			
Location Description (circle)	Park Reservoir ~~Asbestos Pile~~ Other _____	Park Reservoir ~~Asbestos Pile~~ Other _____	Park Reservoir ~~Asbestos Pile~~ Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1110	1205	1140
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 007

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 018

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-101	CSRVSS-102	CSRVSS-110
Location ID	RV01-01	RV01-02	RV05-02
Sample Group			
Location Description (circle)	Park Reservoir ~~Asbestos Pile~~ Other _____	Park Reservoir ~~Asbestos Pile~~ Other _____	Park Reservoir ~~Asbestos Pile~~ Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1425	1445	1536
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: S- 008

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 26, 2018

Field Logbook No: 001

Page No: 018

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-109	CSRVSS-103	CSRVSD-503
Location ID	RV05-01	RV02-01	RV02-01
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB Rinsate Blank LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other water
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 01 Comp. # subsamples _____
Sample Time	1611	1355	1420
Top Depth (inches below ground surface)	0	0	NA
Bottom Depth (inches below ground surface)	6	6	NA
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☐ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 009

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 020

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSRVSS-108	CSRVSS-107	CSAPSS-110
Location ID	RV04-02	RV04-01	AP05-01
Sample Group			
Location Description (circle)	Park Reservoir ~~Asbestos Pile~~ Other _____	Park Reservoir ~~Asbestos Pile~~ Other _____	Park ~~Reservoir~~ Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	0847	0908	0945
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA	Filename: BORIT CS 4-24-18 NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: S- 010

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 021

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-108	CSAPSS-107	CSAPSS-106
Location ID	AP04-01	AP03-02	AP03-01
Sample Group			
Location Description (circle)	Park Reservoir **Asbestos Pile** Other _____	Park Reservoir **Asbestos Pile** Other _____	Park Reservoir **Asbestos Pile** Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	**Surface Soil** Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**
Sample Time	1010	1035	1057
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	**Filename: BORIT CS 4-24-18** NA	**Filename: BORIT CS 4-24-18** NA	**Filename: BORIT CS 4-24-18** NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: S- 011

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 021

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-102	CSAPSS-103	CSAPSS-203
Location ID	AP01-02	AP01-03	AP01-03
Sample Group			
Location Description (circle)	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	FS FD of _____ EB LB	FS FD of _____ EB LB	FS FD of CSAPSS-103 EB LB
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30	Grab # subsamples = 0 Comp. # subsamples 30
Sample Time	1123	1213	1213
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	Filename: BORIT CS 5-02-18 NA	Filename: BORIT CS 5-02-18 NA	Filename: BORIT CS 5-02-18 NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: S- 012

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 022

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-101	CSAPSS-104	CSAPSS-105
Location ID	AP01-01	AP02-01	AP02-02
Sample Group			
Location Description (circle)	Park Reservoir **Asbestos Pile** Other _____	Park Reservoir **Asbestos Pile** Other _____	Park Reservoir **Asbestos Pile** Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	**Surface Soil** Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**
Sample Time	1230	1250	1341
Top Depth (inches below ground surface)	0	0	0
Bottom Depth (inches below ground surface)	6	6	6
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____
GPS File (fill in or circle)	**Filename: BORIT CS 5-02-18** NA	**Filename: BORIT CS 5-02-18** NA	**Filename: BORIT CS 5-02-18** NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: S- 013

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SOIL

Location: BoRit Superfund Site Sampling Date: April 27, 2018

Field Logbook No: 001

Page No: 023

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSAPSS-109	CSAPSS-111	
Location ID	AP04-02	AP05-02	
Sample Group			
Location Description (circle)	Park Reservoir **Asbestos Pile** Other _____	Park Reservoir **Asbestos Pile** Other _____	Park Reservoir Asbestos Pile Other _____
Category (circle)	**FS** FD of _____ EB LB	**FS** FD of _____ EB LB	FS FD of _____ EB LB
Matrix Type (Surface soil unless other wise noted)	**Surface Soil** Other _____	**Surface Soil** Other _____	Surface Soil Other _____
Type (circle)	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 **Comp. # subsamples 30**	Grab # subsamples = 0 Comp. # subsamples _____
Sample Time	1412	1435	
Top Depth (inches below ground surface)	0	0	
Bottom Depth (inches below ground surface)	6	6	
Field Comments (Note if asbestos-containing material (ACM) is observed in sample and percentage observed.)	NA ☑ no ACM observed % ACM: ____	NA ☑ no ACM observed % ACM: ____	☐ no ACM observed % ACM: ____
GPS File (fill in or circle)	**BORIT CS 5-02-18** Filename: _____ NA	**BORIT CS 5-02-18** Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: PV QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

TDM

Sheet No.: W- 000001

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-25-2018

Field Logbook No: 001

Page No: 012

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSW-103**	**CSRVSW-104**	**CSRVSW-102**
Location ID	**RV-103**	**RV-104**	**RV-102**
Sample Group	**NA**	**NA**	**NA**
Location Description	Western quadrant of Reservoir	Southern quadrant of Reservoir	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank
Matrix Type (circle)	(Surface Water) Laboratory Water Sediment Other _____	(Surface Water) Laboratory Water Sediment Other _____	(Surface Water) Laboratory Water Sediment Other _____
Sample Time	**1233**	**1305**	**1333**
Field Comments	Water depth = 5.8 ft pH = 8.90 Temp = 14.57 Turb = 16.5 DO = 12.29 ORP = 61.7 COND = 0.45	Water depth = 6.0 ft pH = 7.68 Temp = 9.58 Turb = 19.0 DO = 1.41 ORP = -37.7 COND = 0.503	Water depth = 2.5 ft pH = 9.26 Temp = 14.62 Turb = 21.2 DO = 13.99 ORP = 0.71 COND = 0.454
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

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For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

VDM

Sheet No.: W- **000002**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site

Sampling Date: 4-25-2018

Field Logbook No: 001

Page No: 013

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSW-101**		
Location ID	**RV-101**		
Sample Group	**NA**		
Location Description	Northern quadrant of Reservoir	Southern quadrant of Reservoir	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	(Surface Water) Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	**1356**		
Field Comments	Water depth = 3.01 ft pH = 9.41 Temp = 14.58 Turb = 15.6 DO = 13.32 ORP = 20.3 COND = 0.453		
GPS File (fill in or circle)	Filename: BORIT NA	Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: W- **000003**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site Sampling Date: 4-26-2018

Field Logbook No: 001

Page No: 015-016

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSD-103**	**CSRVSD-104**	**CSRVSD-102**
Location ID	**RV-103**	**RV-104**	**RV-102**
Sample Group	**NA**	**NA**	**NA**
Location Description	Western quadrant of Reservoir	Southern quadrant of Reservoir	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank	(FS) FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water (Sediment) Other _____	Surface Water Laboratory Water (Sediment) Other _____	Surface Water Laboratory Water (Sediment) Other _____
Sample Time	**1045**	**1135**	**1250**
Field Comments	Sample is very dark, almost black brown. Sediment was silty with gravel. 3 dredge grabs were used to collect sample volume. VOCs collected from first dredge only.	Sample was mostly black silt with some medium to dark brown silt and fine gravel. 3 dredge grabs were used to collect sample volume. VOCs collected from first dredge only. Black plastic mesh pulled up with 2nd drege.	Sample was mostly black sandy silt with some medium to dark brown sandy silt. 3 dredge grabs were used to collect the sample volume. VOCs collected from first dredge only. Sediment very difficult to collect with encores.
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

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For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

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Sheet No.: W- **000004**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site

Sampling Date: 4-26-2018

Field Logbook No: 001

Page No: 017

Sampling Team: (CDM Smith) Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	**CSRVSD-101**	**CSRVSD-201**	
Location ID	**RV-101**	**RV-101**	
Sample Group	**NA**	**NA**	
Location Description	Northern quadrant of Reservoir	Same as CSRVSD-101	Eastern quadrant of Reservoir
Category (circle)	(FS) FB FD of _____ Trip Blank	FS FB (FD of CSRVSD-101) Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water (Sediment) Other _____	Surface Water Laboratory Water (Sediment) Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	**1400**	**1400**	
Field Comments	Medium to dark brown sandy silt. 4 dredge grabs used to collect sample volume. VOCs collected from first dredge only. Sample not dry enough to collect with Encore sampler. 40 mL vial used for VOC samples		
GPS File (fill in or circle)	Filename: BORIT NA	Filename: _____ NA	Filename: _____ NA

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For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- 000005

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site

Sampling Date: 4-27-18

Field Logbook No: 001

Page No: 021-022

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSCKSW-104	CSCKSW-204	CSCKSW-105
Location ID	CK-104	CK-104	CK-105
Sample Group			
Location Description	West of Reservoir parcel	Same as CSCKSW-104	Southwest of Asbestos Pile parcel
Category (circle)	FS FB FD of _____ Trip Blank	FS FB FD of CSCKSW-104 Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	1105	1105	1245
Field Comments	collected using a "bomb" discreet water sampler approx 6 inches above bottom DTB = 16 in.	collected using a "bomb" discreet water sampler approx 6 inches above bottom DTB = 16 in	Water collected directly in bottle at approximately 2" below water surface. DTB = 7.5 in.
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

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For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Sheet No.: W- 000005

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site

Sampling Date: 4-27-18

Field Logbook No: 001

Page No: 023

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSCKSW-107	CSCKSW-108	
Location ID	CK-107	CK-108	
Sample Group			
Location Description	South of BoRit site, before Butler St. Bridge	Just south of Butler St. Bridge	
Category (circle)	FS FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	1425	1505	
Field Comments	collected directly in bottles 0.5 in. below water surface. Sample moved toward center of creek to reach depth. DTB = 6.5 in.	collected directly in bottles approx. 6 in. above bottom of creek bottom DTB = 13.5 in.	
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: BORIT NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Revised

Sheet No.: W- **000006**

BORIT FIELD SAMPLE DATA SHEET (FSDS) FOR SURFACE WATER AND SEDIMENT

Location: BoRit Superfund Site

Sampling Date: 4-27-18

Field Logbook No: 001

Page No: 023

Sampling Team: CDM Smith Other _____ Names: [redacted]

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CSCKSW-107	CSCKSW-108	CSCKSW-401
Location ID	CK-107	CK-108	NA
Sample Group			
Location Description	South of BoRit site, before Butler St. Bridge	Just south of Butler St. Bridge	NA
Category (circle)	FS FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank	FS FB FD of _____ Trip Blank
Matrix Type (circle)	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____	Surface Water Laboratory Water Sediment Other _____
Sample Time	1425	1505	1530
Field Comments	collected directly in bottles 0.5 in. below water surface. Sample moved toward center of creek to reach depth. DTB = 6.5 in.	collected directly in bottles approx. 6 in. above bottom of creek bottom DTB = 13.5 in.	
GPS File (fill in or circle)	Filename: BORIT NA	Filename: BORIT NA	Filename: _____ NA

v 090210

For Field Team Completion (Initials)	Completed by: _____ QC by: _____	For Data Entry	Entered by: _____ QC by: _____
For eFSDS validation	Validated _____	Validated _____	Validated _____

Attachment 2

Data Summary of PLM Analytical Information

ATTACHMENT 2A
DATA SUMMARY OF PLM ANALYTICAL INFORMATION FOR SOIL
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Client Sample Number	Field QC Type	Lab QC Type	Lab Job Number	Lab Sample ID	Lab Name	Analysis Method	Method Number	Date Received	Analysis Media	Analyst	Analysis Date	Analysis Comment	Sample Appearance	Points Counted	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSPKSS-101	Field Sample	Not QA	041812129	041812129-0001	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] on 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-102	Field Sample	Not QA	041812129	041812129-0002	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] on 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	6/15/2018		
CSPKSS-103	Field Sample	Not QA	041812129	041812129-0003	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] on 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-104	Field Sample	Not QA	041812129	041812129-0004	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] on 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-105	Field Sample	Not QA	041812129	041812129-0005	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	Field Sample	Not QA	041812129	041812129-0006	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] on 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	Field Duplicate	Not QA	041812129	041812129-0007	EMSL04	PLM	EPA 600_PC	4/25/2018	soil	[redacted]	5/3/2018	QC analysis completed by [redacted] on 5/3/2018.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	Field Sample	Not QA	041812444	041812444-0001	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	Field Duplicate	Not QA	041812444	041812444-0002	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	Field Sample	Not QA	041812444	041812444-0003	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-106	Field Sample	Not QA	041812444	041812444-0005	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	6/15/2018		
CSRVSS-105	Field Sample	Not QA	041812444	041812444-0007	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	Field Sample	Not QA	041812444	041812444-0008	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKSS-108	Field Sample	Not QA	041812444	041812444-0010	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-107	Field Sample	Not QA	041812444	041812444-0011	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	Field Sample	Not QA	041812444	041812444-0012	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	Field Sample	Not QA	041812444	041812444-0015	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	Field Sample	Not QA	041812444	041812444-0016	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	Field Sample	Not QA	041812444	041812444-0017	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	Field Sample	Not QA	041812444	041812444-0018	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	Field Sample	Not QA	041812573	041812573-0001	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	Field Sample	Not QA	041812573	041812573-0002	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-104	Field Sample	Not QA	041812573	041812573-0003	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	6/15/2018		
CSAPSS-105	Field Sample	Not QA	041812573	041812573-0004	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	Field Sample	Not QA	041812573	041812573-0005	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	Field Sample	Not QA	041812573	041812573-0006	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	Field Sample	Not QA	041812573	041812573-0007	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	Field Sample	Not QA	041812573	041812573-0008	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2A
DATA SUMMARY OF PLM ANALYTICAL INFORMATION FOR SOIL
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Client Sample Number	Field QC Type	Lab QC Type	Lab Job Number	Lab Sample ID	Lab Name	Analysis Method	Method Number	Date Received	Analysis Media	Analyst	Analysis Date	Analysis Comment	Sample Appearance	Points Counted	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSAPSS-110	Field Sample	Not QA	041812573	041812573-0009	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPSS-111	Field Sample	Not QA	041812573	041812573-0010	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	6/15/2018		
CSRVSS-107	Field Sample	Not QA	041812573	041812573-0011	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	Field Sample	Not QA	041812573	041812573-0012	EMSL04	PLM	EPA 600_PC	4/28/2018	soil	[redacted]	5/4/2018	Additional analysis by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	Field Sample	Not QA	041821790	041821790-0001	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	Field Sample	Not QA	041821790	041821790-0002	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	Field Sample	Not QA	041821790	041821790-0003	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	Field Sample	Not QA	041821790	041821790-0004	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	Field Sample	Not QA	041821790	041821790-0005	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	Field Sample	Not QA	041821790	041821790-0006	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by J[redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	Field Sample	Not QA	041821790	041821790-0007	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-102	Field Sample	Not QA	041821790	041821790-0008	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-103	Field Sample	Not QA	041821790	041821790-0009	EMSL04	PLM	EPA 600_PC	7/19/2018	soil	[redacted]	7/30/2018	Additional analysis completed on 7/31/18.QC analysis completed by [redacted] on 7/31/18.	Brown/Non-Fibrous/Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		

Notes:
QC = quality control
DVC = Data Verification Coordinator
ID = identifier
LD = lab duplicate
PC = point count
PLM = polarized light microscopy
QA = quality assurance

ATTACHMENT 2B
DATA SUMMARY OF PLM ANALYTICAL INFORMATION FOR SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Client Sample Number	Media	Field QC Type	Lab QC Type	Lab Job Number	Lab Sample ID	Lab Name	Analysis Method	Method Number	Date Received	Analysis Media	Analyst	Analysis Date	Analysis Comment	Sample Appearance	Points Counted	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSRVSD-103	Sediment	Field Sample	Not QA	041812444	041812444-0004	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-104	Sediment	Field Sample	Not QA	041812444	041812444-0006	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	Sediment	Field Sample	Not QA	041812444	041812444-0009	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	Sediment	Field Duplicate	Not QA	041812444	041812444-0013	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] on 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	Sediment	Field Sample	Not QA	041812444	041812444-0014	EMSL04	PLM	EPA 600_PC	4/27/2018	soil	[redacted]	5/3/2018	Additional analysis by [redacted] on 5/4/18.QC analysis completed by [redacted] 5/4/18.	Brown-Non-Fibrous-Homogeneous	1000	CDM Smith/[redacted]	8/25/2018		

Notes:
QC = quality control
DVC = Data Verification Coordinator
ID = identifier
LD = lab duplicate
PC = point count
PLM = polarized light microscopy
QA = quality assurance

ATTACHMENT 2C

DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018	See footnote [a]	
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-101	041812129-0001	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-102	041812129-0002	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-103	041812129-0003	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-104	041812129-0004	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-105	041812129-0005	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-106	041812129-0006	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2C
DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-201	041812129-0007	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-109	041812444-0001	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-210	041812444-0002	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-110	041812444-0003	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSD-103	041812444-0004	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		x-NR
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-106	041812444-0005	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-104	041812444-0006	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2C

DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-105	041812444-0007	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-104	041812444-0008	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-102	041812444-0009	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-108	041812444-0010	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		x-NR
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKSS-107	041812444-0011	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-103	041812444-0012	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-201	041812444-0013	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2C
DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSD-101	041812444-0014	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-101	041812444-0015	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-102	041812444-0016	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-110	041812444-0017	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-109	041812444-0018	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-101	041812573-0001	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2C
DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-102	041812573-0002	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-104	041812573-0003	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-105	041812573-0004	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-106	041812573-0005	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-107	041812573-0006	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-108	041812573-0007	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-109	041812573-0008	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2C
DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-110	041812573-0009	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSAPSS-111	041812573-0010	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	6/15/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-107	041812573-0011	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSRVSS-108	041812573-0012	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-101	041821790-0001	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-102	041821790-0002	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-103	041821790-0003	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

ATTACHMENT 2C
DATA SUMMARY OF PLM RESULT INFORMATION FOR SOIL AND SEDIMENT
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Sample Type	Analysis	Analytical Method	Analyte	Result[a]	Units	Qualifier	Verifier's Company/Name	Verified Date	Verification Comment	DVC - 5% Check
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-104	041821790-0004	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-105	041821790-0005	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSPKABSS-106	041821790-0006	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-101	041821790-0007	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-102	041821790-0008	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/14/2018		x-NR
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	AC Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	AM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	AN Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	CH Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	CR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	TR Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	WRTA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	OA Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	NAM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		
CSAPABSS-103	041821790-0009	Not QA	PLM	EPA 600_PC	OM Concentration	0.1	%	U	CDM Smith/[redacted]	8/25/2018		

Notes

[a] Due to the error in the NADES EDD, samples where no asbestos was observed at any of the inspected points and the resulting concentration was reported as less than (<) 0.25%, which assumes that only 400 points were counted. For all PLM analyses performed as part of this investigation, 1,000 points were counted; thus, the results should have been reported as <0.1%.

% = percent
AC = actinolite
AM = amosite
AN = anthophyllite
CH = chrysotile
CR = crocidolite
DVC = Data Verification Coordinator
EDD = electronic data deliverable
EPA = U.S. Environmental Protection Agency
NADES = National Asbestos Data Entry Spreadsheet
NAM = non-asbestos material
OM = other mineral type
PC = point count
PLM = polarized light microscopy
QA = quality assurance
TR - tremolite
U = estimated
WRTA - winchite/ richterite/tremolite/actinolite

Attachment 2D

Laboratory Documentation – Soil and Sediment

National Asbestos Data Entry Spreadsheet (NADES) for Bulk and Soil Analysis by PLM Point Count

Site/Project Name: BORIT

State/Federal Site/Project Identifier: BORIT

Site/Project Identifier Code: BORIT

Lab Name: EMSL04

Lab Job Number: 041812129

Date Received by Lab: 4/25/2018

Method: EPA 600

Analysis By: WN

Analysis Date: 5/3/18

Media: Soil

VALID MINERAL TYPES

AC - actinolite
AM - amosite
AN - anthophyllite
CH - chrysotile
CR - crocidolite
TR - tremolite
Taconite
WRTA - winchite/ richterite/tremolite/actinolite
OA - other amphibole
NAM - non-asbestos material
OM - other mineral type

OM Description Standard Selections:
Erionite

Client Sample Number	Sample Type	Index Suffix Char.	Index Suffix Number	QA Type (Not QA or LD)	Lab Sample Number	Date Analyzed	Analyst Name	Sample Appearance	Points Counted	AC Counts	AM Counts	AN Counts	CH Counts	CR Counts	TR Counts	LA Counts	OA Counts	NAM Counts	OM Counts	OM Type	Deviation?	Comments
CSPKSS-101	Soil			Not QA	041812129-0001	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	
CSPKSS-102	Soil			Not QA	041812129-0002	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	
CSPKSS-103	Soil			Not QA	041812129-0003	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	
CSPKSS-104	Soil			Not QA	041812129-0004	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	
CSPKSS-105	Soil			Not QA	041812129-0005	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	
CSPKSS-106	Soil			Not QA	041812129-0006	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	
CSPKSS-201	Soil			Not QA	041812129-0007	5/3/18	WN	BR, NF, Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No	

Comments

WN 5/7/18 DVC

TDM

Page _____ of _____

National Asbestos Data Entry Spreadsheet (NADES) for Bulk and Soil Analysis by PLM Point Count

Site/Project Name: BORIT

State/Federal Site/Project Identifier: BORIT

Site/Project Identifier Code: BORIT

Lab Name: EMSL04

Lab Job Number: 041812444

Date Received by Lab: 4/27/2018

Method: EPA 600

Analysis By: WN

Analysis Date: 5/3/18 - 5/4/18

Media: Soil

VALID MINERAL TYPES

AC - actinolite
AM - amosite
AN - anthophyllite
CH - chrysotile
CR - crocidolite
TR - tremolite
Taconite
WRTA - winchite/ richterite/tremolite/actinolite
OA - other amphibole
NAM - non-asbestos material
OM - other mineral type

OM Description Standard Selections:
Erionite

Client Sample Number	Sample Type	Index Suffix Char.	Index Suffix Number	QA Type (Not QA or LD)	Lab Sample Number	Date Analyzed	Analyst Name	Sample Appearance	Points Counted	AC Counts	AM Counts	AN Counts	CH Counts	CR Counts	TR Counts	LA Counts	OA Counts	NAM Counts	OM Counts	OM Type	Deviation?	Comments	Sum
CSPKSS-109	Soil			Not QA	041812444-0001	5/3/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSPKSS-210	Soil			Not QA	041812444-0002	5/3/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSPKSS-110	Soil			Not QA	041812444-0003	5/3/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSD-103	Soil			Not QA	041812444-0004	5/3/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-106	Soil			Not QA	041812444-0005	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSD-104	Soil			Not QA	041812444-0006	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-105	Soil			Not QA	041812444-0007	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-104	Soil			Not QA	041812444-0008	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSD-102	Soil			Not QA	041812444-0009	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSPKSS-108	Soil			Not QA	041812444-0010	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSPKSS-107	Soil			Not QA	041812444-0011	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-103	Soil			Not QA	041812444-0012	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSD-201	Soil			Not QA	041812444-0013	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSD-101	Soil			Not QA	041812444-0014	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-101	Soil			Not QA	041812444-0015	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-102	Soil			Not QA	041812444-0016	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-110	Soil			Not QA	041812444-0017	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-109	Soil			Not QA	041812444-0018	5/4/18	WN	BG,NF Homogenous	1000	0	0	0	0	0	0	0	0	0	0		No		0

OK TDM 5/25/18

Comments

National Asbestos Data Entry Spreadsheet (NADES) for Bulk and Soil Analysis by PLM Point Count

Site/Project Name: BORIT

State/Federal Site/Project Identifier: BORIT

Site/Project Identifier Code: BORIT

Lab Name: EMSL04

Lab Job Number: 041812573

Date Received by Lab: ~~4/27/2018~~ 4/23/18

Method: EPA 600

Analysis By: WN

Analysis Date: 5/4/18

Media: Soil

VALID MINERAL TYPES

AC - actinolite
AM - amosite
AN - anthophyllite
CH - chrysotile
CR - crocidolite
TR - tremolite
Taconite
WRTA - winchite/ richterite/tremolite/actinolite
OA - other amphibole
NAM - non-asbestos material
OM - other mineral type

OM Description Standard Selections:
Erionite

Client Sample Number	Sample Type	Index Suffix Char.	Index Suffix Number	QA Type (Not QA or LD)	Lab Sample Number	Date Analyzed	Analyst Name	Sample Appearance	Points Counted	AC Counts	AM Counts	AN Counts	CH Counts	CR Counts	TR Counts	LA Counts	OA Counts	NAM Counts	OM Counts	OM Type	Deviation?	Comments	500 Counts
CSAPSS-101	Soil			Not QA	041812573-0001	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-102	Soil			Not QA	041812573-0002	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-104	Soil			Not QA	041812573-0003	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-105	Soil			Not QA	041812573-0004	5/4/18	WN	BC,NF Homogeneous	100	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-106	Soil			Not QA	041812573-0005	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-107	Soil			Not QA	041812573-0006	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-108	Soil			Not QA	041812573-0007	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-109	Soil			Not QA	041812573-0008	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-110	Soil			Not QA	041812573-0009	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSAPSS-111	Soil			Not QA	041812573-0010	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-107	Soil			Not QA	041812573-0011	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0
CSRVSS-108	Soil			Not QA	041812573-0012	5/4/18	WN	BC,NF Homogeneous	1000	0	0	0	0	0	0	0	0	0	0		No		0

Comments

CDM

National Asbestos Data Entry Spreadsheet (NADES) for Bulk and Soil Analysis by PLM Point Count

Site/Project Name: BORIT

State/Federal Site/Project Identifier: BORIT

Site/Project Identifier Code: BORIT

Lab Name: EMSL04

Lab Job Number: 041821790

Date Received by Lab: 7/19/2018

Method: EPA 600

Analysis By: LWN

Analysis Date: 7/30/18 7/31/18

Media: Soil

VALID MINERAL TYPES

AC - actinolite
AM - amosite
AN - anthophyllite
CH - chrysotile
CR - crocidolite
TR - tremolite
Taconite
WRTA - winchite/ richterite/tremolite/actinolite
OA - other amphibole
NAM - non-asbestos material
OM - other mineral type

OM Description Standard Selections
Erionite

Client Sample Number	Sample Type	Index Suffix Char.	Index Suffix Number	QA Type (Not QA or LD)	Lab Sample Number	Date Analyzed	Analyst Name	Sample Appearance	Points Counted	AC Counts	AM Counts	AN Counts	CH Counts	CR Counts	TR Counts	LA Counts	OA Counts	NAM Counts	OM Counts	OM Type	Deviation?	Comments
CSPKABSS-101	Soil			Not QA	041821790-0001	7/30/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSPKABSS-102	Soil			Not QA	041821790-0002	7/30/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSPKABSS-103	Soil			Not QA	041821790-0003	7/30/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSPKABSS-104	Soil			Not QA	041821790-0004	7/30/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSPKABSS-105	Soil			Not QA	041821790-0005	7/31/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSPKABSS-106	Soil			Not QA	041821790-0006	7/31/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSAPABSS-101	Soil			Not QA	041821790-0007	7/31/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSAPABSS-102	Soil			Not QA	041821790-0008	7/31/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	
CSAPABSS-103	Soil			Not QA	041821790-0009	7/31/18	LWN	B2; NF; Homogenous	1000	0	0	0	0	0	0	0	0	0	0		ND	

Comments

MW 5020 DVL

Attachment 3

Data Summary of TEM Analytical Information

ATTACHMENT 3A
DATA SUMMARY OF TEM ANALYTICAL INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	File Revision No	Lab ID	Instrument	Magnification	GO Size (mm^2)	EFA (mm^2)	Lab Job Number	Lab Sample ID	Lab QC Type	Receipt Date	Preparation Method	Prepared By	Preparation Date	Number of Grids Prepared	Analyzed Date	Analyst	Method	Method Number	F- factor	Analysis Comment	Volume Applied to the Filter	ChiSq pvalue	Estimate Particulate Loading (%)	Recording Rules			Stopping Rules			Grid Openings Examined	Total Asbestos					Area Examined	Stopping Rule Achieved	Asbestos Type Detected	Verifier's Company/Name	Verification Date	Verification Comment	Correction Date	DVC Check (5%)	Validator's Company/Name	Validation Date
																								Min. AR	Min. Length (um)	Min. Width (um)	Target Sensitivity (L^{-1})	Max. Area Examined (mm2)	Target N Struc		Sensitivity (L^{-1})	Total Structures	Total Conc.	> 10 µm Structures	>10 µm Conc. (MFL)											
CSCKSW-104	1	EMSL04	JEOL 100CXII (04-01)	19000	0.0126	1387	041812555	041812555-0001	NOT QC	4/28/2018	Direct	[redacted]	4/30/2018	3	5/9/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: 5/14/18 C1 on 6/26/2018 to correct primary filter area and add filter pore size.	10	1	10	3:1	0.5	0	33	1.25	25	100	1.1E+05	0	0	0	0	1.26	Area Examined		CDM Smith[redacted]	6/18/2018	The EFA entered in the EDD (385) is incorrect and should be 1387.	6/26/2018		CDM Smith[redacted]	8/28/2018
CSCKSW-204	1	EMSL04	04-08	19000	0.0127	1387	041812555	041812555-0005	NOT QC	4/28/2018	Direct	[redacted]	4/30/2018	3	5/14/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/26/2018 to correct primary filter area and to add filter pore size.	10	0.47	8	3:1	0.5	0	33	1.25	25	37	3.0E+05	26	7.7	2	0.59	0.47	Structure Count	CH, TR	CDM Smith[redacted]	8/29/2018	--The EFA entered in the EDD (385) is incorrect and should be 1387. --Three structures with an aspect ratio less than 3:1 were counted. (Structures 12, 18 and 23)	6/26/2018		CDM Smith[redacted]	8/28/2018
CSCKSW-105	1	EMSL04	04-08	19000	0.0127	1387	041812555	041812555-0002	NOT QC	4/28/2018	Direct	[redacted]	4/30/2018	3	5/11/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/26/2018 to correct primary filter area and to add filter pore size.	25	1	5	3:1	0.5	0	33	1.25	25	99	4.4E+04	2	0	0	0	1.26	Area Examined	CH	CDM Smith[redacted]	8/29/2018	The EFA entered in the EDD (385) is incorrect and should be 1387.	6/26/2018		CDM Smith[redacted]	8/28/2018
CSCKSW-107	1	EMSL04	04-08	19000	0.0127	1387	041812555	041812555-0003	NOT QC	4/28/2018	Direct	[redacted]	4/30/2018	3	5/11/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/26/2018 to correct primary filter area and add filter pore size.	50	1	10	3:1	0.5	0	33	1.25	25	99	2.2E+04	6	0	4	0.088	1.26	Area Examined	CH	CDM Smith[redacted]	8/29/2018	--The EFA entered in the EDD (385) is incorrect and should be 1387. --The aspect ratio of primary structure 1 is less than 3:1.	6/26/2018	x-NR	CDM Smith[redacted]	8/28/2018
CSCKSW-108	1	EMSL04	04-08	19000	0.0127	1387	041812555	041812555-0004	NOT QC	4/28/2018	Direct	[redacted]	4/30/2018	3	5/12/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/26/2018 to correct primary filter area and add filter pore size.	50	1	10	3:1	0.5	0	33	1.25	25	99	2.2E+04	2	0	1	0.022	1.26	Area Examined	CH	CDM Smith[redacted]	8/29/2018	The EFA entered in the EDD (385) is incorrect and should be 1387.	6/26/2018		CDM Smith[redacted]	8/28/2018
CSCKSW-401	1	EMSL04	JEOL-1200EXII (04-06)	20000	0.0127	1387	041812555	041812555-0006	NOT QC	4/28/2018	Direct	[redacted]	4/30/2018	3	5/14/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/26/2018 to correct primary filter area and add filter pore size.	100	1	2	3:1	0.5	0	33	1.25	25	99	1.1E+04	0	0	0	0	1.26	Area Examined		CDM Smith[redacted]	8/29/2018	The EFA entered in the EDD (385) is incorrect and should be 1387.	6/26/2018		CDM Smith[redacted]	8/28/2018
CSRVSW-101	1	EMSL04	JEOL-1200-EX II (04-06)	20000	0.0126	1387	041812291	041812291-0001	NOT QC	4/26/2018	Direct	[redacted]	4/26/2018	3	5/2/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/20/2018 to correct primary filter area.	5	1	5	3:1	0.5	0	33	1.25	25	100	2.2E+05	0	0	0	0	1.26	Area Examined		CDM Smith[redacted]	6/18/2018	--The EFA entered in the EDD (385) is incorrect and should be 1387. --Analysis date 5/4/2018, not 5/2/2018, according to the sketch sheet	6/20/2018		CDM Smith[redacted]	8/28/2018
CSRVSW-102	1	EMSL04	JEOL 100CX II (04-01)	19000	0.0126	1387	041812291	041812291-0002	NOT QC	4/26/2018	Direct	[redacted]	4/26/2018	3	5/4/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: 5/6/18 C1 on 6/20/2018 to correct primary filter area.	10	1	10	3:1	0.5	0	33	1.25	25	100	1.1E+05	0	0	0	0	1.26	Area Examined		CDM Smith[redacted]	8/29/2018	The EFA entered in the EDD (385) is incorrect and should be 1387.	6/20/2018		CDM Smith[redacted]	8/28/2018
CSRVSW-103	1	EMSL04	JEOL 100CX II (04-01)	19000	0.0126	1387	041812291	041812291-0003	NOT QC	4/26/2018	Direct	[redacted]	4/26/2018	3	5/7/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/20/2018 to correct EDD to show correct volume applied to filter and primary filter area.	0.5	0.48	15	3:1	0.5	0	33	1.25	25	100	2.2E+06	1	2.2	0	0	1.26	Area Examined	AC	CDM Smith[redacted]	6/18/2018	--The EFA entered in the EDD (385) is incorrect and should be 1387. --The volume applied to the filter is 1 on the prep log but 0.5 in the EDD. Note: EMSL confirmed the EDD is correct and will correct the prep log.	6/20/2018		CDM Smith[redacted]	8/28/2018
CSRVSW-104	1	EMSL04	JEOL 100CX II (04-01)	19000	0.0126	1387	041812291	041812291-0004	NOT QC	4/26/2018	Direct	[redacted]	4/26/2018	3	5/8/2018	[redacted]	TEM-ISO	ISO 10312	1	Are prepped grids acceptable for analysis? Yes Additional analysis dates: N/A C1 on 6/20/2018 to correct primary filter area.	0.2	1	10	3:1	0.5	0	33	1.25	25	100	5.5E+06	0	0	0	0	1.26	Area Examined		CDM Smith[redacted]	8/29/2018		6/20/2018		CDM Smith[redacted]	8/28/2018

Notes:
QC = quality control
AR = aspect ratio
CH = chrysotile
DVC = Data Verification Coordinator
EFA = effective filter area
GO = grid opening
ID = identifier
ISO = International Standard Organization
L^{-1} = per liter
Max = maximum
MFL = million structures per liter
Min = minimum
mm^2 = square millimeters
N = number
TEM = transmission electron microscopy

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSCKSW-104	041812555-0001	1	L1	I1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	2	L1	I3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	3	L1	I5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	4	L1	I7	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	5	L1	I9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	6	L1	H10	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	7	L1	H8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	8	L1	H6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	9	L1	H4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	10	L1	H2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	11	L1	G1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	12	L1	G3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	13	L1	G5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	14	L1	G7	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	15	L1	G9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	16	L1	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	17	L1	F8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	18	L1	F6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	19	L1	F4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	20	L1	F2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	21	L1	E1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	22	L1	E3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	23	L1	E5	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	24	L1	E7	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	25	L1	E9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	26	L1	D10	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	27	L1	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	28	L1	D6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	29	L1	D4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	30	L1	D2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	31	L1	C1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	32	L1	C3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	33	L1	C5	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	34	L1	C7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	35	L1	C9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	36	L1	B10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	37	L1	B8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	38	L1	B6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	39	L1	B4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	40	L1	B2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	41	L2	I9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	42	L2	I7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	43	L2	I5	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	44	L2	I3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	45	L2	I1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	46	L2	H2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	47	L2	H4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	48	L2	H6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	49	L2	H8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	50	L2	H10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	51	L2	G9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	52	L2	G7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	53	L2	G5	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	54	L2	G3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	55	L2	G1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	56	L2	F2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	57	L2	F4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	58	L2	F6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	59	L2	F8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	60	L2	F10	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	61	L2	E9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	62	L2	E7	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	63	L2	E5	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	64	L2	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	65	L2	E1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	66	L2	D2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	67	L2	D4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	68	L2	D6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	69	L2	D8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	70	L2	D10	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	71	L3	I1	ND									Additional analysis on 5/14/2018	CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	72	L3	I3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	73	L3	I5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	74	L3	I7	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	75	L3	I9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	76	L3	H10	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	77	L3	H8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	78	L3	H6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	79	L3	H4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	80	L3	H2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	81	L3	G1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	82	L3	G3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	83	L3	G7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	84	L3	G9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	85	L3	F10	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	86	L3	F8	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	87	L3	F6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	88	L3	F4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	89	L3	F2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	90	L3	E1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	91	L3	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	92	L3	E5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	93	L3	E7	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	94	L3	E9	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	95	L3	D10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	96	L3	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSCKSW-104	041812555-0001	97	L3	D6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	98	L3	D4	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	99	L3	D2	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-104	041812555-0001	100	L3	C3	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	1	L7	A1	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	2	L7	A3	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	3	L7	A7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	4	L7	A9	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	5	L7	B2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	6	L7	B6	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	7	L7	B8	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	8	L7	B10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	9	L7	C1	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	10	L7	C3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	11	L7	C9	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	12	L7	D2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	13	L7	D4	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	14	L7	D6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	15	L7	D8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	16	L7	D10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	17	L7	E1	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	18	L7	E3	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	19	L7	E5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	20	L7	E9	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	21	L7	F2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	22	L7	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	23	L7	F6	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	24	L7	F10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	25	L7	G1	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	26	L7	G3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	27	L7	G5	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	28	L7	G7	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	29	L7	G9	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	30	L7	H2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	31	L7	H6	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	32	L7	H10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	33	L7	I1	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	34	L7	I5	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	35	L7	I9	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	36	L7	J2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	37	L7	J4	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	38	L7	J10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	39	L8	J10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSCKSW-105	041812555-0002	40	L8	J8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSCKSW-105	041812555-0002	41	L8	J6	ND										CDM Smith	8/29/2018			CDM	8/28/2018

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSCKSW-105	041812555-0002	42	L8	J4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	43	L8	J2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	44	L8	I9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	45	L8	I7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	46	L8	I5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	47	L8	I3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	48	L8	I1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	49	L8	H10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	50	L8	H8	F	1	1	2.4	0.15	16	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	51	L8	H6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	52	L8	H4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	53	L8	H2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	54	L8	G9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	55	L8	G7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	56	L8	G5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	57	L8	G3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	58	L8	G1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	59	L8	F10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	60	L8	F8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	61	L8	F6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	62	L8	F4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	63	L8	F2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	64	L8	E9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	65	L8	E7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	66	L8	E5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	67	L8	E3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	68	L8	E1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	69	L8	D10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	70	L8	D8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	71	L8	D6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	72	L8	D4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	73	L8	D2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	74	L8	C9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	75	L8	C7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	76	L8	C5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	77	L8	C3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	78	L8	C1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	79	L8	B10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	80	L8	B8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	81	L8	B6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	82	L8	B4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	83	L8	B2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	84	L8	A9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	85	L8	A7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	86	L8	A5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	87	L8	A3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	88	L8	A1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	89	L9	A1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	90	L9	A3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	91	L9	A5	F	2	2	2.4	0.1	24	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	92	L9	A7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	93	L9	A9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	94	L9	B2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	95	L9	B4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	96	L9	B6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	97	L9	B8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-105	041812555-0002	98	L9	B10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-105	041812555-0002	99	L9	C1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	1	M4	J10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	2	M4	J8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	3	M4	J6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	4	M4	J4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	5	M4	J2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	6	M4	I9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	7	M4	I7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	8	M4	I5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	9	M4	I3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	10	M4	I1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	11	M4	H10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	12	M4	H8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	13	M4	H6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	14	M4	H4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	15	M4	H2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	16	M4	G9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	17	M4	G7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	18	M4	G5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	19	M4	G3	M	1	1	10.4	5.3	1.962264	CH	CH	CH		CDM Smith [redacted]	8/29/2018	Aspect ratio is less than 3:1.	x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	20	M4	G1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	21	M4	F10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	22	M4	F8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	23	M4	F6	M	2	2	16.7	5.2	3.211538	CH	CH	CH		CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	24	M4	F4	M	3	3	13.4	0.4	33.5	CH	CH	CH		CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	25	M4	F2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	26	M4	E9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	27	M4	E7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	28	M4	E5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	29	M4	E3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	30	M4	E1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	31	M4	D10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	32	M4	D8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	33	M4	D6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	34	M4	D4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	35	M4	C9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	36	M4	C7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	37	M4	C5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	38	M4	C3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	39	M4	C1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	40	M4	B10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	41	M4	B8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	42	M4	B6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	43	M4	B4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	44	M4	B2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	45	M4	A9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	46	M4	A7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	47	M4	A5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	48	M4	A3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	49	M4	A1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	50	M5	J8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	51	M5	J6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	52	M5	J4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	53	M5	J2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	54	M5	I9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	55	M5	I7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	56	M5	I5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	57	M5	I3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	58	M5	I1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	59	M5	H10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	60	M5	H8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	61	M5	H6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	62	M5	H4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	63	M5	H2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	64	M5	G9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	65	M5	G7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	66	M5	G5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	67	M5	G3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	68	M5	G1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	69	M5	F10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted] s	8/28/2018
CSCKSW-107	041812555-0003	70	M5	F8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	71	M5	F6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	72	M5	F4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	73	M5	F2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	74	M5	E9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	75	M5	E7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	76	M5	E5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	77	M5	E3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	78	M5	E1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	79	M5	D10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	80	M5	D8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	81	M5	D6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	82	M5	D4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSCKSW-107	041812555-0003	83	M5	D2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	84	M5	C9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	85	M5	C7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	86	M5	C5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	87	M5	C3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	88	M5	C1	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	89	M5	B10	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	90	M5	B8	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	91	M5	B6	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	92	M5	B4	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	93	M5	B2	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	94	M5	A9	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	95	M5	A7	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	96	M5	A5	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	97	M5	A3	ND										CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	98	M5	A1	F	4	4	4.6	0.1	46	CH	CH	CH		CDM Smith [redacted]	8/29/2018		x-NR	CDM [redacted]	8/28/2018
CSCKSW-107	041812555-0003	99	M6	A5	F	5	5	1.5	0.1	15	CH	CH	CH		CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-107	041812555-0003	100	M6	A5	M	6	6	11.7	0.6	19.5	CH	CH	CH		CDM Smith [redacted]	8/29/2018		x-NR	CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	1	N1	A1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	2	N1	A3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	3	N1	A5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	4	N1	A7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	5	N1	A9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	6	N1	B2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	7	N1	B4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	8	N1	B6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	9	N1	B8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith/A [redacted]	8/28/2018
CSCKSW-108	041812555-0004	10	N1	B10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	11	N1	C1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	12	N1	C3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	13	N1	C5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted] s	8/28/2018
CSCKSW-108	041812555-0004	14	N1	C7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	15	N1	C9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	16	N1	D2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	17	N1	D4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	18	N1	D6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	19	N1	D8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	20	N1	D10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	21	N1	E1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	22	N1	E3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	23	N1	E5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	24	N1	E7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	25	N1	E9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	26	N1	F2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	27	N1	F4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	28	N1	F6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	29	N1	F8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	30	N1	F10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	31	N1	G1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	32	N1	G3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	33	N1	G5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	34	N1	G7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	35	N1	G9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	36	N1	H2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	37	N1	H4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	38	N1	H6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	39	N1	H8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	40	N1	I1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	41	N1	I3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	42	N1	I5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	43	N1	I7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	44	N1	I9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	45	N1	J2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	46	N1	J4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	47	N1	J6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	48	N1	J8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	49	N1	J10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	50	N2	A1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	51	N2	A3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	52	N2	A5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	53	N2	A7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	54	N2	A9	M	1	1	4.2	0.8	5.25	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	55	N2	B2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	56	N2	B4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	57	N2	B6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	58	N2	B8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	59	N2	B10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	60	N2	C1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	61	N2	C3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	62	N2	C5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	63	N2	C7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	64	N2	C9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	65	N2	D2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	66	N2	D4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	67	N2	D6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	68	N2	D8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	69	N2	D10	M	2	2	12.8	0.7	18.28571	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	70	N2	E1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	71	N2	E3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	72	N2	E5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	73	N2	E7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	74	N2	F2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	75	N2	F4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	76	N2	F6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	77	N2	F8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	78	N2	F10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	79	N2	G1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	80	N2	G3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	81	N2	G5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	82	N2	G7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	83	N2	G9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	84	N2	H2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	85	N2	H4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	86	N2	H6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	87	N2	H8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	88	N2	H10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	89	N2	I1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	90	N2	I3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	91	N2	I5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	92	N2	I7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	93	N2	I9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-108	041812555-0004	94	N2	J2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	95	N2	J4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	96	N2	J6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	97	N2	J8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	98	N2	J10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-108	041812555-0004	99	N3	J2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	1	N7	A1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	2	N7	A3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	3	N7	A5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	4	N7	A7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	5	N7	A9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	6	N7	B2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	7	N7	B4	M	1	1	5.1	0.5	10.2	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	8	N7	B6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	9	N7	B8	M	2	2	6.1	0.9	6.777778	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	10	N7	B8	M	3	3	2.3	0.5	4.6	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	11	N7	B8	F	4	4	1.2	0.15	8	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	12	N7	B10	F	5	5	1	0.1	10	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	13	N7	C1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	14	N7	C3	F	6	6	1.6	0.15	10.66667	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	15	N7	C5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	16	N7	C7	M	7	7	1.7	0.3	5.666667	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	17	N7	C7	M	8	8	1.8	0.4	4.5	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	18	N7	C9	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	19	N7	D2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	20	N7	D4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	21	N7	D6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	22	N7	D8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	23	N7	D10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	24	N7	E1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSCKSW-204	041812555-0005	25	N7	E3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	26	N7	E5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	27	N7	E7	F	9	9	1.4	0.1	14	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	28	N7	E7	F	10	10	1	0.1	10	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	29	N7	E9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	30	N7	F4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	31	N7	F6	M	11	11	1.3	0.25	5.2	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	32	N7	F8	M	12	12	1.9	1.7	1.117647	CH	CH	CH		CDM Smith [redacted]	8/29/2018	Aspect ratio is less than 3:1.		CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	33	N7	F8	M	13	13	2.9	0.2	14.5	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	34	N7	F8	M	14	14	1	0.2	5	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	35	N7	F8	M	15	15	4.7	0.7	6.714286	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	36	N7	G1	M	16	16	7.9	1	7.9	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	37	N7	G1	M	17	17	4.7	0.7	6.714286	LA	TR	TR		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	38	N7	G3	M	18	18	0.7	0.5	1.4	CH	CH	CH		CDM Smith [redacted]	8/29/2018	Aspect ratio is less than 3:1.		CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	39	N7	G9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	40	N7	H2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	41	N7	H4	F	19	19	5.2	0.1	52	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	42	N7	H6	M	20	20	1.2	0.15	8	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	43	N7	H6	F	21	21	0.6	0.1	6	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	44	N7	H8	M	22	22	3.8	0.5	7.6	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-204	041812555-0005	45	N7	H8	M	23	23	17.8	8.4	2.119048	CH	CH	CH		CDM Smith [redacted]	8/29/2018	Aspect ratio is less than 3:1.		CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	46	N7	H10	M	24	24	4.5	0.2	22.5	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	47	N7	I1	M	25	25	2.7	0.6	4.5	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-204	041812555-0005	48	N7	I1	M	26	26	10.1	0.7	14.42857	CH	CH	CH		CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	1	O4	A1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	2	O4	A3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	3	O4	A5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	4	O4	A7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	5	O4	A9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	6	O4	B2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	7	O4	B4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	8	O4	B6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	9	O4	B8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	10	O4	B10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	11	O4	C1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	12	O4	C3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	13	O4	C5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	14	O4	C7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	15	O4	C9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	16	O4	D2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	17	O4	D4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	18	O4	D6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	19	O4	D8	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	20	O4	D10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	21	O4	E1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	22	O4	E3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	23	O4	E5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	24	O4	E7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	25	O4	E9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	26	O4	F2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	27	O4	F4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	28	O4	F6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	29	O4	F8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	30	O4	F10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	31	O4	G1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	32	O4	G3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	33	O4	G5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	34	O4	G7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	35	O4	G9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	36	O4	H2	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	37	O4	H4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	38	O4	H6	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	39	O4	H8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	40	O4	H10	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	41	O4	I1	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	42	O4	I3	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	43	O4	I5	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	44	O4	I7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	45	O4	I9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	46	O4	J2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	47	O4	J4	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	48	O4	J6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	49	O4	J8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	50	O4	J10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	51	O5	A1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	52	O5	A3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	53	O5	A5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	54	O5	A7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	55	O5	A9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	56	O5	C1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	57	O5	C3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	58	O5	C5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	59	O5	C7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	60	O5	C9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	61	O5	E1	ND										CDM Smith [redacted]	8/29/2018			CDM Sm[redacted]	8/28/2018
CSCKSW-401	041812555-0006	62	O5	E3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	63	O5	E5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	64	O5	E7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	65	O5	E9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	66	O5	G1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	67	O5	G3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	68	O5	G5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	69	O5	G7	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	70	O5	G9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	71	O5	I1	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	72	O5	I3	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	73	O5	I5	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	74	O5	I7	ND										CDM Smith [redacted]	8/29/2018			CDM Smith [redacted]	8/28/2018
CSCKSW-401	041812555-0006	75	O5	I9	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	76	O6	J10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	77	O6	J8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	78	O6	J6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	79	O6	J4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	80	O6	J2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	81	O6	H10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	82	O6	H8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	83	O6	H6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	84	O6	H4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	85	O6	H2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	86	O6	F10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	87	O6	F8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	88	O6	F6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	89	O6	F4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	90	O6	F2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	91	O6	D10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	92	O6	D8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	93	O6	D6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	94	O6	D4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	95	O6	D2	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	96	O6	B10	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	97	O6	B8	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]s	8/28/2018
CSCKSW-401	041812555-0006	98	O6	B6	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSCKSW-401	041812555-0006	99	O6	B4	ND										CDM Smith [redacted]	8/29/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	1	R4	J10	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	2	R4	J8	ND										CDM Smith [redacted]	6/18/2018			[redacted]	8/28/2018
CSRVSW-101	041812291-0001	3	R4	J6	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	4	R4	J4	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	5	R4	I1	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	6	R4	I3	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	7	R4	I5	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	8	R4	I7	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	9	R4	H10	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	10	R4	H8	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	11	R4	H6	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	12	R4	H4	ND										CDM Smith [redacted]	6/18/2018			[redacted]	8/28/2018
CSRVSW-101	041812291-0001	13	R4	G1	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	14	R4	G3	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	15	R4	G5	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-101	041812291-0001	16	R4	G7	ND										CDM Smith [redacted]	6/18/2018			CDM [redacted]	8/28/2018

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSRVSW-101	041812291-0001	17	R4	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	18	R4	F8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	19	R4	F6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	20	R4	E1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	21	R4	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	22	R4	E5	ND										CDM Smith	6/18/2018				8/28/2018
CSRVSW-101	041812291-0001	23	R4	D10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	24	R4	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	25	R4	D6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	26	R4	C1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	27	R4	C3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	28	R4	C5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	29	R4	B10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	30	R4	B8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	31	R4	B6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	32	R4	A1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	33	R4	A3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	34	R4	A5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	35	R5	A1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	36	R5	A3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	37	R5	A5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	38	R5	A7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	39	R5	B10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	40	R5	B8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	41	R5	B6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	42	R5	B4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	43	R5	C1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	44	R5	C3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	45	R5	C5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	46	R5	C7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	47	R5	D10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	48	R5	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	49	R5	D6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	50	R5	E1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	51	R5	E3	ND										CDM Smith	6/18/2018			CDM Sm s	8/28/2018
CSRVSW-101	041812291-0001	52	R5	E5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	53	R5	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	54	R5	F8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	55	R5	F6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	56	R5	G1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	57	R5	G3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	58	R5	G5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	59	R5	H10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	60	R5	H8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	61	R5	H6	ND										CDM Smith	6/18/2018				8/28/2018
CSRVSW-101	041812291-0001	62	R5	I1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	63	R5	I3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	64	R5	I5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	65	R5	J10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	66	R5	J8	ND										CDM Smith	6/18/2018			CDM Sm	8/28/2018
CSRVSW-101	041812291-0001	67	R5	J6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	68	R6	J10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	69	R6	J8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	70	R6	J6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	71	R6	J4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	72	R6	I1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	73	R6	I5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	74	R6	I7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	75	R6	I9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	76	R6	H10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	77	R6	H8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	78	R6	H6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	79	R6	H2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	80	R6	G1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	81	R6	G3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	82	R6	G5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	83	R6	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	84	R6	F8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	85	R6	F6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	86	R6	E1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	87	R6	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	88	R6	E5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	89	R6	D10	ND										CDM Smith	6/18/2018				8/28/2018
CSRVSW-101	041812291-0001	90	R6	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	91	R6	D6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	92	R6	C1	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSRVSW-101	041812291-0001	93	R6	C3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	94	R6	C5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	95	R6	B10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	96	R6	B8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	97	R6	B6	ND										CDM Smith	6/18/2018			CDM Smith	8/28/2018
CSRVSW-101	041812291-0001	98	R6	A1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	99	R6	A3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-101	041812291-0001	100	R6	A5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	1	S1	B10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	2	S1	B8	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	3	S1	B6	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	4	S1	B4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	5	S1	B2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	6	S1	C1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	7	S1	C3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	8	S1	C5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	9	S1	C7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	10	S1	C9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	11	S1	D10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	12	S1	D8	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	13	S1	D6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	14	S1	D4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	15	S1	D2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	16	S1	E1	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	17	S1	E3	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	18	S1	E5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	19	S1	E7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	20	S1	E9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	21	S1	F10	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	22	S1	F8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	23	S1	F6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	24	S1	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	25	S1	F2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	26	S1	G1	ND									Additional analysis on 5/6/2018	CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	27	S1	G3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	28	S1	G5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	29	S1	G7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	30	S1	G9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	31	S1	H10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	32	S1	H8	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	33	S1	H6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	34	S1	H4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	35	S1	H2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	36	S1	I1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	37	S1	I3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	38	S1	I5	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	39	S1	I7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	40	S1	I9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	41	S2	B2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	42	S2	B4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	43	S2	B6	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	44	S2	B8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	45	S2	B10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	46	S2	C9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	47	S2	C7	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	48	S2	C5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	49	S2	D2	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	50	S2	D4	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	51	S2	D6	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	52	S2	D8	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	53	S2	D10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	54	S2	E9	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	55	S2	E7	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	56	S2	E5	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-102	041812291-0002	57	S2	E3	ND										CDM Smith	8/29/2018			CDM	8/28/2018

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSRVSW-102	041812291-0002	58	S2	F2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	59	S2	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	60	S2	F6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	61	S2	F8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	62	S3	B10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	63	S3	B8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	64	S3	B6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	65	S3	B4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	66	S3	B2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	67	S3	C3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	68	S3	C5	ND										CDM Smith	8/29/2018			CDM [redacted]	8/28/2018
CSRVSW-102	041812291-0002	69	S3	C7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	70	S3	C9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	71	S3	D10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	72	S3	D8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	73	S3	D6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	74	S3	D4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	75	S3	D2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	76	S3	E3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	77	S3	E5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	78	S3	E7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	79	S3	E9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	80	S3	F10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	81	S3	F8	ND										CDM Smith	8/29/2018			[redacted]	8/28/2018
CSRVSW-102	041812291-0002	82	S3	F6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	83	S3	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	84	S3	F2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	85	S3	G3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	86	S3	G5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	87	S3	G7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	88	S3	G9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	89	S3	H10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	90	S3	H8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	91	S3	H6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	92	S3	H4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	93	S3	H2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	94	S3	I1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	95	S3	I3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	96	S3	I5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	97	S3	I7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	98	S3	I9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	99	S3	J8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-102	041812291-0002	100	S3	J6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	1	T1	I1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	2	T1	I3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	3	T1	I5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	4	T1	I7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	5	T1	I9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	6	T1	H10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	7	T1	H8	ND										CDM Smith	6/18/2018			CDM [redacted]	8/28/2018
CSRVSW-103	041812291-0003	8	T1	H6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	9	T1	H4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	10	T1	H2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	11	T1	G1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	12	T1	G3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	13	T1	G5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	14	T1	G7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	15	T1	G9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	16	T1	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	17	T1	F8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	18	T1	F6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	19	T1	F4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	20	T1	F2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	21	T1	E1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	22	T1	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	23	T1	E5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	24	T1	E7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	25	T1	E9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	26	T1	D10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	27	T1	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	28	T1	D6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	29	T1	D4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	30	T1	D2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	31	T1	C1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	32	T1	C3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	33	T1	C5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	34	T1	C7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	35	T1	C9	ND										CDM Smith	6/18/2018			[redacted]	8/28/2018
CSRVSW-103	041812291-0003	36	T1	B10	ND										CDM Smith	6/18/2018			CDM	[redacted]/28/2018
CSRVSW-103	041812291-0003	37	T1	B8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	38	T1	B6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	39	T1	B4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	40	T1	B2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	41	T2	I9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	42	T2	I7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	43	T2	I5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	44	T2	I3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	45	T2	I1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	46	T2	H2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	47	T2	H4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	48	T2	H6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	49	T2	H8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	50	T2	H10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	51	T2	G9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	52	T2	G7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	53	T2	G5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	54	T2	G3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	55	T2	G1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	56	T2	F2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	57	T2	F4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	58	T2	F6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	59	T2	F8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	60	T2	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	61	T2	E9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	62	T2	E7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	63	T2	E5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	64	T2	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	65	T2	E1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	66	T2	D2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	67	T2	D4	MD10	1									CDM Smith	6/18/2018			[redacted]	8/28/2018
CSRVSW-103	041812291-0003	68	T2	D4	MF		1	2.9	0.24	12.08333	LA	AC	ADX	394D/395M	CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	69	T2	D6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	70	T2	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	71	T2	D10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	72	T2	C9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	73	T2	C7	ND										CDM Smith	6/18/2018			[redacted]	8/28/2018
CSRVSW-103	041812291-0003	74	T2	C5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	75	T2	C3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	76	T2	C1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	77	T2	B2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	78	T2	B4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	79	T2	B6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	80	T2	B8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	81	T2	B10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	82	T3	B10	ND										CDM Smith	6/18/2018			[redacted]	8/28/2018
CSRVSW-103	041812291-0003	83	T3	B8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	84	T3	B6	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	85	T3	B4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	86	T3	B2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	87	T3	C1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	88	T3	C3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	89	T3	C5	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	90	T3	C7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	91	T3	C9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	92	T3	D10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	93	T3	D8	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	94	T3	D4	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	95	T3	D2	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	96	T3	E1	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	97	T3	E3	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	98	T3	E5	ND										CDM Smith	6/18/2018			CDM	8/28/2018

ATTACHMENT 3B
DATA SUMMARY OF TEM STRUCTURE INFORMATION FOR SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample Number	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length	Width	Aspect Ratio	Mineral Class	Mineral Description	Structure ID	Structure Comment	Verifier's Company/Name	Date Verified	Verification Comment	DVC - 5%	Validator's Company/Name	Date Validated
CSRVSW-103	041812291-0003	99	T3	E7	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	100	T3	E9	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-103	041812291-0003	101	T3	F10	ND										CDM Smith	6/18/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	1	U4	I1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	2	U4	I3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	3	U4	I5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	4	U4	I7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	5	U4	I9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	6	U4	H10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	7	U4	H8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	8	U4	H6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	9	U4	H4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	10	U4	H2	ND										CDM Smith	8/29/2018			CDM s	8/28/2018
CSRVSW-104	041812291-0004	11	U4	G1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	12	U4	G3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	13	U4	G5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	14	U4	G7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	15	U4	G9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	16	U4	F10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	17	U4	F8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	18	U4	F6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	19	U4	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	20	U4	F2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	21	U4	E1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	22	U4	E3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	23	U4	E5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	24	U4	E7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	25	U4	E9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	26	U4	D10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	27	U4	D8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	28	U4	D6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	29	U4	D4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	30	U4	D2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	31	U4	C1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	32	U4	C3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	33	U4	C5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	34	U4	C7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	35	U4	C9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	36	U4	B10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	37	U4	B8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	38	U4	B6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	39	U4	B4	ND										CDM Smith	8/29/2018			CDM Smith	8/28/2018
CSRVSW-104	041812291-0004	40	U4	B2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	41	U5	I9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	42	U5	I7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	43	U5	I5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	44	U5	I3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	45	U5	I1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	46	U5	H2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	47	U5	H4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	48	U5	H6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	49	U5	H8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	50	U5	H10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	51	U5	G9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	52	U5	G7	MD11	0									CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	53	U5	G7	MF		0	14.7	0.36	40.83333	NAM	OT	NAM	398D/399M	CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	54	U5	G5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	55	U5	G3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	56	U5	G1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	57	U5	F2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	58	U5	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	59	U5	F6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	60	U5	F8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	61	U5	F10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	62	U5	E9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	63	U5	E7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	64	U5	E5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	65	U5	E3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	66	U5	E1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	67	U5	D2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	68	U5	D4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	69	U5	D6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	70	U5	D8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	71	U5	D10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	72	U5	C9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	73	U5	C7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	74	U5	C5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	75	U5	C3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	76	U5	C1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	77	U5	B2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	78	U5	B4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	79	U5	B6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	80	U5	B8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	81	U5	B10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	82	U6	I1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	83	U6	I3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	84	U6	I5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	85	U6	I7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	86	U6	I9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	87	U6	H10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	88	U6	H8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	89	U6	H6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	90	U6	H4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	91	U6	H2	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	92	U6	G1	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	93	U6	G3	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	94	U6	G5	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	95	U6	G7	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	96	U6	G9	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	97	U6	F10	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	98	U6	F8	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	99	U6	F6	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	100	U6	F4	ND										CDM Smith	8/29/2018			CDM	8/28/2018
CSRVSW-104	041812291-0004	101	U6	F2	ND										CDM Smith	8/29/2018			CDM	8/28/2018

Notes:
CH = chrysotile
DVC = Data Verification Coordinator
ID = identifier
NAM = non-asbestos material
TEM = transmission electron microscopy

ATTACHMENT 3C
DATA SUMMARY OF TEM ANALYTICAL INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Media	Field QC Type	File Revision No	Lab ID	Instrument	Magnification	GO Size (mm^2)	EFA (mm^2)	Air Volume (L)	Receipt Date	Lab Job Number	Lab Sample ID	Preparation Method	Analyst Name	Analysis Date	Method	Method Number	Loose Material	Indirect Preparation Only: Indirect Fraction Primary Filter	Indirect Preparation Only: Volume Applied to Secondary Filter (mL)	Indirect Preparation Only: First Suspension Volume (mL)	F Factor	Analysis Comments	Recording Rules: Minimum Aspect Ratio	Recording Rules: Minimum Length (µm)	Recording Rules: Minimum Width (µm)	Stopping Rules: Target Sensitivity (cc^{-1})	Stopping Rules: Max Area Examined (mm^2)	Stopping Rules: Target N Strucs	Grid Openings Examined	Sensitivity (cc^{-1})	PCME Asbestos: Structure Count	PCME Asbestos: Conc. (s/cc)	PCME Asbestos: Asbestos Type	Area Examined (mm^2)	Stopping Rule Achieved	Verifier's Company	Verifier's Name	Verified By	Verified Date	Verification Comment	DVC - 5% Check
CSCMAA-101-AH101	Ambient Air	Field Sample		EMSL04	JEOL 100CXII (04-08)	5800	0.0129	385	4320	5/29/2018	041815994	041815994-0001	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5		0.00033	1	25	21	0.00033	0	0		0.27	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		x-NR
CSCMAA-102-AH101	Ambient Air	Field Sample		EMSL04	JEOL 100CXII (04-08)	5800	0.0129	385	4300	5/29/2018	041815994	041815994-0003	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5		0.00033	1	25	22	0.00032	1	0.00032	OA	0.28	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/14/2018		
CSCMAA-103-AH101	Ambient Air	Field Sample		EMSL04	JEOL 100CXII (04-08)	5800	0.0129	385	4160	5/29/2018	041815994	041815994-0005	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5		0.00033	1	25	22	0.00033	0	0		0.28	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSCMAA-104-AH101	Ambient Air	Field Sample		EMSL04	JEOL 100CXII (04-08)	5800	0.0129	385	4394	5/29/2018	041815994	041815994-0007	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5		0.00033	1	25	21	0.00032	0	0		0.27	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	6/14/2018		
CSCMAA-101-400	Ambient Air	Field Blank		EMSL04	JEOL 100CXII (04-08)	5800	0.0129	385	0	5/29/2018	041815994	041815994-0009	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5			0.1		10		0	0		0.13		CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	The sample number recorded on the sketch sheet is incorrectly recorded as "CSCMAA-105-**AH101**" but should be "CSCMAA-105-**400**".	
CSCMAA-105-400	Ambient Air	Field Blank		EMSL04	JEOL-1200-EX II (04-06)	10000	0.0128	385	0	6/11/2018	041817463	041817463-0001	Direct	P. Harrison	6/12/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5					10		0	0		0.13		CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSCMAA-107B-AH101	Ambient Air	Field Sample		EMSL04	JEOL-1200-EX II (04-06)	10000	0.0128	385	4396	6/11/2018	041817463	041817463-0002	Direct	P. Harrison	6/12/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5		0.00033	1	25	21	0.00033	0	0		0.269	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	6/14/2018	*Note: sample was rejected during validation. The corresponding low flow sample was analyzed.*	
CSCMAA-107B-AL101	Ambient Air	Field Sample		EMSL04	JEOL-1200-EX II (04-06)	10000	0.0128	385	2177	6/11/2018	041817463	041817463-0003	Direct	P. Harrison	9/7/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5		0.00033	1	25	42	0.00033	0	0		0.538	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	*Pending upon receipt of data package.*		
CSCMAA-105-AH101	Ambient Air	Field Sample	1	EMSL04	JEOL-1200-EX II (04-06)	10000	0.0128	385	4282	6/11/2018	041817463	041817463-0004	Direct	P. Harrison	6/12/2018	TEM	Modified ISO 10312	No				1	C1 on 6/20/2018 to revise air volume according to a COC revision by the client.	>= 3:1	5		0.00033	1	25	24	0.00029	0	0		0.31	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABS-601	ABS Air	Lot Blank		EMSL04	JEOL 100CXII (04-08)	5800	0.0128	385	0	5/23/2018	041815406	041815406-0001	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5			0.1		10		0	0		0.13		CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABS-602	ABS Air	Lot Blank		EMSL04	JEOL 100CXII (04-08)	5800	0.0128	385	0	5/23/2018	041815406	041815406-0002	Direct	M. Dare	5/30/2018	TEM	Modified ISO 10312	No				1		>= 3:1	5			0.1		10		0	0		0.13		CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSA-102-AL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	308	7/20/2018	041821873	041821873-0002	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSA-102-CL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	289	7/20/2018	041821873	041821873-0004	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.013	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSE-102-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	255	7/20/2018	041821873	041821873-0005	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	0.029	0	0		0.052	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSP-102-AL101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	242	7/20/2018	041821873	041821873-0007	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	10	0.012	0	0		0.13	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSP-102-AL102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	262	7/20/2018	041821873	041821873-0009	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	9	0.013	0	0		0.12	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSA-103-AL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	316	7/20/2018	041821873	041821873-0011	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSA-103-CL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	302	7/20/2018	041821873	041821873-0013	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSE-103-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	256	7/20/2018	041821873	041821873-0014	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	0.029	0	0		0.052	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSA-103-AL102	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	246	7/20/2018	041821873	041821873-0016	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	10	0.012	0	0		0.13	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSAPABSP-103-AL102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	254	7/20/2018	041821873	041821873-0018	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	9	0.013	0	0		0.12	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABS-401	ABS Air	Field Blank	1	EMSL04	JEOL-1200EX (04-03)	10000	0.013	385	0	7/20/2018	041821873	041821873-0019	Direct	W. Nguyen	7/24/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	0.1	25	8		0	0		0.10		CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	8 grid openings were examined, but the narrative states 10 grid openings were examined. Minimum examined area was still met.	
CSPKABSA-102-AH101	ABS Air-Personal	Field Sample	2	EMSL04	JEOL 1200EX (04-03)	10000	0.0128	1387	552	7/20/2018	041821898	041821898-0001	Indirect - Ashed	W. Nguyen	8/3/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column. C2 on 8/23/2018 to add additional analysis as requested by the client. Sample was analyzed until the target analytical sensitivity was achieved.	>= 3:1	5		0.013		25	152	0.013	0	0		1.9	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) According to the narrative in the data package, the analysis method is Modified ISO 13794, not Modified ISO 10312. 2) Sample number prefix recorded on the sketch sheet should be "CSPKABSA", not "CSPKASBA". 3) Sample number is not recorded on the indirect prep record (Lab sample ID is recorded though).	x-NR
CSPKABSA-102-CH101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL 1200EX (04-03)	10000	0.0128	1387	544	7/20/2018	041821898	041821898-0003	Indirect - Ashed	W. Nguyen	8/3/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	79	0.025	0	0		1.0	Area Examined	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) According to the narrative in the data package, the analysis method is Modified ISO 13794, not Modified ISO 10312. The incorrect method was entered in the EDD for all samples analyzed under lab job 041821898. 2) Sample number prefix recorded on the sketch sheet should be "CSPKABSA", not "CSPKASBA". 3) Sample number is not recorded on the indirect prep record (Lab sample ID is recorded though).	
CSPKABSE-102-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL 1200EX (04-03)	10000	0.0128	1387	246	7/20/2018	041821898	041821898-0005	Indirect - Ashed	W. Nguyen	8/3/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	1.1	0	0		0.051	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) According to the narrative in the data package, the analysis method is Modified ISO 13794, not Modified ISO 10312. 1) Sample number prefix recorded on the sketch sheet is "CSPKASBE", but should be "CSPKABSE". 2) Sample number is not recorded on the indirect prep record (Lab sample ID is recorded though).	
CSPKABSP-102-AH101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL 1200EX (04-03)	10000	0.0128	1387	480	7/20/2018	041821898	041821898-0006	Indirect - Ashed	W. Nguyen	8/3/2018	TEM	Modified ISO 13794	No	1	100	25	0.25	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	70	0.013	0	0		0.90	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) According to the narrative in the data package, the analysis method is Modified ISO 13794, not Modified ISO 10312. 2) Sample number prefix recorded on the sketch sheet should be "CSPKABSP", not "CSPKASBP". 3) Sample number is not recorded on the indirect prep record (Lab sample ID is recorded though).	
CSPKABSP-102-AH102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL 1200EX (04-03)	10000	0.0128	1387	482	7/20/2018	041821898	041821898-0008	Indirect - Ashed	W. Nguyen	8/3/2018	TEM	Modified ISO 13794	Yes	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	79	0.028	0	0		1.0	Area Examined	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) Sample number prefix recorded on the sketch sheet should be "CSPKA**BS**P", not "CSPKA**SB**P". 2) Sample number is not recorded on the indirect prep record (Lab sample ID is recorded though).	
CSPKABSA-105-AH101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0128	1387	547	7/20/2018	041821905	041821905-0001	Indirect - Ashed	P. Harrison	8/2/2018	TEM	Modified ISO 13794	No	1	100	25	0.25	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	61	0.013	0	0		0.78	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-105-CH101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0128	1387	535	7/20/2018	041821905	041821905-0003	Indirect - Ashed	P. Harrison	8/3/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	79	0.026	0	0		1.0	Area Examined	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSE-105-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0128	1387	249	7/20/2018	041821905	041821905-0005	Indirect - Ashed	P. Harrison	8/3/2018	TEM	Modified ISO 13794	No	1	100	5	0.05	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	2.2	0	0		0.051	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-105-AH101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0128	1387	482	7/20/2018	041821905	041821905-0006	Indirect - Ashed	P. Harrison	8/3/2018	TEM	Modified ISO 13794	No	1	100	50	0.5	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	35	0.013	0	0		0.45	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-105-AH102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0128	1387	484	7/20/2018	041821905	041821905-0008	Indirect - Ashed	P. Harrison	8/3/2018	TEM	Modified ISO 13794	No	1	100	50	0.5	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	35	0.013	0	0		0.45	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-103-AL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	314	7/21/2018	041822094	041822094-0002	Direct	P. Harrison	8/2/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-103-CL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	307	7/21/2018	041822094	041822094-0004	Direct	P. Harrison	8/2/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSE-103-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	260	7/21/2018	041822094	041822094-0005	Direct	P. Harrison	8/2/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	0.029	0	0		0.052	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-103-AL101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	236	7/21/2018	041822094	041822094-0007	Direct	P. Harrison	8/2/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	10	0.013	0	0		0.13	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-103-AL102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	256	7/21/2018	041822094	041822094-0009	Direct	P. Harrison	8/3/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	9	0.013	0	0		0.12	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	The lab sample ID recorded on the sketch sheet should be "**041822**2094-0009", not "**0411822**094-0009".	
CSPKABSA-101-AL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	301	7/21/2018	041822094	041822094-0011	Direct	P. Harrison	8/3/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) The sample number recorded on the sketch sheet should be "CSPKA**BS**A", not "CSPKA**SB**A". 2) The lab sample ID recorded on the sketch sheet should be "**041822**094-0011", not "**0411822**094-0011".	
CSPKABSP-103-AL101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	236	7/21/2018	041822094	041822094-0007	Direct	P. Harrison	8/2/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	10	0.013	0	0		0.13	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	The lab sample ID recorded on the sketch sheet should be "**041822**094-0011", not "**0411822**094-0011".	
CSPKABSP-103-AL102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	256	7/21/2018	041822094	041822094-0009	Direct	P. Harrison	8/3/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	9	0.013	0	0		0.12	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	The lab sample ID recorded on the sketch sheet should be "**041822**094-0009", not "**0411822**094-0009".	
CSPKABSA-101-AL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	301	7/21/2018	041822094	041822094-0011	Direct	P. Harrison	8/3/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	1) The sample number recorded on the sketch sheet should be "CSPKA**BS**A", not "CSPKA**SB**A". 2) The lab sample ID recorded on the sketch sheet should be "**041822**094-0011", not "**0411822**094-0011".	
CSPKABSA-103-CL101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	307	7/21/2018	041822094	041822094-0013	Direct	P. Harrison	8/3/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	8	0.012	0	0		0.10	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	The lab sample ID recorded on the sketch sheet should be "**041822**094-0011", not "**0411822**094-0011".	
CSPKABSE-101-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	242	7/21/2018	041822094	041822094-0014	Direct	P. Harrison	8/3/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	0.031	0	0		0.052	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-101-AL101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	385	247	7/21/2018	041822094	041822094-0016	Direct	P. Harrison	8/2/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	10	0.012	0	0		0.13	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		x-NR
CSPKABSP-101-AH102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0129	1387	481	7/21/2018	041822094	041822094-0017	Indirect - Ashed	P. Harrison	8/6/2018	TEM	Modified ISO 13794	No	1	100	25	0.25	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	69	0.013	0	0		0.89	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-104-AH101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	589	7/21/2018	041822107	041822107-0001	Indirect - Ashed	P. Harrison	8/7/2018	TEM	Modified ISO 13794	No	1	100	25	0.25	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	58	0.013	0	0		0.74	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-104-CH101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	602	7/21/2018	041822107	041822107-0003	Indirect - Ashed	P. Harrison	8/7/2018	TEM	Modified ISO 13794	No	1	100	25	0.25	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	56	0.013	0	0		0.71	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-402	ABS Air	Field Blank	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0126	385	0	7/21/2018	041822107	041822107-0005	Direct	P. Harrison	8/7/2018	TEM	Modified ISO 10312	No				1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5			0.1	25	8		0	0		0.10		CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	8 grid openings were examined, but the narrative states 10 grid openings were examined. Minimum examined area was still met.	
CSPKABSE-104-ML101	ABS Air-Ecological	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	266	7/21/2018	041822107	041822107-0006	Indirect - Ashed	P. Harrison	8/6/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		8.3	1	25	4	1.0	0	0		0.051	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-104-AH101	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	520	7/21/2018	041822107	041822107-0007	Indirect - Ashed	P. Harrison	8/7/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	79	0.027	0	0		1.0	Area Examined	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSP-104-AH102	ABS Air-Perimeter	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	490	7/21/2018	041822107	041822107-0009	Indirect - Ashed	P. Harrison	8/7/2018	TEM	Modified ISO 13794	No	1	100	25	0.25	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	69	0.013	0	0		0.88	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018	According to the narrative in the data package, the analysis method is Modified ISO 13794, not Modified ISO 10312.	
CSPKABSA-106-AH101	ABS Air-Personal	Field Sample	2	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	535	7/21/2018	041822107	041822107-0011	Indirect - Ashed	P. Harrison	8/6/2018	TEM	Modified ISO 13794	No	1	100	10	0.1	C1 on 8/9/2018 to add 1 to low mag column. C2 on 8/21/2018 to add additional analysis as requested by the client. Sample was analyzed until the target analytical sensitivity was achieved.	>= 3:1	5		0.013		25	158	0.013	0	0		2.0	Sensitivity	CDM Smith	[redacted]	CDM Smith [redacted]	8/23/2018		
CSPKABSA-106-CH101	ABS Air-Personal	Field Sample	1	EMSL04	JEOL-1200EX II (04-06)	10000	0.0127	1387	524	7/21/2018	041822107	041822107-0013	Indirect - Ashed	P. Harrison	8/7/2018	TEM	Modified ISO 13794	No	1	100	5	0.05	C1 on 8/9/2018 to add 1 to low mag column.	>= 3:1	5		0.013	1	25	79	0.053	0	0		1.0	Area Examined	CDM Smith	[

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	1	G1	A7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	2	G1	A9	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	3	G1	C8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	4	G1	C10	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	5	G1	E8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	6	G1	E10	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	7	G1	G6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	8	G1	G8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	9	G1	G10	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	10	G1	I8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	11	G1	I10	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	12	G2	J6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	13	G2	J4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	14	G2	J2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	15	G2	H5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	16	G2	H3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	17	G2	H1	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	18	G2	D7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	19	G2	D5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	20	G2	D3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-101-AH101	041815994-0001	t_EMSL04_CSCMAA-101-AH101_05-30-18_041815994_Air__TEM_D.	21	G2	D1	ND															Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	1	G5	J9	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	2	G5	J7	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	3	G5	J3	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	4	G5	H9	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	5	G5	H7	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	6	G5	H5	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	7	G5	H3	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	8	G5	H1	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	9	G5	C5	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	10	G5	C3	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	11	G5	C1	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	12	G6	A2	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	13	G6	A4	MD11	1		15.2	3.4	4.4705882	OA		ADX	1	1	1			NRA(Ferro-Actinolite)	Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	14	G6	A4	MF	1	1	15.2	0.6	25.333333	OA		ADX							Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	15	G6	A8	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	16	G6	A10	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	17	G6	C5	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	18	G6	C7	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	19	G6	C9	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	20	G6	H2	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	21	G6	H4	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	22	G6	H6	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-102-AH101	041815994-0003	t_EMSL04_CSCMAA-102-AH101_05-30-18_041815994_Air__TEM_D.	23	G6	J2	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	1	H1	J9	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	2	H1	J7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	3	H1	J5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	4	H1	H4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	5	H1	H2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	6	H1	F3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	7	H1	F1	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	8	H1	D6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	9	H1	D4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	10	H1	D2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	11	H1	B2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	12	H2	B2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	13	H2	B4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	14	H2	D2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	15	H2	D4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	16	H2	D6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	17	H2	D8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	18	H2	F7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	19	H2	F9	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	20	H2	H4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	21	H2	H6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-103-AH101	041815994-0005	t_EMSL04_CSCMAA-103-AH101_05-30-18_041815994_Air__TEM_D.	22	H2	H8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	1	H5	B3	ND															Field Sample	CDM Smith[redacted]	6/18/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	2	H5	B5	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	3	H5	B7	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	4	H5	B9	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	5	H5	D6	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	6	H5	D8	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	7	H5	D10	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	8	H5	G6	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	9	H5	G8	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	10	H5	G10	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	11	H6	J7	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	12	H6	J5	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	13	H6	J3	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	14	H6	H8	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	15	H6	H6	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	16	H6	H4	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	17	H6	F4	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	18	H6	F2	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	19	H6	C7	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	20	H6	C5	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-104-AH101	041815994-0007	t_EMSL04_CSCMAA-104-AH101_05-30-18_041815994_Air__TEM_D.	21	H6	C3	ND															Field Sample	CDM Smith[redacted]	6/18/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	1	N1	J2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	2	N1	I4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	3	N1	H2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	4	N1	G4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	5	N1	F7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	6	N1	E3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	7	N1	D1	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	8	N1	C3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	9	N1	B5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	10	N1	A8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	11	N2	J8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	12	N2	I6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	13	N2	H2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	14	N2	G5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	15	N2	F7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	16	N2	E3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	17	N2	D6	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	18	N2	C8	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	19	N2	B3	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	20	N2	A5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	21	N3	J2	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	22	N3	I5	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	23	N3	H7	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-AH101	041817463-0004	t_EMSL04_CSCMAA-105-AH101_06-12-18_041817463_Air__TEM_D.	24	N3	G4	ND															Field Sample	CDM Smith[redacted]	8/23/2018			
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	1	M5	A8	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	2	M5	B5	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	3	M5	C3	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	4	M5	D1	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	5	M5	E3	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	6	M5	F1	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	7	M5	G4	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	8	M5	H6	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	9	M5	I4	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	10	M5	J2	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	11	M6	J8	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	12	M6	I5	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	13	M6	H2	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	14	M6	G6	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	15	M6	F9	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	16	M6	E3	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	17	M6	D1	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	18	M6	C6	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	19	M6	B4	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	20	M6	A6	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AH101	041817463-0002	_EMSL04_CSCMAA-107B-AH101_06-12-18_041817463_Air__TEM_D	21	M7	I4	ND															Field Sample	CDM Smith[redacted]	6/18/2018	Rejected during validation		
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	1	G1	J10	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	2	G1	J8	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	3	G1	J6	ND															Field Sample					

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	4	G1	J4	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	5	G1	J2	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	6	G1	I1	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	7	G1	I3	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	8	G1	I5	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	9	G1	I7	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	10	G1	I9	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	11	G1	H10	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	12	G1	H8	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	13	G1	H6	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	14	G1	H4	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	15	G1	H2	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	16	G1	G3	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	17	G1	G5	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	18	G1	G7	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	19	G1	G9	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	20	G1	F10	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	21	G1	F8	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	22	G2	J10	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	23	G2	J8	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	24	G2	J6	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	25	G2	J4	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	26	G2	J2	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	27	G2	I1	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	28	G2	I3	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	29	G2	I5	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	30	G2	I7	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	31	G2	I9	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	32	G2	H10	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	33	G2	H8	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	34	G2	H6	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	35	G2	H4	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	36	G2	H2	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	37	G2	G1	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	38	G2	G3	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	39	G2	G5	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	40	G2	G7	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	41	G2	G9	ND															Field Sample					
CSCMAA-107B-AL101	041817463-0003	_EMSL04_CSCMAA-107B-AL101_09-07-18_041817463_Air__TEM_D	42	G2	F10	ND															Field Sample					
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	10	I2	B3	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	6	I2	J7	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	5	I1	H6	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	4	I1	H8	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	3	I1	J6	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	8	I2	J3	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	9	I2	B5	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	7	I2	J5	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	2	I1	J8	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-101-400	041815994-0009	Rit_EMSL04_CSCMAA-101-400_05-30-18_041815994_Air__TEM_D.x	1	I1	J10	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	8	M2	F2	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	2	M1	C7	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	3	M1	E5	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	4	M1	G7	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	5	M1	I5	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	7	M2	H4	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	1	M1	A10	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	6	M2	J5	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	10	M2	B4	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSCMAA-105-400	041817463-0001	Rit_EMSL04_CSCMAA-105-400_06-12-18_041817463_Air__TEM_D.x	9	M2	D3	ND															Field Blank	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-AH101	041822107-0020	EMSL04_CSAPABSA-101-AH101_08-07-18_041822107_Air__TEM_D_(	1	F1	C6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-AH101	041822107-0020	EMSL04_CSAPABSA-101-AH101_08-07-18_041822107_Air__TEM_D_(	2	F1	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-AH101	041822107-0020	EMSL04_CSAPABSA-101-AH101_08-07-18_041822107_Air__TEM_D_(	3	F1	H7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-AH101	041822107-0020	EMSL04_CSAPABSA-101-AH101_08-07-18_041822107_Air__TEM_D_(	4	F2	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-AH101	041822107-0020	EMSL04_CSAPABSA-101-AH101_08-07-18_041822107_Air__TEM_D_(	5	F2	F7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-CH101	041822107-0022	EMSL04_CSAPABSA-101-CH101_08-07-18_041822107_Air__TEM_D_(	1	F6	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-CH101	041822107-0022	EMSL04_CSAPABSA-101-CH101_08-07-18_041822107_Air__TEM_D_(	2	F6	F9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-CH101	041822107-0022	EMSL04_CSAPABSA-101-CH101_08-07-18_041822107_Air__TEM_D_(	3	F6	I6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-101-CH101	041822107-0022	EMSL04_CSAPABSA-101-CH101_08-07-18_041822107_Air__TEM_D_(	4	F7	I4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSAPABSA-101-CH101	041822107-0022	EMSL04_CSAPABSA-101-CH101_08-07-18_041822107_Air__TEM_D_	5	F7	D3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	1	A6	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	2	A6	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	3	A6	H3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	4	A6	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	5	A7	I8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	6	A7	I6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	7	A7	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-AL101	041821873-0002	EMSL04_CSAPABSA-102-AL101_07-24-18_041821873_Air__TEM_D_	8	A7	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	1	B2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	2	B2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	3	B2	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	4	B2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	5	B3	C2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	6	B3	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	7	B3	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-102-CL101	041821873-0004	EMSL04_CSAPABSA-102-CL101_07-24-18_041821873_Air__TEM_D_	8	B3	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	1	D1	D5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	2	D1	D7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	3	D1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	4	D1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	5	D2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	6	D2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	7	D2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-AL101	041821873-0011	EMSL04_CSAPABSA-103-AL101_07-24-18_041821873_Air__TEM_D_	8	D2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	1	D5	B3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	2	D5	B5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	3	D5	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	4	D5	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	5	D6	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	6	D6	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	7	D6	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSA-103-CL101	041821873-0013	EMSL04_CSAPABSA-103-CL101_07-24-18_041821873_Air__TEM_D_	8	D6	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-101-ML101	041822107-0024	EMSL04_CSAPABSE-101-ML101_08-07-18_041822107_Air__TEM_D_	1	G1	B9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-101-ML101	041822107-0024	EMSL04_CSAPABSE-101-ML101_08-07-18_041822107_Air__TEM_D_	2	G1	H7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-101-ML101	041822107-0024	EMSL04_CSAPABSE-101-ML101_08-07-18_041822107_Air__TEM_D_	3	G2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-101-ML101	041822107-0024	EMSL04_CSAPABSE-101-ML101_08-07-18_041822107_Air__TEM_D_	4	G2	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-102-ML101	041821873-0005	EMSL04_CSAPABSE-102-ML101_07-24-18_041821873_Air__TEM_D_	1	B5	H9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-102-ML101	041821873-0005	EMSL04_CSAPABSE-102-ML101_07-24-18_041821873_Air__TEM_D_	2	B6	C6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-102-ML101	041821873-0005	EMSL04_CSAPABSE-102-ML101_07-24-18_041821873_Air__TEM_D_	3	B5	D7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-102-ML101	041821873-0005	EMSL04_CSAPABSE-102-ML101_07-24-18_041821873_Air__TEM_D_	4	B6	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-103-ML101	041821873-0014	EMSL04_CSAPABSE-103-ML101_07-24-18_041821873_Air__TEM_D_	1	E2	E8	ND												7/24/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-103-ML101	041821873-0014	EMSL04_CSAPABSE-103-ML101_07-24-18_041821873_Air__TEM_D_	2	E3	G8	ND												7/24/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-103-ML101	041821873-0014	EMSL04_CSAPABSE-103-ML101_07-24-18_041821873_Air__TEM_D_	3	E2	C9	ND												7/27/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSE-103-ML101	041821873-0014	EMSL04_CSAPABSE-103-ML101_07-24-18_041821873_Air__TEM_D_	4	E3	C9	ND												7/27/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-101-AH101	041822107-0025	EMSL04_CSAPABSP-101-AH101_08-07-18_041822107_Air__TEM_D_	1	G7	A6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSAPABSP-101-AH101	041822107-0025	EMSL04_CSAPABSP-101-AH101_08-07-18_041822107_Air__TEM_D_	2	G7	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSAPABSP-101-AH101	041822107-0025	EMSL04_CSAPABSP-101-AH101_08-07-18_041822107_Air__TEM_D_	3	G7	H9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSAPABSP-101-AH101	041822107-0025	EMSL04_CSAPABSP-101-AH101_08-07-18_041822107_Air__TEM_D_	4	G8	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSAPABSP-101-AH101	041822107-0025	EMSL04_CSAPABSP-101-AH101_08-07-18_041822107_Air__TEM_D_	5	G8	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSAPABSP-101-AH101	041822107-0025	EMSL04_CSAPABSP-101-AH101_08-07-18_041822107_Air__TEM_D_	6	G8	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSAPABSP-101-AH102	041822107-0027	EMSL04_CSAPABSP-101-AH102_08-07-18_041822107_Air__TEM_D_	1	H1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-101-AH102	041822107-0027	EMSL04_CSAPABSP-101-AH102_08-07-18_041822107_Air__TEM_D_	2	H1	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-101-AH102	041822107-0027	EMSL04_CSAPABSP-101-AH102_08-07-18_041822107_Air__TEM_D_	3	H1	B5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-101-AH102	041822107-0027	EMSL04_CSAPABSP-101-AH102_08-07-18_041822107_Air__TEM_D_	4	H2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-101-AH102	041822107-0027	EMSL04_CSAPABSP-101-AH102_08-07-18_041822107_Air__TEM_D_	5	H2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	1	C1	C2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	2	C1	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	3	C1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	4	C1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	5	C2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	6	C2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	7	C2	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	8	C3	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	9	C3	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL101	041821873-0007	EMSL04_CSAPABSP-102-AL101_07-24-18_041821873_Air__TEM_D_	10	C3	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_	1	C5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_	2	C5	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	3	C5	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	4	C6	I8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	5	C6	I6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	6	C6	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	7	C7	H7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	8	C7	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-102-AL102	041821873-0009	EMSL04_CSAPABSP-102-AL102_07-24-18_041821873_Air__TEM_D_(	9	C7	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	1	E5	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	2	E5	C6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	3	E5	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	4	E5	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	5	E6	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	6	E6	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	7	E6	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	8	E7	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	9	E7	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL101	041821873-0016	EMSL04_CSAPABSP-103-AL101_07-24-18_041821873_Air__TEM_D_(	10	E7	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	1	F1	C2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	2	F1	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	3	F1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	4	F2	C2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	5	F2	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	6	F2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	7	F3	C2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	8	F3	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSAPABSP-103-AL102	041821873-0018	EMSL04_CSAPABSP-103-AL102_07-24-18_041821873_Air__TEM_D_(	9	F3	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	1	F5	H8	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	2	F5	H6	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	3	F5	C8	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	4	F5	C6	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	5	F6	B3	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	6	F6	B5	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	7	F6	I3	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-401	041821873-0019	Rit_EMSL04_CSPKABS-401_07-24-18_041821873_Air__TEM_D_C1.xl	8	F6	I5	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	1	O1	B3	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	2	O1	B5	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	3	O1	B7	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	4	O1	B9	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	5	O1	H8	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	6	O2	J8	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	7	O2	J6	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	8	O2	J4	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	9	O2	J2	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-601	041815406-0001	BoRit_EMSL04_CSPKABS-601_05-30-18_041815406_TEM_D.xlsm	10	O2	D4	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	1	O5	C6	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	2	O5	E3	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	3	O5	G3	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	4	O5	G5	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	5	O5	I4	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	6	O6	B4	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	7	O6	B6	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	8	O6	B8	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	9	O6	H6	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABS-602	041815406-0002	BoRit_EMSL04_CSPKABS-602_05-30-18_041815406_TEM_D.xlsm	10	O6	H8	ND															Lot Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	1	C5	I7	ND												8/3/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	2	C5	E6	ND												8/3/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	3	C5	A5	ND												8/6/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	4	C6	B6	ND												8/6/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	5	C6	F6	ND												8/6/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	6	C7	J2	ND												8/3/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	7	C7	G4	ND												8/3/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-AL101	041822094-0011	EMSL04_CSPKABSA-101-AL101_08-03-18_041822094_Air__TEM_D_(	8	C7	A5	ND												8/3/2018	1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	1	D1	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	2	D1	C8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	3	D1	F7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	4	D1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	5	D2	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	6	D2	D5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	7	D2	F7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-101-CL101	041822094-0013	EMSL04_CSPKABSA-101-CL101_08-03-18_041822094_Air__TEM_D_(	8	D2	I8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	1	B4	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	2	B4	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	3	B4	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	4	B4	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	5	B4	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	6	B4	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	7	B4	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	8	B4	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	9	B4	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	10	B4	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	11	B4	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	12	B4	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	13	B4	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	14	B4	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	15	B4	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	16	B4	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	17	B4	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	18	B4	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	19	B4	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	20	B4	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	21	B4	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	22	B4	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	23	B4	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	24	B4	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	25	B4	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	26	B4	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	27	B4	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	28	B4	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	29	B4	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	30	B4	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	31	B5	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	32	B5	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	33	B5	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	34	B5	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	35	B5	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	36	B5	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	37	B5	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	38	B5	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	39	B5	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	40	B5	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	41	B5	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	42	B5	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	43	B5	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	44	B5	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	45	B5	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	46	B5	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	47	B5	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	48	B5	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	49	B5	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	50	B5	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	51	B5	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	52	B5	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	53	B5	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	54	B5	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	55	B5	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	56	B6	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	57	B6	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	58	B6	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	59	B6	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	60	B6	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	61	B6	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	62	B6	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	63	B6	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	64	B6	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	65	B6	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	66	B6	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	67	B6	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	68	B6	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	69	B6	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	70	B6	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	71	B6	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	72	B6	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	73	B6	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	74	B6	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	75	B6	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	76	B6	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	77	B6	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	78	B6	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-AH101	041821898-0001	MSL04_CSPKABSA-102-AH101_08-03-18_041821898_Air__TEM_IA_	79	B6	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	1	C1	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	2	C1	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	3	C1	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	4	C1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	5	C1	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	6	C1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	7	C1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	8	C1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	9	C1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	10	C1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	11	C1	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	12	C1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	13	C1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	14	C1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	15	C1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	16	C1	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	17	C1	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	18	C1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	19	C1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	20	C1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	21	C1	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	22	C1	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	23	C1	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	24	C1	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	25	C1	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	26	C1	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	27	C1	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	28	C1	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	29	C1	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	30	C1	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	31	C1	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	32	C1	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	33	C1	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	34	C1	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	35	C1	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	36	C1	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	37	C1	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	38	C1	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	39	C1	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	40	C1	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	41	C2	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	42	C2	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	43	C2	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	44	C2	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	45	C2	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	46	C2	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	47	C2	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	48	C2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	49	C2	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	50	C2	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	51	C2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	52	C2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	53	C2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	54	C2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	55	C2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	56	C2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	57	C2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	58	C2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	59	C2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	60	C2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	61	C2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	62	C2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	63	C2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	64	C2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	65	C2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	66	C2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	67	C2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	68	C2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	69	C2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	70	C2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	71	C2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	72	C2	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	73	C2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	74	C2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	75	C2	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	76	C2	A10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	77	C2	A8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	78	C2	A6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-102-CH101	041821898-0003	MSL04_CSPKABSA-102-CH101_08-03-18_041821898_Air__TEM_IA_	79	C2	A4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	1	A1	J7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	2	A1	G6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	3	A1	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	4	A1	B3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	5	A2	H1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	6	A2	F3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	7	A2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-AL101	041822094-0002	EMSL04_CSPKABSA-103-AL101_08-02-18_041822094_Air__TEM_D_(	8	A2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	1	A5	J5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	2	A5	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	3	A5	D3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	4	A5	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	5	A6	A8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	6	A6	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	7	A6	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-103-CL101	041822094-0004	EMSL04_CSPKABSA-103-CL101_08-02-18_041822094_Air__TEM_D_(	8	A6	J7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	1	A1	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	2	A1	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	3	A1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	4	A1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	5	A1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	6	A1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	7	A1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	8	A1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	9	A1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	10	A1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	11	A1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	12	A1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	13	A1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	14	A1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	15	A1	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	16	A1	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	17	A1	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	18	A1	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	19	A1	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	20	A1	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	21	A1	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	22	A1	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	23	A1	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	24	A1	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	25	A1	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	26	A1	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	27	A1	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	28	A1	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	29	A1	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	30	A2	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	31	A2	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	32	A2	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	33	A2	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	34	A2	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	35	A2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	36	A2	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	37	A2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	38	A2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	39	A2	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	40	A2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	41	A2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	42	A2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	43	A2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	44	A2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	45	A2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	46	A2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	47	A2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	48	A2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	49	A2	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	50	A2	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	51	A2	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	52	A2	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	53	A2	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	54	A2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	55	A2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	56	A2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	57	A2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-AH101	041822107-0001	MSL04_CSPKABSA-104-AH101_08-07-18_041822107_Air__TEM_IA_	58	A2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	1	A5	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	2	A5	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	3	A5	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	4	A5	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	5	A5	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	6	A5	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	7	A5	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	8	A5	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	9	A5	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	10	A5	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	11	A5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	12	A5	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	13	A5	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	14	A5	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	15	A5	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	16	A5	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	17	A5	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	18	A5	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	19	A5	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	20	A5	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	21	A5	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	22	A5	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	23	A5	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	24	A5	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	25	A5	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	26	A5	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	27	A5	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	28	A5	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	29	A6	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	30	A6	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	31	A6	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	32	A6	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	33	A6	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	34	A6	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	35	A6	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	36	A6	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	37	A6	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	38	A6	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	39	A6	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	40	A6	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	41	A6	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	42	A6	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	43	A6	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	44	A6	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	45	A6	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	46	A6	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	47	A6	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	48	A6	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	49	A6	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	50	A6	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	51	A6	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	52	A6	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA	53	A6	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	54	A6	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	55	A6	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-104-CH101	041822107-0003	MSL04_CSPKABSA-104-CH101_08-07-18_041822107_Air__TEM_IA_	56	A6	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	1	B2	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	2	B2	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	3	B2	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	4	B2	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	5	B2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	6	B2	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	7	B2	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	8	B2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	9	B2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	10	B2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	11	B2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	12	B2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	13	B2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	14	B2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	15	B2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	16	B2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	17	B2	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	18	B2	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	19	B2	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	20	B2	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	21	B2	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	22	B2	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	23	B2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	24	B2	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	25	B2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	26	B2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	27	B2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	28	B2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	29	B2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	30	B2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	31	B2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	32	B3	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	33	B3	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	34	B3	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	35	B3	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	36	B3	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA	37	B3	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	38	B3	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	39	B3	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	40	B3	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	41	B3	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	42	B3	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	43	B3	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	44	B3	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	45	B3	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	46	B3	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	47	B3	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	48	B3	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	49	B3	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	50	B3	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	51	B3	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	52	B3	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	53	B3	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	54	B3	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	55	B3	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	56	B3	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	57	B3	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	58	B3	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	59	B3	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	60	B3	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-AH101	041821905-0001	MSL04_CSPKABSA-105-AH101_08-02-18_041821905_Air__TEM_IA_	61	B3	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	1	C5	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	2	C5	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	3	C5	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	4	C5	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	5	C5	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	6	C5	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	7	C5	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	8	C5	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	9	C5	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	10	C5	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	11	C5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	12	C5	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	13	C5	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	14	C5	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	15	C5	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	16	C5	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	17	C5	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	18	C5	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	19	C5	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	20	C5	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	21	C5	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	22	C5	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	23	C5	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	24	C5	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	25	C5	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	26	C5	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	27	C5	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	28	C5	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	29	C5	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	30	C5	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	31	C5	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	32	C5	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	33	C5	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	34	C5	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	35	C5	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	36	C5	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	37	C5	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	38	C5	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	39	C5	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	40	C5	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	41	C6	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	42	C6	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	43	C6	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	44	C6	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	45	C6	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	46	C6	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	47	C6	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	48	C6	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	49	C6	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	50	C6	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	51	C6	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	52	C6	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	53	C6	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	54	C6	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	55	C6	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	56	C6	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	57	C6	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	58	C6	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	59	C6	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	60	C6	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	61	C6	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	62	C6	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	63	C6	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	64	C6	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	65	C6	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	66	C6	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	67	C6	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	68	C6	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	69	C6	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	70	C6	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	71	C6	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	72	C6	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	73	C6	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	74	C6	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	75	C6	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	76	C6	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	77	C6	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	78	C6	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-105-CH101	041821905-0003	MSL04_CSPKABSA-105-CH101_08-03-18_041821905_Air__TEM_IA_	79	C6	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	1	H2	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	2	H2	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	3	H2	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	4	H2	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	5	H2	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	6	H2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	7	H2	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	8	H2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	9	H2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	10	H2	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	11	H2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	12	H2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	13	H2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	14	H2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	15	H2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	16	H2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	17	H2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	18	H2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	19	H2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	20	H2	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	21	H2	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	22	H2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	23	H2	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	24	H2	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	25	H2	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	26	H2	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	27	H2	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	28	H2	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	29	H2	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	30	H2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	31	H2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	32	H2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	33	H2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	34	H2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	35	H2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	36	H2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	37	H2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	38	H2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	39	H2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	40	H2	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	41	H3	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	42	H3	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	43	H3	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	44	H3	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	45	H3	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	46	H3	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	47	H3	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	48	H3	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	49	H3	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	50	H3	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	51	H3	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	52	H3	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	53	H3	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	54	H3	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	55	H3	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	56	H3	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	57	H3	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	58	H3	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	59	H3	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	60	H3	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	61	H3	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	62	H3	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	63	H3	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	64	H3	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	65	H3	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	66	H3	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	67	H3	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	68	H3	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	69	H3	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	70	H3	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	71	H3	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	72	H3	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	73	H3	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	74	H3	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	75	H3	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	76	H3	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	77	H3	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	78	H3	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-AH101	041822107-0011	MSL04_CSPKABSA-106-AH101_08-06-18_041822107_Air__TEM_IA_	79	H3	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	1	I5	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	2	I5	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	3	I5	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	4	I5	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	5	I5	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	6	I5	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	7	I5	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	8	I5	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	9	I5	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	10	I5	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	11	I5	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	12	I5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	13	I5	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	14	I5	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	15	I5	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	16	I5	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	17	I6	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	18	I6	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	19	I6	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	20	I6	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	21	I6	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	22	I6	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	23	I6	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	24	I6	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	25	I6	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	26	I6	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	27	I6	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	28	I6	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	29	I6	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	30	I6	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	31	I6	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	32	I6	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	33	I6	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	34	I6	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	35	I6	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	36	I6	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	37	I6	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	38	I6	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	39	I6	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	40	I6	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	41	I6	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	42	I6	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	43	I6	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	44	I6	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	45	I6	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	46	I6	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	47	I6	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	48	I6	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	49	I7	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	50	I7	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	51	I7	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	52	I7	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	53	I7	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	54	I7	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	55	I7	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	56	I7	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	57	I7	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	58	I7	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	59	I7	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	60	I7	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	61	I7	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	62	I7	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	63	I7	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	64	I8	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	65	I8	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	66	I8	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	67	I8	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	68	I8	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	69	I8	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	70	I8	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	71	I8	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	72	I8	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	73	I8	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	74	I8	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	75	I8	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	76	I8	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	77	I8	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	78	I8	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-106-CH101	041822107-0013	:MSL04_CSPKABSA-106-CH101_08-07-18_041822107_Air__TEM_IA_	79	I8	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	1	E1	A9	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	2	E1	C8	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	3	E1	E9	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	4	E1	H9	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	5	E2	I3	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	6	E2	G4	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	7	E2	D5	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSA-402	041822107-0005	:it_EMSL04_CSPKABSA-402_08-07-18_041822107_Air__TEM_D_C1.x	8	E2	A5	ND													1		Field Blank	CDM Smith[redacted]	8/23/2018			
CSPKABSE-101-ML101	041822094-0014	:EMSL04_CSPKABSE-101-ML101_08-03-18_041822094_Air__TEM_D_(	1	D6	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-101-ML101	041822094-0014	:EMSL04_CSPKABSE-101-ML101_08-03-18_041822094_Air__TEM_D_(	2	D6	G6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-101-ML101	041822094-0014	:EMSL04_CSPKABSE-101-ML101_08-03-18_041822094_Air__TEM_D_(	3	D7	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-101-ML101	041822094-0014	:EMSL04_CSPKABSE-101-ML101_08-03-18_041822094_Air__TEM_D_(	4	D7	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-102-ML101	041821898-0005	:MSL04_CSPKABSE-102-ML101_08-03-18_041821898_Air__TEM_IA_	1	D1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-102-ML101	041821898-0005	:MSL04_CSPKABSE-102-ML101_08-03-18_041821898_Air__TEM_IA_	2	D1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-102-ML101	041821898-0005	:MSL04_CSPKABSE-102-ML101_08-03-18_041821898_Air__TEM_IA_	3	D2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-102-ML101	041821898-0005	:MSL04_CSPKABSE-102-ML101_08-03-18_041821898_Air__TEM_IA_	4	D2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-103-ML101	041822094-0005	:EMSL04_CSPKABSE-103-ML101_08-02-18_041822094_Air__TEM_D_(	1	B1	A6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-103-ML101	041822094-0005	:EMSL04_CSPKABSE-103-ML101_08-02-18_041822094_Air__TEM_D_(	2	B1	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-103-ML101	041822094-0005	:EMSL04_CSPKABSE-103-ML101_08-02-18_041822094_Air__TEM_D_(	3	B2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-103-ML101	041822094-0005	:EMSL04_CSPKABSE-103-ML101_08-02-18_041822094_Air__TEM_D_(	4	B2	D7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-104-ML101	041822107-0006	:MSL04_CSPKABSE-104-ML101_08-06-18_041822107_Air__TEM_IA_	1	E2	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-104-ML101	041822107-0006	:MSL04_CSPKABSE-104-ML101_08-06-18_041822107_Air__TEM_IA_	2	E2	I4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-104-ML101	041822107-0006	:MSL04_CSPKABSE-104-ML101_08-06-18_041822107_Air__TEM_IA_	3	E3	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-104-ML101	041822107-0006	:MSL04_CSPKABSE-104-ML101_08-06-18_041822107_Air__TEM_IA_	4	E3	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSE-105-ML101	041821905-0005	MSL04_CSPKABSE-105-ML101_08-03-18_041821905_Air__TEM_IA_	1	D1	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-105-ML101	041821905-0005	MSL04_CSPKABSE-105-ML101_08-03-18_041821905_Air__TEM_IA_	2	D1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-105-ML101	041821905-0005	MSL04_CSPKABSE-105-ML101_08-03-18_041821905_Air__TEM_IA_	3	D2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-105-ML101	041821905-0005	MSL04_CSPKABSE-105-ML101_08-03-18_041821905_Air__TEM_IA_	4	D2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-106-ML101	041822107-0015	MSL04_CSPKABSE-106-ML101_08-07-18_041822107_Air__TEM_IA_	1	J5	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-106-ML101	041822107-0015	MSL04_CSPKABSE-106-ML101_08-07-18_041822107_Air__TEM_IA_	2	J5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-106-ML101	041822107-0015	MSL04_CSPKABSE-106-ML101_08-07-18_041822107_Air__TEM_IA_	3	J6	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSE-106-ML101	041822107-0015	MSL04_CSPKABSE-106-ML101_08-07-18_041822107_Air__TEM_IA_	4	J6	H7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	1	G1	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	2	G1	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	3	G1	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	4	G1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	5	G1	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	6	G1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	7	G1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	8	G1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	9	G1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	10	G1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	11	G1	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	12	G1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	13	G1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	14	G1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	15	G1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	16	G1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	17	G1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	18	G1	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	19	G1	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	20	G1	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	21	G1	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	22	G1	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	23	G1	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	24	G1	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	25	G1	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	26	G1	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	27	G1	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	28	G1	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	29	G1	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	30	G1	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	31	G1	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	32	G1	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	33	G1	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	34	G1	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	35	G1	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	36	G2	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	37	G2	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	38	G2	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	39	G2	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	40	G2	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	41	G2	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	42	G2	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	43	G2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	44	G2	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	45	G2	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	46	G2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	47	G2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	48	G2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	49	G2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	50	G2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	51	G2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	52	G2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	53	G2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	54	G2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	55	G2	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	56	G2	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	57	G2	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	58	G2	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	59	G2	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	MSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	60	G2	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	61	G2	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	62	G2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	63	G2	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	64	G2	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	65	G2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	66	G2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	67	G2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	68	G2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AH102	041822094-0017	EMSL04_CSPKABSP-101-AH102_08-06-18_041822094_Air__TEM_IA_	69	G2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	1	E1	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	2	E1	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	3	E1	D7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	4	E1	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	5	E1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	6	E2	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	7	E2	C8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	8	E2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	9	E2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-101-AL101	041822094-0016	EMSL04_CSPKABSP-101-AL101_08-02-18_041822094_Air__TEM_D_0	10	E2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			x-NR
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	1	E1	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	2	E1	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	3	E1	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	4	E1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	5	E1	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	6	E1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	7	E1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	8	E1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	9	E1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	10	E1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	11	E1	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	12	E1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	13	E1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	14	E1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	15	E1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	16	E1	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	17	E1	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	18	E1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	19	E1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	20	E1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	21	E1	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	22	E1	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	23	E1	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	24	E1	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	25	E1	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	26	E1	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	27	E1	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	28	E1	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	29	E1	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	30	E1	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	31	E2	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	32	E2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	33	E2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	34	E2	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	35	E2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	36	E2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	37	E2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	38	E2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	39	E2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	40	E2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	41	E2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	42	E2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	43	E2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	44	E2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	45	E2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	46	E2	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	47	E2	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	48	E2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	EMSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	49	E2	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	50	E2	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	51	E2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	52	E2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	53	E2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	54	E2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	55	E2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	56	E2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	57	E2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	58	E2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	59	E2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	60	E2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	61	E2	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	62	E2	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	63	E2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA	64	E2	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	65	E2	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	66	E2	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	67	E2	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	68	E2	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	69	E2	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH101	041821898-0006	MSL04_CSPKABSP-102-AH101_08-03-18_041821898_Air__TEM_IA_	70	E2	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	1	F1	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	2	F1	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	3	F1	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	4	F1	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	5	F1	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	6	F1	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	7	F1	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	8	F1	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	9	F1	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	10	F1	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	11	F1	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	12	F1	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	13	F1	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	14	F1	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	15	F1	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	16	F1	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	17	F1	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	18	F1	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	19	F1	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	20	F1	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	21	F1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	22	F1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	23	F1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	24	F1	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	25	F1	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	26	F1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	27	F1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	28	F1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	29	F1	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	30	F1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	31	F1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	32	F1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	33	F1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA	34	F1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	35	F2	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	36	F2	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	37	F2	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	38	F2	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	39	F2	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	40	F2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	41	F2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	42	F2	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	43	F2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	44	F2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	45	F2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	46	F2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	47	F2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	48	F2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	49	F2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	50	F2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	51	F2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	52	F2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	53	F2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	54	F2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	55	F2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	56	F2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	57	F2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	58	F2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	59	F2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	60	F2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	61	F3	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA	62	F3	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	63	F3	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	64	F3	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	65	F3	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	66	F3	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	67	F3	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	68	F3	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	69	F3	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	70	F3	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	71	F3	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	72	F3	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	73	F3	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	74	F3	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	75	F3	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	76	F3	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	77	F3	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	78	F3	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-102-AH102	041821898-0008	MSL04_CSPKABSP-102-AH102_08-03-18_041821898_Air__TEM_IA_	79	F3	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	1	B7	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	2	B7	C6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	3	B7	E4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	4	B7	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	5	B7	I2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	6	B8	J3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	7	B8	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	8	B8	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	9	B8	D1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL101	041822094-0007	EMSL04_CSPKABSP-103-AL101_08-02-18_041822094_Air__TEM_D_(	10	B8	B3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	1	C1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	2	C1	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	3	C1	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	4	C1	D7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	5	C1	A8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	6	C2	I8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	7	C2	G6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	8	C2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-103-AL102	041822094-0009	EMSL04_CSPKABSP-103-AL102_08-03-18_041822094_Air__TEM_D_(	9	C2	B5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	1	B1	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	2	B1	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	3	B1	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA	4	B1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	5	B1	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	6	B1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	7	B1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	8	B1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	9	B1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	10	B1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	11	B1	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	12	B1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	13	B1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	14	B1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	15	B1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	16	B1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	17	B1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	18	B1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	19	B1	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	20	B1	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	21	B1	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	22	B1	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	23	B1	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	24	B1	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	25	B1	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	26	B1	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	27	B1	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	28	B1	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	29	B1	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	30	B1	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	31	B1	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	32	B1	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	33	B1	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	34	B1	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	35	B1	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	36	B1	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	37	B1	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	38	B1	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	39	B1	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	40	B1	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	41	B2	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	42	B2	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	43	B2	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	44	B2	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	45	B2	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	46	B2	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	47	B2	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	48	B2	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	49	B2	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	50	B2	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	51	B2	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	52	B2	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	53	B2	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	54	B2	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	55	B2	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	56	B2	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	57	B2	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	58	B2	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	59	B2	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	60	B2	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	61	B2	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	62	B2	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	63	B2	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	64	B2	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	65	B2	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	66	B2	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	67	B2	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	68	B2	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	69	B2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	70	B2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	71	B2	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	72	B2	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	73	B2	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	74	B2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	75	B2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	76	B2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	77	B2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	78	B2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH101	041822107-0007	MSL04_CSPKABSP-104-AH101_08-07-18_041822107_Air__TEM_IA_	79	B2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	1	B5	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	2	B5	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	3	B5	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	4	B5	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	5	B5	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	6	B5	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	7	B5	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	8	B5	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	9	B5	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	10	B5	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	11	B5	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	12	B5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	13	B5	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	14	B5	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	15	B5	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	16	B5	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	17	B5	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	18	B5	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	19	B5	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	20	B5	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA	21	B5	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	22	B5	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	23	B5	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	24	B5	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	25	B5	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	26	B5	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	27	B5	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	28	B5	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	29	B5	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	30	B5	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	31	B5	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	32	B5	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	33	B5	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	34	B5	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	35	B5	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	36	B6	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	37	B6	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	38	B6	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	39	B6	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	40	B6	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	41	B6	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	42	B6	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	43	B6	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	44	B6	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	45	B6	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	46	B6	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	47	B6	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	48	B6	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	49	B6	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	50	B6	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	51	B6	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	52	B6	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	53	B6	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	54	B6	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	55	B6	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	56	B6	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	57	B6	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	58	B6	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	59	B6	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	60	B6	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA	61	B6	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	62	B6	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	63	B6	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	64	B6	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	65	B6	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	66	B6	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	67	B6	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	68	B6	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-104-AH102	041822107-0009	MSL04_CSPKABSP-104-AH102_08-07-18_041822107_Air__TEM_IA_	69	B6	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	MSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	1	E1	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	MSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	2	E1	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	MSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	3	E1	B7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	MSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	4	E1	B9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	MSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	5	E1	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	6	E1	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	7	E1	D7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	8	E1	D9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	9	E1	E4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	10	E1	E2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	11	E1	F7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	12	E1	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	13	E1	G6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	14	E1	G4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	15	E1	H3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	16	E1	H5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	17	E1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	18	E1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	19	E2	A10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA	20	E2	A8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	21	E2	A6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	22	E2	A4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	23	E2	A2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	24	E2	B1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	25	E2	B3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	26	E2	B5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	27	E2	B7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	28	E2	B9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	29	E2	C10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	30	E2	C8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	31	E2	C6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	32	E2	C4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	33	E2	C2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	34	E2	D3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH101	041821905-0006	EMSL04_CSPKABSP-105-AH101_08-03-18_041821905_Air__TEM_IA_	35	E2	D5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	1	F1	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	2	F1	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	3	F1	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	4	F1	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	5	F1	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	6	F1	I1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	7	F1	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	8	F1	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	9	F1	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	10	F1	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	11	F1	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	12	F1	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	13	F1	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	14	F1	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	15	F1	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	16	F1	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	17	F1	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	18	F1	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	19	F2	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	20	F2	A3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	21	F2	A5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	22	F2	A7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	23	F2	A9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	24	F2	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA	25	F2	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	26	F2	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	27	F2	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	28	F2	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	29	F2	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	30	F2	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	31	F2	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	32	F2	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	33	F2	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	34	F2	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-105-AH102	041821905-0008	EMSL04_CSPKABSP-105-AH102_08-03-18_041821905_Air__TEM_IA_	35	F2	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH101	041822107-0016	EMSL04_CSPKABSP-106-AH101_08-07-18_041822107_Air__TEM_D_(	1	E5	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH101	041822107-0016	EMSL04_CSPKABSP-106-AH101_08-07-18_041822107_Air__TEM_D_(	2	E5	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH101	041822107-0016	EMSL04_CSPKABSP-106-AH101_08-07-18_041822107_Air__TEM_D_(	3	E5	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-106-AH101	041822107-0016	:MSL04_CSPKABSP-106-AH101_08-07-18_041822107_Air__TEM_D_(	4	E6	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH101	041822107-0016	:MSL04_CSPKABSP-106-AH101_08-07-18_041822107_Air__TEM_D_(	5	E6	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	1	K5	J10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	2	K5	J8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	3	K5	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	4	K5	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	5	K5	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	6	K5	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	7	K5	I7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	8	K5	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	9	K5	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	10	K5	H8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	11	K5	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	12	K5	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	13	K5	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	14	K5	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	15	K5	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	16	K5	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	17	K5	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	18	K5	F8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	19	K5	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	20	K5	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	21	K5	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	22	K5	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	23	K5	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	24	K5	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	25	K5	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	26	K5	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	27	K5	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	28	K5	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	29	K5	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	30	K5	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	31	K5	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	32	K5	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	33	K5	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	34	K5	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	35	K5	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	36	K5	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	37	K5	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	38	K5	B6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	39	K5	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	40	K5	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	41	K7	J6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	42	K7	J4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	43	K7	J2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	44	K7	I3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	45	K7	I5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	46	K7	I9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	47	K7	H10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	48	K7	H6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	49	K7	H4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	50	K7	H2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	51	K7	G1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	52	K7	G3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	53	K7	G5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	54	K7	G7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	55	K7	G9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	56	K7	F10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	57	K7	F6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	58	K7	F4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	59	K7	F2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	60	K7	E1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	61	K7	E3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	62	K7	E5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	63	K7	E7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	64	K7	E9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	65	K7	D10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	66	K7	D8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

ATTACHMENT 3D
DATA SUMMARY OF STRUCTURE INFORMATION - AIR
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Sample Number	Lab Sample ID	Source File Name	Row Index	Grid	Grid Opening	Structure Type	Primary	Total	Length (µm)	Width (µm)	Aspect Ratio	Mineral Class	Mineral Description	Structure Identification	Sketch	Photo	EDS	Multiple Date	Low_ Mag	Structure Comment	Sample Type	Verifier's Company/Name	Date Verified	Verification Comment	Correction Date	DVC - 5%
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	67	K7	D6	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	68	K7	D4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	69	K7	D2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	70	K7	C1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	71	K7	C3	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	72	K7	C5	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	73	K7	C7	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	74	K7	C9	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	75	K7	B10	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	76	K7	B8	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	77	K7	B4	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	78	K7	B2	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			
CSPKABSP-106-AH102	041822107-0018	:MSL04_CSPKABSP-106-AH102_08-06-18_041822107_Air__TEM_IA_	79	K7	A1	ND													1		Field Sample	CDM Smith[redacted]	8/23/2018			

Notes:
µm = micrometer
ABS = activity-based sampling
DDE = direct data entry
DVC = Data Verification Coordinator
EDS = energy dispersive spectroscopy
ID = identification
LA = Libby amphibole asbestos
NAM = non-asbestos material
OA = other amphibole

Attachment 3E

Laboratory Documentation – Air and Water

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0020 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSA-101-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-06 ✓

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0022 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSA-101-CH101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-06 ✓

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0002 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSA-102-AL101 ✓ Page 1 of 11

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0416-SP 44
A5-8

Analyst [redacted] ✓ Date: 7/24/18 ✓ Scope: 0403 ✓

VDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0004 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSA-102-CL101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418 SP·44
B1·4

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 0405 ✓

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VTDR

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0011 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSA-103-AL101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418-SP-44
D1-4

Analyst [redacted] ✓ Date: 7/24/18 ✓ Scope: 04-03 ✓

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Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0013 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSA-103-CL101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NID ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418-SP-44
DS-8

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 0403 ✓

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TDM

EMSL

extra

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 0411822094-0011 A

Client: CDM Smith

Client Sample: CSPKABSP-101-AL 101

Page 1 of 1

Primary Structure # NSP	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: _____ Date: 8/3/18 Scope: 04-08

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TDM

EMSL

extra

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0013 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-101-CL 101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 04-06 ✓

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CDM

EMSL

ABS

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821898-0001

Client Sample: CSPKASBA-102-AH101

Client: ~~Tetra Tech~~ CDM Smith MS 7.20.18

Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] Date: 8/3/18 Scope: 0403

DVL

TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821898-0003 ABS ✓ Client: ~~Teshlaw~~ CDM Smith ✓ m. 7.20.18

Client Sample: CSPKASBA-102-CH101 Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] ✓ Date: 8/3/18 ✓ Scope: PM-03 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0002 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-103-AL101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/2/18 ✓ Scope: PCM-08 ✓

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Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0004 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-103-CL101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD ✓			
Primary Structure #	**Primary Structure #**	**PrimaryStructure #**	**Primary Structure #**
PrimaryStructure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**

Analyst: ✓ Date: 8/2/18 ✓ Scope: OA-BV

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✓TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0001 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-104-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: PCM ✓

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✓ DM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0003 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-104-CH101 ✓ Page 6 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: CSB-08 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821905-0001 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-105-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/2/18 ✓ Scope: 04-05 ✓

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821905-0003 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-105-CH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 04108 ✓

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✓TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0011 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-106-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/6/18 ✓ Scope: 04 20 ✓

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✓ DM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0013 ✓ **Client:** CDM Smith

Client Sample: CSPKABSA-106-CH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] Date: 8/7/18 ✓ Scope: 04-06 ✓

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0025 **Client:** CDM Smith

Client Sample: CSAPABSP-101-AH101 Page 1 of 1

Primary Structure # NSD	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: Date: 8/7/18 Scope: 04-06

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0027 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSP-101-AH102 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-06 ✓

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✓TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0007 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSP-102-AL101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418-SP-44
C1-4

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 0403 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0009 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSP-102-AL102 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418-SP-44
C5-8

Analys[redacted] ✓ Date: 7/24/18 ✓ Scope: 04-03 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0016 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSP-103-AL101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418 SP. 44
ES-8

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 0403 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0018 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSP-103-AL102 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418-SP-4/4
F 1-4

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 04-03 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041815994-0001 ✓ **Client:** CDM Smith ✓

Client Sample: CSCMAA-101-AH101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] Date: 5/30/18 ✓ Scope: 04-08 ✓

✓TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041815994-0005 ✓ **Client:** CDM Smith ✓

Client Sample: CSCMAA-103-AH101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] ✓ Date: 5/30/18 ✓ Scope: 04-08 ✓

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041817463-0004 ✓ **Client:** CDM Smith ✓

Client Sample: CSCMAA-105-AH101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 6/12/18 ✓ Scope: 04-06 ✓

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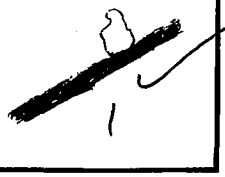
Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041815994-0003 ✓ **Client:** CDM Smith ✓

Client Sample: CSCMAA-102-AH101 ✓ Page 1 of 1

Primary Structure # 1 ✓ 	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] ✓ Date: 5/30/18 ✓ Scope: 04-08 ✓

VTDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041815994-0007 ✓ **Client:** CDM Smith ✓

Client Sample: CSCMAA-104-AH101 ✓ **Page** 1 **of** 1

Primary Structure # ND	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] Date: 5/30/18 ✓ Scope: 04-08 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041817463-0002 ✓ **Client:** CDM Smith

Client Sample: CSCMAA-107B-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
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Analyst: ✓ Date: 6/12/18 ✓ Scope: 04-08 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0024 ✓ **Client:** CDM Smith ✓

Client Sample: CSAPABSE-101-ML101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] ✓ Date: 8/7/18 ✓ Scope: 04-06 ✓

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✓TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0005 ✓

Client Sample: CSAPABSE-102-ML101 ✓

Client: ~~Techlaw~~ CDMSmith ✓ 1.20.18 VMD

Page _____ of _____

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
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0418 · SP · 44

BS-8

Analyst: [redacted] ✓

Date: 7/24/18 ✓

Scope: 0403 · ✓

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VDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0014 ✓ **Client:** ~~Teshlaw~~ CDMSmith ✓ MS 1-20-18

Client Sample: CSAPABSE-103-ML101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418-SP-44
E 1-4

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 0403 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0014 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSE-101-ML101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 0400 ✓

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EMSL

ABS

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821898-0005

Client Sample: CSPKASBE-102-ML101

Client: ~~Techlaw~~ CDM Smith MS 7.20.18

Page 1 of 1

Primary Structure # ND	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analys[redacted]

Date: 8/3/18

Scope: 04-03

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Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0005 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSE-103-ML101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD ✓			
Primary Structure #	**Primary Structure #**	**PrimaryStructure #**	**Primary Structure #**
PrimaryStructure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**

Analyst: ✓ Date: 8/2/18 ✓ Scope: 04/08 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0006 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSE-104-ML101 ✓ Page 1 of 1

Primary Structure # NSP ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/6/18 ✓ Scope: 04-06 ✓

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821905-0005 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSE-105-ML101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 04/08 ✓

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0015 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSE-106-ML101 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD			
Primary Structure #	**Primary Structure #**	**PrimaryStructure #**	**Primary Structure #**
PrimaryStructure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**

Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-08 ✓

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Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0016 **Client:** CDM Smith

Client Sample: CSPKABSP-101-AL101 Page 1 of 1

Primary Structure # NSD	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
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Analyst: Date: 8/2/18 Scope: 04-08

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0017 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-101-AH102 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/6/18 ✓ Scope: 04-05 ✓

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KDM

EMSL

ABS

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821898-0006 ✓

Client Sample: CSPKASBP-102-AH101

Client: ~~Teshlaw~~ CDM Smith ✓ mj 7.20.18

Page 1 of 1

Primary Structure # ND ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
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Analyst: [redacted] ✓ Date: 8/3/18 ✓ Scope: 0403 ✓

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TDM

EMSL

AB Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821898-0008

Client: CDM Smith 7.20.18

Client Sample: CSPKASBP-102-AH102

Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] Date: 8/3/18 Scope: 0403

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822094-0007 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-103-AL101 ✓ **Page** 1 **of** 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/2/18 ✓ Scope: 0400 ✓

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VBM

EMSL

extra

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 0401822094-0009 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-103-AL 102 ✓ **Page** 1 of 1

Primary Structure # NSD ✓	**Primary Structure #**	Primary Structure #	**Primary Structure #**
Primary Structure #	**Primary Structure #**	PrimaryStructure #	**Primary Structure #**
PrimaryStructure #	Primary Structure #	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 04/06 ✓

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VTDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0007 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-104-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-06 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0009 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-104-AH102 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
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Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-08 ✓

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TDM ✓

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821905-0006 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-105-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 04 26 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821905-0008 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-105-AH102 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/3/18 ✓ Scope: 04-08 ✓

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✓ CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0016 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-106-AH101 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/08 ✓ Scope: 04-08 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0018 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSP-106-AH102 ✓ Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
NSD ✓			
Primary Structure #	**Primary Structure #**	**PrimaryStructure #**	**Primary Structure #**
PrimaryStructure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**

Analyst: ✓ Date: 8/7/18 → 8/16/18 in EDD Scope: 0406 ✓

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CDM

EMSL

Structure Sketch Sheet for Direct Data Entry

should be CSCMAA-101-400

EMSL Sample ID: 041815994-0009 ✓ **Client:** CDM Smith ✓

Client Sample: ~~CSCMAA-105-AH101~~ **Page** 1 **of** 1

Primary Structure # ND	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [signature] ✓ Date: 8/30/18 ✓ Scope: 04-08 ✓

200 Route 130 North Cinnaminson, NJ 08077
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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041821873-0019 ✓

Client Sample: CSPKABS-401 ✓

Client: ~~Teehlaw~~ CDM Smith ✓ MS 7.20.18

Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

0418SP.424
P5-8

Analyst: [redacted] ✓ Date: 7/24/18 ✓ Scope: 0403 ✓

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DM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041822107-0005 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABSA-402 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 8/7/18 ✓ Scope: 04-08 ✓

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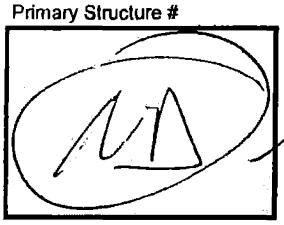
TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041815406-0001 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABS-601 ✓ **Page** 1 **of** 1

Primary Structure # 	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] Date: 5/30/18 ✓ Scope: 04-08 ✓

TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041815406-0002 ✓ **Client:** CDM Smith ✓

Client Sample: CSPKABS-602 ✓ **Page** 1 **of** 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] Date: 5/30/18 ✓ Scope: ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041817463-0001 ✓ **Client:** CDM Smith ✓

Client Sample: CSCMAA-105-400 ✓ Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 6/12/18 ✓ Scope: 04-08 ✓

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CDM ✓

CDM
041822107

Indirect Preparation Record

TEM Air, TEM Dust, PCM
(Circle One)

EFA 1387 (mm2) Filter Lot # 11585 Funnel Lot # 1184492 pH# 3.0

		Indirect Without Ashing			Dilution Filtration						Indirect With Ashing			
Prepped By: JG	Date: 8/2/18	Fraction of Filter Used	1st Resuspend Volume	Volume Applied to Filter	Volume of 1st resuspend Used	2nd Resuspend Volume	Volume Applied to Filter	Volume of 2nd Resuspend Used	3rd Resuspend Volume	Volume Applied to Filter	Fraction of Filter Ashed	Volume Used to Resuspend Residue	Volume Applied to 2nd Filter	OK to Prep to Grid?
Order ID	Sample		mL	mL	mL	mL	mL	mL	mL	mL		mL	mL	Y/N
1822107-1	CSFRABSA-104-AH101										1.0	100	50	
													25	
													10	
													5	
-3	CSFRABSA-104-CH101										1.0	100	50	
													25	
													10	
													5	
-6	CSFRABSE-104-ML101										1.0	100	25	
													10	
													5	
													3	
-7	CSFRABSF-104-AH101										1.0	100	50	
													25	
													10	
													5	
-9	CSFRABSF-104-AH102										1.0	100	50	
													25	
													10	
													5	

Cassettes rinsed, rinsate filtered and ashed with original filters

JG 8/2/18

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KM 1/3/19 TDM

CDM
041822107

Indirect Preparation Record

TEM Air, TEM Dust, PCM
(Circle One)

EFA 1387 (mm2) Filter Lot # 11585 Funnel Lot # 1184492 pH# 3.0

		Indirect Without Ashing			Dilution Filtration						Indirect With Ashing			
Prepped By: JG	Date: 8/2/18	Fraction of Filter Used	1st Resuspend Volume	Volume Applied to Filter	Volume of 1st resuspend Used	2nd Resuspend Volume	Volume Applied to Filter	Volume of 2nd Resuspend Used	3rd Resuspend Volume	Volume Applied to Filter	Fraction of Filter Ashed	Volume Used to Resuspend Residue	Volume Applied to 2nd Filter	OK to Prep to Grid?
Order ID	Sample		mL	mL	mL	mL	mL	mL	mL	mL		mL	mL	Y/N
1822107 -12	CSPKABSA -106-AH101										1.0	100	25	
													10	
													5	
													3	
-13	CSPKABSA -106-CH101										1.0	100	25	
													10	
													5	
													3	
-15	CSPKABSE -106-ML10										1.0	100	25	
													10	
													5	
													3	
-18	CSPKABSF -106-AH107										1.0	100	50	
													25	
													10	
													5	
Ashing	Blank										1.0	100	100	
Filtration	Blank												100	

Cassettes rinsed, rinsate filtered and ashed with original filters JG 8/2/18

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2/2/18 DM

CDM
04182198

Indirect Preparation Record

TEM Air, TEM Dust, PCM (Circle One)

EFA 1387 (mm2) Filter Lot # 11585 Funnel Lot # 1184492 pH# 3.0

		Indirect Without Ashing			Dilution Filtration						Indirect With Ashing			
Prepped By: JG	Date: 7/30/18	Fraction of Filter Used	1st Resuspend Volume	Volume Applied to Filter	Volume of 1st resuspend Used	2nd Resuspend Volume	Volume Applied to Filter	Volume of 2nd Resuspend Used	3rd Resuspend Volume	Volume Applied to Filter	Fraction of Filter Ashed	Volume Used to Resuspend Residue	Volume Applied to 2nd Filter	OK to Prep to Grid?
Order ID	Sample		mL	mL	mL	mL	mL	mL	mL	mL		mL	mL	Y/N
1821898-1											1.0	100	50	
													(25)	
													10	
													5	
-3											1.0	100	25	
													10	
													5	
													3	
-5											1.0	100	25	
													10	
													5	
													3	
-6											1.0	100	50	
													25	
													10	
													5	
-8											1.0	100	25	
													10	
													5	
													3	

cassettes rinsed, rinsate filtered and ashed with original filters JG 7/30/18

1/2

Pg 2 blank on back

CDM
041821905

Indirect Preparation Record

TEM Air, TEM Dust, PCM (Circle One) EFA 1387 (mm2) Filter Lot # 11585 Funnel Lot # 184492 pH# 3.0

		Indirect Without Ashing			Dilution Filtration						Indirect With Ashing			
Prepped By: JG	Date: 7/27/18	Fraction of Filter Used	1st Resuspend Volume	Volume Applied to Filter	Volume of 1st resuspend Used	2nd Resuspend Volume	Volume Applied to Filter	Volume of 2nd Resuspend Used	3rd Resuspend Volume	Volume Applied to Filter	Fraction of Filter Ashed	Volume Used to Resuspend Residue	Volume Applied to 2nd Filter	OK to Prep to Grid?
Order ID	Sample		mL	mL	mL	mL	mL	mL	mL	mL		mL	mL	Y/N
182405-1	CSPRABEA-105-AH101										1.0	100	50	
													25	
													10	
													5	
-3	CSPRABEA-105-CH101										1.0	100	50	
													25	
													10	
													5	
-5	CSPRABSE-105-AH101										1.0	100	25	
													10	
													5	
													3	
-6	CSPRABSP-105-AH101										1.0	100	50	
													25	
													10	
-8	CSPRABSP-105-AH102										1.0	100	50	
													25	
													10	
Ashing Blank											1.0	100	100	
Filtration Blank													100	

cassettes rinsed, rinsate filtered and ashed with original filters JG 7/27/18

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CDM

CDM
041822094

Indirect Preparation Record

TEM Air, TEM Dust, PCM
(Circle One)

EFA 1387 (mm2) Filter Lot # 11585 Funnel Lot # 184492 pH# 3.0

		Indirect Without Ashing			Dilution Filtration						Indirect With Ashing			
Prepped By:	Date:	Fraction of Filter Used	1st Resuspend Volume	Volume Applied to Filter	Volume of 1st resuspend Used	2nd Resuspend Volume	Volume Applied to Filter	Volume of 2nd resuspend Used	3rd Resuspend Volume	Volume Applied to Filter	Fraction of Filter Ashed	Volume Used to Resuspend Residue	Volume Applied to 2nd Filter	OK to Prep to Grid?
JG	7/31/18													
Order ID	Sample		mL	mL	mL	mL	mL	mL	mL	mL		mL	mL	Y/N
1822094 -17	CSPKAIS9 -[illegible]-AH102										1.0	100	50	
													25	
													10	
													5	
Ashing Blank											1.0	100	100	
Filtration Blank													100	

Cassette rinsed, rinsate filtered and ashed with original filter JG 7/31/18

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CDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812291-0001 ✓

Client Sample: CSRVSW-101 ✓

Client: ~~Techlaw~~ CDM Smith MS 5.9.18

Page 1 of 1

Primary Structure # NSD ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: ✓ Date: 5/4/18 ✓ Scope: GY-OS ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812291-0002 ✓

Client Sample: CSRVSW-102 ✓

Client: ~~Techlaw~~ CDM Smith MLS 9.18

Page 1 of 1

Primary Structure # ND	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: FC ✓ Date: 5/6/18 ✓ Scope: 04 - 01 ✓

CDM

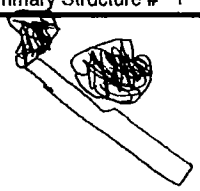
Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812291-0003 ✓

Client Sample: CSRVSW-103 ✓

Client: ~~Teehlaw~~ COM Smith mis 5 & 18

Page 1 of 1

Primary Structure # 1 ✓ 	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: Fc ✓ Date: 5/7/18 ✓ Scope: 04-01 ✓

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TDM

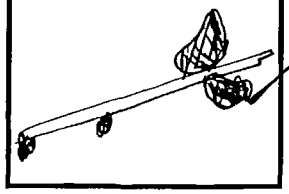
Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812291-0004

Client Sample: CSRVSW-104

Client: ~~Techlaw~~ CDM Smith MS 5.8.18

Page 1 of 1

Primary Structure # 0 	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: FC

Date: 5/8/18

Scope: 04-01

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812555-0001 ✓

Client Sample: CSCKSW-104 ✓

Client: CDM Smith

Page 1 of 1

Primary Structure # NP ✓	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: FC ✓ Date: 5/9/18 ✓ Scope: 04-01 ✓

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TDM ✓

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812555-0002 ✓ **Client:** CDM Smith

Client Sample: CSCKSW-105 ✓ Page 1 of 1

Primary Structure # 1	Primary Structure # 2	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

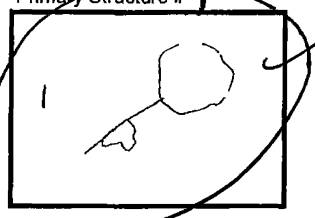
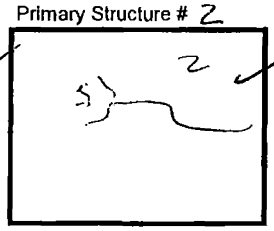
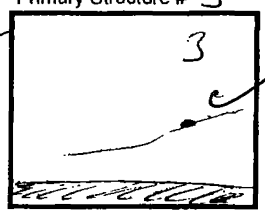
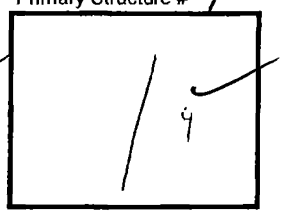
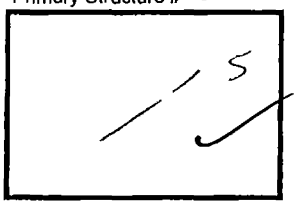
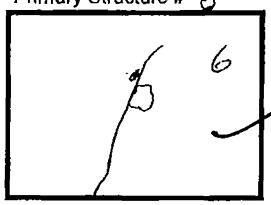
Analy[redacted] ✓ Date: 5/14/18 ✓ Scope: 04-08 ✓

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812555-0003 ✓ **Client:** CDM Smith

Client Sample: CSCKSW-107 ✓ ✓ Page 1 of 1

OK (NP) M4-G3 AR = 1.9 ✓

Primary Structure # 1 	Primary Structure # 2 	Primary Structure # 3 	Primary Structure # 4 
Primary Structure # 5 	Primary Structure # 6 	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] ✓ Date: 5/11/18 ✓ Scope: ✓ 04-08 ✓

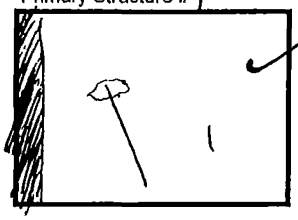
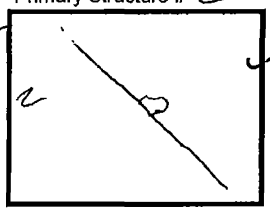
Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812555-0004 ✓

Client Sample: CSCKSW-108 ✓

Client: CDM Smith

Page 1 of 1

Primary Structure # 1 	Primary Structure # 2 	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	PrimaryStructure #	Primary Structure #
PrimaryStructure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #

Analyst: [redacted] ✓ Date: 5/12/18 ✓ Scope: CM-08 ✓

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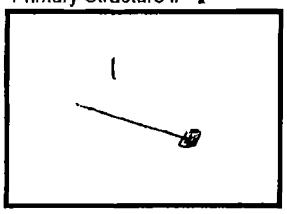
TBR

Structure Sketch Sheet for Direct Data Entry

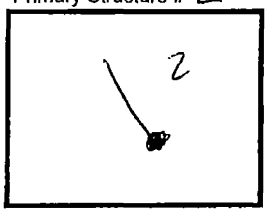
EMSL Sample ID: 041812555-0005 ✓ **Client:** CDM Smith

Client Sample: CSCKSW-204 ✓ Page 1 of 2

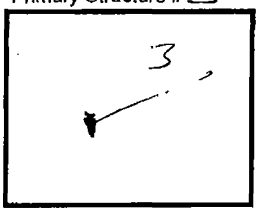
Primary Structure # 1



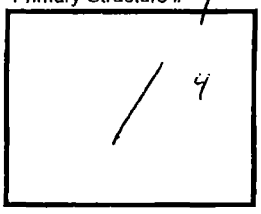
Primary Structure # 2



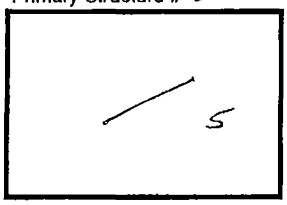
Primary Structure # 3



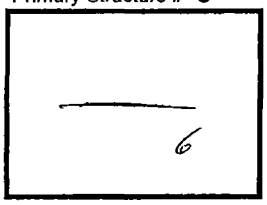
Primary Structure # 4



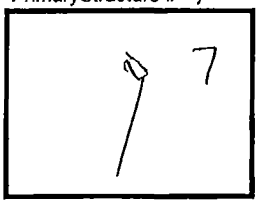
Primary Structure # 5



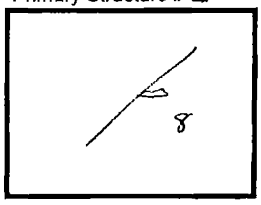
Primary Structure # 6



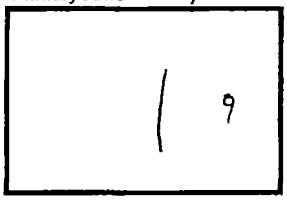
PrimaryStructure # 7



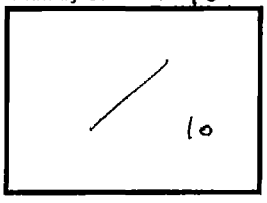
Primary Structure # 8



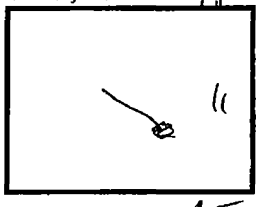
PrimaryStructure # 9



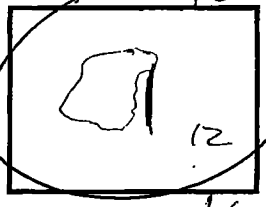
Primary Structure # 10



Primary Structure # 11

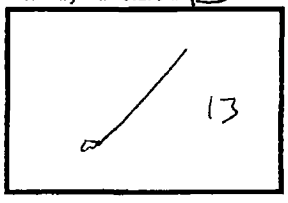


Primary Structure # 12

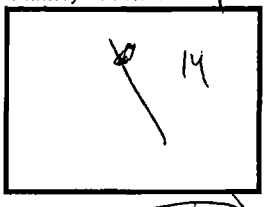


N7-F8
AR = 1.4
1.12
OK

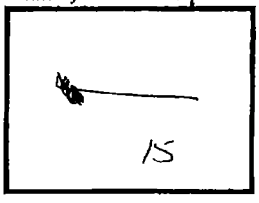
Primary Structure # 13



Primary Structure # 14



Primary Structure # 15



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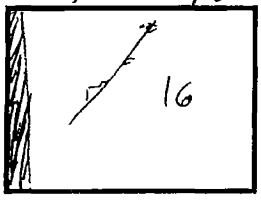
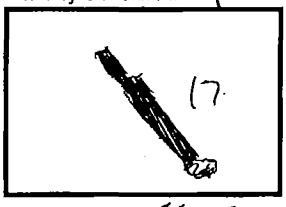


Primary Structure # 17



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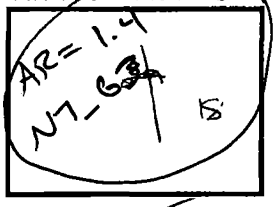

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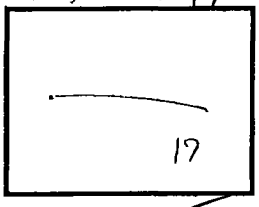
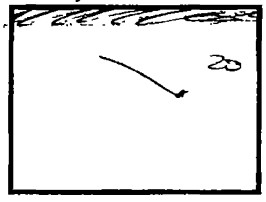


Primary Structure # 20



Analyst: [redacted] Date: 5/14/18 ✓ Scope: 04-08 ✓

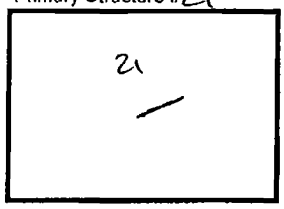
TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812555-0005 ✓ **Client:** CDM Smith ✓

Client Sample: CSCKSW-204 ✓ Page 2 of 2

Primary Structure #21



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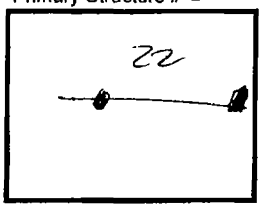
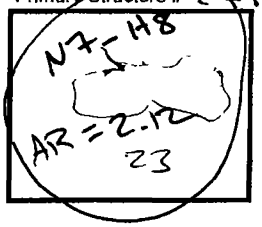


Primary Structure #23



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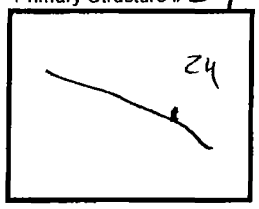
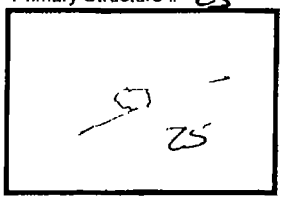
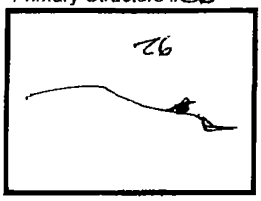


OK ND

Primary Structure #25



Primary Structure #26



PrimaryStructure #

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Primary Structure #

Analys[redacted] Date: 5/14/18 ✓ Scope: 04-08 ✓

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TDM

Structure Sketch Sheet for Direct Data Entry

EMSL Sample ID: 041812555-0006 ✓

Client Sample: CSCKSW-401 ✓

Client: CDM Smith

Page 1 of 1

Primary Structure #	Primary Structure #	Primary Structure #	Primary Structure #
ND ✓			
Primary Structure #	**Primary Structure #**	**PrimaryStructure #**	**Primary Structure #**
PrimaryStructure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**
Primary Structure #	**Primary Structure #**	**Primary Structure #**	**Primary Structure #**

Analyst: [redacted] ✓ Date: 5/14/18 ✓ Scope: 0406 ✓

200 Route 130 North Cinnaminson, NJ 08077
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TDM

1-6

CDM

TEM Asbestos in Water Sample Prep Log

Sample Filtration / Prep Date: 4/30/18
Prepped by: NS
EMSL Order Number: 041812555
Effective Filtration Area: 1387 mm^2 Glass ☐ Plastic ☐
Filter Manufacturer:
Filter Type: MCE
Filter Pore Size: .2 µm
Filter Lot # 704 20 200
Backing Filter Type: MCE
Backing Filter Pore Size: 5.0 µm
Thermometer ID: S/N170354730
Funnel # 1184492

CIRCle if done

OZone Sealed W.W

CSCKSW

(W) Blank 500ml CDM 041812555

Process Blanks: 500ml *(for 47mm filters)*
Camera Constant Frequency *is weekly when analyzing TEM Water*

Sample ID	Volume Received (ml)	Temp. at Receipt (C°)	Sonication Time Start	Sonication Time Stop	Time Filtered	Filtration Time	Volume Filtered (ml)
Process Blank	*n/a*	*n/a*	*n/a*	*n/a*			*500*
104	1000	19.7	930A	945A	50 25 (10) 5	✓	3
105	↓	19.9	↓	↓	50 (25) 10 5		
107		19.8			100 (50) 25 10		
108		20.1			100 (50) 25 10		
204		19.6			50 (10) 5 3 2		
401		19.8			(100) 50 25		

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TDM

1-4 Revised

CDM Smith Special Project: CIRCLE if done

TEM Asbestos in Water Sample Prep Log

Sample Filtration / Prep Date: 4/26/18
Prepped by: NS
EMSL Order Number: 041812291
Effective Filtration Area: 1387 mm² Glass ☐ Plastic ☐
Filter Manufacturer:
Filter Type: MCE
Filter Pore Size: .2 µm
Filter Lot #: 704 20 200
Backing Filter Type: MCE
Backing Filter Pore Size: 5.0 µm
Thermometer ID: S/N170354730
Funnel # 1184492

10% Intra Replicate

Ozone All (4) Sealed W.W

W Blank 500ml CDM Smith 041812291

CSRVSW

Process Blanks: 500ml *(for 47mm filters)*
Camera Constant Frequency *is weekly when analyzing TEM Water*

Sample ID	Volume Received (ml)	Temp. at Receipt (C°)	Sonication Time Start	Sonication Time Stop	Time Filtered	Filtration Time	Volume Filtered (ml)
Process Blank	*n/a*	*n/a*	*n/a*	*n/a*			*500*
101	1000	11.9	2p	215p	50 10 5 (3)		2
102	1000	11.9			25 (10) 5 3		2
103	1000	11.0			5 1 .5 (.3)		.2 0.5 analyzed MS 4:20 18
104	1000	11.6	↓	↓	1 .5 .3 .2		1

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CDM

Attachment 4

Validation Data Qualifiers and Reason Codes

ATTACHMENT 4A
TEM VALIDATION DATA QUALIFIERS AND REASON CODES

Panel A. Data Qualifiers

Qualifier	Definition
J	The associated analyte concentrations may be inaccurate or imprecise due to the quality of the data generated because certain Quality Control (QC) criteria were not met.
N	The associated analyte identification may be inaccurate and the associated concentration represents an approximated value.
UJ	The non-detect result may be inaccurate or imprecise due to the quality of the data generated because certain QC criteria were not met.
R	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	Auditor defined.

Panel B. Reason Codes

Code	Definition
MC	Structure/fiber counts and reported concentrations may be inaccurate due to improper or infrequent scope alignment and/or magnification calibrations.
IC	Identification by elemental composition, diffraction pattern or optical properties may be inaccurate due to improper or infrequent EDXA, and camera constant.
PA	Structure/fiber counts and reported concentrations may be inaccurate due to improper or infrequent calibration of the plasma asher.
DR	The reported concentrations or structure/fiber identification may be inaccurate due to infrequent or discordant intra- and/or inter-analyst, laboratory duplicate, and/or reference material analyses.
FB	The reported concentration may be inaccurate due to the presence of analyte structures/fibers in the associate field blank.
LB	The reported concentration may be inaccurate due to the presence of analyte structures/fibers in the associate laboratory blank.
SC	The reported concentration may be inaccurate due to the condition of samples upon receipt at the laboratory and/or improper storage prior to sample preparation and/or analysis.
DL	The number of grid openings analyzed is insufficient to meet the required limit of detection (LOD).
ID	The asbestos identification and concentrations may be inaccurate because the recorded structure types are not consistent with those described in TEM SOW and/or method.

Notes:

EDXA = energy-dispersive x-ray analysis
LOD = lemit of detection
QC = quality control
SOW = statement of work
TEM = transmission electron microscopy

ATTACHMENT 4B
PLM VALIDATION DATA QUALIFIERS AND REASON CODES

Panel A. Data Qualifiers

Qualifier	Definition
J	The associated analyte concentrations may be inaccurate or imprecise due to the quality of the data generated because certain Quality Control (QC) criteria were not met.
N	The associated analyte identification may be inaccurate and the associated concentration represents an approximated value.
UJ	The non-detect result may be inaccurate or imprecise due to the quality of the data generated because certain QC criteria were not met.
R	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
X	Auditor defined.

Panel B. Reason Codes

Code	Definition
MC	Reported concentrations or analyte identification may be inaccurate due to improper or infrequent scope alignment.
IC	Identification may be inaccurate due to improper or infrequent Refractive Index (RI) liquid calibrations.
DR	The reported concentrations or structure/fiber identification may be inaccurate due to infrequent or discordant intra- and/or inter-analyst, laboratory duplicate, and/or reference material analyses.
B	The reported concentration may be inaccurate due to the presence of analyte structures/fibers in the associate contamination check or a contamination check was not performed as required.
SC	The reported concentration may be inaccurate due to the condition of samples upon receipt at the laboratory and/or improper storage prior to sample preparation and/or analysis.
DL	The number fields of view or points counted/analyzed are insufficient to meet the required limit of detection (LOD).
ID	The asbestos identification and concentrations may be inaccurate because the recorded optical properties (PLM) are not consistent with those described in SOW.
MA	The laboratory procedure did not follow the method-specific requirements.

Notes:
LOD = lemit of detection
PLM = polarized light microscopy
QC = quality control
RI = refractive index
SOW = statement of work

Attachment 5

Summary of Validation Guidelines

ATTACHMENT 5A
SUMMARY OF TEM VALIDATION GUIDELINES

Section	Checklist Item	Deficiency	Action		Reason Code
			Detected Analyte	Non-Detect Analyte	
I. Sample Receipt	*Verify that samples received intact*	Shipment and/or storage conditions exce	Qualify as estimated (J)	Qualify as estimated (UJ)	SC
	Verify info on COC, shipping docs, and containers is complete and in agreement	COC records, shipping documents, and sample container information are not in agreement	Use professional judgment	Use professional judgment	SC
	Verify COC signed and dated	COC records not signed and dated	Use professional judgment	Use professional judgment	SC
II. Sample Preparation	*Verify the condition of the filters (dry, not damaged, not overloaded)*	Filter(s) damaged or compromised	Qualify as unusable (R)	Qualify as unusable (R)	SC
	Verify laboratory preparation blank prepared and analyzed with the associated samples for each preparation day and method.	Blanks were not prepared at the specified frequency	Use professional judgment in qualifying as estimated (J) or unusable ®	No Action	LB
	Verify sample specimen grids meet specified quality criteria. Reject if the following is observed:	Grid specimen(s) do not meet specified quality criteria	Use professional judgment in qualifying as estimated (J) or unusable ®	Use professional judgment in qualifying as estimated (UJ) or unusable ®	SC
	-- at least 2 of 3 grids have not been cleared of filter medium during dissolution				
	-- grid is overloaded (>25%) with particulate or has loose debris				
	-- particulate deposits are not uniformly distributed from one grid opening to next				
	-- loading is too heavy (>7,000 s/mm ^{2})				
	-- more than ~25% of grid openings have broken carbon film				
	Verify EPA was contacted in cases where loading was >25%, loose material was in cowl, uneven loading to see if indirect prep should be performed	For overloaded samples, SOW or USEPA direction was not documented for indirect preparation	Use professional judgment in qualifying as estimated (J)	Use professional judgment in qualifying as estimated (UJ)	SC
III. Microscope Alignment	*Document scope numbers and dates used*	No alignment is performed on the day of analysis	Qualify as estimated (J)	Qualify as estimated (UJ)	MC
	Verify calibration logs include alignment date and analyst, and the scope alighnment is checked and calibrated.	Alignment not performed at the required frequency	Use professional judgment in qualifying as estimated (J)	Use professional judgment in qualifying as estimated (UJ)	MC
IV. Instrument/Standard Calibration	*1. Verify low temperature asher is properly calibrated quarterly*	Plasma asher not calibrated at the required frequency	No action	No Action	
	2. Verify average grid opening size is appropriate	Average grid opening area not determined	No action	No Action	
	3. Verify that fluorescent screen and photo-negatives are calibrated at monthly intervals	Magnification not calibrated at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	MC
	4. Verify that camera constant is calibrated at least monthly	Camera constant not calibrated at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
	5. Verify that the crossover spot is measured quarterly to ensure it is les than 250 nm in diameter	Spot size not measured at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
	6. Verify beam does is calibrated quarterly to minimize damage to chrysotile fibers.	Beam dose not calibrated at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
	7. Verify the EDXA low- and high-energy check of Cu and Al peak centrers are checked and adjusted daily prior to analysis.	Cu/Al high-, low-energy peaks not checked at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
	8. Verify semi-annual basis a verification of full-width at half maximum resolution of <175 eV for Mn is performed	Mn resolution not checked at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
	9. Verify that low-energy sensitivity check is performed quarterly by producing resolvable Na x-ray peaks from NIST SRM.	Low energy sensitivity check of resolvable Na not performed at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC

ATTACHMENT 5A
SUMMARY OF TEM VALIDATION GUIDELINES

Section	Checklist Item	Deficiency	Action		Reason Code
			Detected Analyte	Non-Detect Analyte	
IV. Instrument/Standard Calibration	*10. Verify the detectors small-structure sensitivity quarterly by producing resolvable Mg and Si peaks from a single chrysotile fibril*	Small structure sensitivity check not performed at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
	11. Verify that the K-factors, relative to Si for elements commonly found in asbestos (Na, Mg, Al, Si, Ca, Fe) are calculated semi-annually to meet the necessary criteria (see guidelines)	K-factors are not calculated at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
V. Analytical Sensitivity/LOD	*Verify number of grid openings were analyzed to meet required sensitivity*	Analytical sensitivity not achieved; insufficient grid openings analyzed; appropriate stopping rules not applied. Note: Additional grid openings can be analyzed post-hoc at USEPA discretion.	Qualify as estimated (J)	Qualify as estimated (UJ)	DL
VI. Structure Recording & Identification	*Verify 2 grid openings and 2 grid each were analyzed.*	Grid opening were analyzed from one specimen grid	Qualify as estimated (J)	Qualify as estimated (UJ)	DL
	Verify primary structures are designated properly (fibers, bundle, disperse clusters, etc.)	Primary structures not properly recorded	Qualify as estimated (J)	No action	ID
	Verify that complex structures have been broken out properly	Component structures not properly recorded	Qualify as estimated (J)	No action	ID
	Verify that recordable fibers have parallel of stepped sides, minimum length 0.5 um, and aspect ratio 3:1 or greater	Recorded fibers/bundles do not meet minimum requirements	Qualify as estimated (J)	No action	ID
	Verify that bundles have constituent fibers that meet minimum recording rules	No Action	No Action	No Action	
	Verify that cluster and matrices have 2 digit number following indicating total and those longer than 5 um.	No Action	No Action	No Action	
	Verify that 100 structures were seen or sensitivity was met.	Count terminated prior to the analysis of the required number of GOs	Qualify as estimated (J)	Qualify as estimated (UJ)	DL
	Verify the following minimum requirements for chrysotile and amphiboles:				
	-- chrysotile - classification is done using morphology and SAED, level CD	Minimum requirement for chrysotile identification not achieved	Qualify as estimated (J)	Qualify as estimated (UJ)	ID
	-- amphibole - classification is done using morphology and qualitative EDXA level ADX.	Minimum requirement for amphibole identification not achieved	Qualify as estimated (J)	Qualify as estimated (UJ)	ID
	Verify micrograph or photo of SAED pattern for all fibers identified as CD or ADX	Required SAED photos not provided	Qualify as estimated (J)	Qualify as estimated (UJ)	ID
	Verify EDXA spectrum is recorded and provided for each sample with fibers identified using ADX.	Required EDXA spectra not provided	Qualify as estimated (J)	Qualify as estimated (UJ)	ID
VII. Blank Analysis	*Compare blank results on benchsheets with EDDs*	Asbestos structures detected in method blanks.	Qualify as estimated (J)	Qualify as estimated (UJ)	B
	Verify blanks are prepped and analyzed at required frequency				
	Verify that blanks for indirect and direct preps are performed if both preps were performed.				
	Verify that there are <10 asbestos structures per mm2 and/or <0.1 fibers or bundles per mm2 for >5 µm detected in the blanks.				
VIII. Recount/Repreparation Analysis	*Verify that intra-laboratory QC samples are prepared and analyzed for each sample set at a minimum frequency of one per 20 samples, or as defined in the applicable SOW and/or method, and meet the following criteria:*	Recount/Repreparation samples not analyzed at required frequency	Use professional judgment in qualifying as estimated (J)	Use professional judgment in qualifying as estimated (UJ)	DR

ATTACHMENT 5A
SUMMARY OF TEM VALIDATION GUIDELINES

Section	Checklist Item	Deficiency	Action		Reason Code
			Detected Analyte	Non-Detect Analyte	
VIII. Recount/Repreparation Analysis	• *Select and examine the same grid openings that were examined as the original analysis. Note that project specific requirements may be applied.*	Recount/Repreparation sample results fall outside of established acceptance criteria	Qualify as estimated (J)	Qualify as estimated (UJ)	DR
	• *The original sample with the highest number of countable structures is used for re-analysis.*				
	• *The number of asbestos structures counted in each grid opening with ≤10 structures are identical.*				
	• The number of asbestos structures counted in grid openings with >10 structures match within 10%.				
	• *The asbestos mineral types agree 100% on chrysotile versus amphibole.*				
	• *Structure lengths agree to within 0.5 µm or 20% (whichever is less stringent) for fibers and bundles.*				
	• *For MD, MC, CD, and CC, the overall dimensions of the matrix/cluster, in two perpendicular directions representing the maximum dimensions are recorded.*				
	• *For MR and CR, a maximum of five (5) matrix/cluster residuals for the matrix/cluster are recorded.*				
IX. Overall Assessment of Data	*Review all available materials to assess the overall quality of the data, keeping in mind the additive nature of analytical problems.*	Use professional judgement to determine if there is any need to qualify data which were not alrady qualified based on the Quality Control (QC) criteria previously discussed. Write a brief narrative to give the data user an indication of the analytical limitations of the data.			
	Evaluate any technical problems that have not been previously addressed.				
	If appropriate information is available, assess the usability of the data to assist the data user in avoiding inappropriate application of the data.				

Source: TEM Validation Process Guidelines for Asbestos Data Review (EPA 2016b).

ATTACHMENT 5B
SUMMARY OF POLARIZED LIGHT MICROSCOPY VALIDATION GUIDELINES

Section	Data Validation Review	Deficiency	Action		Reason Code
			Detected Analyte	Non-Detect Analyte	
I. Sample Receipt	*Verify that samples received intact*	Shipment and/or storage conditions are exceeded	Qualify as estimated (J)	Qualify as estimated (UJ)	SC
	Verify info on COC, shipping docs, and containers is complete and in agreement	COC records, shipping documents, and sample container information are not in agreement	Use professional judgment	Use professional judgment	SC
	Verify COC signed and dated	COC records not signed and dated	Use professional judgment	Use professional judgment	SC
II. Sample Preparation	*Verify all samples indicated to be analyzed on COC were prepared for analysis*		No action	No action	
	Verify that the entire sample was examined by stereomicroscope to determine both homogeneity and provide a visual estimate of asbestos concentration	Stereomicroscope was not used to examine the entire sample for homogeneity and visual estimate of asbestos concentration	Qualify as estimated (J)	No action	MA
	Verify that appropriate procedures were used to prepare samples for analysis, and that the necessary gravimetric data, if applicable, have been recorded (i.e., pre- and post-ashing weights).	Samples were not prepared and/or recorded using the appropriate procedures	Qualify as unusable (R)	Qualify as estimated (UJ)	MA
	Verify that contamination blank(s) were prepared at the proper frequency.	Contamination blank(s) were not prepared at the required frequency	Qualify as estimated (J)	No action	B
III. Microscope Alignment	*Verify microscope was properly aligned on day of analyses*	Alignment not performed at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	MC
IV. Refractive Index Liquid Calibration	*Verify RI liquid calibrated at first use and as applicable thereafter*	RI liquid calibration failed criteria	Use professional judgment in qualifying as estimated (J) or unusable (R)	Qualify as estimated (UJ)	IC
	Ensure difference between calibrated RI and original RI is not greater than 0.004	RI calibration not performed at required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	IC
V. Mineral/Fiber Identification Criteria	*Verify optical properties are consistent with applicable SOW and/or method.*	The recorded optical properties are not consistent with those of the asbestos type reported	Between amphiboles qualify as estimated (N) Between serpentine and amphiboles qualify as unusable (R)	No action	ID
	If non-asbestos fibrous material observed, confirm at least one optical property that distinguishes the fiber from asbestos	Optical property not recorded for non-asbestos fibrous material	Qualify as estimated (N)	No action	ID
VI. Blank Analysis	*Verify that no asbestos was detected in the associated contamination blanks.*	Asbestos fibers detected in contamination blank	Qualify as estimated (J)	Qualify as estimated (UJ)	B
VII. Reference Sample Analysis	*Verify reference slide was analyzed in date of sample analyses and results are in control limits*	Reference sample analysis not performed at the required frequency	Qualify as estimated (J)	Qualify as estimated (UJ)	DR
		Reference sample results fall outside of control limits	Use professional judgment in qualifying as estimated (J) or unusable (R)	Qualify as estimated (UJ)	DR

ATTACHMENT 5B

SUMMARY OF POLARIZED LIGHT MICROSCOPY VALIDATION GUIDELINES

Section	Data Validation Review	Deficiency	Action		Reason Code
			Detected Analyte	Non-Detect Analyte	
VIII. Replicate Analysis	*Verify that replicate analyses were performed at a frequency of one per sample set <10 samples, one per 10 samples for sets >10 samples, or as defined in the applicable SOW and/or method*	Replicate samples not analyzed at required frequency	Qualify as estimated (J)	No action	DR
	Replicate sample analyses must meet the error rate requirement as specified in the laboratory's SOP on the qualitative analysis for samples containing chrysotile, amosite, and crocidolite. A slightly higher error rate may occur for samples that contain anthophyllite, actinolite, and tremolite	Replicate sample results fail established acceptance criteria	Between amphiboles qualify as estimated (J) Between serpentine and amphiboles qualify as unusable (R)	No action	DR
IX. Point Counting	*Verify minimum of 400 counts each per sample.*	Less than 400 points counted	Qualify as estimated (J)	Qualify as estimated (UJ)	DL
	Verify % asbestos reported is calculated properly	Percent asbestos improperly calculated	Qualify as estimated (J)	Qualify as estimated (UJ)	MA
X. Overall Assessment of Data	*Review all available materials to assess the overall quality of the data, keeping in mind the additive nature of analytical problems.*	Use professional judgment to determine if there is any need to qualify data which were not already qualified based on the Quality Control (QC) criteria previously discusseed. Write a brief narrative to give the data user an indication of the analytical limitations of the data.			
	Evaluate any technical problems that have not been previously addressed.				
	If appropriate information is available, assess the usability of the data to assist the data user in avoiding inappropriate application of the data.				
	If particle size and/or moisture content are requested, check the calculations and transcription of results for accuracy.				

Source: PLM Validation Process Guidelines for Asbestos Data Review (EPA 2016a).

Attachment 6

Validated Analyses

ATTACHMENT 6A

PLM VALIDATED ANALYSES - SOIL AND SEDIMENT

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Media Type	Sample Number	Field QC Type	Lab Job Number	Lab Sample ID	Lab Name	Analysis Method	Method Number	Analysis Date	Validator's Company/Name	Validation Date	Validation Comment	Validation Qualifier	Validation Reason Code
Soil	CSPKSS-101	Field Sample	041812129	041812129-0001	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-101	Field Sample	041812129	041812129-0001A	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-102	Field Sample	041812129	041812129-0002	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-102	Field Sample	041812129	041812129-0002A	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-103	Field Sample	041812129	041812129-0003	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-104	Field Sample	041812129	041812129-0004	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-105	Field Sample	041812129	041812129-0005	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-106	Field Sample	041812129	041812129-0006	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-201	Field Duplicate	041812129	041812129-0007	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-107	Field Sample	041812444	041812444-0011	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-108	Field Sample	041812444	041812444-0010	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-109	Field Sample	041812444	041812444-0001	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-110	Field Sample	041812444	041812444-0003	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSPKSS-210	Field Duplicate	041812444	041812444-0002	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Sediment	CSRVSD-101	Field Sample	041812444	041812444-0014	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Sediment	CSRVSD-102	Field Sample	041812444	041812444-0009	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Sediment	CSRVSD-103	Field Sample	041812444	041812444-0004	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Sediment	CSRVSD-104	Field Sample	041812444	041812444-0006	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Sediment	CSRVSD-104	Field Sample	041812444	041812444-0006A	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Sediment	CSRVSD-201	Field Duplicate	041812444	041812444-0013	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-101	Field Sample	041812444	041812444-0015	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-102	Field Sample	041812444	041812444-0016	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-102	Field Sample	041812444	041812444-0016A	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-103	Field Sample	041812444	041812444-0012	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-104	Field Sample	041812444	041812444-0008	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-105	Field Sample	041812444	041812444-0007	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-106	Field Sample	041812444	041812444-0005	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-109	Field Sample	041812444	041812444-0018	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSRVSS-110	Field Sample	041812444	041812444-0017	EMSL04	PLM	EPA 600_PC	5/3/2018	[redacted]	8/29/2018			
Soil	CSAPSS-101	Field Sample	041812573	041812573-0001	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-101	Field Sample	041812573	041812573-0001A	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-102	Field Sample	041812573	041812573-0002	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-104	Field Sample	041812573	041812573-0003	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-105	Field Sample	041812573	041812573-0004	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-106	Field Sample	041812573	041812573-0005	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-107	Field Sample	041812573	041812573-0006	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-108	Field Sample	041812573	041812573-0007	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-109	Field Sample	041812573	041812573-0008	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			

ATTACHMENT 6A

PLM VALIDATED ANALYSES - SOIL AND SEDIMENT

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Media Type	Sample Number	Field QC Type	Lab Job Number	Lab Sample ID	Lab Name	Analysis Method	Method Number	Analysis Date	Validator's Company/Name	Validation Date	Validation Comment	Validation Qualifier	Validation Reason Code
Soil	CSAPSS-110	Field Sample	041812573	041812573-0009	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPSS-111	Field Sample	041812573	041812573-0010	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSRVSS-107	Field Sample	041812573	041812573-0011	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSRVSS-107	Field Sample	041812573	041812573-0011A	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSRVSS-108	Field Sample	041812573	041812573-0012	EMSL04	PLM	EPA 600_PC	5/4/2018	[redacted]	8/29/2018			
Soil	CSAPABSS-101	Field Sample	041821790	041821790-0007	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSAPABSS-102	Field Sample	041821790	041821790-0008	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSAPABSS-103	Field Sample	041821790	041821790-0009	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-101	Field Sample	041821790	041821790-0001	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-101	Field Sample	041821790	041821790-0001A	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-102	Field Sample	041821790	041821790-0002	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-103	Field Sample	041821790	041821790-0003	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-104	Field Sample	041821790	041821790-0004	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-105	Field Sample	041821790	041821790-0005	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			
Soil	CSPKABSS-106	Field Sample	041821790	041821790-0006	EMSL04	PLM	EPA 600_PC	7/30/2018	[redacted]	8/29/2018			

Notes:

QC = quality control

ID = identification

EPA = U.S. Environmental Protection Agency

PC = point count

PLM = polarized light microscopy

ATTACHMENT 6B

TEM VALIDATED ANALYSES - AMBIENT AIR AND ACTIVITY-BASED SAMPLING AIR

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Media Type	Sample Number	Field QC Type	Lab Name	Lab Job Number	Lab Sample ID	Lab QC Type	Analysis Method	Method Number	Analysis Date	Preparation Method	Stopping Rule Achieved	Validator's Company/Name	Validation Date	Validation Comment	Validation Qualifier	Validation Reason Code
ABS Air	CSPKABS-601	Lot Blank	EMSL04	041815406	041815406-0001	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			
ABS Air	CSPKABS-602	Lot Blank	EMSL04	041815406	041815406-0002	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Lab Blank	N/A	EMSL10	041815406	041815406	Lab Blank	TEM	Modified ISO 10312	5/30/2018	Direct	Area Examined	CDM[redacted]	8/29/2018			
Ambient Air	CSCMAA-101-400	Field Blank	EMSL04	041815994	041815994-0009	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Area Examined	CDM[redacted]	8/25/2018			
Ambient Air	CSCMAA-101-AH101	Field Sample	EMSL04	041815994	041815994-0001	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/21/2018			
Ambient Air	CSCMAA-102-AH101	Field Sample	EMSL04	041815994	041815994-0003	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Sensitivity	CDM[redacted]	8/22/2018			
Ambient Air	CSCMAA-103-AH101	Field Sample	EMSL04	041815994	041815994-0005	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/23/2018	A pump fault occurred during sample collection and the stop flow rate was estimated.	UJ	
Ambient Air	CSCMAA-104-AH101	Field Sample	EMSL04	041815994	041815994-0007	Not QC	TEM	Modified ISO 10312	5/30/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/24/2018			
Lab Air QC	Lab Blank	N/A	EMSL11	041815994	041815994	Lab Blank	TEM	Modified ISO 10312	5/30/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			
Ambient Air	CSCMAA-105-400	Field Blank	EMSL04	041817463	041817463-0001	Not QC	TEM	Modified ISO 10312	6/12/2018	Direct	Area Examined	CDM[redacted]	8/26/2018			
Ambient Air	CSCMAA-105-AH101	Field Sample	EMSL04	041817463	041817463-0004	Not QC	TEM	Modified ISO 10312	6/12/2018	Direct	Sensitivity	CDM[redacted]	8/28/2018			
Ambient Air	CSCMAA-107B-AH101	Field Sample	EMSL04	041817463	041817463-0002	Not QC	TEM	Modified ISO 10312	6/12/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/27/2018	Sample was rejected due to uncertainty around the sample volume. The associated low volume sample was analyzed.	R	
Ambient Air	CSCMAA-107B-AL101	Field Sample	EMSL04	041817463	041817463-0003	Not QC	TEM	Modified ISO 10312	6/12/2018	Direct	Sensitivity	*Pending upon receipt of data package.*				
Lab Air QC	Lab Blank	N/A	EMSL12	041817463	041817463	Lab Blank	TEM	Modified ISO 10312	6/12/2018	Direct	Area Examined	CDM[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-102-AL101	Field Sample	EMSL04	041821873	041821873-0002	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-102-AL101	Field Sample	EMSL23	041821873	041821873-0002	Recount Different	TEM	Modified ISO 10312	7/24/2018	Direct	NA	CDM[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-102-CL101	Field Sample	EMSL04	041821873	041821873-0004	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-103-AL101	Field Sample	EMSL04	041821873	041821873-0011	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-103-CL101	Field Sample	EMSL04	041821873	041821873-0013	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Ecological	CSAPABSE-102-ML101	Field Sample	EMSL04	041821873	041821873-0005	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Ecological	CSAPABSE-103-ML101	Field Sample	EMSL04	041821873	041821873-0014	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Perimeter	CSAPABSP-102-AL101	Field Sample	EMSL04	041821873	041821873-0007	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSAPABSP-102-AL102	Field Sample	EMSL04	041821873	041821873-0009	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSAPABSP-103-AL101	Field Sample	EMSL04	041821873	041821873-0016	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSAPABSP-103-AL102	Field Sample	EMSL04	041821873	041821873-0018	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air	CSPKABS-401	Field Blank	EMSL04	041821873	041821873-0019	Not QC	TEM	Modified ISO 10312	7/24/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Lab Blank	N/A	EMSL13	041821873	041821873	Lab Blank	TEM	Modified ISO 10312	7/24/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Ashing Blank	N/A	EMSL16	041821898	041821898	Ashing Blank	TEM	Modified ISO 10312	8/1/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-102-AH101	Field Sample	EMSL04	041821898	041821898-0001	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-102-AH101	Field Sample	EMSL24	041821898	041821898-0001	Recount Same	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	NA	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-102-CH101	Field Sample	EMSL04	041821898	041821898-0003	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-102-ML101	Field Sample	EMSL04	041821898	041821898-0005	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-102-AH101	Field Sample	EMSL04	041821898	041821898-0006	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-102-AH102	Field Sample	EMSL04	041821898	041821898-0008	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Filtration Blank	N/A	EMSL06	041821898	041821898	Filtration Blank	TEM	Modified ISO 10312	8/1/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Lab Blank	N/A	EMSL20	041821898	041821898	Lab Blank	TEM	Modified ISO 10312	8/1/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Ashing Blank	N/A	EMSL17	041821905	041821905	Ashing Blank	TEM	Modified ISO 13794	8/2/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-105-AH101	Field Sample	EMSL04	041821905	041821905-0001	Not QC	TEM	Modified ISO 13794	8/2/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-105-CH101	Field Sample	EMSL04	041821905	041821905-0003	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-105-ML101	Field Sample	EMSL04	041821905	041821905-0005	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-105-AH101	Field Sample	EMSL04	041821905	041821905-0006	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-105-AH102	Field Sample	EMSL04	041821905	041821905-0008	Not QC	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-105-AH102	Field Sample	EMSL22	041821905	041821905-0008	Recount Different	TEM	Modified ISO 13794	8/3/2018	Indirect - Ashed	NA	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Filtration Blank	N/A	EMSL07	041821905	041821905	Filtration Blank	TEM	Modified ISO 13794	8/2/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Lab Blank	N/A	EMSL14	041821905	041821905	Lab Blank	TEM	Modified ISO 13794	8/2/2018	Direct	Area Examined	CDM[redacted]	8/29/2018			
Lab Air QC	Ashing Blank	N/A	EMSL18	041822094	041822094	Ashing Blank	TEM	Modified ISO 13794	8/2/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-101-AL101	Field Sample	EMSL04	041822094	041822094-0011	Not QC	TEM	Modified ISO 10312	8/3/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-101-CL101	Field Sample	EMSL04	041822094	041822094-0013	Not QC	TEM	Modified ISO 10312	8/3/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-103-AL101	Field Sample	EMSL04	041822094	041822094-0002	Not QC	TEM	Modified ISO 10312	8/2/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-103-AL101	Field Sample	EMSL25	041822094	041822094-0002	Recount Same	TEM	Modified ISO 10312	8/3/2018	Direct	NA	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-103-CL101	Field Sample	EMSL04	041822094	041822094-0004	Not QC	TEM	Modified ISO 10312	8/2/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-101-ML101	Field Sample	EMSL04	041822094	041822094-0014	Not QC	TEM	Modified ISO 10312	8/3/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-103-ML101	Field Sample	EMSL04	041822094	041822094-0005	Not QC	TEM	Modified ISO 10312	8/2/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-101-AH102	Field Sample	EMSL04	041822094	041822094-0017	Not QC	TEM	Modified ISO 13794	8/6/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			

ATTACHMENT 6B

TEM VALIDATED ANALYSES - AMBIENT AIR AND ACTIVITY-BASED SAMPLING AIR

BoRit Asbestos Superfund Site

Ambler, Pennsylvania

Media Type	Sample Number	Field QC Type	Lab Name	Lab Job Number	Lab Sample ID	Lab QC Type	Analysis Method	Method Number	Analysis Date	Preparation Method	Stopping Rule Achieved	Validator's Company/Name	Validation Date	Validation Comment	Validation Qualifier	Validation Reason Code
ABS Air-Perimeter	CSPKABSP-101-AL101	Field Sample	EMSL04	041822094	041822094-0016	Not QC	TEM	Modified ISO 10312	8/2/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-103-AL101	Field Sample	EMSL04	041822094	041822094-0007	Not QC	TEM	Modified ISO 10312	8/2/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-103-AL102	Field Sample	EMSL04	041822094	041822094-0009	Not QC	TEM	Modified ISO 10312	8/3/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
Lab Air QC	Filtration Blank	N/A	EMSL08	041822094	041822094	Filtration Blank	TEM	Modified ISO 13794	8/2/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Lab Blank	N/A	EMSL05	041822094	041822094	Lab Blank	TEM	Modified ISO 10312	8/2/2018	Direct	Area Examined	CDM[redacted]	8/29/2018			
Lab Air QC	Ashing Blank	N/A	EMSL19	041822107	041822107	Ashing Blank	TEM	Modified ISO 10312	8/3/2018	Indirect - Ashed	Area Examined	CDM[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-101-AH101	Field Sample	EMSL04	041822107	041822107-0020	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSAPABSA-101-CH101	Field Sample	EMSL04	041822107	041822107-0022	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Ecological	CSAPABSE-101-ML101	Field Sample	EMSL04	041822107	041822107-0024	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Perimeter	CSAPABSP-101-AH101	Field Sample	EMSL04	041822107	041822107-0025	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Perimeter	CSAPABSP-101-AH102	Field Sample	EMSL04	041822107	041822107-0027	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-104-AH101	Field Sample	EMSL04	041822107	041822107-0001	Not QC	TEM	Modified ISO 13794	8/7/2018	Indirect - Ashed	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-104-CH101	Field Sample	EMSL04	041822107	041822107-0003	Not QC	TEM	Modified ISO 13794	8/7/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-106-AH101	Field Sample	EMSL04	041822107	041822107-0011	Not QC	TEM	Modified ISO 13794	8/6/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Personal	CSPKABSA-106-CH101	Field Sample	EMSL04	041822107	041822107-0013	Not QC	TEM	Modified ISO 13794	8/7/2018	Indirect - Ashed	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air	CSPKABSA-402	Field Blank	EMSL04	041822107	041822107-0005	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Area Examined	CDM[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-104-ML101	Field Sample	EMSL04	041822107	041822107-0006	Not QC	TEM	Modified ISO 13794	8/6/2018	Indirect - Ashed	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-104-ML101	Field Sample	EMSL21	041822107	041822107-0006	Recount Different	TEM	Modified ISO 13794	8/8/2018	Indirect - Ashed	NA	CDM[redacted]	8/29/2018			
ABS Air-Ecological	CSPKABSE-106-ML101	Field Sample	EMSL04	041822107	041822107-0015	Not QC	TEM	Modified ISO 13794	8/7/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-104-AH101	Field Sample	EMSL04	041822107	041822107-0007	Not QC	TEM	Modified ISO 13794	8/7/2018	Indirect - Ashed	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-104-AH102	Field Sample	EMSL04	041822107	041822107-0009	Not QC	TEM	Modified ISO 13794	8/7/2018	Indirect - Ashed	Sensitivity	CDM[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-106-AH101	Field Sample	EMSL04	041822107	041822107-0016	Not QC	TEM	Modified ISO 10312	8/7/2018	Direct	Sensitivity	CDM Smith/[redacted]	8/29/2018			
ABS Air-Perimeter	CSPKABSP-106-AH102	Field Sample	EMSL04	041822107	041822107-0018	Not QC	TEM	Modified ISO 13794	8/6/2018	Indirect - Ashed	Sensitivity	CDM[redacted]	8/29/2018			
Lab Air QC	Filtration Blank	N/A	EMSL09	041822107	041822107	Filtration Blank	TEM	Modified ISO 10312	8/3/2018	Indirect - Ashed	Area Examined	CDM Smith/[redacted]	8/29/2018			
Lab Air QC	Lab Blank	N/A	EMSL15	041822107	041822107	Lab Blank	TEM	Modified ISO 10312	8/3/2018	Direct	Area Examined	CDM Smith/[redacted]	8/29/2018			

Notes:

ID = identifier

ISO = International Standard Organization

QC = quality control

TEM = transmission electron microscopy

ATTACHMENT 6C
TEM VALIDATED ANALYSES - SURFACE WATER
BoRit Asbestos Superfund Site
Ambler, Pennsylvania

Media Type	Sample Number	Field QC Type	Lab Name	Lab Job Number	Lab Sample ID	Lab QC Type	Analysis Method	Method Number	Analysis Date	Preparation Method	Stopping Rule Achieved	Validator's Company/Name	Validation Date	Validation Comment	Validation Qualifier	Validation Reason Code
Surface Water	CSRVSW-101	Field Sample	EMSL04	041812291	041812291-0001	Not QC	TEM-ISO	ISO 10312	5/2/2018	Direct	Area Examined	CDM [redacted]	8/28/2018			
Surface Water	CSRVSW-101	Field Sample	EMSL04	041812291	041812291-0001	Recount Same	TEM-ISO	ISO 10312	5/4/2018	Direct	NA	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSRVSW-102	Field Sample	EMSL04	041812291	041812291-0002	Not QC	TEM-ISO	ISO 10312	5/4/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSRVSW-103	Field Sample	EMSL04	041812291	041812291-0003	Not QC	TEM-ISO	ISO 10312	5/7/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSRVSW-104	Field Sample	EMSL04	041812291	041812291-0004	Not QC	TEM-ISO	ISO 10312	5/8/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			
Lab Water QC	Filtration Blank	NA	EMSL04	041812291	041812291	Filtration Blank	TEM-ISO	ISO 10312	5/2/2018	Direct	Area Examined	CDM [redacted]	8/28/2018			
Lab Water QC	Lab Blank	NA	EMSL04	041812291	041812291	Lab Blank	TEM-ISO	ISO 10312	5/4/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSCKSW-104	Field Sample	EMSL04	041812555	041812555-0001	Not QC	TEM-ISO	ISO 10312	5/9/2018	Direct	Area Examined	CDM [redacted]	8/28/2018			
Surface Water	CSCKSW-104	Field Sample	EMSL04	041812555	041812555-0001	Repreparation	TEM-ISO	ISO 10312	5/14/2018	Direct	NA	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSCKSW-105	Field Sample	EMSL04	041812555	041812555-0002	Not QC	TEM-ISO	ISO 10312	5/11/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSCKSW-107	Field Sample	EMSL04	041812555	041812555-0003	Not QC	TEM-ISO	ISO 10312	5/11/2018	Direct	Area Examined	CDM [redacted]	8/28/2018			
Surface Water	CSCKSW-108	Field Sample	EMSL04	041812555	041812555-0004	Not QC	TEM-ISO	ISO 10312	5/12/2018	Direct	Area Examined	CDM [redacted]	8/28/2018			
Surface Water	CSCKSW-204	Field Duplicate	EMSL04	041812555	041812555-0005	Not QC	TEM-ISO	ISO 10312	5/14/2018	Direct	Structure Count	CDM Smith/[redacted]	8/28/2018			
Surface Water	CSCKSW-401	Field Blank	EMSL04	041812555	041812555-0006	Not QC	TEM-ISO	ISO 10312	5/14/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			
Lab Water QC	Filtration Blank	NA	EMSL04	041812555	041812555	Filtration Blank	TEM-ISO	ISO 10312	5/9/2018	Direct	Area Examined	CDM [redacted]	8/28/2018			
Lab Water QC	Lab Blank	NA	EMSL04	041812555	041812555	Lab Blank	TEM-ISO	ISO 10312	5/9/2018	Direct	Area Examined	CDM Smith/[redacted]	8/28/2018			

Notes:
ID = identifier
ISO = International Standard Organization
QC = quality control
TEM = transmission electron microscopy

Validated Non-Asbestos Data

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK01-01	pH:	Sample Date: 04/24/2018	Sample Time: 10:45:00
% Moisture:		% Solids: 85.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	78	U	ug/kg	78	U	1.0	YES	S4VEM
Benzaldehyde	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Phenol	Target	55	J	ug/kg	55	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Acetophenone	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4-Methylphenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4-Nitrophenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Pentachlorophenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Carbazole	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Pyrene	Target	120	J	ug/kg	120	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	71	J	ug/kg	71	J	1.0	YES	S4VEM
Chrysene	Target	73	J	ug/kg	73	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	97	J	ug/kg	97	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	73	J	ug/kg	73	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Total Alkanes	TIC	100		ug/kg	100		1.0	YES	NV
Octadecanoic acid	TIC	93	J	ug/kg	93	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	180	J	ug/kg	180	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK01-01	pH:	Sample Date: 04/24/2018	Sample Time: 10:45:00
% Moisture:		% Solids: 83.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	79	U	ug/kg	79	U	1.0	YES	S4VEM
Benzaldehyde	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Phenol	Target	50	J	ug/kg	50	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Acetophenone	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4-Methylphenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	180	J	ug/kg	180	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4-Nitrophenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Pentachlorophenol	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Phenanthrene	Target	140	J	ug/kg	140	J	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	260	J	ug/kg	260	J	1.0	YES	S4VEM
Pyrene	Target	230		ug/kg	230		1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Chrysene	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	390	U	ug/kg	390	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	61	J	ug/kg	61	J	1.0	YES	S4VEM
Benzo(a)pyrene	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	82	J	ug/kg	82	J	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	92	J	ug/kg	92	J	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Butane, 2-methoxy-2-methyl-	TIC	1000	J	ug/kg	1000	J	1.0	YES	NV
Total Alkanes	TIC	230		ug/kg	230		1.0	YES	NV
Octadecanoic acid	TIC	98	J	ug/kg	98	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	260	J	ug/kg	260	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK01-02	pH:	Sample Date: 04/24/2018	Sample Time: 15:50:00
% Moisture:		% Solids: 85.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	78	U	ug/kg	78	U	1.0	YES	S4VEM
Benzaldehyde	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Phenol	Target	57	J	ug/kg	57	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Acetophenone	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	180	J	ug/kg	180	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Nitrophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Pentachlorophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Phenanthrene	Target	73	J	ug/kg	73	J	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	160	J	ug/kg	160	J	1.0	YES	S4VEM
Pyrene	Target	150	J	ug/kg	150	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	85	J	ug/kg	85	J	1.0	YES	S4VEM
Chrysene	Target	90	J	ug/kg	90	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	110	J	ug/kg	110	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	84	J	ug/kg	84	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	53	J	ug/kg	53	J	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	62	J	ug/kg	62	J	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	110	J	ug/kg	110	J	1.0	YES	NV
Total Alkanes	TIC	210		ug/kg	210		1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	240	J	ug/kg	240	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK02-01	pH:	Sample Date: 04/24/2018	Sample Time: 13:40:00
% Moisture:		% Solids: 85.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	78	U	ug/kg	78	U	1.0	YES	S4VEM
Benzaldehyde	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Phenol	Target	59	J	ug/kg	59	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Acetophenone	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	180	J	ug/kg	180	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Nitrophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Pentachlorophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Chrysene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	230	J	ug/kg	230	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	430	J	ug/kg	430	J	1.0	YES	NV
Total Alkanes	TIC	520		ug/kg	520		1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF4	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK02-02	pH:	Sample Date: 04/24/2018	Sample Time: 17:15:00
% Moisture:		% Solids: 88.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	76	U	ug/kg	76	U	1.0	YES	S4VEM
Benzaldehyde	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Phenol	Target	76	J	ug/kg	76	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Methylphenol	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Acetophenone	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
4-Methylphenol	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Isophorone	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Chloroaniline	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Caprolactam	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Dimethylphthalate	Target	250		ug/kg	250		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
3-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
4-Nitrophenol	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Fluorene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Nitroaniline	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Atrazine	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Pentachlorophenol	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Phenanthrene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Anthracene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Fluoranthene	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Pyrene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Chrysene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	370	U	ug/kg	370	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
n-Hexadecanoic acid	TIC	490	J	ug/kg	490	J	1.0	YES	NV
Octadecanoic acid	TIC	300	J	ug/kg	300	J	1.0	YES	NV
1-Heneicosyl formate	TIC	310	J	ug/kg	310	J	1.0	YES	NV
Total Alkanes	TIC	330		ug/kg	330		1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF5	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK03-01	pH:	Sample Date: 04/24/2018	Sample Time: 14:45:00
% Moisture:		% Solids: 81.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	82	U	ug/kg	82	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	77	J	ug/kg	77	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	220		ug/kg	220		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	94	J	ug/kg	94	J	1.0	YES	S4VEM
Pyrene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	54	J	ug/kg	54	J	1.0	YES	S4VEM
Chrysene	Target	67	J	ug/kg	67	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	86	J	ug/kg	86	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	58	J	ug/kg	58	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Pentanone, 4-hydroxy-4-methyl-	TIC	180	A	ug/kg	180	A	1.0	YES	NV
1-Heneicosyl formate	TIC	380	J	ug/kg	380	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1200	J	ug/kg	1200	J	1.0	YES	NV
Total Alkanes	TIC			ug/kg			1.0	YES	NV
n-Hexadecanoic acid	TIC	480	J	ug/kg	480	J	1.0	YES	NV
Octadecanoic acid	TIC	240	J	ug/kg	240	J	1.0	YES	NV
Octadecanal	TIC	120	J	ug/kg	120	J	1.0	YES	NV
2-Pyrrolidinone, 1-methyl-	TIC	3200	J	ug/kg	3200	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF6	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK03-02	pH:	Sample Date: 04/24/2018	Sample Time: 16:20:00
% Moisture:		% Solids: 91.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	73	U	ug/kg	73	U	1.0	YES	S4VEM
Benzaldehyde	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Phenol	Target	70	J	ug/kg	70	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
2-Chlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Methylphenol	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Acetophenone	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
4-Methylphenol	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Hexachloroethane	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Nitrobenzene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Isophorone	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Nitrophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Naphthalene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Chloroaniline	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Caprolactam	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Nitroaniline	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Dimethylphthalate	Target	220		ug/kg	220		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Acenaphthylene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
3-Nitroaniline	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Acenaphthene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
4-Nitrophenol	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Dibenzofuran	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Diethylphthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Fluorene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Nitroaniline	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Atrazine	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Pentachlorophenol	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Phenanthrene	Target	60	J	ug/kg	60	J	1.0	YES	S4VEM
Anthracene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Carbazole	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
Pyrene	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Chrysene	Target	120	J	ug/kg	120	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	360	U	ug/kg	360	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	160	J	ug/kg	160	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	65	J	ug/kg	65	J	1.0	YES	S4VEM
Benzo(a)pyrene	Target	120	J	ug/kg	120	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	82	J	ug/kg	82	J	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	190	U	ug/kg	190	U	1.0	YES	S4VEM
2-Pyrrolidinone, 1-methyl-	TIC	380	J	ug/kg	380	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	440	J	ug/kg	440	J	1.0	YES	NV
Fumaric acid, 2-chloropropyl tride	TIC	390	J	ug/kg	390	J	1.0	YES	NV
Total Alkanes	TIC			ug/kg			1.0	YES	NV
Octadecanoic acid	TIC	220	J	ug/kg	220	J	1.0	YES	NV
Ethanol, 2-(2-ethoxyethoxy)-	TIC	210	J	ug/kg	210	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF7	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK04-01	pH:	Sample Date: 04/25/2018	Sample Time: 15:55:00
% Moisture:		% Solids: 83.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	80	U	ug/kg	80	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	72	J	ug/kg	72	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	230		ug/kg	230		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	74	J	ug/kg	74	J	1.0	YES	S4VEM
Pyrene	Target	81	J	ug/kg	81	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Chrysene	Target	55	J	ug/kg	55	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	76	J	ug/kg	76	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Total Alkanes	TIC	400		ug/kg	400		1.0	YES	NV
Octadecanoic acid	TIC	280	J	ug/kg	280	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	480	J	ug/kg	480	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF8	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK04-02	pH:	Sample Date: 04/25/2018	Sample Time: 13:05:00
% Moisture:		% Solids: 82.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	81	U	ug/kg	81	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	340		ug/kg	340		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	150	J	ug/kg	150	J	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	220	J	ug/kg	220	J	1.0	YES	S4VEM
Pyrene	Target	200	J	ug/kg	200	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	97	J	ug/kg	97	J	1.0	YES	S4VEM
Chrysene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	87	J	ug/kg	87	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	57	J	ug/kg	57	J	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	110	J	ug/kg	110	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	340	J	ug/kg	340	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV
Total Alkanes	TIC	360		ug/kg	360		1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AF9	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK05-01	pH:	Sample Date: 04/26/2018	Sample Time: 08:30:00
% Moisture:		% Solids: 86.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	77	U	ug/kg	77	U	1.0	YES	S4VEM
Benzaldehyde	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Phenol	Target	49	J	ug/kg	49	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Acetophenone	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	180	J	ug/kg	180	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4-Nitrophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Pentachlorophenol	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Chrysene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	380	U	ug/kg	380	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
n-Hexadecanoic acid	TIC	160	J	ug/kg	160	J	1.0	YES	NV
Total Alkanes	TIC	240		ug/kg	240		1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1000	J	ug/kg	1000	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK05-02	pH:	Sample Date: 04/26/2018	Sample Time: 09:25:00
% Moisture:		% Solids: 82.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	81	U	ug/kg	81	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	66	J	ug/kg	66	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	220		ug/kg	220		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Total Alkanes	TIC	210		ug/kg	210		1.0	YES	NV
n-Hexadecanoic acid	TIC	190	J	ug/kg	190	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: PK05-02	pH:	Sample Date: 04/26/2018	Sample Time: 09:25:00
% Moisture:		% Solids: 82.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	81	U	ug/kg	81	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	63	J	ug/kg	63	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	250		ug/kg	250		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	74	J	ug/kg	74	J	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
Pyrene	Target	150	J	ug/kg	150	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	81	J	ug/kg	81	J	1.0	YES	S4VEM
Chrysene	Target	88	J	ug/kg	88	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	72	J	ug/kg	72	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Total Alkanes	TIC	640		ug/kg	640		1.0	YES	NV
unknown-01	TIC	130	J	ug/kg	130	J	1.0	YES	NV
Octadecanoic acid	TIC	150	J	ug/kg	150	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1000	J	ug/kg	1000	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	320	J	ug/kg	320	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV01-01	pH:	Sample Date: 04/26/2018	Sample Time: 14:25:00
% Moisture:		% Solids: 83.2	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	80	U	ug/kg	80	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	60	J	ug/kg	60	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachloroethane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Nitrobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Isophorone	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitrophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Naphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2-Nitroaniline	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dimethylphthalate	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Acenaphthylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Diethylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluorene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Fluoranthene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Chrysene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	200	U	ug/kg	200	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	270	J	ug/kg	270	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	450	J	ug/kg	450	J	1.0	YES	NV
Total Alkanes	TIC			ug/kg			1.0	YES	NV
Trifluoroacetoxy hexadecane	TIC	390	J	ug/kg	390	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1200	J	ug/kg	1200	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV01-02	pH:	Sample Date: 04/26/2018	Sample Time: 14:45:00
% Moisture:		% Solids: 81.2	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	82	U	ug/kg	82	U	1.0	YES	S4VEM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	200	J	ug/kg	200	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	67	J	ug/kg	67	J	1.0	YES	S4VEM
Pyrene	Target	67	J	ug/kg	67	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	58	J	ug/kg	58	J	1.0	YES	S4VEM
Chrysene	Target	58	J	ug/kg	58	J	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	65	J	ug/kg	65	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Octadecyl trifluoroacetate	TIC	99	J	ug/kg	99	J	1.0	YES	NV
Total Alkanes	TIC			ug/kg			1.0	YES	NV
n-Hexadecanoic acid	TIC	160	J	ug/kg	160	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1200	J	ug/kg	1200	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG4	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV02-01	pH:	Sample Date: 04/26/2018	Sample Time: 13:55:00
% Moisture:		% Solids: 81.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	82	U	ug/kg	82	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	180	J	ug/kg	180	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	300		ug/kg	300		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	200	J	ug/kg	200	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
D-Limonene	TIC	250	J	ug/kg	250	J	1.0	YES	NV
(1R)-2,6,6-Trimethylbicyclo[3.1.1]	TIC	190	J	ug/kg	190	J	1.0	YES	NV
Total Alkanes	TIC	770		ug/kg	770		1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	230	A	ug/kg	230	A	1.0	YES	NV
n-Hexadecanoic acid	TIC	340	J	ug/kg	340	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG5	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV02-02	pH:	Sample Date: 04/26/2018	Sample Time: 12:05:00
% Moisture:		% Solids: 79.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	84	U	ug/kg	84	U	1.0	YES	S4VEM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenol	Target	110	J	ug/kg	110	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	340		ug/kg	340		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
n-Hexadecanoic acid	TIC	440	J	ug/kg	440	J	1.0	YES	NV
Total Alkanes	TIC	840		ug/kg	840		1.0	YES	NV
n-Tetracosanol-1	TIC	210	J	ug/kg	210	J	1.0	YES	NV
13-Docosenamide, (Z)-	TIC	89	J	ug/kg	89	J	1.0	YES	NV
Octadecanoic acid	TIC	270	J	ug/kg	270	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1400	J	ug/kg	1400	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG6	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV03-01	pH:	Sample Date: 04/26/2018	Sample Time: 11:40:00
% Moisture:		% Solids: 79.4	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	84	U	ug/kg	84	U	1.0	YES	S4VEM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenol	Target	87	J	ug/kg	87	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	280		ug/kg	280		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	85	J	ug/kg	85	J	1.0	YES	S4VEM
Pyrene	Target	79	J	ug/kg	79	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	58	J	ug/kg	58	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	190	J	ug/kg	190	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
Total Alkanes	TIC	530		ug/kg	530		1.0	YES	NV
n-Hexadecanoic acid	TIC	350	J	ug/kg	350	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG7	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV03-02	pH:	Sample Date: 04/26/2018	Sample Time: 11:10:00
% Moisture:		% Solids: 78.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	85	U	ug/kg	85	U	1.0	YES	S4VEM
Benzaldehyde	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Phenol	Target	110	J	ug/kg	110	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Acetophenone	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4-Methylphenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	390		ug/kg	390		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4-Nitrophenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Pentachlorophenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Pyrene	Target	78	J	ug/kg	78	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Total Alkanes	TIC	1000		ug/kg	1000		1.0	YES	NV
n-Hexadecanoic acid	TIC	400	J	ug/kg	400	J	1.0	YES	NV
Octadecanoic acid	TIC	170	J	ug/kg	170	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1200	J	ug/kg	1200	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV05-01	pH:	Sample Date: 04/26/2018	Sample Time: 16:11:00
% Moisture:		% Solids: 80.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	83	U	ug/kg	83	U	1.0	YES	S4VEM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenol	Target	85	J	ug/kg	85	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	260		ug/kg	260		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Total Alkanes	TIC	340		ug/kg	340		1.0	YES	NV
n-Hexadecanoic acid	TIC	380	J	ug/kg	380	J	1.0	YES	NV
Octadecanoic acid	TIC	230	J	ug/kg	230	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1100	J	ug/kg	1100	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AK5	Method: Semivolatiles	Matrix: Water	MA Number:
Sample Location: RB-01	pH: 5	Sample Date: 04/24/2018	Sample Time: 17:10:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	2.0	U	ug/L	2.0	U	1.0	YES	S4VEM
Benzaldehyde	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2-Chlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acetophenone	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Nitrobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Isophorone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Naphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chloroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Caprolactam	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dimethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Acenaphthylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acenaphthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Nitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Dibenzofuran	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Diethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluorene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Atrazine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pentachlorophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenanthrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluoranthene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Chrysene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Butane, 2-methoxy-2-methyl-	TIC	13	J	ug/L	13	J	1.0	YES	NV
Total Alkanes	TIC			ug/L			1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: SBLK20	Method: Semivolatiles	Matrix: Water	MA Number:
Sample Location:	pH: 6	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	2.0	U	ug/L	2.0	U	1.0	YES	S4VEM
Benzaldehyde	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2-Chlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acetophenone	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Nitrobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Isophorone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Naphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chloroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Caprolactam	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dimethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Acenaphthylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acenaphthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Nitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Dibenzofuran	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Diethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluorene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Atrazine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pentachlorophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenanthrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluoranthene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Chrysene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Total Alkanes	TIC			ug/L			1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Number: SBLK69	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	67	U	ug/kg	67	U	1.0	YES	S4VEM
Benzaldehyde	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Phenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
2-Chlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Methylphenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Acetophenone	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4-Methylphenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Hexachloroethane	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Nitrobenzene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Isophorone	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Nitrophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Naphthalene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Chloroaniline	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Caprolactam	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Nitroaniline	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Dimethylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Acenaphthylene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
3-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Acenaphthene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4-Nitrophenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Dibenzofuran	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Diethylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Fluorene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Atrazine	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Pentachlorophenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Phenanthrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Anthracene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AF0** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Fluoranthene	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Pyrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Chrysene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Total Alkanes	TIC			ug/kg			1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AF0** | **Lab Name: Chemtech Consulting Group**

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG8	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV04-01	pH:	Sample Date: 04/27/2018	Sample Time: 09:08:00
% Moisture:		% Solids: 79.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	84	U	ug/kg	84	U	1.0	YES	S4VEM
Benzaldehyde	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenol	Target	91	J	ug/kg	91	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acetophenone	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	260		ug/kg	260		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4-Nitrophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Pentachlorophenol	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Carbazole	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluoranthene	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	410	U	ug/kg	410	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Pentanone, 4-hydroxy-4-methyl-	TIC	120	A	ug/kg	120	A	1.0	YES	NV
Total Alkanes	TIC	260		ug/kg	260		1.0	YES	NV
Oxirane, heptadecyl-	TIC	110	J	ug/kg	110	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
Heptadecyl heptafluorobutyrate	TIC	370	J	ug/kg	370	J	1.0	YES	NV
Trichloroacetic acid, pentadecyl e	TIC	300	J	ug/kg	300	J	1.0	YES	NV
Octadecanoic acid	TIC	110	J	ug/kg	110	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	230	J	ug/kg	230	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AG9	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV04-02	pH:	Sample Date: 04/27/2018	Sample Time: 08:47:00
% Moisture:		% Solids: 76.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	88	U	ug/kg	88	U	1.0	YES	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenol	Target	110	J	ug/kg	110	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	290		ug/kg	290		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenanthrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Pentanone, 4-hydroxy-4-methyl-	TIC	320	A	ug/kg	320	A	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
Octadecanoic acid	TIC	210	J	ug/kg	210	J	1.0	YES	NV
Heptadecyl heptafluorobutyrate	TIC	730	J	ug/kg	730	J	1.0	YES	NV
Oxirane, heptadecyl-	TIC	240	J	ug/kg	240	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	380	J	ug/kg	380	J	1.0	YES	NV
1,19-Eicosadiene	TIC	170	J	ug/kg	170	J	1.0	YES	NV
Total Alkanes	TIC	980		ug/kg	980		1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: RV05-02	pH:	Sample Date: 04/26/2018	Sample Time: 15:36:00
% Moisture:		% Solids: 81.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	82	U	ug/kg	82	U	1.0	YES	S4VEM
Benzaldehyde	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenol	Target	96	J	ug/kg	96	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2-Chlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acetophenone	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachloroethane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Nitrobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Isophorone	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitrophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Naphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chloroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Caprolactam	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Nitroaniline	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dimethylphthalate	Target	320		ug/kg	320		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Acenaphthylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Acenaphthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4-Nitrophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Dibenzofuran	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Diethylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Fluorene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Nitroaniline	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Atrazine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Pentachlorophenol	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Phenanthrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Carbazole	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	65	J	ug/kg	65	J	1.0	YES	S4VEM
Pyrene	Target	65	J	ug/kg	65	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Chrysene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	400	U	ug/kg	400	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	96	J	ug/kg	96	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	74	J	ug/kg	74	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	210	U	ug/kg	210	U	1.0	YES	S4VEM
2-Pentanone, 4-hydroxy-4-methyl-	TIC	110	A	ug/kg	110	A	1.0	YES	NV
Octadecanoic acid	TIC	200	J	ug/kg	200	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	360	J	ug/kg	360	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1200	J	ug/kg	1200	J	1.0	YES	NV
Total Alkanes	TIC	690		ug/kg	690		1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP01-01	pH:	Sample Date: 04/27/2018	Sample Time: 12:30:00
% Moisture:		% Solids: 76.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	87	U	ug/kg	87	U	1.0	YES	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenol	Target	59	J	ug/kg	59	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	210	J	ug/kg	210	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenanthrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	470		ug/kg	470		1.0	YES	S4VEM
Di-n-octyl phthalate	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Total Alkanes	TIC	200		ug/kg	200		1.0	YES	NV
Octadecanoic acid	TIC	150	J	ug/kg	150	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	87	A	ug/kg	87	A	1.0	YES	NV
n-Hexadecanoic acid	TIC	240	J	ug/kg	240	J	1.0	YES	NV
Benzene, 1-methyl-3-(1-methylethyl	TIC	100	J	ug/kg	100	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP01-02	pH:	Sample Date: 04/27/2018	Sample Time: 11:23:00
% Moisture:		% Solids: 76.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	88	U	ug/kg	88	U	1.0	YES	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenol	Target	110	J	ug/kg	110	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	210	J	ug/kg	210	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenanthrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	230		ug/kg	230		1.0	YES	S4VEM
Di-n-octyl phthalate	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Heptafluorobutyric acid, hexadecyl	TIC	450	J	ug/kg	450	J	1.0	YES	NV
Oxirane, hexadecyl-	TIC	88	J	ug/kg	88	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	310	J	ug/kg	310	J	1.0	YES	NV
Total Alkanes	TIC	1400		ug/kg	1400		1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1500	J	ug/kg	1500	J	1.0	YES	NV
Octadecanoic acid	TIC	160	J	ug/kg	160	J	1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	130	A	ug/kg	130	A	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH6	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP02-01	pH:	Sample Date: 04/27/2018	Sample Time: 12:50:00
% Moisture:		% Solids: 73.1	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	91	U	ug/kg	91	U	1.0	YES	S4VEM
Benzaldehyde	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Phenol	Target	90	J	ug/kg	90	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2-Chlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Acetophenone	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachloroethane	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Nitrobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Isophorone	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Nitrophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Naphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Chloroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Caprolactam	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Nitroaniline	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Dimethylphthalate	Target	220	J	ug/kg	220	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Acenaphthylene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
3-Nitroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Acenaphthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Nitrophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Dibenzofuran	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Diethylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Fluorene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Nitroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Atrazine	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Pentachlorophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Phenanthrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Fluoranthene	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Chrysene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	150	J	ug/kg	150	J	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Total Alkanes	TIC	870		ug/kg	870		1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1500	J	ug/kg	1500	J	1.0	YES	NV
Octadecanoic acid	TIC	190	J	ug/kg	190	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	380	J	ug/kg	380	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH7	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP02-01	pH:	Sample Date: 04/27/2018	Sample Time: 13:41:00
% Moisture:		% Solids: 77.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	86	U	ug/kg	86	U	1.0	YES	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenol	Target	210	J	ug/kg	210	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	220		ug/kg	220		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenanthrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	78	J	ug/kg	78	J	1.0	YES	S4VEM
Pyrene	Target	75	J	ug/kg	75	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	110	J	ug/kg	110	J	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
Total Alkanes	TIC			ug/kg			1.0	YES	NV
Octadecanoic acid	TIC	89	J	ug/kg	89	J	1.0	YES	NV
.alpha.-Pinene	TIC	150	J	ug/kg	150	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	170	J	ug/kg	170	J	1.0	YES	NV
p-Cymene	TIC	88	J	ug/kg	88	J	1.0	YES	NV
Trichloroacetic acid, hexadecyl es	TIC	110	J	ug/kg	110	J	1.0	YES	NV
Coumarin	TIC	420	J	ug/kg	420	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH8	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP02-02	pH:	Sample Date: 04/27/2018	Sample Time: 10:57:00
% Moisture:		% Solids: 76.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	87	U	ug/kg	87	U	1.0	YES	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenol	Target	86	J	ug/kg	86	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	200	J	ug/kg	200	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenanthrene	Target	73	J	ug/kg	73	J	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	99	J	ug/kg	99	J	1.0	YES	S4VEM
Pyrene	Target	120	J	ug/kg	120	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	59	J	ug/kg	59	J	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	140	J	ug/kg	140	J	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	67	J	ug/kg	67	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	76	J	ug/kg	76	J	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	59	J	ug/kg	59	J	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	97	J	ug/kg	97	J	1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	170	A	ug/kg	170	A	1.0	YES	NV
n-Hexadecanoic acid	TIC	260	J	ug/kg	260	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
Total Alkanes	TIC	640		ug/kg	640		1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AH9	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP03-01	pH:	Sample Date: 04/27/2018	Sample Time: 10:35:00
% Moisture:		% Solids: 76.4	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	87	U	ug/kg	87	U	1.0	YES	S4VEM
Benzaldehyde	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenol	Target	93	J	ug/kg	93	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acetophenone	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	210	J	ug/kg	210	J	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4-Nitrophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pentachlorophenol	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Phenanthrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	970		ug/kg	970		1.0	YES	S4VEM
Di-n-octyl phthalate	Target	430	U	ug/kg	430	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Total Alkanes	TIC	470		ug/kg	470		1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	210	A	ug/kg	210	A	1.0	YES	NV
Octadecanoic acid	TIC	200	J	ug/kg	200	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1300	J	ug/kg	1300	J	1.0	YES	NV
n-Hexadecanoic acid	TIC	310	J	ug/kg	310	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AJ0	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP03-02	pH:	Sample Date: 04/27/2018	Sample Time: 10:10:00
% Moisture:		% Solids: 71.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	93	U	ug/kg	93	U	1.0	YES	S4VEM
Benzaldehyde	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Phenol	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
2-Chlorophenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2-Methylphenol	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Acetophenone	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
4-Methylphenol	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Hexachloroethane	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Nitrobenzene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Isophorone	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2-Nitrophenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Naphthalene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
4-Chloroaniline	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Caprolactam	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2-Nitroaniline	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Dimethylphthalate	Target	290		ug/kg	290		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Acenaphthylene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
3-Nitroaniline	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Acenaphthene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
4-Nitrophenol	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Dibenzofuran	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Diethylphthalate	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Fluorene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
4-Nitroaniline	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Atrazine	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Pentachlorophenol	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Phenanthrene	Target	80	J	ug/kg	80	J	1.0	YES	S4VEM
Anthracene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Carbazole	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Pyrene	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Chrysene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	460	U	ug/kg	460	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	57	J	ug/kg	57	J	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	240	U	ug/kg	240	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	150	J	ug/kg	150	J	1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	260	A	ug/kg	260	A	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1500	J	ug/kg	1500	J	1.0	YES	NV
Total Alkanes	TIC	740		ug/kg	740		1.0	YES	NV
n-Hexadecanoic acid	TIC	400	J	ug/kg	400	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AJ1	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP04-01	pH:	Sample Date: 04/27/2018	Sample Time: 14:12:00
% Moisture:		% Solids: 73.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	91	U	ug/kg	91	U	1.0	YES	S4VEM
Benzaldehyde	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Phenol	Target	100	J	ug/kg	100	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2-Chlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Acetophenone	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachloroethane	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Nitrobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Isophorone	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Nitrophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Naphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Chloroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Caprolactam	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Nitroaniline	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Dimethylphthalate	Target	240		ug/kg	240		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Acenaphthylene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
3-Nitroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Acenaphthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Nitrophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Dibenzofuran	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Diethylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Fluorene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Nitroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Atrazine	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Pentachlorophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Phenanthrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Fluoranthene	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Chrysene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	130	J	ug/kg	130	J	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Octadecanoic acid	TIC	140	J	ug/kg	140	J	1.0	YES	NV
Total Alkanes	TIC	670		ug/kg	670		1.0	YES	NV
n-Hexadecanoic acid	TIC	330	J	ug/kg	330	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1500	J	ug/kg	1500	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AJ2	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP04-02	pH:	Sample Date: 04/27/2018	Sample Time: 09:45:00
% Moisture:		% Solids: 73.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	91	U	ug/kg	91	U	1.0	YES	S4VEM
Benzaldehyde	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Phenol	Target	350	J	ug/kg	350	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2-Chlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Acetophenone	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachloroethane	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Nitrobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Isophorone	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Nitrophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Naphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Chloroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Caprolactam	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2-Nitroaniline	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Dimethylphthalate	Target	330		ug/kg	330		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Acenaphthylene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
3-Nitroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Acenaphthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4-Nitrophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Dibenzofuran	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Diethylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Fluorene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Nitroaniline	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Atrazine	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Pentachlorophenol	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Phenanthrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Carbazole	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	65	J	ug/kg	65	J	1.0	YES	S4VEM
Pyrene	Target	63	J	ug/kg	63	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Chrysene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	250		ug/kg	250		1.0	YES	S4VEM
Di-n-octyl phthalate	Target	450	U	ug/kg	450	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	230	U	ug/kg	230	U	1.0	YES	S4VEM
Benzene, 1-methyl-3-(1-methylethyl	TIC	160	J	ug/kg	160	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1500	J	ug/kg	1500	J	1.0	YES	NV
Total Alkanes	TIC	600		ug/kg	600		1.0	YES	NV
Octadecanoic acid	TIC	210	J	ug/kg	210	J	1.0	YES	NV
2-Pentanone, 4-hydroxy-4-methyl-	TIC	190	A	ug/kg	190	A	1.0	YES	NV
n-Hexadecanoic acid	TIC	380	J	ug/kg	380	J	1.0	YES	NV
1-Heneicosyl formate	TIC	450	J	ug/kg	450	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AJ3	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location: AP05-02	pH:	Sample Date: 04/27/2018	Sample Time: 14:35:00
% Moisture:		% Solids: 78.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	85	U	ug/kg	85	U	1.0	YES	S4VEM
Benzaldehyde	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Phenol	Target	120	J	ug/kg	120	J	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
2-Chlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylphenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Acetophenone	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4-Methylphenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachloroethane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Nitrobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Isophorone	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitrophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Naphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chloroaniline	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Caprolactam	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Nitroaniline	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dimethylphthalate	Target	280		ug/kg	280		1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Acenaphthylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Acenaphthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4-Nitrophenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Dibenzofuran	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Diethylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Fluorene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Nitroaniline	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Atrazine	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Pentachlorophenol	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Phenanthrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Carbazole	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	79	J	ug/kg	79	J	1.0	YES	S4VEM
Pyrene	Target	72	J	ug/kg	72	J	1.0	YES	S4VEM
Butylbenzylphthalate	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Chrysene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	170	J	ug/kg	170	J	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	420	U	ug/kg	420	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	220	U	ug/kg	220	U	1.0	YES	S4VEM
2-Pentanone, 4-hydroxy-4-methyl-	TIC	110	A	ug/kg	110	A	1.0	YES	NV
Octadecanoic acid	TIC	240	J	ug/kg	240	J	1.0	YES	NV
Total Alkanes	TIC	900		ug/kg	900		1.0	YES	NV
n-Hexadecanoic acid	TIC	500	J	ug/kg	500	J	1.0	YES	NV
1-Heptacosanol	TIC	180	J	ug/kg	180	J	1.0	YES	NV
Butane, 2-methoxy-2-methyl-	TIC	1200	J	ug/kg	1200	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: C0AK7	Method: Semivolatiles	Matrix: Water	MA Number:
Sample Location: RB-02	pH: 5	Sample Date: 04/27/2018	Sample Time: 15:20:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	2.0	U	ug/L	2.0	U	1.0	YES	S4VEM
Benzaldehyde	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2-Chlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acetophenone	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Nitrobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Isophorone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Naphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chloroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Caprolactam	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dimethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Acenaphthylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acenaphthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Nitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Dibenzofuran	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Diethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluorene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Atrazine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pentachlorophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenanthrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Carbazole	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Fluoranthene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Chrysene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Butane, 2-methoxy-2-methyl-	TIC	8.7	J	ug/L	8.7	J	1.0	YES	NV
Cyclohexanone	TIC	4.0	J	ug/L	4.0	J	1.0	YES	NV
Total Alkanes	TIC			ug/L			1.0	YES	NV
7,9-Di-tert-butyl-1-oxaspiro(4,5)d	TIC	4.8	J	ug/L	4.8	J	1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: SBLK64	Method: Semivolatiles	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	67	U	ug/kg	67	U	1.0	YES	S4VEM
Benzaldehyde	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Phenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
2-Chlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Methylphenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Acetophenone	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4-Methylphenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Hexachloroethane	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Nitrobenzene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Isophorone	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Nitrophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Naphthalene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Chloroaniline	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Caprolactam	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2-Nitroaniline	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Dimethylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Acenaphthylene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
3-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Acenaphthene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4-Nitrophenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Dibenzofuran	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Diethylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Fluorene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Nitroaniline	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Atrazine	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Pentachlorophenol	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Phenanthrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Anthracene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Fluoranthene	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Pyrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Chrysene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	330	U	ug/kg	330	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	170	U	ug/kg	170	U	1.0	YES	S4VEM
Total Alkanes	TIC			ug/kg			1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Number: SBLK75	Method: Semivolatiles	Matrix: Water	MA Number:
Sample Location:	pH: 6	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
1,4-Dioxane	Target	2.0	U	ug/L	2.0	U	1.0	YES	S4VEM
Benzaldehyde	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Bis(2-Chloroethyl)ether	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2-Chlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,2-oxybis(1-Chloropropane)	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acetophenone	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitroso-di-n-propylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachloroethane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Nitrobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Isophorone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitrophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dimethylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-Chloroethoxy)methane	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Naphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chloroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Hexachlorobutadiene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Caprolactam	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Chloro-3-methylphenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Methylnaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorocyclopentadiene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
2,4,6-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4,5-Trichlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,1-Biphenyl	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Chloronaphthalene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2-Nitroaniline	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dimethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,6-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Acenaphthylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Acenaphthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4-Nitrophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Dibenzofuran	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,4-Dinitrotoluene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Diethylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluorene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Chlorophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Nitroaniline	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
4,6-Dinitro-2-methylphenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
N-Nitrosodiphenylamine	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
1,2,4,5-Tetrachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
4-Bromophenyl-phenylether	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Hexachlorobenzene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Atrazine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pentachlorophenol	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Phenanthrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project **GroupID: 47574/EPW14030/C0AH1** **Lab Name: Chemtech Consulting Group**

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Carbazole	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Di-n-butylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Fluoranthene	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Butylbenzylphthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
3,3-Dichlorobenzidine	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(a)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Chrysene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bis(2-ethylhexyl)phthalate	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Di-n-octyl phthalate	Target	10	U	ug/L	10	U	1.0	YES	S4VEM
Benzo(b)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(k)fluoranthene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(a)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Indeno(1,2,3-cd)pyrene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibenzo(a,h)anthracene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Benzo(g,h,i)perylene	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
2,3,4,6-Tetrachlorophenol	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Total Alkanes	TIC			ug/L			1.0	YES	NV

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14030/C0AH1** | **Lab Name: Chemtech Consulting Group**

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS1	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Spike	10500		ug/L	10500		1.0	YES	S4VEM
Magnesium	Spike	10400		ug/L	10400		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS1	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Spike	38.8		ug/L	38.8		1.0	YES	S4VEM
Iron	Spike	392		ug/L	392		1.0	YES	S4VEM
Manganese	Spike	2.0		ug/L	2.0		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location: RVSW-01	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:56:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	96900		ug/L	96900		1.0	YES	S4VEM
Magnesium	Target	57200		ug/L	57200		1.0	YES	S4VEM
Hardness	Derived	477		mg/L	477		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: RVSW-01	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:56:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	62500	J	ug/L	62500	*	1.0	YES	S4VEM
Iron	Target	98700	J	ug/L	98700	*	1.0	YES	S4VEM
Manganese	Target	21100		ug/L	21100	D	5.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7D	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location:	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:56:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	94200		ug/L	94200		1.0	YES	S4VEM
Magnesium	Target	58500		ug/L	58500		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7D	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:56:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	87700		ug/L	87700	*	1.0	YES	S4VEM
Iron	Target	121000		ug/L	121000	D*	2.0	YES	S4VEM
Manganese	Target	21000		ug/L	21000	D	5.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7L	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	99000		ug/L	99000		5.0	YES	S4VEM
Magnesium	Target	58600		ug/L	58600		5.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7L	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	66000		ug/L	66000		5.0	YES	S4VEM
Iron	Target	101000		ug/L	101000		5.0	YES	S4VEM
Manganese	Target	21000		ug/L	21000	D	25.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AE7S	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:56:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Manganese	Spike	21700		ug/L	21700	D	5.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AL1	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location: RVSW-02	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:33:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	61100		ug/L	61100		1.0	YES	S4VEM
Magnesium	Target	34300		ug/L	34300		1.0	YES	S4VEM
Hardness	Derived	294		mg/L	294		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AL1	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: RVSW-02	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:33:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	28000	J	ug/L	28000	*	1.0	YES	S4VEM
Iron	Target	44400	J	ug/L	44400	*	1.0	YES	S4VEM
Manganese	Target	4080		ug/L	4080		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AL2	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location: RVSW-03	pH: 2	Sample Date: 04/25/2018	Sample Time: 12:33:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	38800		ug/L	38800		1.0	YES	S4VEM
Magnesium	Target	16300		ug/L	16300		1.0	YES	S4VEM
Hardness	Derived	164		mg/L	164		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AL2	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: RVSW-03	pH: 2	Sample Date: 04/25/2018	Sample Time: 12:33:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	8360	J	ug/L	8360	*	1.0	YES	S4VEM
Iron	Target	12200	J	ug/L	12200	*	1.0	YES	S4VEM
Manganese	Target	1310		ug/L	1310		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AL3	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location: RVSW-04	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:05:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	66900		ug/L	66900		1.0	YES	S4VEM
Magnesium	Target	25800		ug/L	25800		1.0	YES	S4VEM
Hardness	Derived	273		mg/L	273		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AL3	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location: RVSW-04	pH: 2	Sample Date: 04/25/2018	Sample Time: 13:05:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	28500	J	ug/L	28500	*	1.0	YES	S4VEM
Iron	Target	46800	J	ug/L	46800	*	1.0	YES	S4VEM
Manganese	Target	3880		ug/L	3880		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBW1	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Calcium	Target	5000	U	ug/L	5000	U	1.0	YES	S4VEM
Magnesium	Target	5000	U	ug/L	5000	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBW1	Method: Metals by ICP-MS	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aluminum	Target	20.0	U	ug/L	20.0	U	1.0	YES	S4VEM
Iron	Target	200	U	ug/L	200	U	1.0	YES	S4VEM
Manganese	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AE7** | **Lab Name: ALS Environmental (SLC)**

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	2.1		mg/kg	2.1		1.0	YES	S4VEM
Nickel	Spike	8.1		mg/kg	8.1		1.0	YES	S4VEM
Zinc	Spike	12.4		mg/kg	12.4		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	2.4	J+	mg/kg	2.4		1.0	YES	S4VEM
Nickel	Spike	7.9		mg/kg	7.9		1.0	YES	S4VEM
Zinc	Spike	15.1		mg/kg	15.1		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS3	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	20.7	J+	ug/L	20.7		1.0	YES	S4VEM
Nickel	Spike	79.6		ug/L	79.6		1.0	YES	S4VEM
Zinc	Spike	127		ug/L	127		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF0	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK01-01	pH:	Sample Date: 04/24/2018	Sample Time: 10:45:00
% Moisture:		% Solids: 83.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	35.0		mg/kg	35.0		1.0	YES	S4VEM
Nickel	Target	20.0		mg/kg	20.0		1.0	YES	S4VEM
Zinc	Target	60.4		mg/kg	60.4		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK01-01	pH:	Sample Date: 04/24/2018	Sample Time: 10:45:00
% Moisture:		% Solids: 82.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	28.2		mg/kg	28.2		1.0	YES	S4VEM
Nickel	Target	18.1		mg/kg	18.1		1.0	YES	S4VEM
Zinc	Target	63.7		mg/kg	63.7		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK01-02	pH:	Sample Date: 04/24/2018	Sample Time: 15:50:00
% Moisture:		% Solids: 86.1	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	28.9		mg/kg	28.9		1.0	YES	S4VEM
Nickel	Target	17.9		mg/kg	17.9		1.0	YES	S4VEM
Zinc	Target	56.9		mg/kg	56.9		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF3	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK02-01	pH:	Sample Date: 04/24/2018	Sample Time: 13:40:00
% Moisture:		% Solids: 86.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	109		mg/kg	109		1.0	YES	S4VEM
Nickel	Target	17.2		mg/kg	17.2		1.0	YES	S4VEM
Zinc	Target	50.4		mg/kg	50.4		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF4	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK02-01	pH:	Sample Date: 04/24/2018	Sample Time: 17:15:00
% Moisture:		% Solids: 86.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	32.0	J+	mg/kg	32.0		1.0	YES	S4VEM
Nickel	Target	20.0		mg/kg	20.0		1.0	YES	S4VEM
Zinc	Target	63.3		mg/kg	63.3		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF4D	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 04/24/2018	Sample Time: 17:15:00
% Moisture:		% Solids: 86.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	31.9		mg/kg	31.9		1.0	YES	S4VEM
Nickel	Target	20.0		mg/kg	20.0		1.0	YES	S4VEM
Zinc	Target	60.8		mg/kg	60.8		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF4L	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 86.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	32.1	J+	mg/kg	32.1		5.0	YES	S4VEM
Nickel	Target	18.9	J	mg/kg	18.9	J	5.0	YES	S4VEM
Zinc	Target	64.2		mg/kg	64.2		5.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF4S	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 04/24/2018	Sample Time: 17:15:00
% Moisture:		% Solids: 86.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	69.5	J+	mg/kg	69.5		1.0	YES	S4VEM
Nickel	Spike	126		mg/kg	126		1.0	YES	S4VEM
Zinc	Spike	162		mg/kg	162		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF5	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK03-01	pH:	Sample Date: 04/24/2018	Sample Time: 14:45:00
% Moisture:		% Solids: 89.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	24.3		mg/kg	24.3		1.0	YES	S4VEM
Nickel	Target	15.5		mg/kg	15.5		1.0	YES	S4VEM
Zinc	Target	53.3		mg/kg	53.3		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF6	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK03-02	pH:	Sample Date: 04/24/2018	Sample Time: 16:20:00
% Moisture:		% Solids: 91.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	21.6		mg/kg	21.6		1.0	YES	S4VEM
Nickel	Target	14.2		mg/kg	14.2		1.0	YES	S4VEM
Zinc	Target	36.9		mg/kg	36.9		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH9	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP03-01	pH:	Sample Date: 04/27/2018	Sample Time: 10:35:00
% Moisture:		% Solids: 74.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	22.9		mg/kg	22.9		1.0	YES	S4VEM
Nickel	Target	17.8		mg/kg	17.8		1.0	YES	S4VEM
Zinc	Target	58.9		mg/kg	58.9		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AJ0	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP03-02	pH:	Sample Date: 04/27/2018	Sample Time: 10:10:00
% Moisture:		% Solids: 73.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	30.3		mg/kg	30.3		1.0	YES	S4VEM
Nickel	Target	18.9		mg/kg	18.9		1.0	YES	S4VEM
Zinc	Target	74.5		mg/kg	74.5		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AJ1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP04-01	pH:	Sample Date: 04/27/2018	Sample Time: 14:12:00
% Moisture:		% Solids: 75.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	24.8		mg/kg	24.8		1.0	YES	S4VEM
Nickel	Target	14.1		mg/kg	14.1		1.0	YES	S4VEM
Zinc	Target	62.5		mg/kg	62.5		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AJ2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP04-02	pH:	Sample Date: 04/27/2018	Sample Time: 09:45:00
% Moisture:		% Solids: 72.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	27.6		mg/kg	27.6		1.0	YES	S4VEM
Nickel	Target	20.4		mg/kg	20.4		1.0	YES	S4VEM
Zinc	Target	80.0		mg/kg	80.0		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AJ3	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP05-02	pH:	Sample Date: 04/27/2018	Sample Time: 14:35:00
% Moisture:		% Solids: 73.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	25.7		mg/kg	25.7		1.0	YES	S4VEM
Nickel	Target	24.9		mg/kg	24.9		1.0	YES	S4VEM
Zinc	Target	67.0		mg/kg	67.0		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AK4	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location: RB-01	pH: 2	Sample Date: 04/24/2018	Sample Time: 17:10:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	10.0	U	ug/L	0.93	J	1.0	YES	S4VEM
Nickel	Target	40.0	U	ug/L	0.86	J	1.0	YES	S4VEM
Zinc	Target	60.0	U	ug/L	9.0	J	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AK6	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location: RB-02	pH: 2	Sample Date: 04/27/2018	Sample Time: 15:20:00
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	10.0	U	ug/L	0.73	J	1.0	YES	S4VEM
Nickel	Target	40.0	U	ug/L	1.6	J	1.0	YES	S4VEM
Zinc	Target	60.0	U	ug/L	2.0	J	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBS1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	1.0	U	mg/kg	1.0	U	1.0	YES	S4VEM
Nickel	Target	4.0	U	mg/kg	4.0	U	1.0	YES	S4VEM
Zinc	Target	6.0	U	mg/kg	6.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBS2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	0.36	J+	mg/kg	0.36	J	1.0	YES	S4VEM
Nickel	Target	4.0	U	mg/kg	4.0	U	1.0	YES	S4VEM
Zinc	Target	4.5	J	mg/kg	4.5	J	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBW1	Method: Metals by ICP-AES	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	1.6	J+	ug/L	1.6	J	1.0	YES	S4VEM
Nickel	Target	2.6	J	ug/L	2.6	J	1.0	YES	S4VEM
Zinc	Target	9.4	J	ug/L	9.4	J	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF0** | **Lab Name: ALS Environmental (SLC)**

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	2.2		mg/kg	2.2		1.0	YES	S4VEM
Nickel	Spike	8.1		mg/kg	8.1		1.0	YES	S4VEM
Zinc	Spike	12.6		mg/kg	12.6		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: LCS2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	2.1	J+	mg/kg	2.1		1.0	YES	S4VEM
Nickel	Spike	7.7		mg/kg	7.7		1.0	YES	S4VEM
Zinc	Spike	12.7		mg/kg	12.7		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF7	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK04-01	pH:	Sample Date: 04/25/2018	Sample Time: 15:55:00
% Moisture:		% Solids: 79.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	29.1	J+	mg/kg	29.1		1.0	YES	S4VEM
Nickel	Target	17.4		mg/kg	17.4		1.0	YES	S4VEM
Zinc	Target	56.7		mg/kg	56.7		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF7D	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 04/25/2018	Sample Time: 15:55:00
% Moisture:		% Solids: 79.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	29.8		mg/kg	29.8		1.0	YES	S4VEM
Nickel	Target	18.1		mg/kg	18.1		1.0	YES	S4VEM
Zinc	Target	62.5		mg/kg	62.5		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF7L	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 79.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	29.1	J+	mg/kg	29.1		5.0	YES	S4VEM
Nickel	Target	16.3	J	mg/kg	16.3	J	5.0	YES	S4VEM
Zinc	Target	58.1		mg/kg	58.1		5.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF7S	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date: 04/25/2018	Sample Time: 15:55:00
% Moisture:		% Solids: 79.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Spike	71.8	J+	mg/kg	71.8		1.0	YES	S4VEM
Nickel	Spike	137		mg/kg	137		1.0	YES	S4VEM
Zinc	Spike	170		mg/kg	170		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF8	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK04-02	pH:	Sample Date: 04/25/2018	Sample Time: 13:05:00
% Moisture:		% Solids: 82.4	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	26.4		mg/kg	26.4		1.0	YES	S4VEM
Nickel	Target	18.7		mg/kg	18.7		1.0	YES	S4VEM
Zinc	Target	61.7		mg/kg	61.7		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AF9	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK05-01	pH:	Sample Date: 04/26/2018	Sample Time: 08:30:00
% Moisture:		% Solids: 83.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	22.5		mg/kg	22.5		1.0	YES	S4VEM
Nickel	Target	14.9		mg/kg	14.9		1.0	YES	S4VEM
Zinc	Target	41.2		mg/kg	41.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG0	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK05-02	pH:	Sample Date: 04/26/2018	Sample Time: 09:25:00
% Moisture:		% Solids: 80.4	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	26.9		mg/kg	26.9		1.0	YES	S4VEM
Nickel	Target	18.1		mg/kg	18.1		1.0	YES	S4VEM
Zinc	Target	63.0		mg/kg	63.0		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: PK05-02	pH:	Sample Date: 04/26/2018	Sample Time: 09:25:00
% Moisture:		% Solids: 83.0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	27.8		mg/kg	27.8		1.0	YES	S4VEM
Nickel	Target	19.5		mg/kg	19.5		1.0	YES	S4VEM
Zinc	Target	56.2		mg/kg	56.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV01-01	pH:	Sample Date: 04/26/2018	Sample Time: 14:25:00
% Moisture:		% Solids: 81.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	28.6		mg/kg	28.6		1.0	YES	S4VEM
Nickel	Target	22.5		mg/kg	22.5		1.0	YES	S4VEM
Zinc	Target	62.8		mg/kg	62.8		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG3	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV01-02	pH:	Sample Date: 04/26/2018	Sample Time: 14:45:00
% Moisture:		% Solids: 83.1	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	23.3		mg/kg	23.3		1.0	YES	S4VEM
Nickel	Target	17.9		mg/kg	17.9		1.0	YES	S4VEM
Zinc	Target	49.2		mg/kg	49.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG4	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV02-01	pH:	Sample Date: 04/26/2018	Sample Time: 13:55:00
% Moisture:		% Solids: 83.7	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	27.3		mg/kg	27.3		1.0	YES	S4VEM
Nickel	Target	19.8		mg/kg	19.8		1.0	YES	S4VEM
Zinc	Target	52.9		mg/kg	52.9		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG5	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV02-02	pH:	Sample Date: 04/26/2018	Sample Time: 12:05:00
% Moisture:		% Solids: 79.8	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	23.3		mg/kg	23.3		1.0	YES	S4VEM
Nickel	Target	13.7		mg/kg	13.7		1.0	YES	S4VEM
Zinc	Target	48.9		mg/kg	48.9		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG6	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV03-01	pH:	Sample Date: 04/26/2018	Sample Time: 11:40:00
% Moisture:		% Solids: 78.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	25.2		mg/kg	25.2		1.0	YES	S4VEM
Nickel	Target	14.7		mg/kg	14.7		1.0	YES	S4VEM
Zinc	Target	61.0		mg/kg	61.0		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG7	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV03-02	pH:	Sample Date: 04/26/2018	Sample Time: 11:10:00
% Moisture:		% Solids: 77.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	29.2		mg/kg	29.2		1.0	YES	S4VEM
Nickel	Target	19.9		mg/kg	19.9		1.0	YES	S4VEM
Zinc	Target	72.2		mg/kg	72.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG8	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV04-01	pH:	Sample Date: 04/27/2018	Sample Time: 09:08:00
% Moisture:		% Solids: 89.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	18.9		mg/kg	18.9		1.0	YES	S4VEM
Nickel	Target	14.8		mg/kg	14.8		1.0	YES	S4VEM
Zinc	Target	50.4		mg/kg	50.4		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AG9	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV04-02	pH:	Sample Date: 04/27/2018	Sample Time: 08:47:00
% Moisture:		% Solids: 80.5	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	22.2		mg/kg	22.2		1.0	YES	S4VEM
Nickel	Target	15.7		mg/kg	15.7		1.0	YES	S4VEM
Zinc	Target	54.2		mg/kg	54.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH0	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV05-01	pH:	Sample Date: 04/26/2018	Sample Time: 16:11:00
% Moisture:		% Solids: 83.4	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	28.8		mg/kg	28.8		1.0	YES	S4VEM
Nickel	Target	19.6		mg/kg	19.6		1.0	YES	S4VEM
Zinc	Target	60.5		mg/kg	60.5		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: RV05-02	pH:	Sample Date: 04/26/2018	Sample Time: 15:36:00
% Moisture:		% Solids: 80.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	27.0		mg/kg	27.0		1.0	YES	S4VEM
Nickel	Target	18.1		mg/kg	18.1		1.0	YES	S4VEM
Zinc	Target	56.4		mg/kg	56.4		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP01-01	pH:	Sample Date: 04/27/2018	Sample Time: 12:30:00
% Moisture:		% Solids: 78.9	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	33.0		mg/kg	33.0		1.0	YES	S4VEM
Nickel	Target	23.6		mg/kg	23.6		1.0	YES	S4VEM
Zinc	Target	67.3		mg/kg	67.3		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH3	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP01-02	pH:	Sample Date: 04/27/2018	Sample Time: 11:23:00
% Moisture:		% Solids: 76.1	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	25.3		mg/kg	25.3		1.0	YES	S4VEM
Nickel	Target	15.4		mg/kg	15.4		1.0	YES	S4VEM
Zinc	Target	63.1		mg/kg	63.1		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH6	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP02-01	pH:	Sample Date: 04/27/2018	Sample Time: 12:50:00
% Moisture:		% Solids: 74.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	25.8		mg/kg	25.8		1.0	YES	S4VEM
Nickel	Target	16.2		mg/kg	16.2		1.0	YES	S4VEM
Zinc	Target	67.1		mg/kg	67.1		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH7	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP02-01	pH:	Sample Date: 04/27/2018	Sample Time: 13:41:00
% Moisture:		% Solids: 70.6	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	25.0		mg/kg	25.0		1.0	YES	S4VEM
Nickel	Target	16.0		mg/kg	16.0		1.0	YES	S4VEM
Zinc	Target	64.2		mg/kg	64.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: MC0AH8	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location: AP02-02	pH:	Sample Date: 04/27/2018	Sample Time: 10:57:00
% Moisture:		% Solids: 74.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	24.3		mg/kg	24.3		1.0	YES	S4VEM
Nickel	Target	15.4		mg/kg	15.4		1.0	YES	S4VEM
Zinc	Target	62.2		mg/kg	62.2		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBS1	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	1.0	U	mg/kg	1.0	U	1.0	YES	S4VEM
Nickel	Target	4.0	U	mg/kg	4.0	U	1.0	YES	S4VEM
Zinc	Target	6.0	U	mg/kg	6.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Number: PBS2	Method: Metals by ICP-AES	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Chromium	Target	0.13	J	mg/kg	0.13	J	1.0	YES	S4VEM
Nickel	Target	0.42	J	mg/kg	0.42	J	1.0	YES	S4VEM
Zinc	Target	1.3	J	mg/kg	1.3	J	1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW14027/MC0AF7** | **Lab Name: ALS Environmental (SLC)**

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DBLK14	Method: Dioxin	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids:	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Target	0.65	U	pg/L	0.65	UM	1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Target	2.3	U	pg/L	2.3	UM	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Target	1.5	U	pg/L	1.5	UM	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Target	1.3	U	pg/L	1.3	UM	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Target	1.2	U	pg/L	1.2	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Target	1.7	J	pg/L	1.7	*	1.0	YES	S4VEM
OCDD	Target	31	J	pg/L	31	*	1.0	YES	S4VEM
2,3,7,8-TCDF	Target	0.51	U	pg/L	0.51	UM	1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Target	1.8	U	pg/L	1.8	UM	1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Target	1.1	U	pg/L	1.1	UM	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Target	1.1	U	pg/L	1.1	UM	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Target	1.2	U	pg/L	1.2	UM	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Target	1.1	U	pg/L	1.1	UM	1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Target	1.0	U	pg/L	1.0	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Target	1.6	U	pg/L	1.6	UM	1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Target	1.7	U	pg/L	1.7	UM	1.0	YES	S4VEM
OCDF	Target	3.2	U	pg/L	3.2	U	1.0	YES	S4VEM
Total TCDD	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDD	Derived	3.5	J	pg/L	3.5		1.0	YES	S4VEM
Total TCDF	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDF	Derived		UJ			U	1.0	YES	S4VEM
TEQ (Mammal)	Derived		U				1.0	YES	S4VEM
TEQ (Bird)	Derived		U				1.0	YES	S4VEM
TEQ (Fish)	Derived		U				1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DBLK17	Method: Dioxin	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Target	0.090	U	ng/kg	0.090	U	1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Target	0.14	U	ng/kg	0.14	U	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Target	0.17	U	ng/kg	0.17	UM	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Target	0.14	U	ng/kg	0.14	UM	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Target	0.19	U	ng/kg	0.19	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Target	0.22	U	ng/kg	0.22	U	1.0	YES	S4VEM
OCDD	Target	0.44	U	ng/kg	0.44	U	1.0	YES	S4VEM
2,3,7,8-TCDF	Target	0.080	U	ng/kg	0.080	U	1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Target	0.12	U	ng/kg	0.12	U	1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Target	0.17	U	ng/kg	0.17	UM	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Target	0.11	U	ng/kg	0.11	UM	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Target	0.12	U	ng/kg	0.12	UM	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Target	0.14	U	ng/kg	0.14	UM	1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Target	0.11	U	ng/kg	0.11	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Target	0.19	U	ng/kg	0.19	UM	1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Target	0.16	U	ng/kg	0.16	U	1.0	YES	S4VEM
OCDF	Target	0.59	U	ng/kg	0.59	U	1.0	YES	S4VEM
Total TCDD	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDD	Derived		UJ			U	1.0	YES	S4VEM
Total TCDF	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDF	Derived		UJ			U	1.0	YES	S4VEM
TEQ (Mammal)	Derived		U				1.0	YES	S4VEM
TEQ (Bird)	Derived		U				1.0	YES	S4VEM
TEQ (Fish)	Derived		U				1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DBLK47	Method: Dioxin	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Target	0.14	U	ng/kg	0.14	U	1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Target	0.18	U	ng/kg	0.18	U	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Target	0.18	U	ng/kg	0.18	U	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Target	0.18	U	ng/kg	0.18	U	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Target	0.19	U	ng/kg	0.19	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Target	0.35	J	ng/kg	0.35	*	1.0	YES	S4VEM
OCDD	Target	3.0	J	ng/kg	3.0	J	1.0	YES	S4VEM
2,3,7,8-TCDF	Target	0.14	U	ng/kg	0.14	U	1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Target	0.16	U	ng/kg	0.16	U	1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Target	0.17	U	ng/kg	0.17	UM	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Target	0.15	U	ng/kg	0.15	U	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Target	0.14	U	ng/kg	0.14	U	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Target	0.17	U	ng/kg	0.17	U	1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Target	0.15	U	ng/kg	0.15	U	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Target	0.19	U	ng/kg	0.19	UM	1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Target	0.19	U	ng/kg	0.19	U	1.0	YES	S4VEM
OCDF	Target	0.85	U	ng/kg	0.85	U	1.0	YES	S4VEM
Total TCDD	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDD	Derived	0.35	J	ng/kg	0.35		1.0	YES	S4VEM
Total TCDF	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDF	Derived		UJ			U	1.0	YES	S4VEM
TEQ (Mammal)	Derived	0.00090		ng/kg	0.00090		1.0	YES	S4VEM
TEQ (Bird)	Derived	0.00030		ng/kg	0.00030		1.0	YES	S4VEM
TEQ (Fish)	Derived	0.00030		ng/kg	0.00030		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DLCS14	Method: Dioxin	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids:	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Spike	150		pg/L	150		1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Spike	920		pg/L	920		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Spike	930		pg/L	930		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Spike	970		pg/L	970		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Spike	970		pg/L	970		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Spike	870	B	pg/L	870	B	1.0	YES	S4VEM
OCDD	Spike	1800	B	pg/L	1800	B	1.0	YES	S4VEM
2,3,7,8-TCDF	Spike	190		pg/L	190		1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Spike	880		pg/L	880		1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Spike	970		pg/L	970		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Spike	960		pg/L	960		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Spike	980		pg/L	980		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Spike	960		pg/L	960		1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Spike	950		pg/L	950		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Spike	900		pg/L	900		1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Spike	920		pg/L	920		1.0	YES	S4VEM
OCDF	Spike	1800		pg/L	1800		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DLCS17	Method: Dioxin	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Spike	15		ng/kg	15		1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Spike	92		ng/kg	92		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Spike	95		ng/kg	95		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Spike	95		ng/kg	95		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Spike	98		ng/kg	98		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Spike	88	B	ng/kg	88	B	1.0	YES	S4VEM
OCDD	Spike	180	B	ng/kg	180	B	1.0	YES	S4VEM
2,3,7,8-TCDF	Spike	18		ng/kg	18		1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Spike	90		ng/kg	90		1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Spike	99		ng/kg	99		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Spike	98		ng/kg	98		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Spike	95		ng/kg	95		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Spike	98		ng/kg	98		1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Spike	95		ng/kg	95		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Spike	93		ng/kg	93		1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Spike	93		ng/kg	93		1.0	YES	S4VEM
OCDF	Spike	190		ng/kg	190		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DLCSD14	Method: Dioxin	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids:	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Spike	150		pg/L	150		1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Spike	930		pg/L	930		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Spike	950		pg/L	950		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Spike	940		pg/L	940		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Spike	980		pg/L	980		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Spike	870		pg/L	870	B	1.0	YES	S4VEM
OCDD	Spike	1800		pg/L	1800	B	1.0	YES	S4VEM
2,3,7,8-TCDF	Spike	180		pg/L	180		1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Spike	890		pg/L	890		1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Spike	980		pg/L	980		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Spike	960		pg/L	960		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Spike	940		pg/L	940		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Spike	980		pg/L	980		1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Spike	960		pg/L	960		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Spike	910		pg/L	910		1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Spike	920		pg/L	920		1.0	YES	S4VEM
OCDF	Spike	1800		pg/L	1800		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: DLCSD17	Method: Dioxin	Matrix: Soil	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 100	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Spike	15		ng/kg	15		1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Spike	92		ng/kg	92		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Spike	93		ng/kg	93		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Spike	97		ng/kg	97		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Spike	99		ng/kg	99		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Spike	90		ng/kg	90	B	1.0	YES	S4VEM
OCDD	Spike	180		ng/kg	180	B	1.0	YES	S4VEM
2,3,7,8-TCDF	Spike	19		ng/kg	19		1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Spike	93		ng/kg	93		1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Spike	99		ng/kg	99		1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Spike	98		ng/kg	98		1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Spike	96		ng/kg	96		1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Spike	97		ng/kg	97		1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Spike	97		ng/kg	97		1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Spike	96		ng/kg	96		1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Spike	90		ng/kg	90		1.0	YES	S4VEM
OCDF	Spike	200		ng/kg	200		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: PC0AH4	Method: Dioxin	Matrix: Soil	MA Number:
Sample Location: AP01-03	pH:	Sample Date: 04/27/2018	Sample Time: 12:13:00
% Moisture:		% Solids: 79.3	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Target	0.19	Z	ng/kg	0.19	*	1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Target	0.76	J	ng/kg	0.76	J	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Target	1.1	J	ng/kg	1.1	J	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Target	1.9	J	ng/kg	1.9	J	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Target	1.9	J	ng/kg	1.9	J	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Target	87		ng/kg	87	B	1.0	YES	S4VEM
OCDD	Target	9300	J	ng/kg	9300	BE	1.0	YES	S4VEM
2,3,7,8-TCDF	Target	0.48	J	ng/kg	0.48	J	1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Target	0.42	Z	ng/kg	0.42	*	1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Target	0.74	J	ng/kg	0.74	J	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Target	0.73	J	ng/kg	0.73	J	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Target	0.50	J	ng/kg	0.50	J	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Target	0.24	J	ng/kg	0.24	J	1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Target	0.66	Z	ng/kg	0.66	*	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Target	8.0		ng/kg	8.0		1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Target	0.50	J	ng/kg	0.50	J	1.0	YES	S4VEM
OCDF	Target	27		ng/kg	27		1.0	YES	S4VEM
Total TCDD	Derived	2.3	J	ng/kg	2.3		1.0	YES	S4VEM
Total PeCDD	Derived	6.1	J	ng/kg	6.1		1.0	YES	S4VEM
Total HxCDD	Derived	26	J	ng/kg	26		1.0	YES	S4VEM
Total HpCDD	Derived	200	J	ng/kg	200		1.0	YES	S4VEM
Total TCDF	Derived	9.5	J	ng/kg	9.5		1.0	YES	S4VEM
Total PeCDF	Derived	10	J	ng/kg	10		1.0	YES	S4VEM
Total HxCDF	Derived	9.8	J	ng/kg	9.8		1.0	YES	S4VEM
Total HpCDF	Derived	23	J	ng/kg	23		1.0	YES	S4VEM
TEQ (Mammal)	Derived	5.4		ng/kg	5.4		1.0	YES	S4VEM
TEQ (Bird)	Derived	3.5		ng/kg	3.5		1.0	YES	S4VEM
TEQ (Fish)	Derived	3.0		ng/kg	3.0		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: PC0AL5	Method: Dioxin	Matrix: Water	MA Number:
Sample Location: RB-03	pH:	Sample Date: 04/27/2018	Sample Time: 15:35:00
% Moisture:		% Solids:	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Target	0.61	U	pg/L	0.61	UM	1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Target	2.2	U	pg/L	2.2	UM	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Target	1.4	U	pg/L	1.4	UM	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Target	1.2	U	pg/L	1.2	UM	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Target	1.1	U	pg/L	1.1	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Target	1.1	U	pg/L	1.1	UM	1.0	YES	S4VEM
OCDD	Target	94	U	pg/L	8.1	B*	1.0	YES	S4VEM
2,3,7,8-TCDF	Target	0.48	U	pg/L	0.48	UM	1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Target	1.7	U	pg/L	1.7	UM	1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Target	1.0	U	pg/L	1.0	UM	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Target	1.0	U	pg/L	1.0	UM	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Target	1.1	U	pg/L	1.1	UM	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Target	1.0	U	pg/L	1.0	UM	1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Target	0.94	U	pg/L	0.94	UM	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Target	1.5	U	pg/L	1.5	UM	1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Target	1.6	U	pg/L	1.6	UM	1.0	YES	S4VEM
OCDF	Target	3.0	U	pg/L	3.0	UM	1.0	YES	S4VEM
Total TCDD	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDD	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDD	Derived		UJ			U	1.0	YES	S4VEM
Total TCDF	Derived		UJ			U	1.0	YES	S4VEM
Total PeCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HxCDF	Derived		UJ			U	1.0	YES	S4VEM
Total HpCDF	Derived		UJ			U	1.0	YES	S4VEM
TEQ (Mammal)	Derived		U				1.0	YES	S4VEM
TEQ (Bird)	Derived		U				1.0	YES	S4VEM
TEQ (Fish)	Derived		U				1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

Sample Number: PC0AL6	Method: Dioxin	Matrix: Soil	MA Number:
Sample Location: AP01-03	pH:	Sample Date: 04/27/2018	Sample Time: 12:13:00
% Moisture:		% Solids: 80.2	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
2,3,7,8-TCDD	Target	0.16	Z	ng/kg	0.16	*	1.0	YES	S4VEM
1,2,3,7,8-PeCDD	Target	0.73	J	ng/kg	0.73	J	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDD	Target	0.85	J	ng/kg	0.85	J	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDD	Target	1.7	J	ng/kg	1.7	J	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDD	Target	1.8	J	ng/kg	1.8	J	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDD	Target	83		ng/kg	83	B	1.0	YES	S4VEM
OCDD	Target	8800	J	ng/kg	8800	BE	1.0	YES	S4VEM
2,3,7,8-TCDF	Target	0.47	J	ng/kg	0.47	J	1.0	YES	S4VEM
1,2,3,7,8-PeCDF	Target	0.26	U	ng/kg	0.26	U	1.0	YES	S4VEM
2,3,4,7,8-PeCDF	Target	0.67	Z	ng/kg	0.67	*	1.0	YES	S4VEM
1,2,3,4,7,8-HxCDF	Target	0.71	J	ng/kg	0.71	J	1.0	YES	S4VEM
1,2,3,6,7,8-HxCDF	Target	0.51	J	ng/kg	0.51	J	1.0	YES	S4VEM
1,2,3,7,8,9-HxCDF	Target	0.18	J	ng/kg	0.18	J	1.0	YES	S4VEM
2,3,4,6,7,8-HxCDF	Target	0.66	Z	ng/kg	0.66	*	1.0	YES	S4VEM
1,2,3,4,6,7,8-HpCDF	Target	7.1		ng/kg	7.1		1.0	YES	S4VEM
1,2,3,4,7,8,9-HpCDF	Target	0.40	Z	ng/kg	0.40	*	1.0	YES	S4VEM
OCDF	Target	23		ng/kg	23		1.0	YES	S4VEM
Total TCDD	Derived	1.9	J	ng/kg	1.9		1.0	YES	S4VEM
Total PeCDD	Derived	5.5	J	ng/kg	5.5		1.0	YES	S4VEM
Total HxCDD	Derived	24	J	ng/kg	24		1.0	YES	S4VEM
Total HpCDD	Derived	190	J	ng/kg	190		1.0	YES	S4VEM
Total TCDF	Derived	8.6	J	ng/kg	8.6		1.0	YES	S4VEM
Total PeCDF	Derived	7.2	J	ng/kg	7.2		1.0	YES	S4VEM
Total HxCDF	Derived	9.1	J	ng/kg	9.1		1.0	YES	S4VEM
Total HpCDF	Derived	19	J	ng/kg	19		1.0	YES	S4VEM
TEQ (Mammal)	Derived	4.9		ng/kg	4.9		1.0	YES	S4VEM
TEQ (Bird)	Derived	2.6		ng/kg	2.6		1.0	YES	S4VEM
TEQ (Fish)	Derived	2.4		ng/kg	2.4		1.0	YES	S4VEM

Sample Summary Report

Project Name: BORIT ASBESTOS Project | **GroupID: 47574/EPW16004/PC0AH4** | **Lab Name: Analytical Resources, Inc.**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Final Analytical Report

Site Name.....	Borit Asbestos Superfund Site
Sample Collection Date(s).....	04/25/18 12:33- 04/26/18 14:00
Contact.....	Greg Voigt
Report Date.....	06/15/18 15:59
Project #.....	DAS R35352
Work Order.....	1804019

Analyses included in this report:

Total Alkalinity by SM 2320B
Total Nitrogen by mod. EPA 353.2 FIA
Total Phosphorus by EPA 365.4
Total Dissolved Solids by SM 2540C
Total Organic Carbon by SM 5310 B

Approved for Release

C. Caporale

OASQA Representative

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Report Narrative

Total Phosphorus Analysis Note:
All samples received incorrectly preserved with hydrochloric acid instead of sulfuric acid. All sample results are qualified as estimates (J) because of the preservative used.

Sample 1804019-02 has a pH > 2 (pH = 3). Results for 1804019-02 are qualified as estimated (J).

TOC Analysis Note:

Soil analysis was performed following the On-Demand protocol. All TOC soil samples are air-dried and results reported on a dry-weight basis. The quantitation limit (QL) is based upon the amount of sample that can be added to the sample boat for proper combustion at 900 C.

Matrix spikes (MS), BE80111-MS1 and BE80401-MS1, had low recoveries and are qualified as (A). Sample result for 1804019-02 and 1804019-07 are qualified as estimate (J) due to low recovery of MS.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
CSRVSW-101	1804019-01	Surface Water	4/25/18 13:56	4/26/18 11:50
CSRVSW-102	1804019-02	Surface Water	4/25/18 13:33	4/26/18 11:50
CSRVSW-103	1804019-03	Surface Water	4/25/18 12:33	4/26/18 11:50
CSRVSW-104	1804019-04	Surface Water	4/25/18 13:05	4/26/18 11:50
CSRVSD-101	1804019-05	Sediment	4/26/18 14:00	4/27/18 12:30
CSRVSD-201	1804019-06	Sediment	4/26/18 14:00	4/27/18 12:30
CSRVSD-102	1804019-07	Sediment	4/26/18 12:50	4/27/18 12:30
CSRVSD-103	1804019-08	Sediment	4/26/18 10:45	4/27/18 12:30
CSRVSD-104	1804019-09	Sediment	4/26/18 11:35	4/27/18 12:30

USEPA CLP COC (REGION COPY)
DateShipped: 4/25/2018
CarrierName: FedEx
AirbillNo: 7720 8219 2458

CHAIN OF CUSTODY RECORD
BoRit Asbestos Superfund/PA
DAS #: R35352

No: 3-042018-145051-0005
Lab: OASQA USEPA - Region 3
Lab Contact: John Curry
Lab Phone: 410-305-2608

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type 1804019
CSRVSW-101	C0AE7	Surface Water/ [redacted]	Grab	N(21), Alk(21), P(21), TOC (Aqueous)(21)	1145 (H2SO4 pH<2), 1146 (6 C), 1148 (HCL), 1352 (H2SO4 pH<2, 6 C) (4)	RVSW-01	04/25/2018 13:56	Field Sample -01
CSRVSW-102	C0AL1	Surface Water/ [redacted]	Grab	N(21), Alk(21), P(21), TOC (Aqueous)(21)	1322 (H2SO4 pH<2), 1323 (6 C), 1325 (HCL), 1353 (H2SO4 pH<2, 6 C) (4)	RVSW-02	04/25/2018 13:33	Field Sample -02
CSRVSW-103	C0AL2	Surface Water/ [redacted]	Grab	N(21), Alk(21), P(21), TOC (Aqueous)(21)	1330 (H2SO4 pH<2), 1331 (6 C), 1333 (HCL), 1354 (H2SO4 pH<2, 6 C) (4)	RVSW-03	04/25/2018 12:33	Field Sample -03
CSRVSW-104	C0AL3	Surface Water/ [redacted]	Grab	N(21), Alk(21), P(21), TOC (Aqueous)(21)	1338 (H2SO4 pH<2), 1339 (6 C), 1341 (HCL), 1355 (H2SO4 pH<2, 6 C) (4)	RVSW-04	04/25/2018 13:05	Field Sample -04

Special Instructions:

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: N=Nitrogen, Alk=Alkalinity, P=Phosphorus, TOC (Aqueous)=Total Organic Carbon (Aqueous)

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL ANALYSIS	[redacted] /CDM SMITH	4-25-18/20:00	Christie Phelps EPAT	4/26/18 11:50	3°C CP 4/26/18

USEPA CLP COC (REGION COPY)

DateShipped: 4/25/2018
CarrierName:
AirbillNo: 7720 8287 2639

CHAIN OF CUSTODY RECORD

BoRit Asbestos Superfund/PA
DAS #: R35352

No: 3-042518-183617-0007

Lab: OASQA USEPA - Region 3
Lab Contact: John Curry
Lab Phone: 410-305-2608

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type 1804019
CSRVSW-101	C0AE7	Surface Water/ [redacted]	Grab	TDS(21)	1144 (6 C) (1)	RVSW-01	04/25/2018 13:56	Field Sample -01
CSRVSW-102	C0AL1	Surface Water/ [redacted]	Grab	TDS(21)	1321 (6 C) (1)	RVSW-02	04/25/2018 13:33	Field Sample -02
CSRVSW-103	C0AL2	Surface Water/ [redacted]	Grab	TDS(21)	1329 (6 C) (1)	RVSW-03	04/25/2018 12:33	Field Sample -03
CSRVSW-104	C0AL3	Surface Water/ [redacted]	Grab	TDS(21)	1337 (6 C) (1)	RVSW-04	04/25/2018 13:05	Field Sample -04

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TDS=Total Dissolved Solids

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL ANALYSIS	[redacted] /COM SMITH	4-25-18/2000	Christie Phelps ESAT	4/26/18 11:50	3°C CP 4/26/18

USEPA CLP COC (REGION COPY)
DateShipped: 4/26/2018
CarrierName:
AirbillNo: 772092681293

CHAIN OF CUSTODY RECORD
BoRit Asbestos Superfund/PA
Case #:
DAS #: R35352

No: 3-042618-161823-0010
Lab: OASQA USEPA - Region 3
Lab Contact: John Curry
Lab Phone: 410-305-2608

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type 1804019
CSRVSD-101	C0AE6	Sediment/ S. [redacted]	Composite	TOC(21)	1142 (4 C) (1)	RV-01	04/26/2018 14:00	Field Sample -05
CSRVSD-201	C0AJ4	Sediment/ S. [redacted]	Composite	TOC(21)	1239 (4 C) (1)	RV-01	04/26/2018 14:00	Field Duplicate of C0AE6 -06
CSRVSD-102	C0AJ5	Sediment/ S. [redacted]	Composite	TOC(21)	1244 (4 C), 1278 (4 C) (2)	RV-02	04/26/2018 12:50	Field Sample -07
CSRVSD-103	C0AK1	Sediment/ S. [redacted]	Composite	TOC(21)	1284 (4 C) (1)	RV-03	04/26/2018 10:45	Field Sample -08
CSRVSD-104	C0AK2	Sediment/ S. [redacted]	Composite	TOC(21)	1289 (4 C) (1)	RV-04	04/26/2018 11:35	Field Sample -09

Sample(s) to be used for Lab QC: CSRVSD-102 Tag 1244, CSRVSD-102 Tag 1278

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: TOC=Total Organic Carbon

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
ALL ANALYSES	[redacted] /CDM SMITH	4-26-18/20:00	ESAT	4/27/18 12:30	3.4°C 4/27/18

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Physical Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-01								
Station ID: CSRVSW-101								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Dissolved Solids	**286**		10	mg/L	1	04/26/18	05/02/18 08:16	SM2540C/R3QA105

Physical Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-02								
Station ID: CSRVSW-102								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Dissolved Solids	**270**		10	mg/L	1	04/26/18	05/02/18 08:16	SM2540C/R3QA105

Physical Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-03								
Station ID: CSRVSW-103								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Dissolved Solids	**273**		10	mg/L	1	04/26/18	05/02/18 08:16	SM2540C/R3QA105

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 3 Environmental Science Center
Office of Analytical Services and Quality Assurance
701 Mapes Road
Fort Meade, Maryland 20755-5350

Site Name: **Borit Asbestos Superfund Site** **Project #:** **DAS R35352**

Physical Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-04								
Station ID: CSRVSW-104								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Dissolved Solids	**250**		10	mg/L	1	04/26/18	05/02/18 08:16	SM2540C/R3QA105

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-01								
Station ID: CSRVSW-101								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Alkalinity	**128**		20.0	mg/L	1	05/08/18	05/08/18 17:38	SM2320B/R3QA102
Total Nitrogen	U	H1, J	0.05	mg/L	1	05/30/18	05/31/18 16:53	EPA 353.2
Total Organic Carbon	**23.4**		3.0	mg/L	1	05/01/18	05/01/18 17:02	SM 5310B/R3QA178
Total Phosphorus	**0.223**	J	0.050	mg/L	1	05/18/18	05/18/18 13:45	EPA 365.4/R3QA150

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-02								
Station ID: CSRVSW-102								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Alkalinity	**129**		20.0	mg/L	1	05/08/18	05/08/18 17:50	SM2320B/R3QA102
Total Nitrogen	U	H1, J	0.05	mg/L	1	05/30/18	05/31/18 16:55	EPA 353.2
Total Organic Carbon	**19.3**	J	3.0	mg/L	1	05/01/18	05/01/18 17:24	SM 5310B/R3QA178
Total Phosphorus	**2.61**	J	0.500	mg/L	10	05/18/18	05/18/18 13:49	EPA 365.4/R3QA150

Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-03								
Station ID: CSRVSW-103								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Alkalinity	**135**		20.0	mg/L	1	05/08/18	05/08/18 18:03	SM2320B/R3QA102
Total Nitrogen	U	H1, J	0.05	mg/L	1	05/30/18	05/31/18 16:58	EPA 353.2
Total Organic Carbon	**26.6**		3.0	mg/L	1	05/01/18	05/01/18 17:47	SM 5310B/R3QA178
Total Phosphorus	**0.172**	J	0.050	mg/L	1	05/18/18	05/18/18 13:50	EPA 365.4/R3QA150

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-04								
Station ID: CSRVSW-104								
Sample Matrix: Surface Water								
Collected: 04/25/2018								
Total Alkalinity	**127**		20.0	mg/L	1	05/08/18	05/08/18 18:11	SM2320B/R3QA102
Total Nitrogen	U	H1, J	0.05	mg/L	1	05/30/18	05/31/18 17:00	EPA 353.2
Total Organic Carbon	**24.7**		3.0	mg/L	1	05/01/18	05/01/18 18:10	SM 5310B/R3QA178
Total Phosphorus	**0.388**	J	0.100	mg/L	2	05/18/18	05/18/18 13:51	EPA 365.4/R3QA150

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-05								
Station ID: CSRVSD-101								
Sample Matrix: Sediment								
Collected: 04/26/2018								
Total Organic Carbon	**16800**		3030	mg/kg	1	05/04/18	05/15/18 11:53	SM 5310B

Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-06								
Station ID: CSRVSD-201								
Sample Matrix: Sediment								
Collected: 04/26/2018								
Total Organic Carbon	**18400**		3030	mg/kg	1	05/04/18	05/15/18 12:00	SM 5310B

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-07								
Station ID: CSRVSD-102								
Sample Matrix: Sediment								
Collected: 04/26/2018								
Total Organic Carbon	**19500**	J	2830	mg/kg	1	05/04/18	05/15/18 12:06	SM 5310B

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-08								
Station ID: CSRVSD-103								
Sample Matrix: Sediment								
Collected: 04/26/2018								
Total Organic Carbon	**10600**		3000	mg/kg	1	05/04/18	05/15/18 12:25	SM 5310B

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Site Name: **Borit Asbestos Superfund Site** **Project #:** **DAS R35352**

Classical Chemistry Parameters

Analyte	Result	Flags/ Qualifiers	Quantitation Limit	Units	Dilution	Prepared	Analyzed	Method/SOP#
Lab ID: 1804019-09								
Station ID: CSRVSD-104								
Sample Matrix: Sediment								
Collected: 04/26/2018								
Total Organic Carbon	**25000**		2910	mg/kg	1	05/04/18	05/15/18 12:32	SM 5310B

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Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

QC Data

Physical Parameters

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BD82604 - TDS/TSS prep										
Blank (BD82604-BLK1)				Prepared: 04/26/18 14:19			Analyzed: 05/02/18 08:16			
Total Dissolved Solids	U	10	mg/L							
Duplicate (BD82604-DUP1)	**Source: 1804019-01**			Prepared: 04/26/18 14:19			Analyzed: 05/02/18 08:16			
Total Dissolved Solids	274	10	mg/L		286			4	5	
Reference (BD82604-SRM1)				Prepared: 04/26/18 14:19			Analyzed: 05/02/18 08:16			
Total Dissolved Solids	318		mg/L	328.00		97	86.3-113.7			

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QC Data
Classical Chemistry Parameters

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BE80111 - TOC/DOC Prep water										
Blank (BE80111-BLK1)				Prepared: 05/01/18 14:45			Analyzed: 05/01/18 16:39			
Total Organic Carbon	U	3.0	mg/L							
Duplicate (BE80111-DUP1)		**Source: 1804019-02**		Prepared: 05/01/18 14:45			Analyzed: 05/01/18 18:32			
Total Organic Carbon	20.9	3.0	mg/L		19.3			8	30	
Matrix Spike (BE80111-MS1)		**Source: 1804019-02**		Prepared: 05/01/18 14:45			Analyzed: 05/01/18 18:54			
Total Organic Carbon	25.9	3.0	mg/L	8.0000	19.3	83	85-115			A
Batch BE80401 - TOC Prep soil										
Blank (BE80401-BLK1)				Prepared: 05/04/18 09:56			Analyzed: 05/15/18 11:30			
Total Organic Carbon	U	100	mg/kg							
Duplicate (BE80401-DUP1)		**Source: 1804019-07**		Prepared: 05/04/18 09:56			Analyzed: 05/15/18 12:12			
Total Organic Carbon	17700	3110	mg/kg		19500			10	37.7	
Matrix Spike (BE80401-MS1)		**Source: 1804019-07**		Prepared: 05/04/18 09:56			Analyzed: 05/15/18 12:19			
Total Organic Carbon	28700	2940	mg/kg	11765	19500	78	87.9-134.1			A
Batch BE80804 - Alkalinity Prep										
Blank (BE80804-BLK1)				Prepared: 05/08/18 11:03			Analyzed: 05/08/18 17:23			
Total Alkalinity	U	20.0	mg/L							
LCS (BE80804-BS1)				Prepared: 05/08/18 11:03			Analyzed: 05/08/18 17:27			
Total Alkalinity	112	20.0	mg/L	100.00		112	85-115			

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QC Data
Classical Chemistry Parameters

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BE80804 - Alkalinity Prep										
Duplicate (BE80804-DUP1)	**Source: 1804019-01**			Prepared: 05/08/18 11:03			Analyzed: 05/08/18 17:43			
Total Alkalinity	128	20.0	mg/L		128			0.08	20	
Matrix Spike (BE80804-MS1)	**Source: 1804019-02**			Prepared: 05/08/18 11:03			Analyzed: 05/08/18 17:56			
Total Alkalinity	231	20.0	mg/L	100.00	129	102	85-115			
Reference (BE80804-SRM1)				Prepared: 05/08/18 11:03			Analyzed: 05/08/18 17:32			
Total Alkalinity	97.6		mg/L	107.00		91	86.9-117.5			
Batch BE81410 - TP water Prep										
Blank (BE81410-BLK1)				Prepared: 05/18/18 09:42			Analyzed: 05/18/18 13:42			
Total Phosphorus	U	0.050	mg/L							
LCS (BE81410-BS1)				Prepared: 05/18/18 09:42			Analyzed: 05/18/18 13:44			
Total Phosphorus	0.983	0.050	mg/L	1.0000		98	90-110			
Matrix Spike (BE81410-MS1)	**Source: 1804019-01**			Prepared: 05/18/18 09:42			Analyzed: 05/18/18 13:47			
Total Phosphorus	0.687	0.050	mg/L	0.50000	0.223	93	90-110			
Matrix Spike Dup (BE81410-MSD1)	**Source: 1804019-01**			Prepared: 05/18/18 09:42			Analyzed: 05/18/18 13:48			
Total Phosphorus	0.672	0.050	mg/L	0.50000	0.223	90	90-110	2	20	
Batch BE82208 - Nutrient Prep										
Blank (BE82208-BLK1)				Prepared: 05/30/18 15:36			Analyzed: 05/31/18 16:46			
Total Nitrogen	U	0.05	mg/L							

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QC Data

Classical Chemistry Parameters

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BE82208 - Nutrient Prep										
LCS (BE82208-BS1)				Prepared: 05/30/18 15:36			Analyzed: 05/31/18 16:50			
Total Nitrogen	0.80	0.05	mg/L	1.0000		80	80-120			
Duplicate (BE82208-DUP1)		**Source: 1804019-01**		Prepared: 05/30/18 15:36			Analyzed: 05/31/18 16:54			
Total Nitrogen	0.007	0.05	mg/L		0.007			0.9	20	
Matrix Spike (BE82208-MS1)		**Source: 1804019-02**		Prepared: 05/30/18 15:36			Analyzed: 05/31/18 16:57			
Total Nitrogen	0.99	0.05	mg/L	1.0000	U	99	85-115			

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Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
H1	This sample was analyzed outside the EPA recommended holding time.
A	Quality control value is outside acceptance limits.
%REC	Percent Recovery
RPD	Relative Percent Difference
U	Analyte included in the analysis, but not detected at or above the quantitation limit.
NR	Not Reported

QUANTITATION LIMIT: The lowest concentration of an analyte that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method and that takes into account analytical adjustments made during sample preparation and analysis.

SOLID SAMPLE RESULTS - REPORTING PROTOCOL: Percent Solids (percent dry wt at 105 degrees C) determinations are routinely performed for most organic and inorganic analyses. Consequently, these samples are analyzed wet and converted to a dry weight result for reporting purposes. If metals and mercury analyses are requested, they are routinely prepared for analyses by an initial drying at 60 degrees C, homogenized prior to digestion, and are analyzed and reported on a dry weight basis. Oil-type samples are analyzed and reported on a wet weight basis for all analyses because of the nature of the sample matrix. Any exceptions to this protocol will be noted in the narrative.

ON-DEMAND: The term 'on-demand' analysis, if noted in the report narrative, refers to Section 13.1.4 in the Region III OASQA Laboratory Quality Manual, which provides procedures for non-routine analyses or analytes.

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Final Analytical Report

Site Name.....	Borit Asbestos Superfund Site
Sample Collection Date(s).....	05/01/18 08:15- 05/01/18 08:55
Contact.....	Greg Voigt
Report Date.....	06/07/18 15:58
Project #.....	DAS R35352
Work Order.....	1805004

Analyses included in this report:

Colilert Quanti-Tray by SM 9223B

Approved for Release

C. Caporale

OASQA Representative

Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Report Narrative

Microbiology Analysis Note:
Sample 1805004-04 contained alot of black slit results may be higher.

1805004 Final Repo DAS R35352 06 07 18 1558

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Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Matrix	Date Sampled	Date Received
C0AA0	1805004-01	Surface Water	5/01/18 08:30	5/01/18 13:50
C0AA1	1805004-02	Surface Water	5/01/18 08:15	5/01/18 13:50
C0AA2	1805004-03	Surface Water	5/01/18 08:45	5/01/18 13:50
C0AA3	1805004-04	Surface Water	5/01/18 08:55	5/01/18 13:50

USEPA CLP COC (REGION COPY)
DateShipped: 5/1/2018

CHAIN OF CUSTODY RECORD

BoRit Asbestos E. Coli
DAS #: R35352

No: 3-043018-102117-0001
Lab: OASQA USEOA - Region 3
Lab Contact: John Curry
Lab Phone: 410-305-2608

Sample Identifier	CLP Sample No.	Matrix/Sampler	Coll. Method	Analysis/Turnaround (Days)	Tag/Preservative/Bottles	Location	Collection Date/Time	Sample Type	
CSRVSW-101	C0AA0	Surface Water/ [redacted]	Grab	E. Coli(21)	1000 (6 C) (1)	RVSW-01	05/01/2018 0830	Field Sample	1805004-01
CSRVSW-102	C0AA1	Surface Water/ [redacted]	Grab	E. Coli(21)	1001 (6 C) (1)	RVSW-01	05/01/2018 0815	Field Sample	1805004-02
CSRVSW-103	C0AA2	Surface Water/ [redacted]	Grab	E. Coli(21)	1002 (6 C) (1)	RVSW-01	05/01/2018 0845	Field Sample	1805004-03
CSRVSW-104	C0AA3	Surface Water/ [redacted]	Grab	E. Coli(21)	1003 (6 C) (1)	RVSW-01	05/01/2018 0855	Field Sample	1805004-04

Special Instructions: Samples driven by sampler directly to lab. 8 -hour holding time.
Temp blank 2.8°C. WDF 5/1/18

Shipment for Case Complete? Y
Samples Transferred From Chain of Custody #

Analysis Key: E. Coli=E. Coli

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
All analyses	[signature] CDm Smith	5/1/18 0930			
	W.D. Foster	5/1/18 13:50			

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Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Colilert
Sample Results

Analyte	Result	Flags Qualifiers	Quantitation Limit	Units	Date/Time Analyzed	Method
Sample ID: 1805004-01						
Sta.ID: C0AA0						
Collected: 05/01/18 08:30						
Total Coliforms	>24000		1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Escherichia coli	150		1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Sample ID: 1805004-02						
Sta.ID: C0AA1						
Collected: 05/01/18 08:15						
Total Coliforms	1000		1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Escherichia coli	180		1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Sample ID: 1805004-03						
Sta.ID: C0AA2						
Collected: 05/01/18 08:45						
Total Coliforms	>24000		1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Escherichia coli	130		1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Sample ID: 1805004-04						
Sta.ID: C0AA3						
Collected: 05/01/18 08:55						
Total Coliforms	2000	J	1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN
Escherichia coli	210	J	1	MPN/100 mL	05/01/18 14:10	SM9223 Colilert MPN

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Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

QC Data
Colilert

Analyte	Result	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BE80202 - Micro prep										
Blank (BE80202-BLK1)				Prepared: 05/01/18 12:30			Analyzed: 05/01/18 14:10			
Total Coliforms	U	1	MPN/100 mL							
Escherichia coli	U	1	"							

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Site Name: Borit Asbestos Superfund Site **Project #: DAS R35352**

Notes and Definitions

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RPD	Relative Percent Difference
U	Analyte included in the analysis, but not detected at or above the quantitation limit.
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ON-DEMAND: The term 'on-demand' analysis, if noted in the report narrative, refers to Section 13.1.4 in the Region III OASQA Laboratory Quality Manual, which provides procedures for non-routine analyses or analytes.

Appendix H

Data Quality Report

Appendix H
Data Quality Report

H.1 Controlling Documents

The primary objective of instituting quality assurance (QA) and quality control (QC) procedures is to ensure staff collect and record data in a uniform manner and data are of consistently high quality and/or are sufficient for their intended use. Data that conform to QA/QC requirements can be interpreted with a higher degree of confidence. Confirmation sampling activities at the BoRit Asbestos Superfund Site Operable Unit 1 (the Site) were conducted in accordance with the governing *Final Site Management Plan (SMP) for Remedial Action* (CDM Smith 2018).

The SMP was developed in accordance with U.S. Environmental Protection Agency (EPA) guidance on developing data quality objectives (DQOs) (EPA 2006) and EPA requirements for Quality Assurance Project Plans (QAPPs) (EPA 2001). The SMP specified and described all QA, QC, analytical, data management, and reporting procedures for the confirmation sampling and long-term monitoring at the Site. By providing a framework for sample collection, decontamination, field QC, sample identification, chain-of-custody, and sample handling procedures, adherence to the SMP helped ensure that high quality data were collected and that data comparability was enhanced.

Confirmation sampling was conducted as part of the Selected Remedy (see **Section 1 – Background** in the Remedial Action Completion Report (RACR) for detailed information on the Selected Remedy for the Site). In summary, one round of confirmation sampling was conducted in locations where asbestos was detected prior to capping, to demonstrate that the cover is operating as designed. The components of the confirmation sampling consisted of the following:

- Surface soil sampling
- Surface water sampling
- Reservoir sediment sampling
- Ambient air sampling
- Activity-based sampling (ABS) for air and soil

Confirmation sampling was conducted over five mobilizations on April 24-27, 2018, May 1, 2018, May 24-25, 2018, June 7, 2018, and July 18 to 20, 2018. All confirmation sampling data have been validated and/or verified. Refer to **Table H-1** for a summary of the samples collected at the Site and their associated analytical types and methods.

H.2 Confirmation Sampling Activities

Confirmation samples identified below were collected and analyzed in accordance with the SMP (CDM Smith 2018). Deviations from the investigation protocols, plans, and procedures in the approved SMP are documented at the end of this section.

Surface Soil

Surface soil samples were collected from the Park, Reservoir, and Asbestos Pile parcels. Surface soil sample locations for the Park, Reservoir, and Asbestos Pile parcels are provided on **Figure 2-**

1, **Figure 2-2**, and **Figure 2-3**, respectively, in the RACR. Subareas within each parcel were used to designate points for surface soil samples. The locations for the soil samples within each subarea were selected by gridding each parcel on approximately 100-foot x 100-foot spacing, numbering each grid node, and using a random number generator to select two points within each subarea for sampling. Each surface soil sample consisted of a 30-point composite collected from 0-6 inches below ground surface (bgs). Surface soil samples were analyzed for asbestos, bis(2-ethylhexyl)phthalate, chromium, nickel, and zinc. One sample was collected from the former fire training and slag disposal area (within Subarea 1) on the Asbestos Pile parcel and analyzed solely for dioxins and furans.

Surface Water

Surface water sampling was conducted in the reservoir and in Wissahickon Creek from the locations sampled during the Remedial Investigation (RI) (CDM Smith 2015) as shown on **Figure 2-4** and **Figure 2-5**, respectively, in the RACR. Reservoir surface water samples were analyzed for asbestos, Escherichia coli (E. coli), total dissolved solids (TDS), nitrogen, alkalinity, phosphorous, sulfate, total organic carbon (TOC), hardness, aluminum, iron, and manganese. Surface water samples in the reservoir were collected from a boat using a stainless-steel bomb sampler. Wissahickon Creek surface water samples were analyzed for asbestos and were collected while standing downstream of the sampling location or from the bank, using either a stainless-steel bomb sampler or directly into a sample bottle, depending on the water depth at each sample location. Surface water samples were collected from 6-12 inches above the bottom of the reservoir and Wissahickon Creek bottom. Depth-to-bottom and general water quality parameters (dissolved oxygen [DO], turbidity, temperature, pH, specific conductance, and oxidation reduction potential [ORP]) were collected from the same depth as sample collection.

Reservoir Sediment

Sediment sampling was conducted in the reservoir after surface water sampling was complete, from the same coordinates where surface water samples were collected (**Figure 2-4** in the RACR). Sediment samples were analyzed for asbestos, carbon disulfide, and TOC. Each sample was a composite consisting of three to five grab samples collected from the top six inches of substrate using a Petite Ponar® stainless steel grab sampler.

Ambient Air

Ambient air samples were collected at locations where asbestos was previously detected (**Figure 2-6** in the RACR). Each ambient air sample was collected for a duration of 24 hours and consisted of a high-volume (HV) sample (with a target flow rate of 3 liters per minute [L/min] and a low-volume (LV) sample with a target flow rate of 1.5 L/min. LV samples were archived by the laboratory in case HV cassettes were overloaded. Sample cassettes were placed at a height of 3-5 feet above ground surface during sampling. Every 8 hours during sample collection, pump flow rates were calibrated, and the pump batteries were replaced.

ABS Air and Soil

ABS was performed at the Park parcel in six locations and at the Asbestos Pile parcel in three locations. ABS areas were selected to be representative of the full extent of the capped areas in the Park and Asbestos Pile parcels. The specific ABS locations included ABS areas previously sampled during the RI as well as new locations placed in capped areas that were not evaluated

during the RI. All ABS sample locations are shown on **Figure 2-7** in the RACR. The ABS program included the standardized raking activity scenario outlined in Sections 7.5 and 7.6 of EPA Environmental Response Team (ERT) Standard Operating Procedure (SOP) 2084, *Activity Based Sampling for Asbestos* (EPA 2007). ABS soil samples were collected prior to starting the raking activities, and they consisted of 30-point composite surface soil samples, collected from 0-3 inches bgs. To evaluate whether soil conditions were optimal for conducting ABS, soil moisture readings were collected prior to soil sampling to ensure that the average of ten readings did not exceed 30 percent (%) moisture, and no single point exceeded 50% moisture. A portable meteorology (MET) station was placed at the Site to check wind direction and ensure that rainfall did not exceed ¼ inch in the preceding 36 hours.

ABS air samples were collected for the duration of raking activities (two hours per area), and they consisted of personal, perimeter, and ecological air samples. The ABS air sampling train consisted of a 0.80-micrometer (µm), 25- millimeter (mm) mixed cellulose ester (MCE) filter connected to Tygon® tubing, which was connected to a sampling pump. The top cover from the cowl extension on the sampling cassette was removed ("open-face"), and the cassette was oriented face-down.

For personal air samples, the sampling actor wore two air sample cassettes (one HV and one LV) at the shoulder, to simulate the breathing zone of an adult, and two sample cassettes (one HV and one LV) at the waist, to simulate the breathing zone of a child. The sampling pumps were set to 5 L/min for the HV samples and 2.5 L/min for the LV samples, resulting in target volumes of 600 liters (L) and 300 L, respectively. However, back-pressure on the pump resulted in actual HV flow rates of 4.0-4.9 L/min during sampling. Achieved sample volumes were 504-602 L for HV samples and 226-317 L for LV samples.

For perimeter air samples, HV and LV cassettes were each placed on the upwind and downwind perimeter of the sample area (as determined by the portable MET station). The HV pump was operated at 4 L/min, and the LV pump was operated at 2 L/min, resulting in target volumes of 480 L and 240 L, respectively. Achieved sample volumes were 475-496 L for HV samples and 232-264 L for LV samples.

For ecological air samples, one cassette was placed near the ground to simulate a burrowing mammal's breathing zone. The ecological air sample pump was operated at 2 L/min, resulting in a target volume of 240 L. Achieved sample volumes were 185-266 L.

Pump flow rates were verified every 30 minutes and recalibrated if the observed flow rates were ±10% of the target rate.

Non-asbestos analyses were performed either by EPA's Office of Analytical Services and Quality Assurance (OASQA) or through the Contract Laboratory Program (CLP) or Delivery of Analytical Services (DAS) programs. Asbestos analyses were performed by an accredited analytical laboratory subcontracted by CDM Federal Programs Corporation (CDM Smith).

Deviations from the SMP

During the field investigation, deviations from the investigation protocols, plans, and procedures in the approved SMP were made for a variety of reasons. The following changes to the SMP were implemented:

- The SMP dictated the use of plastic spoons for collection of surface soil samples. Because of the dry and rocky nature of site soils, the use of plastic spoons and hand trowels alone was not feasible for collecting soil from 0-6 inches bgs. Therefore, a mechanical gas-powered auger was used in combination with a stainless-steel trowel to collect surface soil samples. This change did not impact the confirmatory sampling objectives.
- The SMP stated that surface water samples from Wissahickon Creek should be collected from the bank; however, samples were collected from within the creek (downstream of the sample location), because in some cases the water was too shallow at the bank. This change did not impact the confirmatory sampling objectives.
- The SMP stated that the holding time for E. coli surface water samples is 8 hours. In fact, the holding time is 6 hours. Samples were delivered and analyzed within the 6-hour time frame.
- The SMP stated that sampling personnel shall obtain the actual temperature and pressure in Ambler, PA from the local personal weather station (PWS) KPAAMBLE2. However, this weather station is no longer in service. Therefore, temperature and pressure were obtained from the local PWS KPAAMBLE3, found at http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=KPAAMBLE3. This change did not impact the confirmatory sampling objectives.
- Eight sample locations differed from the coordinates provided in the SMP because of security, safety, access, or location issues. This change did not impact the confirmatory sampling objectives.
- The SMP stated that only a HV personal air sample shall be collected at the child breathing height. Instead, both HV and LV samples were collected at that height. The HV samples were analyzed when possible, but, if the HV samples were overloaded, the LV samples were analyzed. If both the HV and LV samples were overloaded, the HV sample was prepared using the indirect preparation method.
- The SMP stated that water field blanks were to be collected one per shift during the surface water sampling for asbestos. Surface water field samples were collected on two days, which would call for two field blanks to be collected; however, only one field blank was collected (during the second day of sampling). Because the field blank collected was non-detect for asbestos, the lack of a second field blank is not likely to impact overall data quality.
- The SMP stated that field duplicates were not required to be collected for asbestos analysis; however, two soil, one sediment, and one surface water field duplicate samples were collected. Field duplicates are collected to determine the variability between the field duplicate and the associated parent sample (see Section H.5.5). Therefore, the collection of field duplicates did not impact the confirmatory sampling objectives.

H.3 Field Quality Control Procedures

Field QC samples included duplicates, equipment rinsate blanks, trip blanks, lot blanks, and field blanks. During the confirmation sampling, a total of 8 chemical QC samples and 11 asbestos QC samples were collected. The chemical QC samples consisted of three field duplicates, four equipment rinsate blanks, and one trip blank. The asbestos QC samples consisted of four field duplicates, two lot blanks, and five field blanks. All QC samples collected during the confirmation sampling were analyzed for the same chemical constituents as the parent samples. All field QC

sample collection, chain-of-custody, and sample shipping procedures were carried out as specified in the EPA-approved SMP. The results for these QC samples are discussed in Section H.5.

H.4 Data Verification and Validation

Asbestos data verification includes checking that the analysts are following the project-specific and method-specific analysis requirements and ensuring that results have been transferred correctly from the original hand-written, hard copy field and analytical laboratory documentation to the project database. The goal of data verification is to identify and correct data reporting errors. Asbestos data were verified according to the following SOPs developed specifically for the Site: SOP CDM-BoRit-3, Revision 0, *Transmission Electron Microscopy (TEM) Verification* (CDM Smith 2011a); SOP CDM-BoRit-4, Revision 0, *Polarized Light Microscopy (PLM) Point Counting Verification* (CDM Smith 2011b); SOP CDM-BoRit-5, Revision 0, *Field Sample Data Sheet (FSDS) Verification* (CDM Smith 2011c). Data verification ensures that all sample and analysis data are accurate and reliable. Asbestos data were verified at a rate of 100% for all soil, sediment, surface water, ambient air, and personal and perimeter ABS air samples collected and analyzed during the confirmation sampling investigation. All issues identified during the data verification effort were resolved and corrected.

Asbestos data were validated in accordance with the *PLM Validation Process Guidelines for Asbestos Data Review* (EPA 2016a) and *TEM Validation Process Guidelines for Asbestos Data Review* (EPA 2016b). This validation included a review of field and laboratory QC results, as well as a review of instrument calibration and scope alignment. Resulting qualifiers and reason codes were added to the project database.

One ambient air sample (CSCMAA-107B-AH101) was rejected during validation because of uncertainty surrounding the sample volume; the LV sample (CSCMAA-107B-AL101) for this location was subsequently analyzed, and the LV results replaced the HV results. One ambient air sample (CSCMAA-103-AH101) was UJ-qualified during validation, because a pump fault occurred during sample collection and the stop flow rate was estimated. No soil, sediment, surface water, or ABS air samples were qualified during validation.

Organic data were validated according to *the National Functional Guidelines for Organic Superfund Methods Data Review* (EPA 2017a). Inorganic data were reviewed according to *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA 2017b). Dioxin/furan data were validated according to *National Functional Guidelines for High Resolution Superfund Methods Data Review (*EPA 2016c). The validation process for organic samples included review of compliance with holding times, instrument performance checks, initial and continuing calibrations, blanks, system monitoring compounds, regional QA/QC, internal standards, target compound identification, contract required quantitation limits, tentatively identified compounds (TICs), system performance, and overall assessment of data. The validation process for inorganic samples included review of compliance with holding times, calibrations, blanks, interference checks, laboratory control samples, duplicate samples, matrix spike samples, furnace atomic absorption QC, inductively coupled plasma (ICP) serial dilution, and sample result verification.

The validation process for dioxins/furans included review of compliance with preservation and holding times, system performance checks, initial and continuing calibrations, blanks, labeled compounds, laboratory control samples, duplicate samples, target analyte identification and quantification, second column confirmation, estimated detection limit and estimated maximum possible concentrations, toxic equivalent determination, regional QA/QC, and overall data assessment.

In addition, results of duplicate, matrix spike/matrix spike duplicate, and other QC samples were used to assess precision and accuracy of the analytical data and potential matrix effects. The following qualifiers are used to qualify laboratory data (as specified by Functional Guidelines).

Codes Related to Identification:

U - The analyte was analyzed but was not detected above the level of the reported sample quantitation limit.

Codes Related to Quantitation:

J - Analyte present. Reported value may not be accurate or precise.

J+ - The result is an estimated quantity, but the result may be biased high.

UJ - The analyte was analyzed but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

Z - The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio, the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated

There were no unusable non-asbestos data qualified with an "R" (rejected data) reported. All other data, both qualified and unqualified, are determined to be usable data.

H.5 Data Evaluation

As part of the overall data review, the results of field QC samples were examined so that the effects of field procedures on data quality could be evaluated. Field QC samples included trip blanks, equipment rinsate blanks, field blanks, lot blanks, and field duplicates. In addition, sampling personnel collected sufficient volume for the laboratory to analyze matrix spike and matrix spike duplicate samples for non-asbestos chemicals.

The data generated are considered definitive data generated under the EPA-approved QAPP, using EPA analytical methods, and validated according to EPA Region 3 protocols. The data were validated by EPA's validation contractors or by OASQA on OASQA-generated data. Data results may be used for their intended purpose during post-remedial action activities.

The DQOs specified in the SMP (CDM Smith 2018) were met for the chemical and asbestos analyses except for those discussed in Section 4 of the RACR.

H.5.1 Trip Blanks

Trip blanks are collected and are sent to the laboratory whenever coolers contained samples for volatile organic compound (VOC) analyses. Trip blanks are used to show contamination which may occur during sample handling or storage (i.e., potentially from cross contamination with other samples). One trip blank accompanied the sediment shipment of samples to the CLP laboratory for VOC analysis. The trip blank was prepared by the field team prior to the sampling event and kept with the investigative samples throughout the sampling event. It was then packaged for shipment with the other samples and sent for analysis. Chemicals detected in trip blanks are found in **Table H-2.**

The trip blank results showed only a low concentration of acetone (2 micrograms per liter [µg/L]), a common laboratory contaminant. Acetone was detected in the sample RV-02 at 130 micrograms per kilogram (µg/kg). Acetone is not a chemical of concern (COC) at the Site, and data interpretation was not impacted by the presence of this VOC in the trip blank.

H.5.2 Equipment Rinsate Blanks

Rinsate blanks were obtained by running organic-free water over sampling equipment after it had been decontaminated. Three equipment rinsate blank samples were collected and used to determine if decontamination procedures were adequate during the soil sampling activities. Chemicals detected in rinsate blanks are found in **Table H-3**. There were no rinsate blanks collected for asbestos.

There were no detections in the rinsate blanks associated with the soil samples collected for semi-volatile organic compounds (SVOCs), dioxins/furans, and the metals chromium, nickel, and zinc.

H.5.3 Field Blanks

Field blanks were collected to examine the effects of sample collection procedures, water source, and/or sample containers on data quality. Chemicals detected in the one field blank collected in association with sediment sampling are found in **Table H-2**.

Acetone and carbon disulfide, at concentrations of 7.1 µg/L and 0.71 µg/L, respectively, were detected in the sediment field blank. Acetone was detected in the sample RV-02 at 130 µg/kg. Acetone is not a Site COC, and data interpretation was not impacted by the presence of this VOC in the sediment field blank. Carbon disulfide was not detected in any of the associated sediment samples.

For asbestos, field blanks are collected to evaluate potential contamination introduced during sample collection, shipping and handling, or analysis. For air field blanks, the sample is collected by removing the end cap of the sample cassette to expose the filter in the same area where sample collection occurs for about 30 seconds before re-capping the sample cassette. For water field blanks, the sample is prepared by placing a specified amount of clean water (e.g., store-bought drinking water) into the same type of sample collection container as the field samples.

Four air field blanks were collected during the confirmation sampling program, two during ambient air sample collection and two during ABS air sample collection. These air field blanks were analyzed by TEM in basic accordance with International Organization for Standardization (ISO) 10312:1995(E) (ISO 1995). A filter area of about 0.1 mm^2 was examined (8 to 10 grid openings); no asbestos structures were observed in any air field blank sample. One water field blank was collected during surface water sample collection, and this sample was analyzed by TEM. A filter area of about 1.25 mm^2 was examined (about 100 grid openings); no asbestos structures were observed in the water field blank sample. Based on these results, it is concluded that field samples did not have asbestos contamination introduced at the time of sample collection.

H.5.4 Lot Blanks

A lot blank is a filter cassette that has been taken from a new, unused box of filter cassettes. Lot blanks are collected to ensure that sample filter cassettes do not have any asbestos contamination prior to their use in the field. Two lot blanks were collected during the confirmation sampling program and analyzed by TEM. A filter area of about 0.1 mm^2 was examined (10 grid openings); no asbestos structures were observed in either lot blank sample. Thus, no cassette lots were rejected for use in the field, and it is concluded that air cassettes utilized during field sample collection at the Site did not have asbestos contamination.

H.5.5 Duplicate Samples

Field duplicates were collected for chemical analyses as a means of quality control from the point of sample collection through all analytical processes. The relative percent difference (RPD) values were calculated for non-asbestos field samples and duplicates which showed positive results and where the sample or its duplicate had detected vales. The acceptable limits for RPDs were ≤35% for soil and sediment and ≤20% for aqueous samples. **Tables H-4** and **H-5** present the RPD calculations for chemicals. See Section H.6.1 for further discussion of RPD values.

As noted in Section H.2, field duplicates were not required to be collected for asbestos analysis; however, one surface water field duplicate was collected and analyzed by TEM, and two soil and one sediment field duplicate samples were collected and analyzed by PLM using the preparation procedures described in EPA/600/R-93/116. For field duplicates analyzed by TEM, field duplicate results are compared to the parent sample using the Poisson ratio test using a 95% confidence interval (CI) (Nelson 1982). The variability between the field duplicate and the associated parent sample reflects the combined variation in sample heterogeneity and the variation due to measurement error. Because field duplicate samples are expected to have inherent variability that is random and may be either small or large, typically, there is no quantitative requirement for the agreement of field duplicates. Rather, results are used to determine the magnitude of this variability to evaluate data usability.

The water field duplicate sample pair was statistically different at the 95% CI. The water concentration for the field duplicate (7.7 million fibers per liter [MFL]) was unexpected, because the corresponding field sample was non-detect for asbestos. It is possible that the discrete sampler used to collect the water stirred up the creek bed sediment during sample collection. The

soil and sediment field duplicate samples and their paired parent field samples were non-detect for asbestos by PLM, which indicates that estimates of soil concentration by PLM were not influenced by potential differences in field collection methods, small-scale variability, or laboratory preparation and analysis techniques

H.6 Precision, Accuracy, Representativeness, Comparability, Completeness, and Sensitivity

H.6.1 Precision

Precision is the evaluation of the reproducibility of a measurement. Precision is estimated by the analysis of duplicate samples and the calculation of RPD. This project involved both the collection of field duplicates and the creation of laboratory duplicates. Field duplicate samples serve as an indicator of overall precision from sample collection through laboratory analysis. Laboratory duplicates focus on precision of the analytical method. Calculations were not performed for duplicate pairs with a detection of a compound in only one of the samples.

The RPDs for sediment were calculated for one pair of duplicate samples (CSRVSD-101/CSRVSD-201) analyzed for VOCs and TOC. Because concentrations were non-detect for most non-asbestos chemicals, RPDs were not calculable, except for TOC, which had a RPD within the 35% acceptable limit for sediment. **Table H-4** presents the RPD calculations for this duplicate pair.

The RPDs for soil (**Table H-5**) collected from the Park parcel were calculated for two pairs of duplicate samples (CSPKSS-101/CSPKSS-201 and CSPKSS-110/CSPKSS-210) for SVOCs, chromium, nickel, and zinc and from the Asbestos Pile parcel for one duplicate pair (CSAPSS-103/CSAPSS-203) for dioxins/furans.

RPDs were within the 35% acceptable limit for soil, except for six polycyclic aromatic hydrocarbons (PAHs) in duplicate pair CSPKSS-101/CSPKSS-201. There were no exceedances of the 35% acceptable limit in duplicate pair CSPKSS-110/CSPKSS-210 or CSAPSS-103/CSAPSS-203. Most of the compounds with RPDs above the acceptable limit were detected at concentrations ranging from 71 µg/kg to 260 µg/kg, and almost all were detected below the sample quantitation limit, i.e., the result is an estimated quantity. The PAHs are not Site COCs, and data interpretation was not impacted by these RPD exceedances.

Several types of laboratory duplicate samples are performed for TEM asbestos analysis. A recount analysis is a TEM analysis in which the same grid openings that were examined in the original analysis are re-examined. Recount analyses provide information on the reproducibility of results on a grid opening basis and on a structure-specific basis. For a recount same (RS), the re-examination is performed by the same analyst that performed the original analysis. For a recount different (RD), the re-examination is performed by a different analyst. A re-preparation (RP) is a TEM analysis in which new grids are prepared from a new aliquot of the original filter. Re-preparation analyses provide information on the reproducibility of results for the filter. For PLM,

a laboratory duplicate is a reanalysis for a soil or sediment sample by the same or different analyst that performed the original analysis.

The SMP did not indicate a project-specific requirement for the frequency of laboratory duplicate samples; however, the asbestos laboratory performed duplicate analyses in accordance with requirements specified in the TEM method (approximately 10% of all analyses). One RS analysis and one RP analysis (~20% of all water analyses) were performed for surface water samples collected at the Site. Grid openings were non-detect in the original analysis as well as the RS analysis. For the RP analysis, no asbestos structures were observed in the original analysis, and three chrysotile structures were observed in the RP analysis, two of which were over 10 µm in length. The repreparation analysis was not statistically different at the 95% CI. In addition, the assessment of filter loading evenness was evaluated using a Chi-square (CHISQ) test, as described in ISO 10312 Annex F2 (1995). The filter passed the CHISQ test, which indicates that uneven filter loading is not of concern.

The asbestos laboratory performed duplicate analyses in accordance with requirements specified in the TEM method (approximately 10% of all analyses). Three RS and two RD analyses (~ 9% of all air analyses) were performed for ABS air samples collected at the Site. Grid openings were non-detect in the original analysis as well as the RS and RD analysis. These recount analyses support the conclusion that the air results are reproducible, and there are not important differences in counting between analysts. Because all samples were non-detect for asbestos, a CHISQ test evaluation was not performed. No RP analyses were performed for ABS air samples, and no RS, RD, or RP analyses were performed for ambient air samples.

Six soil (~15% of all analyses) and one sediment (~20% of all analyses) laboratory duplicates were performed. No asbestos was observed in the original or the laboratory duplicate analysis. These results demonstrate that soil and sediment asbestos results are reproducible and within-sample variability is likely to be low.

H.6.2 Accuracy

Accuracy is a measure of the bias in a system. It is the degree of agreement of a measurement with an accepted reference or true value. Accuracy for non-asbestos analytes was estimated from the analysis of QC samples whose true values are known (surrogate or matrix spikes) and was expressed as % recovery. No surrogates were used during the field investigation, but they were used for laboratory QC evaluation.

The percent recovery for chromium in an ICP interference check standard was outside the upper control limit (>120%). The detected concentration reported for chromium in affected sample MC0AF4 may include contribution from interfering elements, and the result has been qualified "J+". Quantitation limits for chromium in affected samples MC0AK4 and MC0AK6 are not qualified based on this outlier.

The percent recovery of an ICS interference check standard was outside the upper control limit for chromium. The positive result for this analyte in associated sample MC0AF7 is estimated high and has been qualified "J+".

TOC sample results for 1804019-02 and 1804019-07 are qualified as estimate (J) because of low recovery of matrix spikes.

There are no matrix spikes for asbestos in air. Instead, result bias is evaluated based on a review of blanks. As noted above, lot blanks and field blanks demonstrate that the air cassettes utilized during field sample collection at the Site did not have asbestos contamination. For ambient and ABS air samples collected at the Site, nine laboratory blank analyses were performed (one per laboratory job). In addition, four ashing blanks and four filtration blanks were analyzed in laboratory jobs where air samples required indirect preparation. For surface water samples collected at the Site, two laboratory blank analyses and two filtration blank analyses were performed (one per laboratory job). For each type of laboratory blank, a filter area of about 0.1 mm^2 (8 or 10 grid openings) was examined by TEM. All laboratory blank analyses were reported as non-detect. Thus, there is no bias expected as a consequence of asbestos contamination resulting from field collection or preparation and analysis at the laboratory.

All ambient air samples could be prepared directly, resulting in no potential bias as a consequence of analytical preparation methods. Because of particulate overloading on the original filter, 20 of 45 ABS air samples were prepared using indirect preparation methods. Studies have shown that indirect preparation methods have the potential to bias reported air concentrations (particularly for chrysotile) because of the disaggregation of complex matrices and clusters. The degree of bias is not known, but reported concentrations may be biased high by 2-100 fold (Hwang and Wang (1983), Sahle and Laszlo (1996)), or as high as 1,000-2,000 fold (Kauffer et. al. (1996), Chesson and Hatfield (1990)).

H.6.3 Representativeness

Representativeness expresses the degree to which data accurately and precisely represent a characteristic of a population at a sampling point, process condition, or environmental condition. Representativeness is a qualitative objective which was met by following standard operating procedures for sample collection and analysis. Standard operating procedures are designed to provide representative samples.

Total phosphorus samples were incorrectly preserved with hydrochloric acid instead of sulfuric acid. All total phosphorus samples were qualified as estimated because of the preservative used. The results could be biased low with the use of hydrochloric acid, because hydrochloric acid does a better job than sulfuric acid of eliminating mineralization of anions to the sample container. All the other non-phosphorous samples were preserved as indicated in the SMP.

Trip Blanks – Acetone was the only compound detected in the trip blank. Acetone is not a Site COC, and data interpretation was not impacted by the presence of this chemical in the trip blank.

Equipment Rinsate Blanks - There were no detections in the rinsate blanks associated with the soil samples. There were no equipment rinsate blanks collected for asbestos.

Field Blanks - Acetone and carbon disulfide were the only compounds detected in the sediment field blank. Acetone is not a Site COC, and data interpretation was not impacted by the presence of this chemical in the field blank.

Acetone was detected in the sample RV-02 at 130 µg/kg. Acetone is not a Site COC, and data interpretation was not impacted by the presence of this VOC in the field blank. Carbon disulfide was not detected in any of the associated sediment samples. Carbon disulfide is a Site COC, but it was not detected in any of the associated sediment samples.

No asbestos structures were observed in any air or water field blank samples. Based on these results, it is concluded that field samples did not have asbestos contamination introduced at the time of sample collection.

H.6.4 Comparability

Comparability expresses the confidence with which one data set can be compared to another. Comparability is a qualitative objective which was met by following standard operating procedures for sample collection and analysis that are consistent with those procedures that have been used during previous investigations.

No problems with data comparability were identified for the chemical data. Soil, sediment, surface water, ambient air, and ABS air samples were collected, handled, analyzed, and reported in a consistent manner, and resulting concentration data should be comparable. However, air samples were analyzed by low magnification (~5,000x) whereas previous investigations were analyzed by high magnification (~20,000x); thus, the air datasets are not comparable for total structures[1], but they are comparable for phase contrast microscopy-equivalent (PCME)[2] structures.

H.6.5 Completeness

Completeness is the measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under current normal conditions. The SMP had established a completeness goal of 90% for this project for DQO definitive analytical results, which was met for chemical data. There were no rejections of the chemical data (100% completeness), meeting the goal of 90% complete.

All soil and sediment samples were able to be analyzed by PLM for asbestos, and all surface water, ambient air, and ABS air samples were able to be analyzed by TEM for asbestos. Although one HV air sample was rejected, the paired LV sample was able to be analyzed by TEM for asbestos; thus, all asbestos analyses achieved 100% completeness.

H.6.6 Sensitivity

Sensitivity is evaluated by comparing the achieved asbestos sensitivity levels and

[1] Total structures have a length greater than 0.5 µm and an aspect ratio (length:width) of 3:1 or greater.
[2] PCME structures have a length greater than 5 µm, a width of 0.25 µm or greater, and an aspect ratio (length:width) of 3:1 or greater.

non-asbestos analyte method detection limits and quantitation limits to the target limits specified in the DQOs. If sensitivity and detection limits are higher than the targets, and the reported results are non-detect, the resulting data may not be adequate to support decision-making.

Carbon disulfide was not detected in any of the reservoir sediment samples. However, the carbon disulfide reporting limits (ranging from 9.3 to 13 µg/kg) exceeded the remediation goal (RG) of 4.1 µg/kg. Because the data validation report stated that samples with detected concentrations for target analytes less than the Contract Require Quantitation Limits (CRQLs) are qualified as estimated (J qualifier) (carbon disulfide CRQL is 5 µg/kg), it can be assumed that, if carbon disulfide had been detected at a level between the method detection limit (MDL) of 0.55 µg/kg and the CRQL, the result would have been qualified as estimated (J-flag). This was not the case for any of the carbon disulfide samples. The fact that the results are reported as non-detect (U-flag) means the concentrations in the sediment samples were not higher than the MDL and are likely below the RG. Thus, the sediment remedial action objectives (RAOs) have been met.

The target analytical sensitivity (TAS) for ambient air samples was 0.00033 per cubic centimeter (cc^{-1}), and it was achieved for all analyses. The TAS for ecological ABS air samples was 8.3 cc^{-1}, and it was achieved for all analyses. The TAS for perimeter and personal ABS air samples was 0.013 cc^{-1}; however, 3 of 18 perimeter ABS air analyses and 5 of 18 personal ABS air analyses did not achieve this sensitivity. In these analyses, in accordance with project stopping rules, the analyst terminated the analysis after examining a filter area of about 1.0 square millimeters (mm^2) (about 79 grid openings [GOs]). A supplemental analysis was performed for two personal ABS air samples (i.e., additional GOs were examined using grids prepared from the original filter). These two samples were selected for supplemental analysis from Park parcel locations PK-102 and PK-106, because neither the child-height nor the adult-height ABS analyses achieved the TAS to represent these locations. The purpose of this supplemental analysis was to improve (lower) the achieved analytical sensitivity and reduce analytical uncertainty. Both analyses achieved the TAS of 0.013 cc^{-1} after the supplemental analysis. Each sample location from the Asbestos Pile parcel and the Park parcel included both an adult-height ABS air sample and a child-height ABS air sample, one of which achieved the TAS. In addition, comparisons to the RG are based on the average across the entire exposure area (i.e., the entire parcel), not on an individual sample basis; thus, the fact that every sample did not achieve the TAS is not likely to impact decision-making relative to the RG.

None of the surface water analyses achieved the TAS (33 per liter [L^{-1}]) as specified in the SMP. This was expected, because it was not analytically feasible or cost effective to achieve a meaningful sensitivity relative to the surface water RG. For eight of the nine analyses, the analyst terminated the analysis after a filter area of about 1.25 mm^2 was examined (about 100 grid openings). For one analysis, the analysis was terminated after 25 asbestos structures were observed. Achieving the TAS is most important when no structures are observed (i.e., the result is non-detect); as shown, 5 of 10 surface water samples observed one or more asbestos structures. Decisions are based on the average across the entire exposure area (i.e., the entire reservoir, the entire Wissahickon Creek), and not on an individual sample basis. Because at least one sample was detected in each exposure area, the average concentration is detect, and achieving the TAS becomes less important on an individual sample basis.

H.7 Acronyms and Abbreviations

%	percent
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µm	micrometer, or micron
ABS	activity-based sampling
bgs	below ground surface
cc^{-1}	cubic centimeter
CDM Smith	CDM Federal Programs Corporation
CHISQ	Chi-square
CI	confidence interval
CLP	Contract Laboratory Program
COC	chemical of concern
CRQL	contract required quantitation limit
DAS	Delivery of Analytical Services
DO	dissolved oxygen
DQO	data quality objectives
E. coli	Escherichia coli
EMPC	Estimated Maximum Possible Concentration
EPA	U.S. Environmental Protection Agency
ERT	Environmental Response Team
ESAT	Environmental Services Assistance Team
FSDS	Field Sampling Data Sheet
GO	grid opening
HV	high-volume
ICP	inductively coupled plasma
ISO	International Organization for Standardization
L	liters
L^{-1}	per liter
L/min	liters per minute
LV	low-volume
MCE	mixed cellulose ester
MDL	method detection limit
MET	meteorology
MFL	million fibers per liter
mm	millimeter
OASQA	Office of Analytical Services and Quality Assurance
ORP	oxidation reduction potential
PAH	polycyclic aromatic hydrocarbon
PCME	phase contrast microscopy-equivalent

PLM	polarized light microscopy
PWS	personal weather station
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RACR	Remedial Action Completion Report
RAO	remedial action objective
RD	recount different
RG	remediation goal
RI	Remedial Investigation
RP	re-preparation
RPD	relative percent difference
RS	recount same
Site	BoRit Asbestos Superfund Site Operable Unit 1
SMP	Site Management Plan
SOP	standard operating procedure
SVOC	semi-volatile organic compound
TAS	Target Analytical Sensitivity
TDS	total dissolved solids
TEM	transmission electron microscopy
TIC	tentatively identified compound
TOC	total organic carbon
VOC	volatile organic compound

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Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation ABS Air Sampling	ABS Air	APABS-101	CSAPABSA-101-AH101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-AL101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-CH101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-CL101	N		7/20/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-AH101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-AL101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-CH101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-CL101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-AH101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-AL101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-CH101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-CL101	N		7/19/2018	--			X													
	ABS Air	APABS-101	CSAPABSE-101	N		7/20/2018	--			X													
	ABS Air	APABS-102	CSAPABSE-102	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSE-103	N		7/19/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-AH101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-AL101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-CH101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-CL101	N		7/19/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-AH101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-AL101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-CH101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-CL101	N		7/19/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-AL101	N		7/20/2018	--			X													

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation ABS Air Sampling	ABS Air	PKABS-106	CSPKABSA-106-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSE-101	N		7/20/2018	--			X													
	ABS Air	PKABS-102	CSPKABSE-102	N		7/19/2018	--			X													
	ABS Air	PKABS-103	CSPKABSE-103	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSE-104	N		7/20/2018	--			X													
	ABS Air	PKABS-105	CSPKABSE-105	N		7/19/2018	--			X													
	ABS Air	PKABS-106	CSPKABSE-106	N		7/20/2018	--			X													
	Quality Control	AP-01	CSPKABS-601	LB		5/21/2018	--			X													
	Quality Control	AP-01	CSPKABS-602	LB		5/21/2018	--			X													
	Quality Control		CSPKABSA-401	FB		7/19/2018	--			X													
	Quality Control		CSPKABSA-402	FB		7/20/2018	--			X													
Confirmation ABS Perimeter Air Sampling	Perimeter Air	APABS-101	CSAPABSP-101-AH101	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AH102	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AL101	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AL102	N		7/20/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AH101	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AH102	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AL101	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AL102	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AH101	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AH102	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AL101	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AH101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AH102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AL101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AH101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AH102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AL101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AL102	N		7/19/2018	--			X													

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation ABS Perimeter Air Sampling	Perimeter Air	PKABS-106	CSPKABSP-106-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AL102	N		7/20/2018	--			X													
Confirmation ABS Soil Sampling	Soil	APABS-101	CSAPABS-101	N		7/18/2018	0 - 0.25		X														
	Soil	APABS-102	CSAPABS-102	N		7/18/2018	0 - 0.25		X														
	Soil	APABS-103	CSAPABS-103	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-101	CSPKABSS-101	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-102	CSPKABSS-102	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-103	CSPKABSS-103	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-104	CSPKABSS-104	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-105	CSPKABSS-105	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-106	CSPKABSS-106	N		7/18/2018	0 - 0.25		X														
Confirmation Ambient Air Sampling	Ambient Air	CM-101	CSCMAA-101-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-102	CSCMAA-102-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-103	CSCMAA-103-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-104	CSCMAA-104-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-105	CSCMAA-105-AH101	N		6/7/2018	--			X													
	Ambient Air	CM-107B	CSCMAA-107B-AH101	N		6/7/2018	--			X													
	Quality Control	CM-101	CSCMAA-101-400	FB		5/25/2018	--			X													
	Quality Control	CM-105	CSCMAA-105-400	FB		6/8/2018	--			X													
Confirmation Sediment Sampling	Sediment	RV-01	CSRVSD-101	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-02	CSRVSD-102	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-03	CSRVSD-103	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-04	CSRVSD-104	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-01	CSRVSD-201	FD	CSRVSD-101	4/26/2018	0 - 0.5		X												X	X	
	Quality Control	TB-01	CSRVSD-301	TB		4/26/2018	--															X	
	Quality Control	RB-04	CSRVSD-503	RB		4/26/2018	--															X	
Confirmation Soil Sampling	Soil	AP01-01	CSAPSS-101	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-02	CSAPSS-102	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-03	CSAPSS-103	N		4/27/2018	0 - 0.5				X												
	Soil	AP02-01	CSAPSS-104	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP02-01	CSAPSS-105	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP02-02	CSAPSS-106	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP03-01	CSAPSS-107	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP03-02	CSAPSS-108	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP04-01	CSAPSS-109	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP04-02	CSAPSS-110	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP05-02	CSAPSS-111	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-03	CSAPSS-203	FD	CSAPSS-103	4/27/2018	0 - 0.5				X												
	Soil	PK01-01	CSPKSS-101	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK01-02	CSPKSS-102	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK02-01	CSPKSS-103	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK02-02	CSPKSS-104	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK03-01	CSPKSS-105	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK03-02	CSPKSS-106	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK04-01	CSPKSS-107	N		4/25/2018	0 - 0.5		X				X					X					
	Soil	PK04-02	CSPKSS-108	N		4/25/2018	0 - 0.5		X				X					X					
	Soil	PK05-01	CSPKSS-109	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	PK05-02	CSPKSS-110	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	PK01-01	CSPKSS-201	FD	CSPKSS-101	4/24/2018	0 - 0.5		X				X					X					
	Soil	PK05-02	CSPKSS-210	FD	CSPKSS-110	4/26/2018	0 - 0.5		X				X					X					
	Soil	RV01-01	CSRVSS-101	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV01-02	CSRVSS-102	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV02-01	CSRVSS-103	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV02-02	CSRVSS-104	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV03-01	CSRVSS-105	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV03-02	CSRVSS-106	N		4/26/2018	0 - 0.5		X				X					X					

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation Soil Sampling	Soil	RV04-01	CSRVSS-107	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	RV04-02	CSRVSS-108	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	RV05-01	CSRVSS-109	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV05-02	CSRVSS-110	N		4/26/2018	0 - 0.5		X				X					X					
	Quality Control	RB-03	CSAPSS-503	RB		4/27/2018	--				X												
	Quality Control	RB-01	CSPKSS-501	RB		4/24/2018	--						X					X					
	Quality Control	RB-02	CSPKSS-502	RB		4/27/2018	--						X					X					
Confirmation Surface Water Sampling	Surface Water	CKSW-04	CSCKSW-104	N		4/27/2018	0.9 - 1.3			X													
	Surface Water	CKSW-05	CSCKSW-105	N		4/27/2018	0.5			X													
	Surface Water	CKSW-07	CSCKSW-107	N		4/27/2018	0.5			X													
	Surface Water	CKSW-08	CSCKSW-108	N		4/27/2018	1.0			X													
	Surface Water	CKSW-04	CSCKSW-204	FD	CSCKSW-104	4/27/2018	0.9 - 1.3			X													
	Surface Water	RVSW-01	CSRVSW-101	N		4/25/2018	2.5 - 3.0	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-01	CSRVSW-101	N		5/1/2018	2.5 - 3.0																X
	Surface Water	RVSW-02	CSRVSW-102	N		4/25/2018	2.0 - 2.5	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-02	CSRVSW-102	N		5/1/2018	2.0 - 2.5																X
	Surface Water	RVSW-03	CSRVSW-103	N		4/25/2018	5.3 - 5.8	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-03	CSRVSW-103	N		5/1/2018	5.3 - 5.8																X
	Surface Water	RVSW-04	CSRVSW-104	N		4/25/2018	5.5 - 6.0	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-04	CSRVSW-104	N		5/1/2018	5.5 - 6.0																X
	Quality Control	FB-01	CSCKSW-401	FB		4/27/2018	--			X													

Notes:

X = analyzed
ABS = activity based sampling
Al = aluminum
Ca = calcium
Cr = chromium
E. Coli = Escherichia coli
EPA = U.S. Environmental Protection Agency
FB = field blank
FD = field duplicate
Fe = iron
ISO = International Organization for Standardization
LB = lot blank
Mg = magnesium
Mn = manganese
Ni = nickel
PLM = polarized light microscopy
RB = rinsate blank
TB = trip blank
TEM = transmission electron microscopy
Zn = zinc

Analytical Methods:

Alkalinity = SM2320B
Asbestos - PLM = EPA/600/R-93/116
Asbestos - TEM (water)= EPA 100.1
Asbestos - TEM (air)= ISO 10312
Dioxins/ Furans = E1613
E. Coli = SM9223B
Hardness = E200.7
Metals (Ca, Mg) = ISM02.4
Metals (Al, Fe, Mn) = ISM02.4
Metals (Cr, Ni, Zn) = ISM02.4
Nitrogen = E353.2
Phosphorus = E365.4
Sulfate = E300.0
Total Dissolved Solids = SM2540C
Total Organic Carbon = SM5310B
Volatile Organic Compounds = SOM02.4
Semi-volatile Organic Compounds = SOM02.4

Table H-2
Analytical Results - Sediment Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSRVSD-301	CSRVSD-503
Sample Date	4/26/2018	4/26/2018
QC Type	TB	FB
Volatile Organic Compounds (µg/L)		
1,1,1-Trichloroethane	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.5 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U
1,1-Dichloroethene	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.5 U	0.5 U
1,2-Dibromoethane	0.5 U	0.5 U
1,2-Dichlorobenzene	0.5 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 U
1,3-Dichlorobenzene	0.5 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U
2-Butanone (MEK)	5 U	5 U
2-Hexanone	5 U	5 U
4-Methyl-2-Pentanone (MIBK)	5 U	5 U
Acetone	2 J	7.1
Benzene	0.5 U	0.5 U
Bromochloromethane	0.5 U	0.5 U
Bromodichloromethane	0.5 U	0.5 U
Bromoform	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U
Carbon Disulfide	0.5 U	0.71
Carbon Tetrachloride	0.5 U	0.5 U
Chlorobenzene	0.5 U	0.5 U
Chloroethane	0.5 U	0.5 U
Chloroform	0.5 U	0.5 U
Chloromethane	0.5 U	0.5 U
cis-1,2-Dichloroethene	0.5 U	0.5 U
cis-1,3-Dichloropropene	0.5 U	0.5 U
Cyclohexane	0.5 U	0.5 U
Dibromochloromethane	0.5 U	0.5 U
Dichlorodifluoromethane	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U
Isopropylbenzene	0.5 U	0.5 U
m,p-Xylene (Sum Of Isomers)	0.5 U	0.5 U
Methyl Acetate	0.5 U	0.5 U
Methyl Tert-Butyl Ether	0.5 U	0.5 U
Methylcylohexane	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U
o-Xylene	0.5 U	0.5 U

Table H-2
Analytical Results - Sediment Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSRVSD-301	CSRVSD-503
Sample Date	4/26/2018	4/26/2018
QC Type	TB	FB
Volatile Organic Compounds (µg/L) Continued		
Styrene	0.5 U	0.5 U
Tetrachloroethene	0.5 U	0.5 U
Toluene	0.5 U	0.5 U
trans-1,2-Dichloroethene	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.5 U	0.5 U
Trichloroethene	0.5 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U
Vinyl Chloride	0.5 U	0.5 U

Notes:
µg/L = micrograms per liter
FB = field blank
J = analyte was positively identified, but value is in estimated quantities
QC = quality control
TB = trip blank
U = analyte was not detected above the reporting detection limit

Table H-3
Analytical Results - Soil Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSPKSS-501	CSPKSS-502	CSAPSS-503
Sample Date	4/24/2018	4/27/2018	4/27/2018
QC Type	RB	RB	RB
Semi-Volatile Organic Compounds (µg/L)			
1,1'-Biphenyl	5 U	5 U	NA
1,2,4,5-Tetrachlorobenzene	5 U	5 U	NA
1,2-Benzphenanthracene	5 U	5 U	NA
1,4-Dioxane	2 U	2 U	NA
2,3,4,6-Tetrachlorophenol	5 U	5 U	NA
2,4,5-Trichlorophenol	5 U	5 U	NA
2,4,6-Trichlorophenol	5 U	5 U	NA
2,4-Dichlorophenol	5 U	5 U	NA
2,4-Dimethylphenol	5 U	5 U	NA
2,4-Dinitrophenol	10 U	10 U	NA
2,4-Dinitrotoluene	5 U	5 U	NA
2,6-Dinitrotoluene	5 U	5 U	NA
2-Chloronaphthalene	5 U	5 U	NA
2-Chlorophenol	5 U	5 U	NA
2-Methylnaphthalene	5 U	5 U	NA
2-Methylphenol	10 U	10 U	NA
2-Nitroaniline	5 U	5 U	NA
2-Nitrophenol	5 U	5 U	NA
3,3'-Dichlorobenzidine	10 U	10 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	5 U	5 U	NA
3-Nitroaniline	10 U	10 U	NA
4,6-Dinitro-2-Methylphenol	10 U	10 U	NA
4-Bromophenyl Phenyl Ether	5 U	5 U	NA
4-Chloro-3-Methylphenol	5 U	5 U	NA
4-Chlorophenyl Phenyl Ether	5 U	5 U	NA
4-Methylphenol	10 U	10 U	NA
4-Nitrophenol	10 U	10 U	NA
Acenaphthene	5 U	5 U	NA
Acenaphthylene	5 U	5 U	NA
Acetophenone	10 U	10 U	NA
Anthracene	5 U	5 U	NA
Atrazine	10 U	10 U	NA
Benzaldehyde	10 U	10 U	NA
Benzo(a)Anthracene	5 U	5 U	NA
Benzo(a)Pyrene	5 U	5 U	NA
Benzo(b)Fluoranthene	5 U	5 U	NA
Benzo(g,h,i)Perylene	5 U	5 U	NA
Benzo(k)Fluoranthene	5 U	5 U	NA
Benzyl Butyl Phthalate	5 U	5 U	NA
Bis(2-Chloroethoxy)Methane	5 U	5 U	NA
Bis(2-Chloroethyl) Ether	10 U	10 U	NA
Bis(2-Ethylhexyl)Phthalate	5 U	5 U	NA

Table H-3
Analytical Results - Soil Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSPKSS-501	CSPKSS-502	CSAPSS-503
Sample Date	4/24/2018	4/27/2018	4/27/2018
QC Type	RB	RB	RB
Semi-Volatile Organic Compounds (µg/L) Continued			
Bis-Chloroisopropyl Ether	10 U	10 U	NA
Caprolactam	10 U	10 U	NA
Carbazole	10 U	10 U	NA
Dibenzo(a,h)Anthracene	5 U	5 U	NA
Dibenzofuran	5 U	5 U	NA
Diethyl Phthalate	5 U	5 U	NA
Dimethyl Phthalate	5 U	5 U	NA
di-N-Butylphthalate	5 U	5 U	NA
di-N-Octylphthalate	10 U	10 U	NA
Fluoranthene	10 U	10 U	NA
Fluorene	5 U	5 U	NA
Hexachloro-1,3-Butadiene	5 U	5 U	NA
Hexachlorobenzene	5 U	5 U	NA
Hexachlorocyclopentadiene	10 U	10 U	NA
Hexachloroethane	5 U	5 U	NA
Indeno(1,2,3-c,d)Pyrene	5 U	5 U	NA
Naphthalene	5 U	5 U	NA
Nitrobenzene	5 U	5 U	NA
N-Nitroso-di-N-Propylamine	5 U	5 U	NA
N-Nitrosodiphenylamine	5 U	5 U	NA
p-Chloroaniline	10 U	10 U	NA
Pentachlorophenol	10 U	10 U	NA
Phenanthrene	5 U	5 U	NA
Phenol	10 U	10 U	NA
p-Nitroaniline	10 U	10 U	NA
Pyrene	5 U	5 U	NA
Inorganics (µg/L)			
Chromium	10 U	10 U	NA
Nickel	40 U	40 U	NA
Zinc	60 U	60 U	NA
Dioxins/Furans (pg/L)			
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	NA	NA	0.44 U
1,2,3,4,7,8-HXCDF	NA	NA	0.5 U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	NA	NA	0.44 U
1,2,3,6,7,8-HXCDF	NA	NA	0.49 U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	NA	NA	0.47 U
1,2,3,7,8,9-HXCDF	NA	NA	0.54 U
1,2,3,7,8-Pentachlorodibenzofuran	NA	NA	0.52 U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	NA	NA	0.55 U
2,3,4,6,7,8-HXCDF	NA	NA	0.48 U
2,3,4,7,8-PECDF	NA	NA	0.5 U
2,3,7,8-TCDD	NA	NA	0.4 U

Table H-3
Analytical Results - Soil Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSPKSS-501	CSPKSS-502	CSAPSS-503
Sample Date	4/24/2018	4/27/2018	4/27/2018
QC Type	RB	RB	RB
Dioxins/Furans (pg/L) Continued			
2,3,7,8-Tetrachlorodibenzofuran	NA	NA	0.42 U
OCDD	NA	NA	1.5 U
OCDF	NA	NA	1.9 U
Total Hepta-Dioxins	NA	NA	0 UJ
Total Hepta-Furans	NA	NA	0 UJ
Total Hexa-Dioxins	NA	NA	0 UJ
Total Hexa-Furans	NA	NA	0 UJ
Total Pentachlorodibenzo-p-Dioxin	NA	NA	0 UJ
Total Penta-Furans	NA	NA	0 UJ
Total TCDF	NA	NA	0 UJ
Total Tetra-Dioxins	NA	NA	0 UJ
TEQ WHO 1998 Bird ND=0	NA	NA	0 U
TEQ WHO 1998 Fish ND=0	NA	NA	0 U
TEQ WHO 2005 ND=0	NA	NA	0 U

Notes:
µg/L = micrograms per liter
NA = not analyzed
pg/L = picograms per liter
QC = quality control
RB = rinsate blank
TEQ = toxic equivalency
U = analyte was not detected above the reporting detection limit
UJ = analyte was not detected above the reporting detection limit, reporting detection limit is estimated
WHO = World Health Organization

Table H-4
Relative Percent Difference - Sediment Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	RV-101		RV-101		RPD
Sample #	CSRVSD-101		CSRVSD-201		
Sample Date	4/26/2018		4/26/2018		
QC Type	N		FD		
Parent Sample #			CSRVSD-101		
Volatile Organic Compounds (µg/kg)					
1,1,1-Trichloroethane	12	U	11	U	NC
1,1,2,2-Tetrachloroethane	12	U	11	U	NC
1,1,2-Trichloro-1,2,2-Trifluoroethane	12	U	11	U	NC
1,1,2-Trichloroethane	12	U	11	U	NC
1,1-Dichloroethane	12	U	11	U	NC
1,1-Dichloroethene	12	U	11	U	NC
1,2,3-Trichlorobenzene	12	U	11	U	NC
1,2,4-Trichlorobenzene	12	U	11	U	NC
1,2-Dibromo-3-Chloropropane	12	U	11	U	NC
1,2-Dibromoethane	12	U	11	U	NC
1,2-Dichlorobenzene	12	U	11	U	NC
1,2-Dichloroethane	12	U	11	U	NC
1,2-Dichloropropane	12	U	11	U	NC
1,3-Dichlorobenzene	12	U	11	U	NC
1,4-Dichlorobenzene	12	U	11	U	NC
2-Butanone (MEK)	31		21	U	NC
2-Hexanone	25	U	21	U	NC
4-Methyl-2-Pentanone (MIBK)	25	U	21	U	NC
Acetone	25	U	21	U	NC
Benzene	12	U	11	U	NC
Bromochloromethane	12	U	11	U	NC
Bromodichloromethane	12	U	11	U	NC
Bromoform	12	U	11	U	NC
Bromomethane	12	U	11	U	NC
Carbon Disulfide	12	U	11	U	NC
Carbon Tetrachloride	12	U	11	U	NC
Chlorobenzene	12	U	11	U	NC
Chloroethane	12	U	11	U	NC
Chloroform	12	U	11	U	NC
Chloromethane	12	U	11	U	NC
cis-1,2-Dichloroethene	12	U	11	U	NC
cis-1,3-Dichloropropene	12	U	11	U	NC
Cyclohexane	12	U	11	U	NC
Dibromochloromethane	12	U	11	U	NC
Dichlorodifluoromethane	12	U	11	U	NC
Ethylbenzene	12	U	11	U	NC
Isopropylbenzene	12	U	11	U	NC
m,p-Xylene (Sum Of Isomers)	12	U	11	U	NC
Methyl Acetate	12	U	11	U	NC
Methyl Tert-Butyl Ether	12	U	11	U	NC

Table H-4
Relative Percent Difference - Sediment Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	RV-101		RV-101		RPD
Sample #	CSRVSD-101		CSRVSD-201		
Sample Date	4/26/2018		4/26/2018		
QC Type	N		FD		
Parent Sample #			CSRVSD-101		
Volatile Organic Compounds (µg/kg) Continued					
Methylcylohexane	12	U	11	U	NC
Methylene Chloride	12	U	11	U	NC
o-Xylene	12	U	11	U	NC
Styrene	12	U	11	U	NC
Tetrachloroethene	12	U	11	U	NC
Toluene	12	U	11	U	NC
trans-1,2-Dichloroethene	12	U	11	U	NC
trans-1,3-Dichloropropene	12	U	11	U	NC
Trichloroethene	12	U	11	U	NC
Trichlorofluoromethane	12	U	11	U	NC
Vinyl Chloride	12	U	11	U	NC
Total Organic Carbon (mg/kg)					
Total Organic Carbon	16800		18400		9.1%

Notes:
µg/kg = micrograms per kilograms
FD = field duplicate
mg/kg = milligrams per kilogram
N = normal field sample
NC = no calculation
QC = quality control
RPD = relative percent difference
U = analyte was not detected above the reporting detection limit

Table H-5
Relative Percent Difference - Soil Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	PK01-01		PK01-01			PK05-02		PK05-02			AP01-03	AP01-03	
Sample #	CSPKSS-101		CSPKSS-201			CSPKSS-110		CSPKSS-210			CSAPSS-103	CSAPSS-203	
Sample Date	4/24/2018		4/24/2018		RPD	4/26/2018		4/26/2018		RPD	4/27/2018	4/27/2018	RPD
QC Type	N		FD			N		FD			N	FD	
Parent Sample #			CSPKSS-101					CSPKSS-110				CSAPSS-103	
Semi-Volatile Organic Compounds (µg/kg)													
1,1'-Biphenyl	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
1,2,4,5-Tetrachlorobenzene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
1,2-Benzphenanthracene	73	J	130	J	56.2%	210	U	88	J	NC	NA	NA	NC
1,4-Dioxane	78	U	79	U	NC	81	U	81	U	NC	NA	NA	NC
2,3,4,6-Tetrachlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4,5-Trichlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4,6-Trichlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4-Dichlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4-Dimethylphenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4-Dinitrophenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
2,4-Dinitrotoluene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,6-Dinitrotoluene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Chloronaphthalene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Chlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Methylnaphthalene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Methylphenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
2-Nitroaniline	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Nitrophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
3,3'-Dichlorobenzidine	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
3,5,5-Trimethyl-2-Cyclohexene-1-One	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
3-Nitroaniline	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
4,6-Dinitro-2-Methylphenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
4-Bromophenyl Phenyl Ether	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
4-Chloro-3-Methylphenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
4-Chlorophenyl Phenyl Ether	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
4-Methylphenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
4-Nitrophenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Acenaphthene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Acenaphthylene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Acetophenone	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Anthracene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Atrazine	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Benzaldehyde	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Benzo(a)Anthracene	71	J	130	J	58.7%	210	U	81	J	NC	NA	NA	NC
Benzo(a)Pyrene	73	J	130	J	56.2%	210	U	72	J	NC	NA	NA	NC
Benzo(b)Fluoranthene	97	J	170	J	54.7%	210	U	100	J	NC	NA	NA	NC
Benzo(g,h,i)Perylene	200	U	92	J	NC	210	U	200	U	NC	NA	NA	NC
Benzo(k)Fluoranthene	200	U	61	J	NC	210	U	200	U	NC	NA	NA	NC
Benzyl Butyl Phthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Bis(2-Chloroethoxy)Methane	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Bis(2-Chloroethyl) Ether	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Bis(2-Ethylhexyl)Phthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Bis-Chloroisopropyl Ether	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Caprolactam	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Carbazole	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Dibenzo(a,h)Anthracene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Dibenzofuran	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Diethyl Phthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Dimethyl Phthalate	170	J	180	J	5.7%	220		250		12.8%	NA	NA	NC
di-N-Butylphthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
di-N-Octylphthalate	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Fluoranthene	130	J	260	J	66.7%	400	U	170	J	NC	NA	NA	NC
Fluorene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Hexachloro-1,3-Butadiene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Hexachlorobenzene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Hexachlorocyclopentadiene	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Hexachloroethane	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Indeno(1,2,3-c,d)Pyrene	200	U	82	J	NC	210	U	200	U	NC	NA	NA	NC
Naphthalene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Nitrobenzene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC

Table H-5
Relative Percent Difference - Soil Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	PK01-01		PK01-01			PK05-02		PK05-02			AP01-03		AP01-03		
Sample #	CSPKSS-101		CSPKSS-201			CSPKSS-110		CSPKSS-210			CSAPSS-103		CSAPSS-203		
Sample Date	4/24/2018		4/24/2018		RPD	4/26/2018		4/26/2018		RPD	4/27/2018		4/27/2018		RPD
QC Type	N		FD			N		FD			N		FD		
Parent Sample #			CSPKSS-101					CSPKSS-110					CSAPSS-103		
Semi-Volatile Organic Compounds (µg/kg) Continued															
N-Nitroso-di-N-Propylamine	200	U	200	U	NC	210	U	200	U	NC	NA		NA		NC
N-Nitrosodiphenylamine	200	U	200	U	NC	210	U	200	U	NC	NA		NA		NC
p-Chloroaniline	390	U	390	U	NC	400	U	400	U	NC	NA		NA		NC
Pentachlorophenol	390	U	390	U	NC	400	U	400	U	NC	NA		NA		NC
Phenanthrene	200	U	140	J	NC	210	U	74	J	NC	NA		NA		NC
Phenol	55	J	50	J	9.5%	66	J	63	J	4.7%	NA		NA		NC
p-Nitroaniline	390	U	390	U	NC	400	U	400	U	NC	NA		NA		NC
Pyrene	120	J	230		62.9%	210	U	150	J	NC	NA		NA		NC
Inorganics (mg/kg)															
Chromium	35		28.2		21.5%	26.9		27.8		3.3%	NA		NA		NC
Nickel	20		18.1		10.0%	18.1		19.5		7.4%	NA		NA		NC
Zinc	60.4		63.7		5.3%	63		56.2		11.4%	NA		NA		NC
Dioxins/Furans (ng/kg)															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	87		83		4.7%
1,2,3,4,6,7,8-HPCDF	NA		NA		NC	NA		NA		NC	8		7.1		11.9%
1,2,3,4,7,8,9-HPCDF	NA		NA		NC	NA		NA		NC	0.5	J	0.4	Z	22.2%
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	1.1	J	0.85	J	25.6%
1,2,3,4,7,8-HXCDF	NA		NA		NC	NA		NA		NC	0.73	J	0.71	J	2.8%
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	1.9	J	1.7	J	11.1%
1,2,3,6,7,8-HXCDF	NA		NA		NC	NA		NA		NC	0.5	J	0.51	J	2.0%
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	1.9	J	1.8	J	5.4%
1,2,3,7,8,9-HXCDF	NA		NA		NC	NA		NA		NC	0.24	J	0.18	J	28.6%
1,2,3,7,8-Pentachlorodibenzofuran	NA		NA		NC	NA		NA		NC	0.42	Z	0.26	U	NC
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	0.76	J	0.73	J	4.0%
2,3,4,6,7,8-HXCDF	NA		NA		NC	NA		NA		NC	0.66	Z	0.66	Z	0.0%
2,3,4,7,8-PECDF	NA		NA		NC	NA		NA		NC	0.74	J	0.67	Z	9.9%
2,3,7,8-TCDD	NA		NA		NC	NA		NA		NC	0.19	Z	0.16	Z	17.1%
2,3,7,8-Tetrachlorodibenzofuran	NA		NA		NC	NA		NA		NC	0.48	J	0.47	J	2.1%
OCDD	NA		NA		NC	NA		NA		NC	9300	J	8800	J	5.5%
OCDF	NA		NA		NC	NA		NA		NC	27		23		16.0%
Total Hepta-Dioxins	NA		NA		NC	NA		NA		NC	200	J	190	J	5.1%
Total Hepta-Furans	NA		NA		NC	NA		NA		NC	23	J	19	J	19.0%
Total Hexa-Dioxins	NA		NA		NC	NA		NA		NC	26	J	24	J	8.0%
Total Hexa-Furans	NA		NA		NC	NA		NA		NC	9.8	J	9.1	J	7.4%
Total Pentachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	6.1	J	5.5	J	10.3%
Total Penta-Furans	NA		NA		NC	NA		NA		NC	10	J	7.2	J	32.6%
Total TCDF	NA		NA		NC	NA		NA		NC	9.5	J	8.6	J	9.9%
Total Tetra-Dioxins	NA		NA		NC	NA		NA		NC	2.3	J	1.9	J	19.0%
TEQ WHO 1998 Bird ND=0	NA		NA		NC	NA		NA		NC	3.5		2.6		29.5%
TEQ WHO 1998 Fish ND=0	NA		NA		NC	NA		NA		NC	3		2.4		22.2%
TEQ WHO 2005 ND=0	NA		NA		NC	NA		NA		NC	5.4		4.9		9.7%

Notes:
µg/kg = micrograms per kilograms
FD = field duplicate
J = analyte was positively identified, but value is in estimated quantities
mg/kg = milligrams per kilogram
N = normal field sample
NA = not analyzed
NC = no calculation
ng/kg = nanograms per kilogram
QC = quality control
RPD = relative percent difference
TEQ = toxic equivalency
U = analyte was not detected above the reporting detection limit
WHO = World Health Organization
Z = The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio; the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated.

Table H-6
Sampling Event Qualifier and Completion Statistics
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Task	Analyses	No Qualifier	>	J	J+	U	UJ	Z	Percent Estimated	Percent Rejected	Percent Non-Detect	Percent Detected	Sampling Event Completeness
Confirmation Sampling Sediment	VOCs	2		1	1	200			1%	0%	98%	2%	100%
	TOC	3		1					25%	0%	0%	100%	
		5	0	2	1	200	0	0	1%	0%	96%	4%	
Confirmation Sampling Soil	Inorganics (Ni, Cr, Zn)	88			2				2%	0%	0%	100%	100%
	Dioxins/Furans	6		19				3	79%	0%	0%	100%	
	SVOCs	23		119		1898			6%	0%	93%	7%	
		117	0	138	2	1898	0	3	7%	0%	88%	12%	
Confirmation Sampling Surface Water	Hardness	12							0%	0%	0%	100%	100%
	Inorganics (Al, Fe, Mn)	4		8					67%	0%	0%	100%	
	Sulfate	4							0%	0%	0%	100%	
	Nitrogen						4		0%	0%	100%	0%	
	Phosphorus			4					100%	0%	0%	100%	
	Alkalinity	4							0%	0%	0%	100%	
	TDS	4							0%	0%	0%	100%	
	TOC	3		1					25%	0%	0%	100%	
	E. coli	4	2	2					25%	0%	0%	100%	
		35	2	15	0	0	4	o	27%	0%	7%	93%	
Confirmation Sampling Event Total Analyses		157	2	155	3	2098	4	3	7%	0%	87%	13%	100%

Notes:

> = greater than
Al = Aluminum
Cr = Chromium
E. coli = Escherichia coli
Fe = Iron
J = analyte was positively identified, but value is in estimated quantities
J+ = analyte was positively identified, but the value is in estimated quantities and biased high
Mn = Manganese
Ni = Nickel
SVOCs = semi-volatile organic compounds
TDS = total dissolved solids
TOC = total organic carbon
U = analyte was not detected above the reporting detection limit
UJ = analyte was not detected above the reporting detection limit, reporting detection limit is estimated
VOCs = volatile organic compounds
Z = The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio; the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated.
Zn = Zinc

CDM Smith

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation ABS Air Sampling	ABS Air	APABS-101	CSAPABSA-101-AH101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-AL101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-CH101	N		7/20/2018	--			X													
	ABS Air	APABS-101	CSAPABSA-101-CL101	N		7/20/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-AH101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-AL101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-CH101	N		7/19/2018	--			X													
	ABS Air	APABS-102	CSAPABSA-102-CL101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-AH101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-AL101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-CH101	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSA-103-CL101	N		7/19/2018	--			X													
	ABS Air	APABS-101	CSAPABSE-101	N		7/20/2018	--			X													
	ABS Air	APABS-102	CSAPABSE-102	N		7/19/2018	--			X													
	ABS Air	APABS-103	CSAPABSE-103	N		7/19/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSA-101-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-AH101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-AL101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-CH101	N		7/19/2018	--			X													
	ABS Air	PKABS-102	CSPKABSA-102-CL101	N		7/19/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-103	CSPKABSA-103-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-AL101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSA-104-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-AH101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-AL101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-CH101	N		7/19/2018	--			X													
	ABS Air	PKABS-105	CSPKABSA-105-CL101	N		7/19/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-AH101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-AL101	N		7/20/2018	--			X													

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation ABS Air Sampling	ABS Air	PKABS-106	CSPKABSA-106-CH101	N		7/20/2018	--			X													
	ABS Air	PKABS-106	CSPKABSA-106-CL101	N		7/20/2018	--			X													
	ABS Air	PKABS-101	CSPKABSE-101	N		7/20/2018	--			X													
	ABS Air	PKABS-102	CSPKABSE-102	N		7/19/2018	--			X													
	ABS Air	PKABS-103	CSPKABSE-103	N		7/20/2018	--			X													
	ABS Air	PKABS-104	CSPKABSE-104	N		7/20/2018	--			X													
	ABS Air	PKABS-105	CSPKABSE-105	N		7/19/2018	--			X													
	ABS Air	PKABS-106	CSPKABSE-106	N		7/20/2018	--			X													
	Quality Control	AP-01	CSPKABS-601	LB		5/21/2018	--			X													
	Quality Control	AP-01	CSPKABS-602	LB		5/21/2018	--			X													
	Quality Control		CSPKABSA-401	FB		7/19/2018	--			X													
	Quality Control		CSPKABSA-402	FB		7/20/2018	--			X													
Confirmation ABS Perimeter Air Sampling	Perimeter Air	APABS-101	CSAPABSP-101-AH101	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AH102	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AL101	N		7/20/2018	--			X													
	Perimeter Air	APABS-101	CSAPABSP-101-AL102	N		7/20/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AH101	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AH102	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AL101	N		7/19/2018	--			X													
	Perimeter Air	APABS-102	CSAPABSP-102-AL102	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AH101	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AH102	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AL101	N		7/19/2018	--			X													
	Perimeter Air	APABS-103	CSAPABSP-103-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-101	CSPKABSP-101-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AH101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AH102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AL101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-102	CSPKABSP-102-AL102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-103	CSPKABSP-103-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-104	CSPKABSP-104-AL102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AH101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AH102	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AL101	N		7/19/2018	--			X													
	Perimeter Air	PKABS-105	CSPKABSP-105-AL102	N		7/19/2018	--			X													

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation ABS Perimeter Air Sampling	Perimeter Air	PKABS-106	CSPKABSP-106-AH101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AH102	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AL101	N		7/20/2018	--			X													
	Perimeter Air	PKABS-106	CSPKABSP-106-AL102	N		7/20/2018	--			X													
Confirmation ABS Soil Sampling	Soil	APABS-101	CSAPABS-101	N		7/18/2018	0 - 0.25		X														
	Soil	APABS-102	CSAPABS-102	N		7/18/2018	0 - 0.25		X														
	Soil	APABS-103	CSAPABS-103	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-101	CSPKABSS-101	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-102	CSPKABSS-102	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-103	CSPKABSS-103	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-104	CSPKABSS-104	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-105	CSPKABSS-105	N		7/18/2018	0 - 0.25		X														
	Soil	PKABS-106	CSPKABSS-106	N		7/18/2018	0 - 0.25		X														
Confirmation Ambient Air Sampling	Ambient Air	CM-101	CSCMAA-101-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-102	CSCMAA-102-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-103	CSCMAA-103-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-104	CSCMAA-104-AH101	N		5/24/2018	--			X													
	Ambient Air	CM-105	CSCMAA-105-AH101	N		6/7/2018	--			X													
	Ambient Air	CM-107B	CSCMAA-107B-AH101	N		6/7/2018	--			X													
	Quality Control	CM-101	CSCMAA-101-400	FB		5/25/2018	--			X													
	Quality Control	CM-105	CSCMAA-105-400	FB		6/8/2018	--			X													
Confirmation Sediment Sampling	Sediment	RV-01	CSRVSD-101	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-02	CSRVSD-102	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-03	CSRVSD-103	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-04	CSRVSD-104	N		4/26/2018	0 - 0.5		X												X	X	
	Sediment	RV-01	CSRVSD-201	FD	CSRVSD-101	4/26/2018	0 - 0.5		X												X	X	
	Quality Control	TB-01	CSRVSD-301	TB		4/26/2018	--															X	
	Quality Control	RB-04	CSRVSD-503	RB		4/26/2018	--															X	
Confirmation Soil Sampling	Soil	AP01-01	CSAPSS-101	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-02	CSAPSS-102	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-03	CSAPSS-103	N		4/27/2018	0 - 0.5				X												
	Soil	AP02-01	CSAPSS-104	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP02-01	CSAPSS-105	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP02-02	CSAPSS-106	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP03-01	CSAPSS-107	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP03-02	CSAPSS-108	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP04-01	CSAPSS-109	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP04-02	CSAPSS-110	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP05-02	CSAPSS-111	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	AP01-03	CSAPSS-203	FD	CSAPSS-103	4/27/2018	0 - 0.5				X												
	Soil	PK01-01	CSPKSS-101	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK01-02	CSPKSS-102	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK02-01	CSPKSS-103	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK02-02	CSPKSS-104	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK03-01	CSPKSS-105	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK03-02	CSPKSS-106	N		4/24/2018	0 - 0.5		X				X					X					
	Soil	PK04-01	CSPKSS-107	N		4/25/2018	0 - 0.5		X				X					X					
	Soil	PK04-02	CSPKSS-108	N		4/25/2018	0 - 0.5		X				X					X					
	Soil	PK05-01	CSPKSS-109	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	PK05-02	CSPKSS-110	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	PK01-01	CSPKSS-201	FD	CSPKSS-101	4/24/2018	0 - 0.5		X				X					X					
	Soil	PK05-02	CSPKSS-210	FD	CSPKSS-110	4/26/2018	0 - 0.5		X				X					X					
	Soil	RV01-01	CSRVSS-101	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV01-02	CSRVSS-102	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV02-01	CSRVSS-103	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV02-02	CSRVSS-104	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV03-01	CSRVSS-105	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV03-02	CSRVSS-106	N		4/26/2018	0 - 0.5		X				X					X					

Table H-1
Confirmation Sampling Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Event	Matrix	Location	Sample #	Sample Type	Parent Sample #	Sample Date	Sample Depth (ft)	Alkalinity	Asbestos - PLM	Asbestos - TEM	Dioxins/ Furans	Hardness	Metals (Cr, Ni, Zn)	Metals (Al, Fe, Mn)	Metals (Ca, Mg)	Nitrogen	Phosphorus	Bis(2-Ethylhexyl) Phthalate	Sulfate	Total Dissolved Solids	Total Organic Carbon	Carbon Disulfide	E. Coli
Confirmation Soil Sampling	Soil	RV04-01	CSRVSS-107	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	RV04-02	CSRVSS-108	N		4/27/2018	0 - 0.5		X				X					X					
	Soil	RV05-01	CSRVSS-109	N		4/26/2018	0 - 0.5		X				X					X					
	Soil	RV05-02	CSRVSS-110	N		4/26/2018	0 - 0.5		X				X					X					
	Quality Control	RB-03	CSAPSS-503	RB		4/27/2018	--				X												
	Quality Control	RB-01	CSPKSS-501	RB		4/24/2018	--						X					X					
	Quality Control	RB-02	CSPKSS-502	RB		4/27/2018	--						X					X					
Confirmation Surface Water Sampling	Surface Water	CKSW-04	CSCKSW-104	N		4/27/2018	0.9 - 1.3			X													
	Surface Water	CKSW-05	CSCKSW-105	N		4/27/2018	0.5			X													
	Surface Water	CKSW-07	CSCKSW-107	N		4/27/2018	0.5			X													
	Surface Water	CKSW-08	CSCKSW-108	N		4/27/2018	1.0			X													
	Surface Water	CKSW-04	CSCKSW-204	FD	CSCKSW-104	4/27/2018	0.9 - 1.3			X													
	Surface Water	RVSW-01	CSRVSW-101	N		4/25/2018	2.5 - 3.0	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-01	CSRVSW-101	N		5/1/2018	2.5 - 3.0																X
	Surface Water	RVSW-02	CSRVSW-102	N		4/25/2018	2.0 - 2.5	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-02	CSRVSW-102	N		5/1/2018	2.0 - 2.5																X
	Surface Water	RVSW-03	CSRVSW-103	N		4/25/2018	5.3 - 5.8	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-03	CSRVSW-103	N		5/1/2018	5.3 - 5.8																X
	Surface Water	RVSW-04	CSRVSW-104	N		4/25/2018	5.5 - 6.0	X		X		X		X	X	X	X		X	X	X		
	Surface Water	RVSW-04	CSRVSW-104	N		5/1/2018	5.5 - 6.0																X
	Quality Control	FB-01	CSCKSW-401	FB		4/27/2018	--			X													

Notes:

X = analyzed
ABS = activity based sampling
Al = aluminum
Ca = calcium
Cr = chromium
E. Coli = Escherichia coli
EPA = U.S. Environmental Protection Agency
FB = field blank
FD = field duplicate
Fe = iron
ISO = International Organization for Standardization
LB = lot blank
Mg = magnesium
Mn = manganese
Ni = nickel
PLM = polarized light microscopy
RB = rinsate blank
TB = trip blank
TEM = transmission electron microscopy
Zn = zinc

Analytical Methods:

Alkalinity = SM2320B
Asbestos - PLM = EPA/600/R-93/116
Asbestos - TEM (water)= EPA 100.1
Asbestos - TEM (air)= ISO 10312
Dioxins/ Furans = E1613
E. Coli = SM9223B
Hardness = E200.7
Metals (Ca, Mg) = ISM02.4
Metals (Al, Fe, Mn) = ISM02.4
Metals (Cr, Ni, Zn) = ISM02.4
Nitrogen = E353.2
Phosphorus = E365.4
Sulfate = E300.0
Total Dissolved Solids = SM2540C
Total Organic Carbon = SM5310B
Volatile Organic Compounds = SOM02.4
Semi-volatile Organic Compounds = SOM02.4

Table H-2
Analytical Results - Sediment Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSRVSD-301	CSRVSD-503
Sample Date	4/26/2018	4/26/2018
QC Type	TB	FB
Volatile Organic Compounds (µg/L)		
1,1,1-Trichloroethane	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.5 U	0.5 U
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.5 U	0.5 U
1,1,2-Trichloroethane	0.5 U	0.5 U
1,1-Dichloroethane	0.5 U	0.5 U
1,1-Dichloroethene	0.5 U	0.5 U
1,2,3-Trichlorobenzene	0.5 U	0.5 U
1,2,4-Trichlorobenzene	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	0.5 U	0.5 U
1,2-Dibromoethane	0.5 U	0.5 U
1,2-Dichlorobenzene	0.5 U	0.5 U
1,2-Dichloroethane	0.5 U	0.5 U
1,2-Dichloropropane	0.5 U	0.5 U
1,3-Dichlorobenzene	0.5 U	0.5 U
1,4-Dichlorobenzene	0.5 U	0.5 U
2-Butanone (MEK)	5 U	5 U
2-Hexanone	5 U	5 U
4-Methyl-2-Pentanone (MIBK)	5 U	5 U
Acetone	2 J	7.1
Benzene	0.5 U	0.5 U
Bromochloromethane	0.5 U	0.5 U
Bromodichloromethane	0.5 U	0.5 U
Bromoform	0.5 U	0.5 U
Bromomethane	0.5 U	0.5 U
Carbon Disulfide	0.5 U	0.71
Carbon Tetrachloride	0.5 U	0.5 U
Chlorobenzene	0.5 U	0.5 U
Chloroethane	0.5 U	0.5 U
Chloroform	0.5 U	0.5 U
Chloromethane	0.5 U	0.5 U
cis-1,2-Dichloroethene	0.5 U	0.5 U
cis-1,3-Dichloropropene	0.5 U	0.5 U
Cyclohexane	0.5 U	0.5 U
Dibromochloromethane	0.5 U	0.5 U
Dichlorodifluoromethane	0.5 U	0.5 U
Ethylbenzene	0.5 U	0.5 U
Isopropylbenzene	0.5 U	0.5 U
m,p-Xylene (Sum Of Isomers)	0.5 U	0.5 U
Methyl Acetate	0.5 U	0.5 U
Methyl Tert-Butyl Ether	0.5 U	0.5 U
Methylcylohexane	0.5 U	0.5 U
Methylene Chloride	0.5 U	0.5 U
o-Xylene	0.5 U	0.5 U

Table H-2
Analytical Results - Sediment Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSRVSD-301	CSRVSD-503
Sample Date	4/26/2018	4/26/2018
QC Type	TB	FB
Volatile Organic Compounds (µg/L) Continued		
Styrene	0.5 U	0.5 U
Tetrachloroethene	0.5 U	0.5 U
Toluene	0.5 U	0.5 U
trans-1,2-Dichloroethene	0.5 U	0.5 U
trans-1,3-Dichloropropene	0.5 U	0.5 U
Trichloroethene	0.5 U	0.5 U
Trichlorofluoromethane	0.5 U	0.5 U
Vinyl Chloride	0.5 U	0.5 U

Notes:
µg/L = micrograms per liter
FB = field blank
J = analyte was positively identified, but value is in estimated quantities
QC = quality control
TB = trip blank
U = analyte was not detected above the reporting detection limit

Table H-3
Analytical Results - Soil Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSPKSS-501	CSPKSS-502	CSAPSS-503
Sample Date	4/24/2018	4/27/2018	4/27/2018
QC Type	RB	RB	RB
Semi-Volatile Organic Compounds (µg/L)			
1,1'-Biphenyl	5 U	5 U	NA
1,2,4,5-Tetrachlorobenzene	5 U	5 U	NA
1,2-Benzphenanthracene	5 U	5 U	NA
1,4-Dioxane	2 U	2 U	NA
2,3,4,6-Tetrachlorophenol	5 U	5 U	NA
2,4,5-Trichlorophenol	5 U	5 U	NA
2,4,6-Trichlorophenol	5 U	5 U	NA
2,4-Dichlorophenol	5 U	5 U	NA
2,4-Dimethylphenol	5 U	5 U	NA
2,4-Dinitrophenol	10 U	10 U	NA
2,4-Dinitrotoluene	5 U	5 U	NA
2,6-Dinitrotoluene	5 U	5 U	NA
2-Chloronaphthalene	5 U	5 U	NA
2-Chlorophenol	5 U	5 U	NA
2-Methylnaphthalene	5 U	5 U	NA
2-Methylphenol	10 U	10 U	NA
2-Nitroaniline	5 U	5 U	NA
2-Nitrophenol	5 U	5 U	NA
3,3'-Dichlorobenzidine	10 U	10 U	NA
3,5,5-Trimethyl-2-Cyclohexene-1-One	5 U	5 U	NA
3-Nitroaniline	10 U	10 U	NA
4,6-Dinitro-2-Methylphenol	10 U	10 U	NA
4-Bromophenyl Phenyl Ether	5 U	5 U	NA
4-Chloro-3-Methylphenol	5 U	5 U	NA
4-Chlorophenyl Phenyl Ether	5 U	5 U	NA
4-Methylphenol	10 U	10 U	NA
4-Nitrophenol	10 U	10 U	NA
Acenaphthene	5 U	5 U	NA
Acenaphthylene	5 U	5 U	NA
Acetophenone	10 U	10 U	NA
Anthracene	5 U	5 U	NA
Atrazine	10 U	10 U	NA
Benzaldehyde	10 U	10 U	NA
Benzo(a)Anthracene	5 U	5 U	NA
Benzo(a)Pyrene	5 U	5 U	NA
Benzo(b)Fluoranthene	5 U	5 U	NA
Benzo(g,h,i)Perylene	5 U	5 U	NA
Benzo(k)Fluoranthene	5 U	5 U	NA
Benzyl Butyl Phthalate	5 U	5 U	NA
Bis(2-Chloroethoxy)Methane	5 U	5 U	NA
Bis(2-Chloroethyl) Ether	10 U	10 U	NA
Bis(2-Ethylhexyl)Phthalate	5 U	5 U	NA

Table H-3
Analytical Results - Soil Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSPKSS-501	CSPKSS-502	CSAPSS-503
Sample Date	4/24/2018	4/27/2018	4/27/2018
QC Type	RB	RB	RB
Semi-Volatile Organic Compounds (µg/L) Continued			
Bis-Chloroisopropyl Ether	10 U	10 U	NA
Caprolactam	10 U	10 U	NA
Carbazole	10 U	10 U	NA
Dibenzo(a,h)Anthracene	5 U	5 U	NA
Dibenzofuran	5 U	5 U	NA
Diethyl Phthalate	5 U	5 U	NA
Dimethyl Phthalate	5 U	5 U	NA
di-N-Butylphthalate	5 U	5 U	NA
di-N-Octylphthalate	10 U	10 U	NA
Fluoranthene	10 U	10 U	NA
Fluorene	5 U	5 U	NA
Hexachloro-1,3-Butadiene	5 U	5 U	NA
Hexachlorobenzene	5 U	5 U	NA
Hexachlorocyclopentadiene	10 U	10 U	NA
Hexachloroethane	5 U	5 U	NA
Indeno(1,2,3-c,d)Pyrene	5 U	5 U	NA
Naphthalene	5 U	5 U	NA
Nitrobenzene	5 U	5 U	NA
N-Nitroso-di-N-Propylamine	5 U	5 U	NA
N-Nitrosodiphenylamine	5 U	5 U	NA
p-Chloroaniline	10 U	10 U	NA
Pentachlorophenol	10 U	10 U	NA
Phenanthrene	5 U	5 U	NA
Phenol	10 U	10 U	NA
p-Nitroaniline	10 U	10 U	NA
Pyrene	5 U	5 U	NA
Inorganics (µg/L)			
Chromium	10 U	10 U	NA
Nickel	40 U	40 U	NA
Zinc	60 U	60 U	NA
Dioxins/Furans (pg/L)			
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	NA	NA	0.44 U
1,2,3,4,7,8-HXCDF	NA	NA	0.5 U
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	NA	NA	0.44 U
1,2,3,6,7,8-HXCDF	NA	NA	0.49 U
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	NA	NA	0.47 U
1,2,3,7,8,9-HXCDF	NA	NA	0.54 U
1,2,3,7,8-Pentachlorodibenzofuran	NA	NA	0.52 U
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	NA	NA	0.55 U
2,3,4,6,7,8-HXCDF	NA	NA	0.48 U
2,3,4,7,8-PECDF	NA	NA	0.5 U
2,3,7,8-TCDD	NA	NA	0.4 U

Table H-3
Analytical Results - Soil Quality Control Sample Summary
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sample #	CSPKSS-501	CSPKSS-502	CSAPSS-503
Sample Date	4/24/2018	4/27/2018	4/27/2018
QC Type	RB	RB	RB
Dioxins/Furans (pg/L) Continued			
2,3,7,8-Tetrachlorodibenzofuran	NA	NA	0.42 U
OCDD	NA	NA	1.5 U
OCDF	NA	NA	1.9 U
Total Hepta-Dioxins	NA	NA	0 UJ
Total Hepta-Furans	NA	NA	0 UJ
Total Hexa-Dioxins	NA	NA	0 UJ
Total Hexa-Furans	NA	NA	0 UJ
Total Pentachlorodibenzo-p-Dioxin	NA	NA	0 UJ
Total Penta-Furans	NA	NA	0 UJ
Total TCDF	NA	NA	0 UJ
Total Tetra-Dioxins	NA	NA	0 UJ
TEQ WHO 1998 Bird ND=0	NA	NA	0 U
TEQ WHO 1998 Fish ND=0	NA	NA	0 U
TEQ WHO 2005 ND=0	NA	NA	0 U

Notes:
µg/L = micrograms per liter
NA = not analyzed
pg/L = picograms per liter
QC = quality control
RB = rinsate blank
TEQ = toxic equivalency
U = analyte was not detected above the reporting detection limit
UJ = analyte was not detected above the reporting detection limit, reporting detection limit is estimated
WHO = World Health Organization

Table H-4
Relative Percent Difference - Sediment Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	RV-101		RV-101		RPD
Sample #	CSRVSD-101		CSRVSD-201		
Sample Date	4/26/2018		4/26/2018		
QC Type	N		FD		
Parent Sample #			CSRVSD-101		
Volatile Organic Compounds (µg/kg)					
1,1,1-Trichloroethane	12	U	11	U	NC
1,1,2,2-Tetrachloroethane	12	U	11	U	NC
1,1,2-Trichloro-1,2,2-Trifluoroethane	12	U	11	U	NC
1,1,2-Trichloroethane	12	U	11	U	NC
1,1-Dichloroethane	12	U	11	U	NC
1,1-Dichloroethene	12	U	11	U	NC
1,2,3-Trichlorobenzene	12	U	11	U	NC
1,2,4-Trichlorobenzene	12	U	11	U	NC
1,2-Dibromo-3-Chloropropane	12	U	11	U	NC
1,2-Dibromoethane	12	U	11	U	NC
1,2-Dichlorobenzene	12	U	11	U	NC
1,2-Dichloroethane	12	U	11	U	NC
1,2-Dichloropropane	12	U	11	U	NC
1,3-Dichlorobenzene	12	U	11	U	NC
1,4-Dichlorobenzene	12	U	11	U	NC
2-Butanone (MEK)	31		21	U	NC
2-Hexanone	25	U	21	U	NC
4-Methyl-2-Pentanone (MIBK)	25	U	21	U	NC
Acetone	25	U	21	U	NC
Benzene	12	U	11	U	NC
Bromochloromethane	12	U	11	U	NC
Bromodichloromethane	12	U	11	U	NC
Bromoform	12	U	11	U	NC
Bromomethane	12	U	11	U	NC
Carbon Disulfide	12	U	11	U	NC
Carbon Tetrachloride	12	U	11	U	NC
Chlorobenzene	12	U	11	U	NC
Chloroethane	12	U	11	U	NC
Chloroform	12	U	11	U	NC
Chloromethane	12	U	11	U	NC
cis-1,2-Dichloroethene	12	U	11	U	NC
cis-1,3-Dichloropropene	12	U	11	U	NC
Cyclohexane	12	U	11	U	NC
Dibromochloromethane	12	U	11	U	NC
Dichlorodifluoromethane	12	U	11	U	NC
Ethylbenzene	12	U	11	U	NC
Isopropylbenzene	12	U	11	U	NC
m,p-Xylene (Sum Of Isomers)	12	U	11	U	NC
Methyl Acetate	12	U	11	U	NC
Methyl Tert-Butyl Ether	12	U	11	U	NC

Table H-4
Relative Percent Difference - Sediment Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	RV-101		RV-101		RPD
Sample #	CSRVSD-101		CSRVSD-201		
Sample Date	4/26/2018		4/26/2018		
QC Type	N		FD		
Parent Sample #			CSRVSD-101		
Volatile Organic Compounds (µg/kg) Continued					
Methylcylohexane	12	U	11	U	NC
Methylene Chloride	12	U	11	U	NC
o-Xylene	12	U	11	U	NC
Styrene	12	U	11	U	NC
Tetrachloroethene	12	U	11	U	NC
Toluene	12	U	11	U	NC
trans-1,2-Dichloroethene	12	U	11	U	NC
trans-1,3-Dichloropropene	12	U	11	U	NC
Trichloroethene	12	U	11	U	NC
Trichlorofluoromethane	12	U	11	U	NC
Vinyl Chloride	12	U	11	U	NC
Total Organic Carbon (mg/kg)					
Total Organic Carbon	16800		18400		9.1%

Notes:
µg/kg = micrograms per kilograms
FD = field duplicate
mg/kg = milligrams per kilogram
N = normal field sample
NC = no calculation
QC = quality control
RPD = relative percent difference
U = analyte was not detected above the reporting detection limit

Table H-5
Relative Percent Difference - Soil Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	PK01-01		PK01-01			PK05-02		PK05-02			AP01-03	AP01-03	
Sample #	CSPKSS-101		CSPKSS-201			CSPKSS-110		CSPKSS-210			CSAPSS-103	CSAPSS-203	
Sample Date	4/24/2018		4/24/2018		RPD	4/26/2018		4/26/2018		RPD	4/27/2018	4/27/2018	RPD
QC Type	N		FD			N		FD			N	FD	
Parent Sample #			CSPKSS-101					CSPKSS-110				CSAPSS-103	
Semi-Volatile Organic Compounds (µg/kg)													
1,1'-Biphenyl	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
1,2,4,5-Tetrachlorobenzene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
1,2-Benzphenanthracene	73	J	130	J	56.2%	210	U	88	J	NC	NA	NA	NC
1,4-Dioxane	78	U	79	U	NC	81	U	81	U	NC	NA	NA	NC
2,3,4,6-Tetrachlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4,5-Trichlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4,6-Trichlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4-Dichlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4-Dimethylphenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,4-Dinitrophenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
2,4-Dinitrotoluene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2,6-Dinitrotoluene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Chloronaphthalene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Chlorophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Methylnaphthalene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Methylphenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
2-Nitroaniline	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
2-Nitrophenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
3,3'-Dichlorobenzidine	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
3,5,5-Trimethyl-2-Cyclohexene-1-One	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
3-Nitroaniline	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
4,6-Dinitro-2-Methylphenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
4-Bromophenyl Phenyl Ether	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
4-Chloro-3-Methylphenol	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
4-Chlorophenyl Phenyl Ether	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
4-Methylphenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
4-Nitrophenol	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Acenaphthene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Acenaphthylene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Acetophenone	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Anthracene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Atrazine	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Benzaldehyde	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Benzo(a)Anthracene	71	J	130	J	58.7%	210	U	81	J	NC	NA	NA	NC
Benzo(a)Pyrene	73	J	130	J	56.2%	210	U	72	J	NC	NA	NA	NC
Benzo(b)Fluoranthene	97	J	170	J	54.7%	210	U	100	J	NC	NA	NA	NC
Benzo(g,h,i)Perylene	200	U	92	J	NC	210	U	200	U	NC	NA	NA	NC
Benzo(k)Fluoranthene	200	U	61	J	NC	210	U	200	U	NC	NA	NA	NC
Benzyl Butyl Phthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Bis(2-Chloroethoxy)Methane	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Bis(2-Chloroethyl) Ether	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Bis(2-Ethylhexyl)Phthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Bis-Chloroisopropyl Ether	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Caprolactam	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Carbazole	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Dibenzo(a,h)Anthracene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Dibenzofuran	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Diethyl Phthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Dimethyl Phthalate	170	J	180	J	5.7%	220		250		12.8%	NA	NA	NC
di-N-Butylphthalate	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
di-N-Octylphthalate	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Fluoranthene	130	J	260	J	66.7%	400	U	170	J	NC	NA	NA	NC
Fluorene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Hexachloro-1,3-Butadiene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Hexachlorobenzene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Hexachlorocyclopentadiene	390	U	390	U	NC	400	U	400	U	NC	NA	NA	NC
Hexachloroethane	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Indeno(1,2,3-c,d)Pyrene	200	U	82	J	NC	210	U	200	U	NC	NA	NA	NC
Naphthalene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC
Nitrobenzene	200	U	200	U	NC	210	U	200	U	NC	NA	NA	NC

Table H-5
Relative Percent Difference - Soil Sample Field Duplicates
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Location	PK01-01		PK01-01			PK05-02		PK05-02			AP01-03		AP01-03		
Sample #	CSPKSS-101		CSPKSS-201			CSPKSS-110		CSPKSS-210			CSAPSS-103		CSAPSS-203		
Sample Date	4/24/2018		4/24/2018		RPD	4/26/2018		4/26/2018		RPD	4/27/2018		4/27/2018		RPD
QC Type	N		FD			N		FD			N		FD		
Parent Sample #			CSPKSS-101					CSPKSS-110					CSAPSS-103		
Semi-Volatile Organic Compounds (µg/kg) Continued															
N-Nitroso-di-N-Propylamine	200	U	200	U	NC	210	U	200	U	NC	NA		NA		NC
N-Nitrosodiphenylamine	200	U	200	U	NC	210	U	200	U	NC	NA		NA		NC
p-Chloroaniline	390	U	390	U	NC	400	U	400	U	NC	NA		NA		NC
Pentachlorophenol	390	U	390	U	NC	400	U	400	U	NC	NA		NA		NC
Phenanthrene	200	U	140	J	NC	210	U	74	J	NC	NA		NA		NC
Phenol	55	J	50	J	9.5%	66	J	63	J	4.7%	NA		NA		NC
p-Nitroaniline	390	U	390	U	NC	400	U	400	U	NC	NA		NA		NC
Pyrene	120	J	230		62.9%	210	U	150	J	NC	NA		NA		NC
Inorganics (mg/kg)															
Chromium	35		28.2		21.5%	26.9		27.8		3.3%	NA		NA		NC
Nickel	20		18.1		10.0%	18.1		19.5		7.4%	NA		NA		NC
Zinc	60.4		63.7		5.3%	63		56.2		11.4%	NA		NA		NC
Dioxins/Furans (ng/kg)															
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	87		83		4.7%
1,2,3,4,6,7,8-HPCDF	NA		NA		NC	NA		NA		NC	8		7.1		11.9%
1,2,3,4,7,8,9-HPCDF	NA		NA		NC	NA		NA		NC	0.5	J	0.4	Z	22.2%
1,2,3,4,7,8-Hexachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	1.1	J	0.85	J	25.6%
1,2,3,4,7,8-HXCDF	NA		NA		NC	NA		NA		NC	0.73	J	0.71	J	2.8%
1,2,3,6,7,8-Hexachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	1.9	J	1.7	J	11.1%
1,2,3,6,7,8-HXCDF	NA		NA		NC	NA		NA		NC	0.5	J	0.51	J	2.0%
1,2,3,7,8,9-Hexachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	1.9	J	1.8	J	5.4%
1,2,3,7,8,9-HXCDF	NA		NA		NC	NA		NA		NC	0.24	J	0.18	J	28.6%
1,2,3,7,8-Pentachlorodibenzofuran	NA		NA		NC	NA		NA		NC	0.42	Z	0.26	U	NC
1,2,3,7,8-Pentachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	0.76	J	0.73	J	4.0%
2,3,4,6,7,8-HXCDF	NA		NA		NC	NA		NA		NC	0.66	Z	0.66	Z	0.0%
2,3,4,7,8-PECDF	NA		NA		NC	NA		NA		NC	0.74	J	0.67	Z	9.9%
2,3,7,8-TCDD	NA		NA		NC	NA		NA		NC	0.19	Z	0.16	Z	17.1%
2,3,7,8-Tetrachlorodibenzofuran	NA		NA		NC	NA		NA		NC	0.48	J	0.47	J	2.1%
OCDD	NA		NA		NC	NA		NA		NC	9300	J	8800	J	5.5%
OCDF	NA		NA		NC	NA		NA		NC	27		23		16.0%
Total Hepta-Dioxins	NA		NA		NC	NA		NA		NC	200	J	190	J	5.1%
Total Hepta-Furans	NA		NA		NC	NA		NA		NC	23	J	19	J	19.0%
Total Hexa-Dioxins	NA		NA		NC	NA		NA		NC	26	J	24	J	8.0%
Total Hexa-Furans	NA		NA		NC	NA		NA		NC	9.8	J	9.1	J	7.4%
Total Pentachlorodibenzo-p-Dioxin	NA		NA		NC	NA		NA		NC	6.1	J	5.5	J	10.3%
Total Penta-Furans	NA		NA		NC	NA		NA		NC	10	J	7.2	J	32.6%
Total TCDF	NA		NA		NC	NA		NA		NC	9.5	J	8.6	J	9.9%
Total Tetra-Dioxins	NA		NA		NC	NA		NA		NC	2.3	J	1.9	J	19.0%
TEQ WHO 1998 Bird ND=0	NA		NA		NC	NA		NA		NC	3.5		2.6		29.5%
TEQ WHO 1998 Fish ND=0	NA		NA		NC	NA		NA		NC	3		2.4		22.2%
TEQ WHO 2005 ND=0	NA		NA		NC	NA		NA		NC	5.4		4.9		9.7%

Notes:
µg/kg = micrograms per kilograms
FD = field duplicate
J = analyte was positively identified, but value is in estimated quantities
mg/kg = milligrams per kilogram
N = normal field sample
NA = not analyzed
NC = no calculation
ng/kg = nanograms per kilogram
QC = quality control
RPD = relative percent difference
TEQ = toxic equivalency
U = analyte was not detected above the reporting detection limit
WHO = World Health Organization
Z = The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio; the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated.

Table H-6
Sampling Event Qualifier and Completion Statistics
BoRit Asbestos Superfund Site, Operable Unit 1
Ambler, Pennsylvania

Sampling Task	Analyses	No Qualifier	>	J	J+	U	UJ	Z	Percent Estimated	Percent Rejected	Percent Non-Detect	Percent Detected	Sampling Event Completeness
Confirmation Sampling Sediment	VOCs	2		1	1	200			1%	0%	98%	2%	100%
	TOC	3		1					25%	0%	0%	100%	
		5	0	2	1	200	0	0	1%	0%	96%	4%	
Confirmation Sampling Soil	Inorganics (Ni, Cr, Zn)	88			2				2%	0%	0%	100%	100%
	Dioxins/Furans	6		19				3	79%	0%	0%	100%	
	SVOCs	23		119		1898			6%	0%	93%	7%	
		117	0	138	2	1898	0	3	7%	0%	88%	12%	
Confirmation Sampling Surface Water	Hardness	12							0%	0%	0%	100%	100%
	Inorganics (Al, Fe, Mn)	4		8					67%	0%	0%	100%	
	Sulfate	4							0%	0%	0%	100%	
	Nitrogen						4		0%	0%	100%	0%	
	Phosphorus			4					100%	0%	0%	100%	
	Alkalinity	4							0%	0%	0%	100%	
	TDS	4							0%	0%	0%	100%	
	TOC	3		1					25%	0%	0%	100%	
	E. coli	4	2	2					25%	0%	0%	100%	
		35	2	15	0	0	4	o	27%	0%	7%	93%	
Confirmation Sampling Event Total Analyses		157	2	155	3	2098	4	3	7%	0%	87%	13%	100%

Notes:

> = greater than
Al = Aluminum
Cr = Chromium
E. coli = Escherichia coli
Fe = Iron
J = analyte was positively identified, but value is in estimated quantities
J+ = analyte was positively identified, but the value is in estimated quantities and biased high
Mn = Manganese
Ni = Nickel
SVOCs = semi-volatile organic compounds
TDS = total dissolved solids
TOC = total organic carbon
U = analyte was not detected above the reporting detection limit
UJ = analyte was not detected above the reporting detection limit, reporting detection limit is estimated
VOCs = volatile organic compounds
Z = The isomer was identified with an ion ratio outside the 15% theoretical ion abundance ratio; the associated numerical value is reported as the Estimated Maximum Possible Concentration (EMPC) and is considered estimated.
Zn = Zinc

CDM Smith