

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

**NOTICE OF A PROPOSED VOLUNTARY CLEANUP PLAN UNDER THE ALABAMA LAND
RECYCLING AND ECONOMIC REDEVELOPMENT ACT (ALRERA) AND REQUEST FOR
COMMENTS**

PUBLIC NOTICE - 461

Jefferson County

Arcadis US, Inc. has submitted a Voluntary Cleanup Plan for the facility located at **1629 Vanderbilt Road, Birmingham, in Jefferson County, Alabama**. The site has undergone extensive soil and groundwater sampling and will be subject to remedial activities. ADEM has completed the review of the Voluntary Cleanup Plan and found them to be technically adequate. The property will require institutional controls to be used at the site.

Copies of the fact sheet and Voluntary Cleanup Plan are available for public inspection electronically via <http://adem.alabama.gov/newsEvents/publicNotices.cnt>, and at the following location Monday – Friday (except legal holidays) during the hours of 8:00 a.m. to 5:00 p.m. for 30 days from the date of this notice. A nominal fee for copying and/or mailing may be charged. Arrangements for copying should be made in advance.

**Russell A. Kelly, Chief
Permits and Services Division
Alabama Department of Environmental Management
P.O. Box 301463 (Zip 36130-1463)
1400 Coliseum Boulevard (Zip 36110-2400)
Montgomery, Alabama
(334) 271-7714**

Persons wishing to comment may do so, in writing, to the Department's named contact above within 30 days following the publication date of this notice. In order to affect final decisions, comments must offer technically substantial information that is applicable to the proposed plan.

The Department maintains a list of interested individuals who are mailed legal notices regarding proposed permits. If you wish to receive such notices, contact the Permits & Services Division via telephone (334-271-7714), e-mail (permitsmail@adem.alabama.gov), or postal service (P.O. Box 301463, Montgomery, AL 36130-1463).

This notice is hereby given on **1st of October 2025**, by authorization of the Alabama Department of Environmental Management.

Edward F. Poolos, Director

Nondiscrimination Statement: The Department does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in the administration of its programs.

**Former AkzoNobel Coatings, Inc.
Birmingham, Jefferson County, Alabama
ADEM VCP Site #: 461-073-105**

Fact Sheet

A Voluntary Cleanup Plan has been found to be technically adequate by the Alabama Department of Environmental Management (ADEM) for **The Former AkzoNobel Coatings, Inc.** site located in Birmingham, Alabama. This fact sheet has been prepared to briefly advise the public of the principal legal and policy issues of the VCP.

I. VCP PROCESS

The VCP provides a mechanism for the implementation of a cleanup program that encourages applicants to voluntarily assess, remediate, and reuse rural and urban areas of actual or perceived contamination. The program does not relieve any “responsible person” for the liability for administrative, civil, or criminal fines or penalties which are otherwise authorized by law and imposed as a result of the illegal or unpermitted disposal of solid waste, hazardous waste, hazardous constituents, hazardous substances, petroleum products, and/or pollutants to the land, air, or waters of the State on an identified property. The program is designed to expedite the voluntary cleanup process and has been designed for entry at any stage of the cleanup process as long as all applicable criteria have been met up to the point of entry.

II. PROCEDURES FOR REACHING A FINAL DECISION

ADEM is proposing to issue the AkzoNobel Services, Inc. a final determination on the Voluntary Cleanup Plan. The Voluntary Cleanup Plan include a proposal for an Alabama Risk-Based Corrective Action Risk Assessment and a source removal plan along with a monitoring well abandonment plan and soil management protocols.

ADEM Admin Code R. 335-15-6-.02 requires that the public be given a 30-day comment period from the date of the notice. The comment period will begin on October 1, 2025 which is the date of publication of the public notice in major local newspaper(s) of general circulation and will end on October 31, 2025.

All persons wishing to comment on any of the conditions of the VCP Remediation should submit their comments in writing to ADEM, Permits and Services Division, 1400 Coliseum Blvd. (Zip 36110). P.O. Box 301463 (Zip 36130-1463) Montgomery, Alabama, ATTENTION: Mr. Russell Kelly. Written comments on the VCP activities should be submitted to ADEM and be received by October 31, 2025.

ADEM will consider all written comments received during the comment period while making a final decision on this issue. When ADEM makes its final decision, notice will be given to the applicant and each person who has submitted written comments or requested notice of the final decision.

III. FACILITY DESIGN

Arcadis U.S., Inc has completed site investigation activities under the VCP at the former AkzoNobel Coatings, Inc. Site located at 1629 Vanderbilt Road, Birmingham AL. Arcadis proposes a source removal action and a Risk Based Corrective Action Assessment.

IV. TECHNICAL CONTACT

Crystal L. Collins, Chief
Redevelopment Section
Industrial Hazardous Waste Branch
Land Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard (Zip 36110)
P.O. Box 301463 (Zip 36130-1463)
Montgomery, Alabama
(334) 279-3067

AkzoNobel

Voluntary Cleanup Plan

**1629 and 1661 Vanderbilt Road
Birmingham, Jefferson County, Alabama
VCP Site Number 461-073-105**

October 24, 2024

Voluntary Cleanup Plan

1629 and 1661 Vanderbilt Road
Birmingham, Jefferson County, Alabama
VCP Site Number: 461-073-105

October 24, 2024

Prepared By:

Arcadis U.S., Inc.
Denham Building
1143 1st Avenue South, Suite 109
Birmingham, Alabama 35233
Phone: 205 930 5700

Prepared For:

Akzo Nobel Services Inc.

Our Ref:

30219746.00002



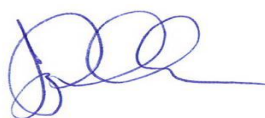
Josh Harris
Staff Environmental Scientist



Mark Chest
Project Scientist



Jason Hughes, PG
Project Manager
Alabama Professional Geologist No. 1118



John Perella, PE
Principal Engineer
Alabama Professional Engineer No. 37041-E

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Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
AEIRG	Alabama Environmental Investigations and Remediation Guidance
Akzo Nobel	Akzo Nobel Services Inc.
ARBCA	Alabama Risk-Based Corrective Action
Arcadis	Arcadis U.S., Inc.
bgs	below ground surface
Bhate	Bhate Environmental Associates, Inc.
COC	constituent of concern
CVOC	chlorinated volatile organic compound
ERM	ERM-Midwest Inc.
ft	foot
MCL	maximum contaminant level
MiHpt	Membrane interface probe – Hydraulic profiling tool
Phase II	Phase II Site Assessment
Plan	Voluntary Cleanup Plan
PSI	Preliminary Site Investigation
PVC	polyvinyl chloride
RBTL	risk based target level
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RM-1	Risk Management-1
RSL	regional screening level
Site	former Akzo Nobel facility located at 1629 and 1661 Vanderbilt Road, Birmingham, Jefferson County, Alabama
Sovereign	Sovereign Consulting Inc.
SSL	soil screening level for the protection of groundwater
SVOC	semivolatile organic compound
USEPA	United States Environmental Protection Agency
VAR	Voluntary Assessment Report

Voluntary Cleanup Plan

VCP	Voluntary Cleanup Program
VISL	Vapor Intrusion Screening Level
VOC	volatile organic compound

1 Introduction

This Voluntary Cleanup Plan (Plan) has been prepared by Arcadis U.S., Inc (Arcadis), on behalf of Akzo Nobel Coatings Inc. (AkzoNobel) for the former AkzoNobel facility located at 1629 and 1661 Vanderbilt Road, Birmingham, Jefferson County, Alabama (the Site; **Figure 1**). The property was accepted by the Alabama Department of Environmental Management (ADEM) into the Voluntary Cleanup Program (VCP) on September 9, 2021. For VCP application purposes and subsequent ADEM acceptance of the Site into the VCP, both properties are considered contiguous and have been given VCP site number 461-073-105.

The investigation and site characterization provided in the Voluntary Assessment Report (VAR; Arcadis 2023a) and the 2023 Annual Groundwater Monitoring Report (Arcadis 2024) were used to develop the Plan. The Plan consists of summaries of all previous investigations, an Alabama Risk-Based Corrective Action (ARBCA) Risk Management-1 (RM-1) evaluation, and the planned activities to achieve a Conditional Letter of Concurrence for the Site.

2 Site History and Previous Investigations

The Site was used as agricultural and residential land until 1952, when the original Site structure was constructed by Harnischfeger Corporation, makers of cranes, hoists, and mining equipment. In 1964, Hanna Chemical Corporation purchased the property and began bulk coating, manufacturing activities, and the production of industrial solvents and water-based coatings. In 1986, the Site was purchased by Reliance Universal from Hanna Chemical Corporation. Akzo Nobel purchased the property and operations from Reliance Universal in 1989.

2.1 1989 Environmental Site Assessment

In May 1989, an Environmental Site Assessment Report was prepared by ERM-Midwest Inc. (ERM 1989). The ERM assessment included the collection of soil samples from eight locations at the Site. Results from the ERM assessment indicated the presence of various volatile organic compounds (VOCs), with total xylenes and metals above ADEM soil screening levels (SSLs) available at that time. Elevated concentrations were detected predominately around the drum storage areas and in the vicinity of the former tank farm (**Figure 2**). According to the report, ADEM did not consider further action due to the shallow nature of the detected constituents.

2.2 2008 Phase I Environmental Site Assessment

In August 2008, on behalf of Akzo Nobel, Arcadis completed a Phase I Site Assessment to assess the then-current status of environmental conditions (Arcadis 2008). Arcadis identified multiple recognized environmental conditions (RECs) and historical RECs associated with chemical storage, transfer piping, and the coatings operations, as well as documentation provided by the Site regarding multiple releases.

2.3 2013 Preliminary Site Investigation

In August 2013, Sovereign Consulting Inc. (Sovereign) conducted a Preliminary Site Investigation (PSI) (Sovereign 2013). During the PSI, Sovereign collected 91 samples from 11 areas of concern identified from previous investigations, including indoor production areas, underground and aboveground piping areas, the tank

farm, and outdoor drum storage areas. Soil samples were collected at the soil and groundwater interface (4 feet [ft] below ground surface [bgs]) to 5 ft bgs from each of the 11 areas of concern and analyzed for VOCs and metals. Based on analytical results, VOCs and metals were present in soil at concentrations that exceeded ADEM Protection of Groundwater SSLs available at the time.

2.4 2014 Phase II Site Assessment

Based on the results of the 2013 PSI, Sovereign performed a Phase II Site Assessment (Phase II) in January 2014 (Sovereign 2014). The purpose of the Phase II was to determine the presence or absence of background metals in soil and groundwater, and to evaluate constituents of concern (COCs) in the areas identified during the PSI. The Phase II included the installation and sampling of six groundwater monitoring wells (MW-01 through MW-06). Analytical results from the background soil sampling indicated several metals concentrations above the ADEM SSL “protective of groundwater from large soil source.” The groundwater analytical results indicated the presence of VOCs in all monitoring wells except MW-02 at concentrations exceeding ARBCA Direct Contact Exposure-Groundwater/Tap Water Standards. Total and dissolved arsenic and selenium were detected in the groundwater sample collected from MW-01 at concentrations that exceeded screening criteria. The concentration of total arsenic in the groundwater sample from MW-05 exceeded the standard; however, the concentration of dissolved arsenic in the sample was below the standard.

2.5 2014 Voluntary Property Assessment

In July 2014, Bhate Environmental Associates, Inc. (Bhate) performed a Voluntary Property Assessment (Bhate 2014). Bhate collected additional soil samples from six boring locations to better define the extent of chlorinated and non-chlorinated solvents associated with former site operational areas. These samples were collected at 2-ft intervals from the ground surface to the top of water table, which was encountered approximately 4 ft bgs. In addition to the collection of soil samples, one permanent bedrock vertical delineation well (MW-07) and five shallow permanent monitoring wells were installed during this investigation. Following the installation of MW-07, a sample was collected and analyzed for VOCs. Analytical results from the bedrock well (MW-07) indicated that VOCs were either not detected or below applicable screening criteria in the lower bedrock water-bearing zone.

2.6 2021 Application to the ADEM Voluntary Program

Based on findings from previous investigations, Akzo Nobel entered the Site into the ADEM VCP with application to the VCP on September 9, 2021. In October 2021, Akzo Nobel contracted Arcadis to characterize the Site, identify sources of COCs, and define the nature and extent of COCs in soil and groundwater. The characterization scope of work was completed during three events in December 2021, March 2022, and October 2022.

2.7 2021-2022 Voluntary Assessment

The three VCP assessment events were completed in sequence to investigate specific areas of the Site following demolition of the site structures and clearing of vegetation on the north and east portions of the Site. The assessment focused in and around the former operational areas of the Site (**Figure 2**), including possible source areas under the main building slab and around and within the former tank farm, former oil/water separator,

underground product lines, stormwater lines, a former drum storage area, and areas between these former operations and the property boundaries.

The Voluntary Assessment was performed to complete characterization of the Site and delineate the nature and extent of COCs. High-resolution site characterization using membrane interface probe-hydraulic profiling tool (MiHpt) technology in addition to soil and groundwater sampling were used for the assessment. The assessment was completed during three events in December 2021, March 2022, and October 2022. The MiHpt results delineated VOC and chlorinated volatile organic compounds (CVOC) sources and extents in soil and groundwater. The source areas were defined around the former mixing pit in the main building, the transfer lines to the former tank farm, and the transfer lines to the former oil/water separator. The results of the MiHpt investigations were used to locate soil and groundwater sampling locations for laboratory analytical and further site characterization.

The groundwater analytical results confirmed the findings of the MiHpt investigation that showed relatively higher concentrations of COCs (primarily VOCs) in the shallow saturated zone in the vicinity of the former mixing pit in the main building and extending along former transfer lines to the former tank farm and oil/water separator. The groundwater sample analytical results indicate that site COCs are delineated within the site boundaries and are not migrating offsite. Furthermore, non-detect and below screening level results were determined for the sample collected from the deeper bedrock monitoring well (MW-07), which is located downgradient from source areas. Analytical data from groundwater samples collected from vertical delineation well MW-07 indicated that COCs have not migrated vertically to the lower bedrock zone. Based on experience with previous investigations of groundwater quality in this area of Birmingham, the arsenic, lead, and – to some extent – semivolatile organic compound (SVOC) concentrations detected in groundwater samples appear to be indicative of background groundwater quality due to foundry and associated industrial operations in the area. Additionally, foundry sand was often used in this area of Birmingham for structural fill and roadbed material and was identified at the Site during characterization activities.

Similar to the MiHpt and groundwater results, COC concentration exceedances (primarily VOCs) in soil are associated with the historical operations of the former mixing pit, oil/water separator, underground chemical conveyance lines, and former tank farm. The highest metals and SVOC concentrations in soil also appear to coincide with the highest VOC concentrations in former operational areas. Relatively low concentrations of metals and SVOCs were detected site wide and are indicative of background or anthropogenic conditions in fill material and soil.

2.8 2023 Voluntary Assessment Report

Based on the results of the VAR, the nature and extent of COCs in soil and groundwater were delineated and characterized to support the collection of groundwater samples on a quarterly basis to determine trends. Additional details of the characterization are presented in the Voluntary Clean-up Program Assessment Report (Arcadis 2023a) submitted to ADEM on May 18, 2023. As a result, Akzo Nobel recommended implementation of a quarterly groundwater monitoring program over an annual period to establish COC trends. ADEM agreed to the recommendation in its approval letter dated July 20, 2023 (ADEM 2023).

2.9 2023-2024 Quarterly Groundwater Monitoring

Four consecutive quarterly groundwater monitoring events were conducted in October 2022, May 2023, September 2023, and November 2023 and were reported in the 2023 Annual Groundwater Monitoring Report (Arcadis 2024) submitted to ADEM on May 20, 2024. Results of the quarterly monitoring indicated that the highest total VOC concentrations continued to be detected in monitoring well MW-01 near a former coatings (i.e., paint) mixing pit. However, VOC concentrations in groundwater samples from MW-01 showed a decreasing trend over the annual period from October 2022 to November 2023. Elevated total VOC concentrations were also detected in samples collected from monitoring well MW-04R, which is near the associated former product lines and former exterior tanks, and MW-13, which is near the former mixing pit in the main building.

Overall, total CVOC concentrations showed a decreasing trend from October 2022 to November 2023. CVOCs were detected to a lesser extent in monitoring wells at the former tank farm (MW-05 and MW-06). SVOC concentrations above applicable screening levels generally coincided with the distribution of relatively higher concentrations of total VOCs in monitoring wells MW-01, MW-04R, and MW-13. The highest concentrations of metals (arsenic and lead) were detected in monitoring well MW-01, also coincident with the highest total VOC concentrations. The relatively low detected concentrations of arsenic, barium, and lead across the Site indicate anthropogenic metals, likely from foundry sand used as historical fill, present in the shallow groundwater zone across the Site. The analytical data from the quarterly events indicated that COCs in groundwater are delineated, show overall decreasing concentration trends, remain within the site boundaries, and not migrating off site. Non-detect and below screening level results in the samples collected from the deeper bedrock well (MW-07) indicate that COCs have not migrated vertically to the lower bedrock zone. Detailed analysis of the quarterly groundwater monitoring results, along with trend analysis, are provided in the 2023 Annual Groundwater Monitoring Report (Arcadis 2024)

3 Alabama Risk-Based Corrective Action Risk Management-1 Evaluation

An ARBCA evaluation was completed in July 2023 to evaluate and quantify potential current and future risk to human health and the environment based on the characterization and investigation information provided in the Voluntary Assessment Report (Arcadis 2023). The ARBCA process uses a tiered approach, with comparison of constituent concentrations in environmental media at the Site to screening levels as the initial step. If constituents are identified at concentrations greater than screening levels, the risk assessment process continues to the RM-1 evaluation, which relies on default assumptions to refine the exposure and risk estimates. If concentrations pose an excess cancer risk or non-cancer hazard above target levels, then potential exposures to the constituents are evaluated further under a Risk Management-2, site-specific evaluation. The ARBCA evaluation for this Site constitutes an RM-1 evaluation.

The ARBCA evaluation report is included in **Appendix A** and is organized following the suggested approach described in the ARBCA guidance (ADEM 2017). The summary of the site characterization information and background is followed by a comparison of the site data to the United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs). Some constituents were detected at concentrations above their screening levels or RSLs in the preliminary evaluation; therefore, an RM-1 evaluation was performed. It consisted of an exposure assessment, a toxicity assessment, and risk based target level (RBTL) calculations. The RM-1

conclusions and recommendations summarized in the following sections are based on RBTL calculations presented in the ARBCA Report (**Appendix A**).

3.1 ARBCA Summary

The RSL screening level and RM-1 evaluations were completed in accordance with the ARBCA guidance to evaluate the potential risks to human health and the environment at the Site associated with soil, groundwater, and vapor intrusion. The RSL evaluation compared maximum soil and groundwater concentrations to the USEPA residential and industrial soil RSLs, the Alabama Drinking Water Standard maximum contaminant levels (MCLs), USEPA tap-water RSLs, and the USEPA Vapor Intrusion Screening Levels (VISLs), respectively.

Although land use at the Site is currently industrial, and a City of Birmingham ordinance includes a prohibition on drinking water wells within city limits, soil and groundwater maximum concentrations were compared to residential soil RSLs, MCLs, tap-water RSLs, and residential VISLs. The data comparison concluded that several COCs in soil and groundwater exceeded residential screening levels. Therefore, in accordance with ARBCA guidance and as a component of this Plan (Section 4), it is recommended that land use controls be placed to restrict the land for industrial use only and that a potable and irrigation groundwater restriction be implemented. Therefore, based on the expectation of land use controls and a groundwater use restriction, the following potential receptors were identified, and the following potential exposure pathways were considered:

- Ingestion, dermal, and inhalation exposure to surface soils by a hypothetical future site worker;
- Ingestion, dermal, and inhalation exposure to surface and/or subsurface soils by a hypothetical future construction worker;
- Ingestion, dermal, and inhalation exposure to surface soils by a current and/or hypothetical future adolescent trespasser;
- Inhalation of vapors migrating from groundwater to indoor air by hypothetical future site workers; and
- Ingestion, dermal contact, and inhalation of vapors from groundwater migrating into an excavation area by a hypothetical future construction worker in a trench.

For the hypothetical future site worker, RBTLs were exceeded for ethylbenzene, lead, and mercury when compared to maximum concentrations in surface soil (0 to 1 ft bgs). However, no RBTLs for vapor intrusion from groundwater were exceeded by maximum concentrations in groundwater for a hypothetical site worker. When compared to maximum concentrations in surface soil (0 to 1 ft bgs), RBTLs for the current and/or hypothetical future adolescent trespasser exposure were not exceeded by any of the COCs.

3.2 ARBCA Conclusions

Based on the information summarized in the ARBCA Report (**Appendix A**), the only exposure route of concern for the hypothetical future site worker, where maximum concentrations of data exceed RBTLs, is surface soil (0 to 1 ft bgs) exposure at two locations (MIP-24 and MIP-33). Locations MIP-24 and MIP-33 are in the central portion of the Site, and soil at these locations will be addressed (excavated) during Plan implementation, as discussed in Section 4. There are no exposure routes of concern for the current and/or hypothetical future adolescent trespasser because all maximum concentrations for surface soil are below surface soil RBTLs. For the hypothetical future construction worker, direct contact to combined soil (0 to 8 ft bgs) and groundwater are exposure routes of concern on a sitewide basis. Concentrations of combined soil exceeding RBTLs will be removed during Plan implementation. In addition, a site management plan to include precautions and health and

safety measures will be implemented to protect potential future construction worker contact with soil and groundwater. This Plan (Section 4) includes implementation of land use controls to prohibit future residential development of the Site and the use of groundwater for any purpose. In addition to the land use controls, an excavation plan has been developed to remove the soil source concentrations to below RBTLs at the Site.

4 Voluntary Cleanup Plan

Based on the ARBCA, Voluntary Assessment, and four quarters of groundwater monitoring, this Voluntary Cleanup Plan is developed to remove soil COC sources through excavation and management of soils that exceed established site-specific cleanup goals. A Materials Management Plan (Section 4.3) is provided to supplement the excavation activities associated with this Voluntary Cleanup Plan.

4.1 Source Removal Plan

The volume of soil above the bedrock surface (0 to 8 ft) with total VOC concentrations greater than 1,000 milligrams per kilogram in unsaturated soil and 1,000 micrograms per liter in the saturated zone is considered to be source material and contains the majority of the COC concentrations exceeding the ARBCA RBTLs. This volume of soil will be excavated, characterized, and managed in accordance with the Alabama Environmental Investigations and Remediation Guidance (AEIRG; ADEM 2017), ADEM regulations, and USEPA guidance for waste sampling provided in **Appendix B** (USEPA, 2020). The calculated volume of soil to be excavated is estimated to be 7,400 cubic yards (cy). To remove the source concentrations, the concrete slab of the former main building must also be removed (estimated at 600 cy), for a total excavation volume of approximately 8,000 cy.

The soil will be excavated in stages, segregated into 200-cy decision units (stockpiles), covered with heavy plastic sheeting, and placed on an impervious surface within the curbed concrete slab previously used for drum and hazardous waste storage when site was in operation (**Figure 3**). Samples will be collected from each 200-cy stockpile and analyzed for waste characterization to determine proper management and disposition (Sections 4.3 and 4.4). The concrete slab of the main building will be removed and staged separately from the soil. The concrete will either be recycled (if rebar is not present) or disposed of as construction debris.

Once the estimated footprint of the source concentrations has been excavated, representative soil samples will be collected every 25 ft from above the water table in the bottom one-third of each of the excavation perimeter sidewalls to confirm the removal of the constituents in soil to RBTLs. The excavation will be complete once the COC concentrations in the confirmation samples are below the RBTLs. If sidewall confirmation sample results exceed RBTLs, a volume of soil representing approximate 25 feet long by 10 feet wide by 8 feet deep will be excavated, and a confirmation sample will be collected from the new perimeter wall. Confirmation soil samples from the sidewalls will be analyzed by an Alabama-accredited laboratory for the following:

- Total VOCs USEPA Method 8260;
- Total SVOCs by USEPA Method 8270; and
- Total Resource Conservation and Recovery Act (RCRA) 8 metals by USEPA Methods 6010D/7470A.

Additionally, targeted soil excavation and characterization are recommended in areas near sampling locations outside the central source area where metals and/or SVOCs were identified during the Voluntary Assessment at elevated concentrations above RBTLs. The points targeted for excavation and the primary COCs at these other

locations include MIP47 (lead), SB22-09 (SVOCs), SB22-02 (SVOCs), SB22-01 (SVOCs), MIP24 (lead and mercury), MIP33 (lead), MIP44 (arsenic, lead, and mercury), and MIP09 (naphthalene and arsenic). Generally, sampling locations meeting these criteria are separated spatially across the Site and are primarily limited to the upper 0 to 2 ft of the soil column. **Figure 4** shows the locations of the additional or satellite target excavation locations. Each excavation around a sampling location is assumed to be 20 ft diameter and 2 ft deep, which equals approximately 20 cy per sampling location or 160 cy. Confirmation soil samples will be collected from these separate locations once soil is excavated to confirm removal of soil to below RBTs.

4.2 Monitoring Well Abandonment

Prior to excavation in the source area, six of the 15 permanent groundwater monitoring wells will require proper abandonment in accordance with Appendix B of the AEIRG. The abandonment method will include removal of concrete pads, metal well covers, polyvinyl chloride (PVC) casings, and PVC screens. The PVC casing and screen will be removed by pulling the PVC casing from the borehole using the lifting mechanism of a drilling rig and tapered wedge assembly, or other appropriate equipment. Due to the brittleness of PVC, the wells may be difficult to remove without perforating the casing. In accordance with the AEIRG, if the PVC casing breaks, the remaining casing will be cut at least 2 feet below surface and grouted in place. After removing the well casing, the borehole will be backfilled with cement grout. The grout will be placed into the borehole from the bottom to the top using the positive displacement method (e.g., tremie method). The top 2 feet of the borehole will be poured with concrete to provide a secure surface seal (i.e., surface plug). An Arcadis geologist who is experienced with well abandonment procedures in Alabama will oversee all abandonment activities.

4.3 Materials Management

4.3.1 Soil Management

Unsaturated excavated soil will not require dewatering and will be staged within the construction zone on a designated bermed concrete containment pad (**Figure 3**). Soil will be segregated in 200-cy stockpiles and placed on and covered with heavy plastic on the concrete containment pad. Each stockpile will be labeled with a unique inventory number that is recorded in the site operating record. The stockpile will then be sampled, and the representative sample will be analyzed by an Alabama-accredited laboratory for waste characterization, profiling, and disposal. Upon receipt of laboratory results, the soil will be properly managed on site or disposed of at a permitted and approved disposal facility. Prior to transport, soil will be covered with plastic. The cover will be checked at the end of each working day to prevent erosion or sedimentation from stormwater run-off.

4.3.2 Saturated Soil Containment

Soil excavated from below the water table will require dewatering prior to analysis and waste determination. The saturated soil that is excavated will be stockpiled within the excavation footprint to allow the water to drain into the excavation. Alternatively, and because the concrete containment pad is located adjacent to the proposed excavation area, soil excavated below the water table (saturated soil) may be placed on heavy plastic within and near the containment pad edge, immediately adjacent to the open excavation. Each 200-cy load of saturated soil will be stockpiled for at least 1 day to reduce moisture content prior to sample collection. The containment pad will be configured such that all water from saturated soil will drain back into the open excavation. Once the moisture

content in the soil is reduced sufficiently, the soil will be sampled and analyzed by an Alabama-accredited laboratory for waste determination. All stockpiled soil remaining on site at the end of each working day will be checked for proper cover with heavy plastic and secured.

4.3.3 Equipment Decontamination Area

An equipment decontamination area for equipment wash-down will be constructed by using impervious material (e.g., geosynthetic liner with gravel or steel) and will be bermed with the same material to prevent escape of soil or water from the decontamination area. The floor will be sloped to a low corner. An elevated truck entrance ramp will be installed across the width of the high end of the pad. The equipment decontamination area will be inspected each day for integrity of the liner and bermed areas. The equipment decontamination area will be inspected, and observations will be recorded daily in the on-site operating record. Decontamination activities will cease if the equipment decontamination area requires corrective action and will not recommence until the required corrective action activities have been completed. The equipment decontamination will be sized to hold the largest piece of equipment to be used during construction. The equipment decontamination area will be placed between work areas and the facility exit so as to avoid tracking sediment or dirt onto public rights-of-way or roads.

4.3.4 Equipment Decontamination

All equipment used for the completion of the project will be cleaned in the decontamination area or in some other manner that prevents water run-off. Decontamination will consist of high-pressure water or steam rinsing to remove films and solid debris from materials and equipment. A soap-and-water wash using either a brush, mop, or pressure washer will be followed by a final high-pressure water or steam rinse to remove any detergent. All water generated during decontamination will be pumped to a holding tank. Solids that accumulate on and within the decontamination pad will be transferred to the soil management area for proper management and disposition.

Equipment such as trucks, excavators, sampling equipment, and dewatering pumps (if needed) will be decontaminated before use and before leaving the Site. The site manager will determine the need for decontamination and will not permit contaminated machinery to leave designated work areas. Decontamination will proceed until the site manager determines that dirt or debris have been sufficiently removed from the equipment.

Materials such as sheeting, liners, and filter fabric may be reused, but must be decontaminated and undergo characterization if the material is to be disposed. The site manager will determine if materials require decontamination and/or waste characterization and when decontamination is complete.

4.3.5 Noise, Dust, and Site Control

The Site is located in an industrial area of Birmingham, and adjacent properties include a metal scrap yard, welding shop, chemical distributor, rail yard, and nearby Birmingham Airport; however, noise will be controlled during construction activities by:

- If available, compressors will be sound reduced and pneumatic drills and other tools will be fitted with an effective muffler.
- Machines in intermittent use will be shut down when not in use or throttled down at a minimum.
- Equipment that breaks concrete by pressure rather than by percussion will be used as practical.

- Noisy equipment will be sited as far away as practical from adjacent properties.
- Care will be taken when loading and unloading vehicles, dismantling equipment, and/or moving materials to reduce noise impact.
- No persons at the Site will cause unnecessary noise from their activities (e.g., excessive “revving” of vehicle engines, music from radios, shouting).

Dust will be controlled during construction activities by:

- Haul routes or drives will be watered as necessary to minimize dust nuisance. Routes will be stabilized (e.g., compacted) to reduce off-site transport of soil. This applies especially to the site exit at Vanderbilt Road.
- Haul routes or drives will not pass through residential areas.
- Storage locations for all materials that create dust, including soil, will be sited away from site boundaries except where impractical.
- Paved roads near exits will be kept clean, and vehicles transporting soil or dusty materials on or off site will be covered.
- Rubbish and general waste will not be allowed to accumulate on site. A good standard of “housekeeping” will be maintained.
- There will be no fires for any purpose.
- Engines will run only when necessary.

The Site will be controlled during construction activities:

- The Site is currently fenced with access through a locked gate.
- All vehicles or personnel entering or exiting the Site must sign in with the site manager or designee.
- An equipment delivery area will be placed away from adjacent properties.

4.4 Material Characterization

4.4.1 Material Characterization

Samples will be collected from soil and water for waste determination. If the site manager determines that any waste generated during construction may be a special waste or regulated material, the material will be profiled in accordance with USEPA and ADEM regulations and guidance.

4.4.2 Characterization Procedures

Based on previous soil investigations and sampling, all material that is excavated and all waste generated will be sampled and characterized for proper management and disposition. Excavated soil will be segregated into 200-cy decision units and sampled in accordance with the AERIG and USEPA procedures (USEPA 2020) for waste sampling, waste characterization, transportation, and disposal.

4.4.3 Characterization Parameters

Waste sampling, characterization, and approvals will be completed in accordance with the AEIRG. Grab samples will be collected from three random exterior points of each stockpile from a depth between 0 and 2 ft. Two

additional random points will be selected for collecting samples from the interior of each pile at a depth between 2 and 5 ft. The grab samples from the five points within each decision unit will be composited. At a minimum, each waste characterization sample from a decision unit will be analyzed by an Alabama-accredited laboratory for the following:

- Total VOCs USEPA Method 8260;
- Total SVOCs by USEPA Method 8270;
- Total RCRA 8 metals by USEPA Methods 6010D/7470A;
- pH; and,
- Flash point.

Additional analysis, such as the RCRA 9095B Paint Filter Liquids Test, may be performed on stockpile samples based on the water saturation conditions encountered during the excavation activities.

4.4.4 Soil Management and Disposition

Based on previous investigations and management of investigative derived waste, hazardous waste generation is not expected as part of the excavation. However, three possible soil management and disposition scenarios apply to the excavated soil during the completion of the remedial excavation:

1. If the detected constituent concentration(s) in the representative soil waste characterization sample from a 200-cy decision unit are less than the USEPA residential RSL(s), then the soil will be retained for backfill or reuse on site.
2. If the detected constituent concentration(s) in the representative soil waste characterization sample from a 200-cy decision unit are greater than the residential RSL(s) and less than 20 times the Toxicity Characteristic Leaching Procedure (TCLP) limit concentration(s)¹, the soil will be managed for waste approval and disposed of as a solid waste at a permitted Subtitle D solid waste landfill.
3. If the detected constituent concentration(s) in the representative soil waste characterization sample from a 200-cy decision unit are greater than the residential RSL(s) and greater than 20 times the TCLP limit concentration(s), a representative soil sample will be re-analyzed or re-collected, as needed, for TCLP analysis of the constituent(s) exceeding 20 times the TCLP limit.
 - a. If the constituent concentration(s) are less than the TCLP limit in the sample, the soil will be managed for waste approval and disposed as a solid waste at a permitted Subtitle D solid waste landfill.
 - b. If the constituent concentration(s) exceed the TCLP limit in the sample, the soil must be profiled, managed, transported, and disposed of as a hazardous waste under Subtitle C requirements.

For waste being disposed in Alabama, a waste approval must be obtained in accordance with ADEM Admin. Code r. 335-13-4-.21(1)(c), 335-13-4-.26, and 335-14-3-.08.

4.4.5 Incompatible or Unknown Waste

Based on previous investigations completed at the Site, incompatible or unknown wastes are not anticipated. In the event that any intact liquid-filled or closed container is identified during soil excavation, stop work will be

¹ Section 1.2 of USEPA TCLP Method 1311 allows for a total constituent analysis in lieu of the TCLP extraction. As defined by the TCLP method, the results of the total constituent analysis may be divided by 20 to convert the total results into the maximum leachable concentration for comparison to the TCLP limit.

ordered until the container is placed in a lab pack or other appropriate container for waste characterization and disposal as a solid or hazardous waste. Incompatible wastes (Appendix V to CFR Part 265 – Examples of Potentially Incompatible Waste) will not be placed in the same lab pack or container.

4.4.6 Data Management and Reporting

An operating record for environmental data will be maintained at the Site by the site manager or designee. A final report that includes collected data will be issued and will be presented in a clear and logical format, including narrative descriptions and discussions, tabular presentation of data, waste management documentation, and graphical and pictorial displays that include sampling locations and site restoration.

4.5 Post Excavation

Prior to backfilling, a remedial amendment such as a granular oxygenate will be added to the open excavation to treat remaining residual and low-concentration constituent mass that could not be removed through excavation. The excavation will be backfilled and returned to pre-work conditions.

4.5.1 Soil and Groundwater Amendment

A soil and groundwater amendment will be added to the open excavation. The product will likely be Evonik's PERMEOX® Ultra or a similar oxidant, such as Regenesys' ORC Advanced®, which are both specially formulated grades of engineered calcium peroxide and available in granular form, to provide extended oxygen release for enhanced aerobic bioremediation of petroleum hydrocarbons and organics. It is expected that ADEM will require Class V underground injection control (UIC) permitting for placement of the amendment into the open excavation. The UIC permit will be applied for and obtained upon ADEM approval of this Plan for implementation.

4.5.2 Backfill and Surface Restoration

At the completion of the excavation and the addition of the reagent amendment to the open excavation, the area will be backfilled to grade with sampled and certified clean fill, and the Site will be restored to pre-work conditions. Self-compacting gravel will be installed from bedrock to the top of the water table. A geotextile fabric will be applied on top of the gravel. Compactable fill will be added in 6-inch lifts and compacted to 95% proctor.

4.6 Performance Monitoring

Following source removal through excavation and site restoration, quarterly groundwater monitoring will be initiated in accordance with the AEIRG and previously completed sampling activities to confirm that the source removal effort was successful. The remaining monitoring well system, consisting of nine monitoring wells (including bedrock vertical well MW-07), is sufficiently positioned to monitor groundwater quality upgradient, side gradient, downgradient, vertically, and at the site boundaries to determine remedial effectiveness. Once quarterly groundwater monitoring shows cleanup objectives have been obtained, applicable regulatory fees, a Cleanup Report, and a Certification of Compliance will be submitted to the ADEM within 60 days of completion. It is expected that the Certification of Compliance submittal will also request a Conditional Letter of Concurrence.

4.7 Institutional Controls

The site property will be listed on the inventory of VCP sites designated as having been cleaned to standards less stringent than those necessary for unrestricted residential use, so a notice will be placed to any deed, mortgage, deed to secure debt, lease, rental agreement, or other instrument given or caused to be given by the property owner that creates an interest in the property: "This property has been listed on the state's Cleanup Properties Inventory and has been cleaned up to standards less stringent than those required for unrestricted residential use due to the presence of substances regulated under state law. Certain uses of this property may require additional cleanup. Contact the property owner or the Alabama Department of Environmental Management for further information concerning this property. This notice is provided in compliance with the Alabama Land Recycling and Economic Redevelopment Act."

Based on the results of the ARBCA RM-1 evaluation, an environmental covenant (EC) that prohibits the use of groundwater for potable and irrigation use, and prohibits any land use as a residence, a school, or a day care will be prepared for parcels comprising the Akzo Nobel property. Upon ADEM general concurrence with this Plan, the draft ECs will be provided to the ADEM for review and approval. Following payment of applicable regulatory fees and ADEM's final execution, the covenants will be filed in the Jefferson County Court of Probate. All ECs will be prepared and filed in accordance with ADEM Code r. 335-5.

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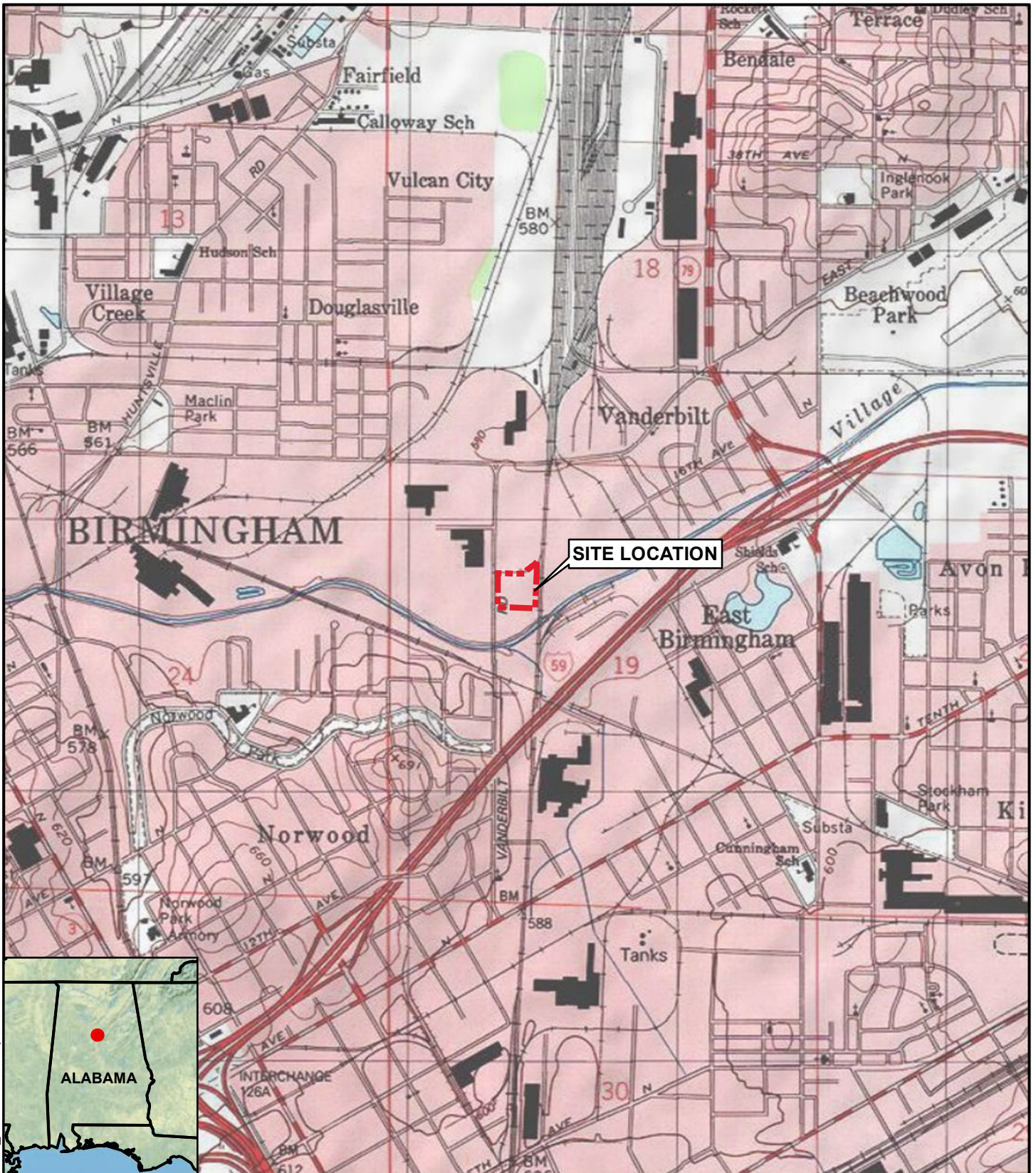
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Figures



LEGEND

 SITE BOUNDARY

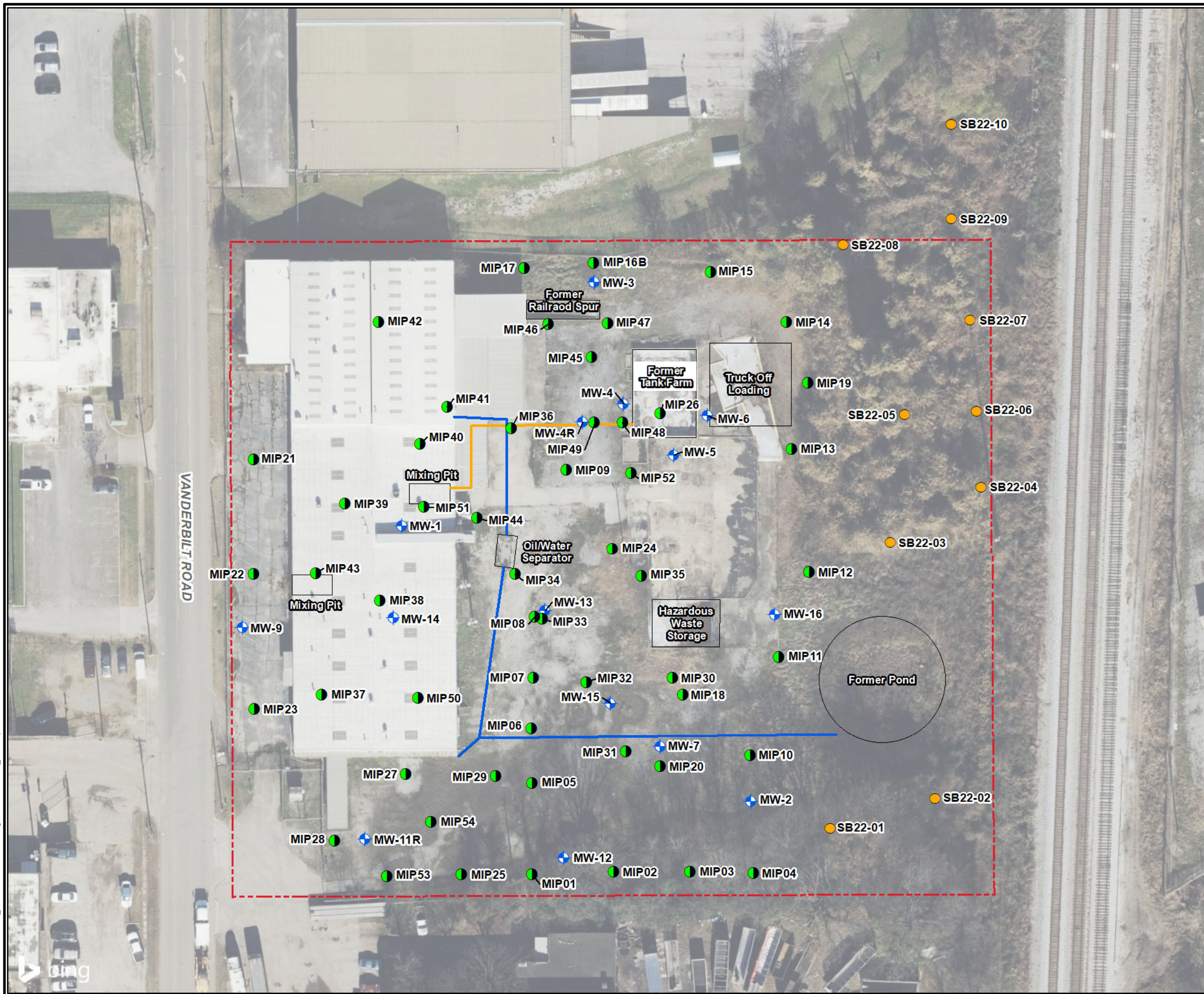
AKZO NOBEL SERVICES INC
1629 AND 1661 VANDERBILT ROAD
BIRMINGHAM, ALABAMA 35234

SITE LOCATION MAP



FIGURE

1



LEGEND

- 2022 SOIL BORING
- MIP/HPT LOCATION
- MONITORING WELL
- DRAIN LINE
- PRODUCT TRANSFER LINE
- SITE BOUNDARY
- FORMER SITE FEATURE

- NOTES:
- ALL LOCATIONS ARE APPROXIMATE.
 - MIP = MEMBRANE INTERFACE PROBE
 - HPT = HYDRAULIC PROFILING TOOL

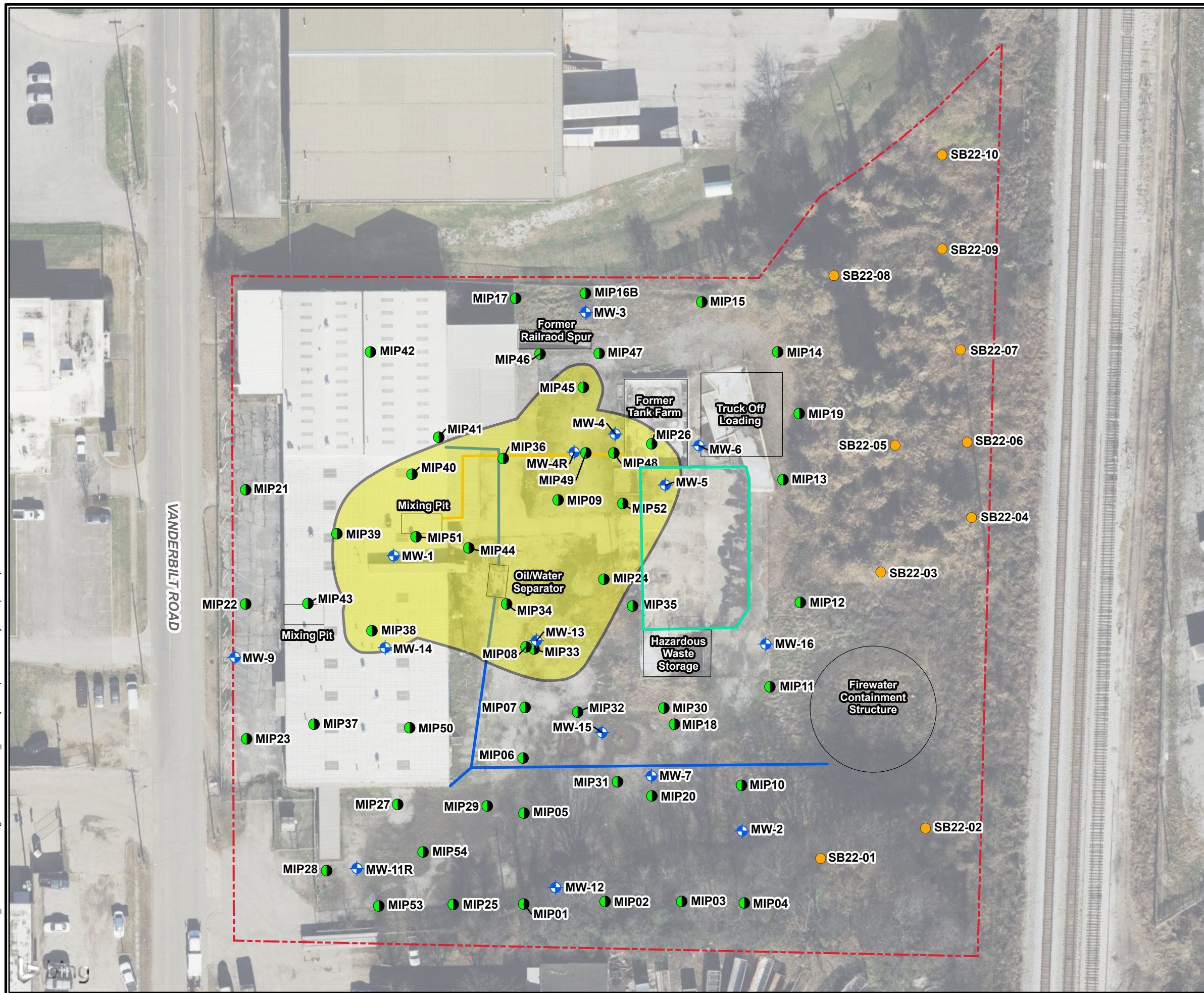
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1629 AND 1661 VANDERBILT ROAD
BIRMINGHAM, ALABAMA 35234

SITE LAYOUT



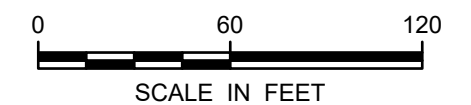
FIGURE

2



LEGEND

- 2022 SOIL BORING
- MIP/HPT LOCATION
- MONITORING WELL
- DRAIN LINE
- PRODUCT TRANSFER LINE
- SITE BOUNDARY
- FORMER SITE FEATURE
- CONCRETE CONTAINMENT PAD FOR STAGING EXCAVATED SOIL
- PROPOSED EXCAVATION EXTENT



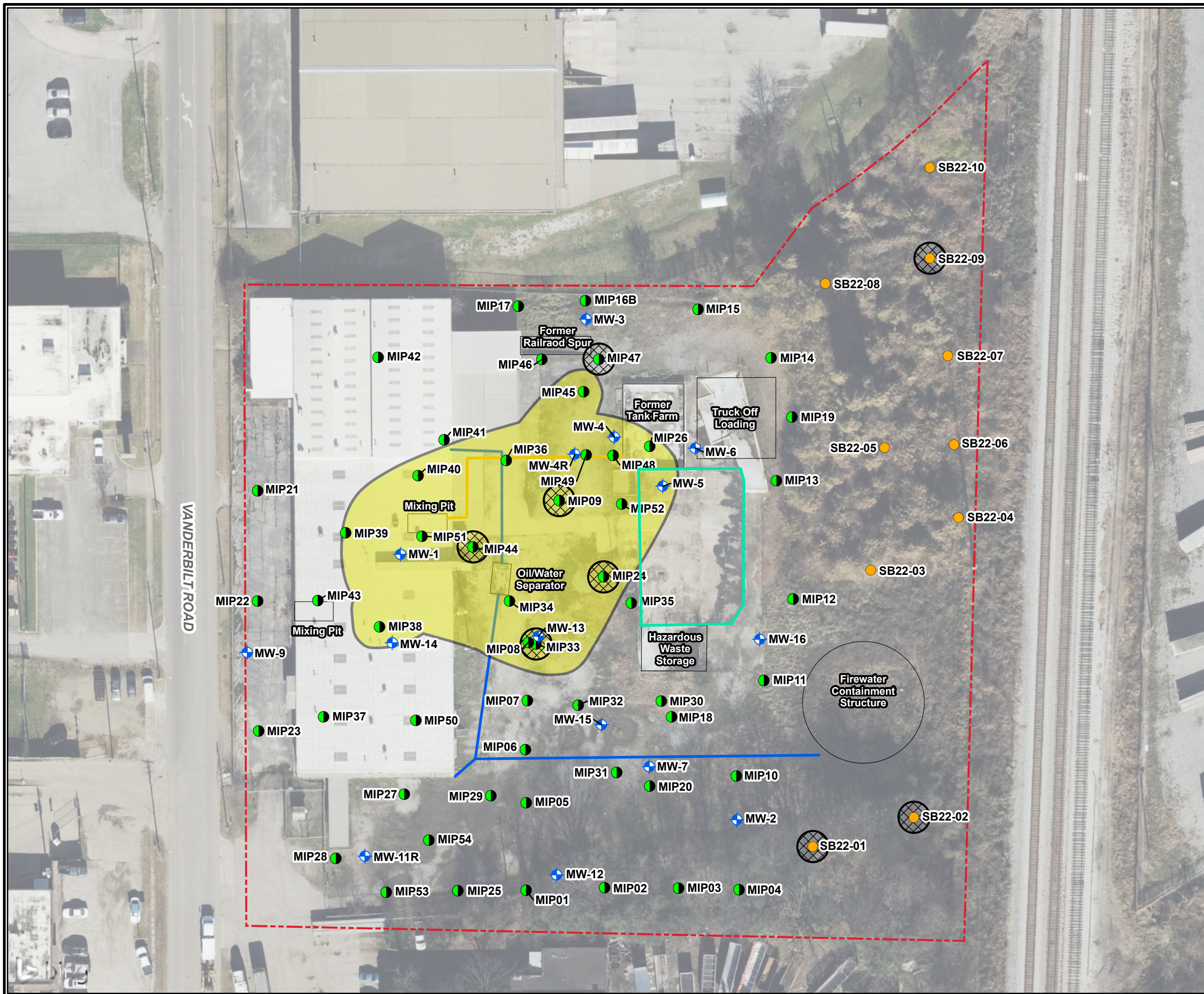
- NOTES:
- ALL LOCATIONS ARE APPROXIMATE.
 - MIP = MEMBRANE INTERFACE PROBE
 - HPT = HYDRAULIC PROFILING TOOL

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EXCAVATION AREA AND STOCKPILE STAGING AREA

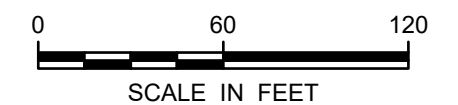


FIGURE



LEGEND

- 2022 SOIL BORING
- MIP/HPT LOCATION
- MONITORING WELL
- DRAIN LINE
- PRODUCT TRANSFER LINE
- SITE BOUNDARY
- FORMER SITE FEATURE
- CONCRETE CONTAINMENT PAD FOR STAGING EXCAVATED SOIL
- PROPOSED EXCAVATION EXTENT
- SATELLITE TARGET EXCAVATION



- NOTES:
- ALL LOCATIONS ARE APPROXIMATE.
 - MIP = MEMBRANE INTERFACE PROBE
 - HPT = HYDRAULIC PROFILING TOOL

AKZO NOBEL SERVICES INC
1629 AND 1661 VANDERBILT ROAD
BIRMINGHAM, ALABAMA 35234

TARGET SOIL EXCAVATION AREAS



FIGURE

4

Appendix A

Alabama Risk-Based Corrective Action Report

AkzoNobel

ALABAMA RISK-BASED CORRECTIVE ACTION REPORT

**1629 and 1661 Vanderbilt Road
Birmingham, Jefferson County, Alabama**

July 16, 2023
Revised May 23, 2025

ALABAMA RISK-BASED CORRECTIVE ACTION REPORT

AkzoNobel

**1629 and 1661 Vanderbilt Road
Birmingham, Jefferson County, Alabama**

July 19, 2023

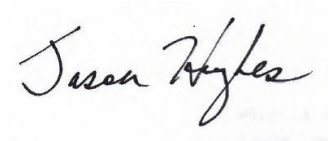
Revised May 23, 2025

Prepared By:

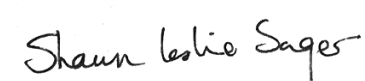
Arcadis U.S., Inc.
1443 1st Avenue South, Suite 109
Birmingham, Alabama 35233
Phone: 205 930 5700

Our Ref:

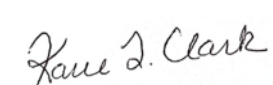
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Jason M. Hughes, PG
Alabama Professional Geologist No. 1118
Project Manager



Shawn L. Sager, Ph.D.
Principal Scientist



Kacie L. Clark
Staff Environmental Scientist

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Figure 1. Site Location Map

Figure 2. Site Map

Figure 3. Groundwater Elevation Map

Figure 4. Conceptual Site Model

Appendices

Appendix A. Johnson and Ettinger Model

Appendix B. Adult Lead Model

Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
ARBCA	Alabama Risk-Based Corrective Action
Arcadis	Arcadis U.S., Inc.
AST	above ground storage tank
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below grade surface
Bhate	Bhate Environmental Associates, Inc.
°C	degrees Celsius
CalEPA	California Environmental Protection Agency
CSF	cancer slope factor
COC	constituent of concern
CSM	conceptual site model
ELCR	excess lifetime cancer risk
EPC	exposure point concentration
ERM	ERM-Midwest Inc.
ft	feet
HHRA	Human Health Risk Assessment
HI	hazard index
HQ	hazard quotient
HREC	historical recognized environmental condition
IUR	inhalation unit risk
J&E	Johnson and Ettinger
Kd	soil-water distribution coefficient
Koc	organic carbon partition coefficient
Kow	octanol-water partition coefficient
LOAEL	lowest observed adverse effect level
MCL	maximum contaminant level
m	meters
m/sec	meters per second

Alabama Risk-Based Corrective Action Report

mg/L	milligram per liter
NOAEL	no observed adverse effect level
POC	point of compliance
POE	point of exposure
PSI	Preliminary Site Investigation
PSV	Preliminary Screening Value
RBTL	Risk-Based Target Level
REC	recognized environmental condition
RfC	reference concentration
RM-1	Risk Management-1
RME	reasonable maximum exposure
RSL	Regional Screening Level
Sovereign	Sovereign Consulting Inc.
SSL	soil screening level
UCL	upper confidence level
USEPA	United States Environmental Protection Agency
VF	volatilization factor
Vgw	groundwater flow velocity
VI	vapor intrusion
VDEQ	Virginia Department of Environmental Quality
VISL	vapor intrusion screening level
VOC	volatile organic compound

1 Introduction

Arcadis U.S., Inc. (Arcadis) is pleased to submit this Alabama Risk-Based Corrective Action (ARBCA) Report for the former AkzoNobel Coatings Inc. (AkzoNobel) plant at 1629 and 1661 Vanderbilt Road, Birmingham, Alabama (“the Site” see **Figure 1**). This risk assessment was prepared in accordance with ARBCA (Alabama Department of Environmental Management [ADEM] 2017) and United States Environmental Protection Agency (USEPA) risk assessment guidance (USEPA 2023 a, b; 2014; 2011a; 2009; 2004; 1989). It consists of a Regional Screening Level (RSL) evaluation and a Risk Management-1 (RM-1) evaluation. The ARBCA process is a tiered approach. The initial step is to compare constituent concentrations in environmental media at the Site to screening levels. If constituents are detected at concentrations greater than the screening levels, the ARBCA process continues to the RM-1 evaluation, which relies on default assumptions to refine the exposure and risk estimates. In this case, site specific risk based target levels (RBTLS) are calculated for use as cleanup goals at the Site for each constituent of concern (COC) and to inform future sampling events and data collection efforts.

This report is organized following the suggested ARBCA approach (ADEM 2017). The summary of the Site characterization information and background is followed by a comparison of the Site data to the USEPA RSLs. Some constituents were detected at concentrations above their screening levels or RSLs in the preliminary evaluation; therefore, an RM-1 evaluation was performed consisting of an exposure assessment, a toxicity assessment, and RBTLS calculations. The RM-1 conclusions and recommendations are presented based on RBTLS calculations and screening of the current dataset, in order to inform future sampling events and data collection at the Site. Subsequently, report conclusions and references are presented.

2 Site Characterization

This section summarizes relevant information such as a description of the Site and vicinity, the chronology of Site investigations, Site topography, Site geology and hydrogeology, current and future land use, current and future water use, release scenarios, as well as the COCs associated with the former Site operations.

2.1 Site Description and Land Use

The Site is located at 1629 and 1661 Vanderbilt Road, approximately one-half mile north of Interstate 20/59, and is approximately 4.2 acres in size (**Figure 1**). Prior to Site demolition activities in June 2022, onsite structures consisted of a “main” production building on the western side of the property that was approximately 31,500 square feet. The main building was divided into three equal sections and used for raw material storage, manufacturing or product mixing, and finished product storage. The office area of the main building was approximately 1,500 square feet and adjoined the raw material storage portion of the building. In addition, two truck shipping docks were present in the southeast portion of the main building structure. All Site above ground structures and the main building were demolished in June 2022, leaving only the concrete slab on grade foundation and shipping docks concrete slab connected to the main building slab.

East of the main building foundation is the foundation of the former tank farm and tanker unloading station. The former tank farm contained above ground storage tanks (ASTs) in a concrete secondary containment. All ASTs, secondary containments, and unloading stations have been demolished and removed from the Site. South of the former tank farm foundation is a 7,000 square foot concrete and curbed drum storage pad. This pad was used for the storage of drummed used and new materials. A covered and secured section of this pad was used as a 90-

day hazardous waste storage area. An approximate 54,000-gallon capacity stormwater containment pond, also used as water for fire protection in the event of a fire, is located on the southeast corner of the Site (see **Figure 2**).

A former underground concrete vault (oil/water separator) was present approximately 20 feet (ft) east of the main building foundation. This vault was used to capture liquids in case of a spill or release inside the building and stormwater. Drains located within the production area of the main building would capture any released materials and transfer materials to this vault for collection. Stormwater grates are present at former downspouts of the main building and drain to the former firewater containment pond via underground piping (**Figure 2**). A six-foot chain link fence surrounds the entire property and access is controlled by a locked gate.

The surrounding properties are considered mixed commercial and industrial. Lilly Company and Brother's Recycling Company are to the west of the Site across Vanderbilt Road, Water Science Technologies, Inc. is north of the Site, CSX Transportation railroad and an associated intermodal rail yard directly to the east, and Estes Express Trucking and Steel City Welding and Repair to the south of the Site.

According to the United States Geological Survey (USGS) quadrangle map, the Site is approximately 564 feet above mean sea level. The general topographical gradient is from the north-northwest to the south-southeast. During investigation activities, the Site was observed to be relatively flat with a slight slope to the southeast towards Village Creek.

2.2 Current Land Use

Operations and manufacturing ceased at the Site in approximately 2014. All above ground structures, including buildings, tanks, and offloading stations have been removed. Structures remaining are concrete building slabs (on grade) for the main building foundation, former tank farm foundation, and the drum and containment storage pad. The underground containment vault and some of the underground transfer and stormwater piping remain at the Site. The Site is not an active facility. All above ground structures and the main building were demolished in June 2022, leaving only the concrete slab on grade foundation and shipping docks concrete slab connecting to the main building slab. Land use at the Site is expected to remain industrial and land use restrictions are to be placed with the property deeds.

2.3 Site History and Previous Investigations

The Site was originally used as agricultural and residential land until 1952, when the original Site structure was constructed by Harnischfeger Corporation, makers of cranes, hoists, and mining equipment. In 1964, Hanna Chemical purchased the property and began bulk coating operations, which consisted of water- and chemical-based coatings and solvent use. In 1986, the Site was purchased by Reliance Universal from Hanna Corporation. AkzoNobel purchased the property and operations from Reliance Universal in 1989.

In May 1989, an Environmental Site Assessment Report was prepared by ERM-Midwest Inc. (ERM). The ERM site assessment included the collection of soil samples from eight locations at the Site. Results from the ERM assessment indicated the presence of various volatile organic compounds (VOCs) with total xylenes and metals detected above ADEM soil screening levels (SSLs) available at that time. Elevated concentrations were detected predominately around the drum storage areas and in the vicinity of the former tank farm (see **Figure 2**). According to the report, ADEM did not consider further action due to the shallow nature of the detected constituents (i.e., detects were 3 feet or less below the ground surface).

In August 2008, on behalf of AkzoNobel, Arcadis completed a Phase I Site Assessment (Phase I) to assess the current status of environmental conditions. Arcadis identified multiple recognized environmental conditions (RECs) and historical RECs (HRECs) associated with chemical storage, transfer piping, and the coatings operations as well as documentation provided by the Site regarding multiple releases.

In August 2013, Sovereign Consulting Inc. (Sovereign) conducted a Preliminary Site Investigation (PSI). During the investigation, Sovereign collected ninety-one samples from eleven areas of concern identified from previous investigations, including indoor production areas, underground and above ground piping areas, the tank farm, and outdoor drum storage areas. Soil samples were collected at the soil and groundwater interface at 4 feet (ft) to 5 ft below ground surface (bgs) from each of the eleven locations and analyzed for VOCs and metals. Based on analytical results, VOCs and metals were present in soil at concentrations that exceeded ADEM Preliminary Screening Values (PSVs) for Protection of Groundwater.

Based on the results of the 2013 PSI, Sovereign performed a Phase II Site Assessment (Phase II) in January 2014. The purpose of the Phase II was to determine the presence or absence of background metals in soil and groundwater, and to evaluate COCs in the areas identified during the PSI. The Phase II included installation and sampling of six groundwater monitoring wells (MW-1 through MW-6). Analytical results from the background soil sampling indicated several metals concentrations above the ADEM PSV for Protection of Groundwater. The groundwater analytical results indicated the presence of VOCs in all monitoring wells except MW-2 at concentrations exceeding ADEM ARBCA Direct Contact Exposure-Groundwater/Tap Water screening levels. Total and dissolved arsenic and selenium were detected in MW-1 at concentrations that exceeded screening levels. The concentration of total arsenic in the groundwater sample from MW-5 exceeded the screening level; however, the concentration of dissolved arsenic in the sample was below the screening level.

In July 2014, Bhate Environmental Associates, Inc. (Bhate) performed a Voluntary Property Assessment. Bhate collected additional soil samples from six boring locations to better define the extent of chlorinated and non-chlorinated solvents associated with former Site operational areas. These samples were collected at 2 ft intervals from the ground surface to the top of water table (approximately 4 ft bgs). In addition to collection of soil samples, one permanent bedrock well (MW-7) and five shallow permanent monitoring wells were installed during this investigation. Following the installation of MW-7, a sample was collected and analyzed for VOCs. Analytical results from the bedrock well (MW-7) indicated that VOCs were either not detected or below applicable screening criteria in the lower bedrock water-bearing zone.

In October 2021, AkzoNobel contracted Arcadis to characterize the Site, identify sources of constituents, and define the nature and extent of constituents in soil and groundwater. The assessment scope of work was completed during three events in December 2021, March 2022, and October 2022. High Resolution Site Characterization (HRSC) was performed by Arcadis and Columbia Technologies, Inc. using drilling technology equipped with a membrane interface probe, hydraulic profiling tool, and electrical conductivity sensor to map groundwater and constituent sources and extents in the subsurface. Targeted interval soil sampling and soil interval logging was completed to characterize the unsaturated zone and define extents of constituents in soil. Groundwater samples were collected from vertical aquifer profiling at targeted depth intervals in the saturated zone using HRSC technology. Additionally, the existing permanent wells were rehabilitated and six additional permanent wells were installed and sampled to supplement the monitoring well network.

2.4 Site Geology and Hydrogeology

The Site is located within the Valley and Ridge physiographic province of the Birmingham-Big Canoe Valley physiographic district. The Birmingham-Big Canoe Valley is characterized by northeast trending anticlinal and synclinal structures. The Site is underlain by the Cambrian-aged Ketona Dolomite and consists of light gray coarsely crystalline thick bedded dolomite.

Observed soil predominantly consists of light brown to dark brown clay with gravel clay layers encountered near the intersection of the bedrock surface. The bedrock surface is relatively shallow with the top of bedrock encountered from 5 ft to 10 ft bgs. Based on observations during subsurface and sub-slab investigations, it appears that foundry sand may have been used historically as construction fill in areas of the Site, particularly in and around the main building slab and parking lot areas surrounding the main structure. The use of foundry sand as fill was historically a common practice in the Birmingham area. The first zone of saturation and top of the water table is present as an unconfined groundwater system in the unconsolidated sediments above bedrock.

On October 18, 2022, depth to water (DTW) measurements were collected from the permanent monitoring well system (MW-1, MW-2, MW-3, MW-4R, MW-5, MW-6, MW-7, PMW-9, MW-11R, PMW-12, MW-13, MW-14, MW-15, and MW-16). During the October 2022 event, the DTW ranged from 2.81 ft below top of casing (btoc) at MW-6 to 6.28 ft btoc at MW-11R. The DTW measured in the deeper bedrock well (MW-7) was 3.28 ft btoc. The DTW measurements collected during the single measurement event were converted to groundwater elevations by subtracting the depth to groundwater from the surveyed top-of-casing elevation for each well. A potentiometric surface map was generated using the resulting elevations to determine the predominant groundwater flow direction at the Site. The groundwater flow direction was to the southeast, consistent with previous investigations. Groundwater flow direction is in the direction of Village Creek which is the discharge boundary for the shallow groundwater zone in the Site area. A groundwater elevation contour map for October 2022 is provided as **Figure 3**.

3 Regional Screening Level Evaluation

In the RSL evaluation, detected concentrations of the constituents of potential concern (COPCs) were compared to screening levels to identify constituents of concern (COCs). The following sections present the screening levels used in evaluation and identify the COCs for each medium.

3.1 Identification of Screening Levels

For the selection of COCs, the available data were summarized to include the frequency of detection, the range of detection limits, and the range of detected concentrations. COCs were identified by comparing maximum detected concentrations to the ARBCA (2017) identified screening levels. If the maximum detected concentration for a given constituent was greater than the screening level, the constituent was identified as a COC and quantitatively evaluated in this risk assessment.

The following screening levels were used:

- USEPA maximum contaminant levels (MCLs) (summarized in USEPA 2023a).

- USEPA RSLs (2023a): The non-carcinogenic residential and industrial soil and tap-water RSLs were based on a hazard quotient (HQ) of 0.1 in order to account for potential constituent additivity, while residential and industrial soil and tap-water RSLs based on carcinogenic effects were based on a target cancer risk of 1×10^{-6} .
- USEPA Vapor Intrusion Screening Levels (VISLs; USEPA 2023b) based on an HQ of 0.1 and a target cancer risk of 1×10^{-6} .

3.2 Identification of Constituents of Concern

The following sections discuss the samples for each medium-specific dataset, including the constituents analyzed and the constituents detected. The risk assessment surface soil (0-1 feet below ground surface [ft bgs] and combined soil dataset (0-8 ft bgs) are presented in **Tables 1 and 2**, respectively, and the groundwater dataset is presented in **Table 3**.

3.2.1 Soil

The soil data were collected between December 2021 and October 2022 from 0 to 8 ft bgs, where bedrock was encountered. The minimum average depth to groundwater was 4 ft bgs. Therefore, several of these samples are likely to have been collected from the saturated zone rather than the unsaturated zone. Soil data that were used in the risk assessment are presented in **Tables 1 and 2**.

For surface soil (0-1 ft) and combined surface and subsurface soil (0-8 ft), a summary of the detected soil constituents, the frequency of detection, the range of detected concentrations, the location of the maximum detected concentration, a comparison of constituent concentrations with the appropriate screening criteria, and the results of the COC identification step for soil are presented in **Tables 4 and 5**, respectively.

Maximum detected concentrations in soil were compared to the residential and industrial soil RSLs to identify COCs for soil exposure pathways, as seen in **Tables 4 and 5**. These COCs are used to evaluate the potential exposure of a future resident, future commercial worker, and hypothetical current and/or future construction worker exposure to direct contact with soil. The constituents exceeding the residential direct contact soil RSLs in surface soil are 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, naphthalene, total xylenes, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, arsenic, cadmium, lead, and mercury (**Table 4**). The constituents exceeding the industrial direct contact soil RSLs in surface soil (0-1 ft bgs) are 1,2,4-trimethylbenzene, ethylbenzene, total xylenes, arsenic, lead, and mercury (**Table 4**).

The constituents exceeding the residential direct contact soil RSLs in the combined soil (0-8 ft bgs) are 1,1,2-trichloroethane, 1,1-dichloroethane, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, ethylbenzene, m,p-xylenes, naphthalene, o-xylene, tetrachloroethene, toluene, total xylenes, trichloroethene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, arsenic, cadmium, lead, and mercury (**Table 5**). The constituents exceeding the industrial direct contact soil RSLs in combined soil (0-8 ft bgs) are 1,1,2-trichloroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, m,p-xylenes, naphthalene, o-xylene, tetrachloroethene, total xylenes, trichloroethene, benzo(a)pyrene, arsenic, lead, and mercury (**Table 5**).

Maximum detected concentrations in the soil dataset were compared to the protection of groundwater SSL. If there was an MCL based SSL, that value was used for the screening. If there was not an MCL based SSL, the risk-based SSL was used to screen, as seen in **Table 5**. These COCs are used to evaluate the potential for the

leaching to groundwater pathway. The leaching to groundwater COCs are 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2-dibromoethane, 1,3,5-trimethylbenzene, 2-butanone, 2-chlorotoluene, 4-methyl-2-pentanone, acetone, benzene, chlorobenzene, cis-1,2-dichloroethene, cymene, ethylbenzene, isopropylbenzene, m,p-xylenes, methylcyclohexane, methyl-tert-butyl ether, naphthalene, n-butylbenzene, n-propylbenzene, o-xylene, sec-butylbenzene, tert-butylbenzene, tetrachloroethene, toluene, total xylenes, trans-1,2-dichloroethene, trichloroethene, vinyl chloride, 2,4-dimethylphenol, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, bis(2-ethylhexyl)phthalate, butyl benzyl phthalate, dibenz(a,h)anthracene, di-n-butyl phthalate, indeno(1,2,3-cd)pyrene, isophorone, phenanthrene, pyrene, arsenic, barium, lead, mercury, selenium, and silver (**Table 5**). However, as soil and groundwater are shallow at the Site, leaching to groundwater impacts to receptors were assumed to be captured within the groundwater COC analysis.

3.2.2 Groundwater

Groundwater samples were collected in October 2022 from fourteen permanent wells (MW-01, MW-02, MW-03, MW-04R, MW-05, MW-06, MW-07, MW-11R, MW-13, MW-14, MW-15, MW-16, PMW-09, and PMW-12). Groundwater data that were used in the risk assessment are presented in **Table 3**.

A summary of the detected constituents, the frequency of detection, the range of detected concentrations, the location of the maximum detected concentration, a comparison of constituent concentrations with the appropriate screening criteria, and the results of the COC identification step for groundwater are presented in **Table 6**.

Maximum detected concentrations in the groundwater dataset were compared to the MCLs, if available. If MCLs were not available, maximum detected concentrations in groundwater were compared to the tap-water RSLs to identify COCs for groundwater exposure pathways, as seen in **Table 6**. These COCs are used to evaluate the potential use of groundwater as a potable water supply by a hypothetical future resident and a current and/or future commercial worker exposure although it is unlikely that groundwater at the Site would be used as a potable water supply. The potable use or direct contact groundwater COCs are 1,1-dichloroethane, 1,1-dichloroethene, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, acetone, benzene, chloroform, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, toluene, total xylenes, vinyl chloride, 2,4-dimethylphenol, benz(a)anthracene, dibenz(a,h)anthracene, isophorone, arsenic, and lead. These constituents were also used to evaluate potential construction worker exposure to COCs in an excavation.

All volatile constituents detected in the groundwater also were compared to USEPA VISLs for a resident and a commercial worker (USEPA 2023a) to identify COCs for the vapor intrusion pathway evaluated for a hypothetical future resident and a current and/or future commercial worker, respectively. The VISLs and the vapor intrusion COCs in groundwater are identified in **Table 6**. The constituents 1,1-dichloroethane, 1,1-dichloroethene, benzene, chloroform, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, and naphthalene were identified as COCs for the residential vapor intrusion pathway. For the industrial vapor intrusion pathway, 1,1-dichloroethane, benzene, cis-1,2-dichloroethene, ethylbenzene, and naphthalene were identified as COCs.

3.3 RSL Evaluation Summary

The constituents exceeding the residential direct contact soil RSLs in surface soil (0-1 ft bgs) are 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, naphthalene, total xylenes,

benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, arsenic, cadmium, lead, and mercury. The constituents exceeding the industrial direct contact soil RSLs in surface soil (0-1 ft bgs) are 1,2,4-Trimethylbenzene, ethylbenzene, total xylenes, arsenic, lead, and mercury.

The constituents exceeding the residential direct contact soil RSLs in the combined soil (0-8 ft bgs) are 1,1,2-trichloroethane, 1,1-dichloroethane, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, cis-1,2-dichloroethene, ethylbenzene, m,p-xylenes, naphthalene, o-xylene, tetrachloroethene, toluene, total xylenes, trichloroethene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, arsenic, cadmium, lead, and mercury. The constituents exceeding the industrial direct contact soil RSLs in combined soil (0-8 ft bgs) are 1,1,2-trichloroethane, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, m,p-xylenes, naphthalene, o-xylene, tetrachloroethene, total xylenes, trichloroethene, benzo(a)pyrene, arsenic, lead, and mercury.

The potable use or direct contact groundwater COCs are 1,1-dichloroethane, 1,1-dichloroethene, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, acetone, benzene, chloroform, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, toluene, total xylenes, vinyl chloride, 2,4-dimethylphenol, benz(a)anthracene, dibenz(a,h)anthracene, isophorone, arsenic, and lead.

The constituents 1,1-dichloroethane, 1,1-dichloroethene, benzene, chloroform, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, and naphthalene were identified as COCs for the residential vapor intrusion pathway. For the industrial vapor intrusion pathway, 1,1-dichloroethane, benzene, cis-1,2-dichloroethene, ethylbenzene, and naphthalene were COCs.

All COCs are summarized in **Table 7**.

4 Risk Management 1 (RM-1) Evaluation

Because constituents were present in soil and groundwater above their screening levels, an RM-1 level evaluation was conducted. The RM-1 evaluation includes a conceptual site model, description of release sources, and the identification of any human and ecological receptors.

4.1 Conceptual Site Model

The conceptual site model (CSM) is a principal component of the exposure assessment. It provides site-specific information to identify the source, receptor, exposure points, and exposure routes (**Figure 4**). Exposure points are locations where exposure could occur, and exposure routes describe the basic mechanisms by which the COCs may contact the body. All these elements must be present for a complete exposure pathway to exist. The components of the CSM are briefly discussed below.

4.1.1 Release Sources

No major spills or discharges have occurred or are documented at the Site, rather incidental small spills from operations likely occurred through time. The former tank farm contained ASTs in concrete secondary containment. All ASTs, secondary containments, and unloading stations have been demolished and removed from the Site. South of the former tank farm foundation is a 7,000 square foot concrete and curbed drum storage

pad. This pad was used for the storage of drummed used and new materials. A covered and secured section of this pad was used as a 90-day hazardous waste storage area.

4.1.2 Potential Current and Future Human Receptors

Hypothetical future site workers, hypothetical current and/or future trespassers, hypothetical future construction workers, and hypothetical future residents may come into contact with COCs in surface and or subsurface soils. A hypothetical future site worker or resident may be exposed to vapors from groundwater vapor intrusion at the Site. While COCs were identified for the residential vapor intrusion exposure pathway for migration of vapors into a building from groundwater, the downgradient boundary wells MW-11R and MW-02 did not have any exceedance of the residential VISLS in these wells. Therefore, the offsite residential exposure to vapor intrusion from groundwater was not considered a complete exposure pathway and not evaluated further. COCs were identified for the vapor intrusion exposure pathway for hypothetical future site workers. Although the Site is currently an industrial site and groundwater is not used as a potable water supply at the Site or offsite, as there is a prohibition on private wells within the city limits of Birmingham, there is the potential a residence could be built or a well could be drilled onsite. As COCs were detected at concentrations above residential and industrial soil RSLs, MCLs or tap-water RSLs, it is recommended that land use controls to restrict future residential development of the Site and potable groundwater use restrictions be implemented. As a result of groundwater use restrictions to be placed, potential future residential exposure is not evaluated in this risk assessment.

The average depth to groundwater is approximately 4 ft bgs. Therefore, future construction activities would result in workers directly contacting groundwater through incidental ingestion, dermal contact, and inhalation of vapors. The following human receptors were identified at the Site, assuming land use and potable groundwater use restrictions are implemented:

- Hypothetical future commercial workers;
- Hypothetical future construction workers; and
- Current and hypothetical future adolescent trespassers.

4.1.3 Ecological Receptors

Ecological receptors could potentially contact COCs in 0-1 ft soil if impacted soil were uncovered. However, while the Site is inactive and the buildings have been demolished, the foundations remain thereby creating a barrier for terrestrial receptors to contact surface soil. As a result, this is not considered a complete exposure pathway. The closest downgradient surface water body is Village Creek, located directly southeast of the Site. Based on the information included in the VCP Assessment Report (Arcadis 2023), there is no evidence that site-related constituents are migrating off the property. Therefore, it is unlikely that there would be surface water impacts from groundwater release to surface water.

4.1.4 Exposure Pathways

The following receptors and exposure pathways were considered in the RBTL calculations based on currently available information (**Figure 4**):

- Ingestion, dermal, and inhalation exposure to surface soils by a hypothetical future commercial worker.

- Ingestion, dermal, and inhalation exposure to surface and/or subsurface soils by a hypothetical future construction worker.
- Ingestion, dermal, and inhalation exposure to surface soils by a current and/or hypothetical future adolescent trespasser.
- Inhalation of vapors migrating from groundwater to indoor air by hypothetical future commercial workers.
- Ingestion, dermal contact, and inhalation of vapors migrating into an excavation area by a hypothetical future construction worker excavating in a trench.

Inhalation of vapors can occur both in outdoor and indoor air. However, vapors tend to concentrate in indoor air resulting in higher exposure; therefore, evaluation of the inhalation of vapors in indoor air is protective of inhalation of vapors in outdoor air.

4.1.5 Exposure Factors

Exposure parameters are receptor- and scenario-specific values that are used in risk calculations. They include, for example, such receptor-specific characteristics as body weight and ingestion rates and such scenario-specific items as the total period a receptor is exposed to COCs and the frequency with which exposure occurs. Receptor-specific exposure assumptions were obtained from USEPA guidance (USEPA 1989, 2002, 2011a, 2014). Receptor exposure assumptions were selected so that risk calculated will be for the reasonable maximum exposure (RME) scenario. Receptor-specific exposure parameters are presented on **Table 8**.

4.1.6 Quantification of Exposure

The equations used to calculate RBTLs for exposure to constituents in soil are presented in **Table 9** for passive exposure (i.e., commercial/industrial scenario), and **Table 10** for a soil invasive exposure scenario (i.e., construction worker exposure). **Table 11** presents the equations used to estimate risk from exposure to water at a construction site where groundwater might intersect the bottom of a trench.

4.1.7 Physical Properties

Constituent-specific physical and chemical properties are used in the risk assessment to determine volatilization factors for each constituent. These physical properties include: the molecular weight, water solubility, vapor pressure, Henry's Law Constant, diffusivity in air and water, the organic carbon partition coefficient (K_{oc}), the soil-water distribution coefficient (K_d), and the octanol-water partition coefficient (K_{ow}). **Tables 12 to 15** present the constituent-specific physical and chemical properties that are used in the risk assessment, as discussed further in the following sections.

4.1.8 Volatilization Factor for Soil

To evaluate emission of volatiles from soil, constituent-specific volatilization factors (VFs) were calculated using USEPA (2002b) guidance. The VF equation can be broken into two separate models: a model to estimate the emissions and a model to estimate the dispersion (reduced to the term Q/C) that simulates the dispersion of volatile constituents in ambient air. USEPA default parameters were used to estimate the VF, using the equations in **Table 9** and **Table 10**, respectively, for passive and invasive exposure scenarios. Input parameters and the resulting VFs can be found in **Table 12**.

4.1.9 Particulate Emission Factor for Soil

To estimate emissions of non-volatiles from soil, constituent-specific particulate emission factors (PEFs) were calculated. **Table 13** shows the calculations for both the invasive (construction worker) and non-invasive (wind driven/site worker exposure). The area of the Site was assumed to be the USEPA default of 0.5 acres with 90 days of construction per year and 9 vehicles onsite.

4.1.10 Volatilization Factor for Groundwater

Emissions via volatilization from groundwater migrating into a trench were estimated following USEPA (1988) and VDEQ (2022) guidance. The average depth to groundwater based on the groundwater data was 4 ft bgs. The groundwater volatilization factor (VF) equation can be found in **Table 11**. The VF was calculated assuming that there was exposed water in the trench. The majority of the soil at the Site can be classified as clay and the properties of this type of soil were used to evaluate this exposure pathway. The results of the VF calculations are presented in **Table 14**.

The VF was calculated using the VDEQ default air exchange rate of 2 exchanges per hour based on “urban canyon” studies (i.e., air flow between skyscrapers above ground in an urban setting) and air exchange rates representative of enclosed buildings. As such, the default VDEQ value is anticipated to significantly overestimate ventilation in a construction trench open to the atmosphere and thus overestimates exposure and risk.

4.1.11 Dermal Absorption of Constituents of Potential Concern in Soil

Dermal absorption efficiencies (ABSd) are used to reflect desorption of the constituent from soil and sediment and the absorption of the constituent across the skin. The ABSd terms are constituent-specific, however, general factors for classes of compounds have been recommended by USEPA (2004). The constituent specific ABSd values are provided in **Table 15**.

4.1.12 Dermal Absorption of Constituents of Potential Concern in Water

USEPA (2004) recommends that a dermally absorbed dose from water (e.g., groundwater) be evaluated for the COCs if individuals were to contact groundwater. The absorption of COCs from water through the skin is a function of the constituent-specific permeability coefficient, the thickness of the skin, and the duration of exposure. The constituent-specific permeability coefficient is included in **Table 15**.

4.1.13 Vapor Intrusion into Buildings

The evaluation of the vapor intrusion (VI) exposure pathway used the USEPA Johnson and Ettinger (J&E) Model (USEPA 2017b). The USEPA J&E model was used to evaluate potential migration of COCs from groundwater. An average groundwater temperature of 18.3°C was estimated based on the most recent groundwater monitoring data and soil were assumed to be clay for the average depth to groundwater of 4 feet. The J&E model inputs and outputs for a site worker is included in **Appendix A**.

4.2 Toxicological Properties

The toxicity assessment describes the relationship between the administered and/or the absorbed dose of a constituent and the magnitude or likelihood of adverse health effects (USEPA 1989). Toxicity values for potential non-carcinogenic and carcinogenic effects were obtained consistent with the recommended USEPA hierarchy (USEPA 2003) and the latest USEPA guidance (USEPA, 2009). Therefore, the following sources were used to obtain toxicity values, in the order in which they are presented below.

- USEPA's Integrated Risk Information System (USEPA 2023c);
- USEPA's Provisional Peer Reviewed Toxicity Values (USEPA 2023d);
- Agency for Toxic Substances and Disease Registry (ATSDR 2023);
- The California Environmental Protection Agency, Office of Environmental Health Hazard Assessment's Toxicity Criteria Database (CalEPA 2023); and
- USEPA's Health Effects Assessment Summary Tables (HEAST) (USEPA, 2011b).

4.2.1 Non-Carcinogenic Effects

For many non-carcinogenic effects, protective mechanisms must be overcome before an effect is manifested. Therefore, a finite dose (threshold), below which adverse effects will not occur, exists for non-carcinogens. Depending on the dose, a single compound might elicit several adverse effects in the exposure route, the duration of exposure, and the susceptibility of the individual. Constituents may exhibit their toxic effects at the point of application or contact (local effect) or at other sites (systemic effects) after they have been distributed throughout the body. Most constituents can produce more than one type of toxic effect, depending on the dose and the susceptibility of the exposed individual, or receptor. The goal of toxicity studies for application in risk assessment is to identify the most sensitive toxic effect and the exposure levels that are expected to be safe. The potential for non-carcinogenic effects is estimated by comparing a calculated exposure dose with a reference dose (RfD) for each individual constituent. The RfD represents a daily exposure level that is designed to be protective of human health, even for sensitive individuals or subpopulations. The reference concentration (RfC) is a comparable level that represents an air concentration designed to be protective of human health, including sensitive individuals and subpopulations.

RfDs and RfCs are generally calculated by determining the highest dose at which there are no observed adverse effects (NOAEL) and by adjusting this dose using a series of uncertainty factors and modifying factors. The uncertainty factors are intended to conservatively account for: the variation in sensitivity within the human population; uncertainty in extrapolating from animals to humans; uncertainty in extrapolating from short-term animal studies to chronic exposures in humans; and/or the inability of the toxicological database to address all possible adverse outcomes in humans. The modifying factors may be applied to address specific scientific uncertainties or overall database quality. For studies in which a NOAEL cannot be identified, the lowest observable adverse effect level (LOAEL) is used, and an additional uncertainty factor is applied to account for the uncertainty of using LOAEL data rather than NOAEL data.

RfDs and RfCs represent a daily exposure level that is not expected to cause adverse non-carcinogenic health effects. Chronic RfDs and RfCs are used to assess long-term exposures ranging from 7 years to a lifetime. Subchronic RfDs and RfCs are used to evaluate the potential for adverse health effects associated with exposure to constituents over a period of 2 weeks to 7 years. Subchronic RfDs and RfCs were used to assess the risk

assumed by the construction worker while chronic RfDs and RfCs were used for receptors under the commercial and residential use scenarios. Non-carcinogenic toxicity values for the COCs were obtained consistent with the recommended USEPA hierarchy (USEPA 2003) and the latest USEPA guidance (USEPA 2004, 2009).

Table 16 presents the RfDs used to assess oral and dermal exposure, and **Table 17** presents the RfCs used to assess inhalation exposure. **Table 16** and **Table 17** also present the target sites associated with the non-carcinogenic toxicity values for each constituent varying with the exposure route. USEPA confidence values and uncertainty factors associated with the RfDs and RfCs also are listed. The uncertainty factor represents areas of uncertainty inherent in the extrapolation from the available data. The confidence levels (low, medium, and high) assess the degree of confidence in the extrapolation of available data.

4.2.2 Carcinogenic Effects

Cancer induction in humans and animals by constituents proceeds through a complex series of reactions and processes. Carcinogenic constituents may produce tumors at the point of application or contact, or they may produce tumors in other tissues after they have been distributed throughout the body. Some constituents are associated only with one or two tumor types while others may cause tumors at many different sites. Constituents are classified as known, probable, or possible human carcinogens based on a USEPA weight-of-evidence scheme in which they are systematically evaluated for their ability to cause cancer in humans or laboratory animals. The USEPA classification scheme (1986) contains five classes based on the weight of available evidence, as follows:

A: Known human carcinogen.

B: Probable human carcinogen.

B1: Probable human carcinogen—limited evidence in humans.

B2: Probable human carcinogen—sufficient evidence in animals and inadequate data in humans.

C: Possible human carcinogen—limited evidence in animals.

D: Inadequate evidence to classify.

E: Evidence of non-carcinogenicity.

The USEPA (2005) classification scheme contains six classes, as follows:

H: Carcinogenic to humans.

L: Likely to be carcinogenic to humans.

L/N: Likely to be carcinogenic above a specified dose but not likely to be carcinogenic below that dose because a key event in tumor formation does not occur below that dose.

S: Suggestive evidence of carcinogenic potential.

I: Inadequate information to assess carcinogenic potential.

N: Not likely to be carcinogenic to humans

USEPA's Cancer Guidelines (USEPA 2005a) recommend a conservative default approach in which it is assumed that any level of exposure could cause cancer when data are not adequate to understand the mode of action.

Although the 2005a guidelines recommend that USEPA consider both linear and nonlinear dose-response models, USEPA generally relies on the default approach. This method extrapolates from either the lowest dose or point of departure from laboratory animal data using a mathematical model that plots a line through the zero point and based on the slope of this dose-response line, assigns a risk level for increasingly smaller doses of a particular compound. While constructing the linear extrapolation from animal or human data, USEPA uses values that are based on a 95 percent upper confidence level (UCL) of the dose/response slope. The UCL for the slope of this line is called the cancer slope factor (CSF) for oral and dermal exposure. The inhalation unit risk (IUR) factor for inhalation exposure is derived in a similar manner.

Both the CSF and IUR are used to assess carcinogenic risk and are derived from the conservative assumption that any dose level has a possibility of causing cancer. Therefore, any risk estimates derived from the model are based on values higher than those reported in the underlying studies and not the most likely estimates generated by applying the mathematical model to the actual study data. The cumulative dose, regardless of the particular exposure period, determines the risk; therefore, separate CSFs and IURs are not derived for sub chronic and chronic exposure periods. **Table 18** and **Table 19** present the carcinogenic toxicity values for oral and dermal exposure and for inhalation exposure, respectively, to the COCs at the Site.

4.2.3 Dermal Toxicity Values

USEPA has not yet developed toxicity values for dermal exposures. For this reason, the oral toxicity values (RfD_o and CSF_o) and the oral absorption efficiency were used to derive adjusted toxicity values (RfD_a and CSF_a) (adjusted to the absorbed dose) for use in assessing dermal exposure (USEPA 1989):

$$RfD_a = RfD_o \times \text{Oral Absorption Efficiency}$$

$$CSF_a = CSF_o / \text{Oral Absorption Efficiency}$$

The adjusted toxicity values represent the theoretical toxicity of the orally absorbed dose of the constituent secondary to dermal exposure. USEPA guidance recommends that the oral toxicity values for organic constituents and many inorganic constituents should not be adjusted to assess dermal exposure (i.e., oral absorption efficiency = 1) and presents recommended oral absorption efficiencies for a few inorganics (USEPA 2004).

The oral absorption efficiency values and the RfD_a used to assess risk for the dermal exposure route are presented in **Table 16** for noncarcinogens and **Table 18** for carcinogens. Uncertainty is associated with the adjusted toxicity values and with the dermal risks derived using these values, due to the uncertainty in the oral toxicity values combined with the uncertainty in the oral absorption efficiency default and constituent-specific values. However, the calculated dermal risks are expected to be very conservative and, therefore, will overestimate human health risks.

4.2.4 Arsenic Toxicity

Research suggests that the relative bioavailability of arsenic by the oral route is less than 100%. The USEPA Technical Review Workgroup Bioavailability Committee reviewed estimates of arsenic's relative bioavailability data to determine an appropriate recommendation. USEPA (2012) recommended a relative bioavailability factor (RBF) of 0.6 (or 60%) in the absence of site-specific data. Therefore, the arsenic oral dose from exposure through incidental ingestion of soil was adjusted using an RBF of 60%, consistent with USEPA (2023e) guidance and calculations in the USEPA RSL tables (USEPA 2023a).

4.2.5 Lead Toxicity

Exposure to lead is evaluated differently than other constituents because the USEPA has not derived toxicity values for this substance as it has done for other constituents. Rather, exposure to lead is best evaluated by measuring or predicting blood lead levels. Central tendency values are utilized because they achieve health-protectiveness by evaluating estimates of the predicted blood lead concentration at the upper tail of a lognormal probability distribution. The inputs to the lead model are selected to yield the best estimate of the central tendency (geometric mean). The high-end estimate of risk is determined by applying a lognormal distribution assumption at a post-processing step. Therefore, inputs to the models should be central tendency values (e.g., arithmetic means or medians) rather than the high-end values that are typically selected to estimate reasonable maximum exposure doses and risks for other constituents.

The predicted blood lead levels are compared to national health criteria specifying that no more than 5% of the population exceed the 5 micrograms per deciliter ($\mu\text{g/dL}$) blood lead level. A projected 95th percentile blood lead level exceeding 5 $\mu\text{g/dL}$ can be interpreted to suggest that more than 5% of the population is expected to have blood lead levels greater than the criteria level.

4.3 Risk Based Target Level Calculations

The calculation of RBTLs requires the assumption of acceptable “target” risk levels for carcinogenic and non-carcinogenic effects. The calculation then results in soil and groundwater concentrations based on those acceptable risk levels. An excess lifetime cancer risk of 10^{-5} represents an additional probability of developing cancer, over the baseline or background risk applying to the general population, of 1 in 100,000 due to the effect of exposure to the relevant constituent. A non-cancer hazard of 1 indicates that the exposure level is equal to the reference exposure level that is not expected to produce non-carcinogenic effects, even for sensitive individuals or subpopulations. For carcinogens which also have available non-carcinogenic toxicity values, the recommended RBTL value is the minimum of the values based on potential carcinogenic and non-carcinogenic effects.

RBTLs were calculated for all COCs. In the cases where both cancer and non-cancer toxicity values are available, RBTLs were calculated for both endpoints and the lower of the two was selected as the RBTL. In the RSL screening evaluation, a target HQ of 0.1 is used to account for potential additivity. If there are less than 10 constituents, the target HQ can be adjusted to reflect a cumulative HI of 1 (ADEM 2017). For the potential exposure to surface soil, there are only five constituents with non-cancer toxicity values. As a result, for the surface soil RBTLs, each RBTL could have been calculated using a target HQ of 0.2. However, in a comment received from ADEM (2025), the request was made to use a target HQ of 0.1. The surface soil RBTLs for the site worker and trespasser are presented in **Table 20** and **Table 22**, respectively. A summary of the minimum RBTLs for a site worker and an adolescent trespasser for surface soil are presented in **Table 25**. The USEPA (2017a) Adult Lead Model (ALM) was used to calculate an RBTL for lead. The ALM estimates the amount of lead that may reach the bloodstream following exposure, and the results are provided in **Appendix B**.

RBTLs for the construction worker are found in **Table 21** for soil exposure and **Table 23** for groundwater exposure. Due to the number of constituents, RBTLs were calculated based on a target risk of 1×10^{-6} and a target HQ of 0.1. The lower of the cancer or non-cancer RBTL for each COPC was selected as the most conservative value of a TCR = 10^{-6} and a THQ of 0.1. A summary of the minimum RBTLs for a construction worker contacting combined soil is presented in **Table 26**. A summary of the construction worker minimum RBTLs in groundwater for each COPC are presented in **Table 27**.

RBTLs for the vapor intrusion pathway were derived in **Appendix A**. RBTLs for the vapor intrusion pathway are presented in **Table 24**. A summary of the minimum RBTLs for vapor intrusion for the site worker are presented in **Table 28**.

Tables 29 to 31 provide a comparison of the COPCs for surface soil, combined soil, and direct contact with groundwater, respectively to the RBTLs. The derivation of the RBTLs and the results of the RBTL comparison are discussed below.

4.3.1 Risk Based Target Levels for Direct Contact with Soil

Potential exposure to soil was considered for the site worker, trespasser, and construction worker. The following sections discuss the results of the RBTL derivation and a comparison of the soil data to the RBTLs.

4.3.1.1 Hypothetical Future Site Worker

The equations used to derive the soil RBTL for the hypothetical future site worker are presented in **Table 9**. The soil VF and the PEF were derived in **Tables 12** and **13**, respectively. The toxicity values are found in **Tables 16** through **19**. The results of the RBTL calculations are presented in **Table 20**.

Maximum concentrations in surface soil were compared to the RBTLs and results are presented in **Table 25**. When compared to maximum concentrations in surface soil (0-1 ft bgs), RBTLs for the site worker exposure were exceeded for 1,2,4-trimethylbenzene, ethylbenzene, total xylenes, lead, and mercury. COPCs for surface soil data are presented in **Table 29** and the data are compared to the site worker RBTLs. 1,2,4-Trimethylbenzene and total xylenes exceeded the RBTL for the site worker only at location MIP-51. Ethylbenzene exceeded the RBTL for the site worker only at location MIP-33. Ethylbenzene was the only constituent that exceeded the RBTL with an RBTL based on the cancer endpoint. The ARBCA (2017) guidance indicates that the cumulative cancer risk should be 1×10^{-5} . If the RBTL for ethylbenzene is set at 1×10^{-6} and the RBTL for arsenic is set at 1×10^{-5} , then all of the arsenic concentrations are below the RBTL of 30 mg/kg. The lead RBTL of 1,050 mg/kg was exceeded only at MIP-33 and the mercury RBTL of 70 mg/kg was exceeded only at MIP-24.

4.3.1.2 Current and Hypothetical Future Trespasser

The equations used to derive the soil RBTL for the current and hypothetical future trespasser are presented in **Table 9**. The soil VF and the PEF were derived in **Tables 12** and **13**, respectively. The toxicity values are found in **Tables 16** through **19**. The results of the RBTL calculations are presented in **Table 22**.

Maximum concentrations in surface soil were compared to the RBTLs and results are presented in **Table 25**. When compared to maximum concentrations in surface soil (0-1 ft bgs), RBTLs for the trespasser exposure were not exceeded by any of the COPCs. COPCs for surface soil data are presented in **Table 29** and the data are compared to the trespasser RBTLs. Only ethylbenzene and arsenic RBTL were based on a cancer endpoint assuming a target cancer risk of 1×10^{-6} . The ARBCA (2017) guidance indicates that the cumulative cancer risk should be 1×10^{-5} . If the RBTL for all surface soil COPCs is set at 1×10^{-6} and the RBTL for arsenic is set at 1×10^{-5} , then all COPC concentrations are below the RBTLs.

4.3.1.3 Hypothetical Future Construction Workers

The equations used to derive the soil RBTL for the hypothetical future construction worker are presented in **Table 10**. The soil VF and the PEF were derived in **Tables 12** and **13**, respectively. The toxicity values are found in **Tables 16** through **19**. The results of the RBTL calculations are presented in **Table 21**.

Maximum concentrations in combined soil (0-8 ft bgs) were compared to the RBTLs and results are presented in **Table 26**. When compared to maximum concentrations in combined soil (0-8 ft bgs), RBTLs for the construction worker exposure were exceeded for 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, m,p-xylenes, naphthalene, o-xylene, tetrachloroethene, total xylenes, trichloroethene, arsenic, lead, and mercury. COPCs for combined soil data are presented in **Table 30** and the data are compared to the construction worker RBTLs. While VOC's and arsenic exceeded the RBTLs at several locations and depths for the construction worker, lead exceeded only at MIP-33 and mercury exceeded only at MIP-24. These lead and mercury exceedances both occurred at 0-1 ft bgs. Ethylbenzene was the only constituent with an RBTL based on the cancer endpoint. If the RBTL for ethylbenzene is set at 1×10^{-5} , the RBTL would increase from 279 mg/kg to 1,300 mg/kg. only MIP-8 would have concentrations above the RBTL.

4.3.2 Risk Based Target Levels for Direct Contact with Groundwater

The equations used to derive the groundwater RBTL for the hypothetical future construction worker are presented in **Table 11**. The water VF and the dermal absorption parameters were derived in **Tables 14** and **15**, respectively. The toxicity values are found in **Tables 16** through **19**. The results of the RBTL calculations are presented in **Table 23**.

Maximum concentrations in groundwater were compared to the RBTLs and results are presented in **Table 27**. When compared to maximum concentrations in groundwater, RBTLs for the construction worker exposure were exceeded for 1,1-dichloroethane, 1,1-dichloroethene, 1,2,3-trimethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, benzene, cis-1,2-dichloroethene, ethylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, toluene, total xylenes, vinyl chloride, and lead. COPCs for direct contact with groundwater are presented in **Table 31** and the data are compared to the construction worker RBTLs. While VOCs exceeded the RBTLs at several locations and depths for the construction worker, lead exceeded only at MW-01.

4.3.3 Risk Based Target Levels for Groundwater Vapor Intrusion

The USEPA Johnson and Ettinger model (USEPA 2017b) was used to calculate RBTLs for a hypothetical site worker exposure to groundwater vapor intrusion. Results of the model are presented in **Appendix A**. Maximum concentrations in groundwater were compared to the RBTLs and results are presented in **Table 28**. When compared to maximum concentrations in groundwater RBTLs for a site worker exposure were not exceeded by any of the COPCs.

5 Summary and Conclusions

RSL and RM-1 evaluations were completed in accordance with the ARBCA guidance to evaluate the potential risks to human health and the environment at the Site for soil, groundwater, and vapor intrusion. The RSL

evaluation compared maximum soil and groundwater concentrations to the USEPA residential and industrial soil RSLs, the USEPA MCLs, tap-water RSLs, and the USEPA VISLs, respectively.

Although land use at the Site is currently industrial and there is a prohibition on drinking water wells in the city of Birmingham, soil and groundwater maximum concentrations were compared to residential soil RSLs, USEPA MCLs, tap-water RSLs, and residential VISLs. The data comparison concluded that several COPCs in soil and groundwater exceed the residential screening levels. Therefore, it is recommended that land use controls are placed to restrict the land for only industrial use and that a potable groundwater restriction be implemented. Potential receptors were identified, and potential exposure pathways considered based on the expectation of land use control and potable groundwater restriction:

- Ingestion, dermal, and inhalation exposure to surface soils by a hypothetical future site worker.
- Ingestion, dermal, and inhalation exposure to surface and/or subsurface soils by a hypothetical future construction worker.
- Ingestion, dermal, and inhalation exposure to surface soils by a current and/or hypothetical future adolescent trespasser.
- Inhalation of vapors migrating from groundwater to indoor air by hypothetical future site workers.
- Ingestion, dermal contact, and inhalation of vapors from groundwater migrating into an excavation area by a hypothetical future construction worker in a trench.

For the hypothetical future site worker, when compared to maximum concentrations in surface soil (0-1 ft bgs), RBTls were exceeded for 1,2,4-trimethylbenzene, ethylbenzene, total xylenes, lead, and mercury. However, no RBTls for vapor intrusion from groundwater were exceeded by maximum concentrations in groundwater for a hypothetical site worker.

When compared to maximum concentrations in surface soil (0-1 ft bgs), RBTls for the current and/or hypothetical future adolescent trespasser exposure were not exceeded by any of the COPCs.

6 Risk-Based Corrective Action

Based on the information summarized in this ARBCA report, the only exposure route of concern for the hypothetical future site worker, where maximum concentrations of data exceed RBTls, is for surface soil (0-1 ft bgs) exposure at three locations (MIP-24, MIP-33, and MIP-51). Locations MIP-24, MIP-33, and MIP-51 are in the central portion of the Site and soil at these locations will be addressed or removed during Voluntary Cleanup Plan implementation.

There are no exposure routes of concern for the current and/or hypothetical future adolescent trespasser as all maximum concentrations for surface soil are below surface soil RBTls.

For the hypothetical future construction worker, direct contact to combined soil (0-8 ft bgs) and groundwater are exposure routes of concern on a sitewide basis. Concentrations of combined soil exceeding RBTls will be removed during Voluntary Cleanup Plan implementation. A Site management plan to include precautions and health and safety measures for the construction worker also will be implemented to protect potential future construction worker contact with soil and groundwater.

The Voluntary Cleanup Plan will include land use controls to prohibit future residential development of the Site and use of groundwater for any purpose.

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Tables

Table 1
Soil Data (0-1 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-24	MIP-32	MIP-33	MIP-34	MIP-44	MIP-45	MIP-49	MIP-51	MIP-52	SB22-01	SB22-02
	Sample Name:	MIP-24 (0-1) (101322)	MIP-32 (0-1) (101322)	MIP-33 (0-1) (101322)	MIP-34 (0-1) (101222)	MIP-44 (0-1) (101222)	MIP-45 (0-1) (101322)	MIP-49 (0-1) (101322)	MIP-51 (0-1) (101322)	MIP-52 (0-1) (101322)	SB22-01 (0-1) (033122)	SB22-02 (0-1) (033122)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,1,1-Trichloroethane	mg/kg	< 0.00582	0.0110 C5	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,1,2,2-Tetrachloroethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,1,2-Trichloroethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,1-Dichloroethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	0.000704 J	0.00831 C5	0.0148 C5	< 0.0245 J4	0.00642	< 0.00378	< 0.00405
1,1-Dichloroethene	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,1-Dichloropropene	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245 J4	< 0.00336	< 0.00378	< 0.00405
1,2,3-Trichlorobenzene	mg/kg	< 0.0291 C4	< 0.0169 C4	< 0.0142 C4	< 0.0163 C4	< 0.0168 C4	< 0.0141 C4	< 0.0137 C4	< 0.123	< 0.0168 C4	< 0.0189	< 0.0202
1,2,3-Trichloropropane	mg/kg	< 0.0291	< 0.0169	< 0.0142	< 0.0163	< 0.0168	< 0.0141	< 0.0137	< 0.123	< 0.0168	< 0.0189	< 0.0202
1,2,3-Trimethylbenzene	mg/kg	0.143	0.116	0.781	5.93	0.219	0.0194	0.192	105	0.0406	0.00523 J	0.00279 J
1,2,4-Trichlorobenzene	mg/kg	< 0.0291 C4 [< 4.39]	< 0.0169 C4 [< 0.740]	< 0.0142 C4 [< 0.711]	< 0.0163 C4 [< 0.371]	< 0.0168 C4 [< 3.75]	0.0141 C4J4 [< 0.698]	0.0137 C4J4 [< 3.48]	< 0.123 C3 [< 0.350]	< 0.0168 C4 [< 0.780]	< 0.0189 [< 0.409]	< 0.0202 [< 0.850]
1,2,4-Trimethylbenzene	mg/kg	0.17	0.369	1.41	14.7	0.562	0.0952	0.319	228	0.0829	0.00641 J	0.00863
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0582	< 0.0337	< 0.0284	< 0.0327	< 0.0335	< 0.0282 C3	< 0.0274 C3	< 0.245 C3	< 0.0336	< 0.0378 C3	< 0.0405 C3
1,2-Dibromoethane	mg/kg	< 0.00582	< 0.00337	0.000738 J	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,2-Dichlorobenzene	mg/kg	< 0.0116 [< 4.39]	< 0.00673 [< 0.740]	0.000653 J [< 0.711]	< 0.00652 [< 0.371]	< 0.00671 [< 3.75]	< 0.00565 [< 0.698]	< 0.00547 [< 3.48]	< 0.0490 [< 0.350]	< 0.00672 [< 0.780]	< 0.00756 [< 0.409]	< 0.00810 [< 0.850]
1,2-Dichloroethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
1,2-Dichloropropane	mg/kg	< 0.0116	< 0.00673	< 0.00567	< 0.00652	< 0.00671	< 0.00565	< 0.00547	< 0.0490	< 0.00672	< 0.00756	< 0.00810
1,3,5-Trimethylbenzene	mg/kg	0.151	0.204	0.97	5.58	0.251	0.0265	0.106	83.5	0.0645	0.00324 J	0.00432 J
1,3-Dichlorobenzene	mg/kg	< 0.0116 [< 4.39]	< 0.00673 [< 0.740]	< 0.00567 [< 0.711]	< 0.00652 [< 0.371]	< 0.00671 [< 3.75]	< 0.00565 [< 0.698]	< 0.00547 [< 3.48]	< 0.0490 [< 0.350]	< 0.00672 [< 0.780]	< 0.00756 [< 0.409]	< 0.00810 [< 0.850]
1,3-Dichloropropane	mg/kg	< 0.0116	< 0.00673	< 0.00567	< 0.00652	< 0.00671	< 0.00565	< 0.00547	< 0.0490	< 0.00672	< 0.00756	< 0.00810
1,4-Dichlorobenzene	mg/kg	< 0.0116 [< 4.39]	0.00441 J [< 0.740]	0.000823 J [< 0.711]	< 0.00652 [< 0.371]	< 0.00671 [< 3.75]	< 0.00565 [< 0.698]	< 0.00547 [< 3.48]	< 0.0490 [< 0.350]	< 0.00672 [< 0.780]	< 0.00756 [< 0.409]	< 0.00810 [< 0.850]
2,2-Dichloropropane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245 J4	< 0.00336	< 0.00378	< 0.00405
2-Butanone (MEK)	mg/kg	< 0.233	< 0.135	< 0.113	< 0.130	0.0857 J	< 0.113	< 0.109	< 0.980	< 0.134	< 0.151	< 0.162
2-Chlorotoluene	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	0.0601	< 0.00336	< 0.00378	< 0.00405
4-Chlorotoluene	mg/kg	< 0.0116	< 0.00673	< 0.00567	< 0.00652	< 0.00671	< 0.00565	< 0.00547	< 0.0490	< 0.00672	< 0.00756	< 0.00810
4-Methyl-2-Pentanone	mg/kg	< 0.0582	< 0.0337	< 0.0284	4.19	< 0.0335	< 0.0282	< 0.0274	0.753	< 0.0336	< 0.0378	< 0.0405
Acetone	mg/kg	< 0.116	< 0.0673	< 0.0567	0.0558 J	< 0.0671	< 0.0565	< 0.0547	< 0.490	< 0.0672	< 0.0756 C3	0.0763 C3J
Acrylonitrile	mg/kg	< 0.0291	< 0.0169	< 0.0142	< 0.0163	< 0.0168	< 0.0141	< 0.0137	< 0.123	< 0.0168	< 0.0189 C3	< 0.0202 C3
Benzene	mg/kg	0.00233 J	0.0701	0.253	0.00424	0.00134 J	0.00926	0.0162	< 0.00980	0.0185	0.00823	0.00183
Bromobenzene	mg/kg	< 0.0291	< 0.0169	< 0.0142	< 0.0163	< 0.0168	< 0.0141	< 0.0137	< 0.123	< 0.0168	< 0.0189	< 0.0202
Bromodichloromethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
Bromoform	mg/kg	< 0.0582	< 0.0337	< 0.0284	< 0.0327	< 0.0335	< 0.0282	< 0.0274	< 0.245	< 0.0336	< 0.0378	< 0.0405
Bromomethane	mg/kg	< 0.0291	< 0.0169	< 0.0142	< 0.0163	< 0.0168	< 0.0141 C3	< 0.0137 C3	< 0.123	< 0.0168	< 0.0189	< 0.0202
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	< 0.0116 J4	< 0.00673 J4	< 0.00567 J4	< 0.00652 J4	< 0.00671 J4	< 0.00565	< 0.00547	< 0.0490	< 0.00672 J4	< 0.00756	< 0.00810
CFC-11	mg/kg	< 0.00582 C3	< 0.00337 C3	< 0.00284 C3	< 0.00327 C3	< 0.00335 C3	< 0.00282	< 0.00274	< 0.0245	< 0.00336 C3	< 0.00378	< 0.00405
CFC-12	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282 C3	< 0.00274 C3	< 0.0245	< 0.00336	< 0.00378	< 0.00405
Chlorobenzene	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	0.105	< 0.0245	< 0.00336	< 0.00378	< 0.00405
Chlorodibromomethane	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
Chloroethane	mg/kg	< 0.0116 J4	< 0.00673 J4	< 0.00567 J4	< 0.00652 J4	< 0.00671 J4	< 0.00565	< 0.00547	< 0.0490	< 0.00672 J4	< 0.00756	< 0.00810
Chloroform	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
Chloromethane	mg/kg	< 0.0291	< 0.0169	< 0.0142	< 0.0163	< 0.0168	< 0.0141	< 0.0137	< 0.123	< 0.0168	< 0.0189	< 0.0202
cis-1,2-Dichloroethene	mg/kg	0.00494 J	0.00242 J	< 0.00284	< 0.00327	0.00684	0.00316	< 0.00274	< 0.0245	0.00167 J	< 0.00378	< 0.00405
cis-1,3-Dichloropropene	mg/kg	< 0.00582	< 0.00337	< 0.00284	< 0.00327	< 0.00335	< 0.00282	< 0.00274	< 0.0245	< 0.00336	< 0.00378	< 0.00405
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	0.0161 B	0.0199	0.0433	0.936	0.0577	< 0.00565	0.0582	2.91	0.00629 BJ	< 0.00756	< 0.00810
Dibromomethane	mg/kg	< 0.0116	< 0.00673	< 0.00567	< 0.00652	< 0.00671	< 0.00565	< 0.00547	< 0.0490	< 0.00672	< 0.00756	< 0.00810
Dichloromethane	mg/kg	< 0.0582	< 0.									

Table 1
Soil Data (0-1 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location: Sample Name: Sample Date: Depth (ft bgs):	MIP-24	MIP-32	MIP-33	MIP-34	MIP-44	MIP-45	MIP-49	MIP-51	MIP-52	SB22-01	SB22-02
		MIP-24 (0-1) (101322)	MIP-32 (0-1) (101322)	MIP-33 (0-1) (101322)	MIP-34 (0-1) (101222)	MIP-44 (0-1) (101222)	MIP-45 (0-1) (101322)	MIP-49 (0-1) (101322)	MIP-51 (0-1) (101322)	MIP-52 (0-1) (101322)	SB22-01 (0-1) (033122)	SB22-02 (0-1) (033122)
		10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	3/31/2022	3/31/2022
		0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.00233	< 0.00135	< 0.00113	< 0.00130	< 0.00134	< 0.00113	< 0.00109	< 0.00980	< 0.00134	< 0.00151	< 0.00162
Naphthalene	mg/kg	0.0562 [< 0.439]	0.0661 [0.166]	0.306 [0.0728]	0.415 [0.127]	0.113 [0.328 J]	0.0122 C3J [< 0.0698]	0.138 C3 [< 0.348]	8.00 C3 [4.2]	0.0238 [0.0542 J]	0.0374 C3 [0.0228 J]	< 0.0202 C3 [< 0.0850
n-Butylbenzene	mg/kg	< 0.0291	0.0150 J	0.042	0.74	0.0759	< 0.0141	0.112	3.56	0.0195	< 0.0189	< 0.0202
n-Propylbenzene	mg/kg	0.0237	0.0394	0.499	0.534	0.033	0.0465	0.247	15	0.199	0.00221 J	0.00170 J
o-Xylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	0.0178 J	0.0216	0.115	0.64	0.0726	0.00505 J	0.143	3.04	0.0305	< 0.0189	< 0.0202
Styrene (Monomer)	mg/kg	0.00349 BJ	< 0.0169	< 0.0142	< 0.0163	< 0.0168	< 0.0141	< 0.0137	< 0.123	< 0.0168	< 0.0189	< 0.0202
tert-Butylbenzene	mg/kg	< 0.0116	0.00299 J	0.0323	0.0872	0.0267	0.00375 J	0.22	< 0.0490	0.00545 J	< 0.00756	< 0.00810
Tetrachloroethene	mg/kg	0.00245 J	0.124	0.00128 J	0.00267 J	0.00432	< 0.00282	< 0.00274	0.344	0.00286 J	0.00169 JJ4	< 0.00405 J4
Toluene	mg/kg	0.0404	0.0422	0.113	1.02	0.138	0.18	0.0899	12.6	0.0885	0.0396	0.00591 J
Total Xylenes	mg/kg	0.398	0.62	16.3	70.9	2.2	0.373	1.98	434	0.599	0.0396	0.0196
trans-1,2-Dichloroethene	mg/kg	< 0.0116	< 0.00673	< 0.00567	< 0.00652	< 0.00671	< 0.00565	< 0.00547	< 0.0490	< 0.00672	< 0.00756	< 0.00810
trans-1,3-Dichloropropene	mg/kg	< 0.0116	< 0.00673	< 0.00567	< 0.00652	< 0.00671	< 0.00565	< 0.00547	< 0.0490	< 0.00672	< 0.00756	< 0.00810
Trichloroethene	mg/kg	< 0.00233	0.0141	< 0.00113	< 0.00130	< 0.00134	< 0.00113	< 0.00109	< 0.00980	0.00187	< 0.00151	< 0.00162
Vinyl chloride	mg/kg	< 0.00582 J4	< 0.00337 J4	< 0.00284 J4	< 0.00327 J4	< 0.00335 J4	0.00488	< 0.00274	< 0.0245	< 0.00336 J4	< 0.00378	< 0.00405
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2,4,6-Trichlorophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2,4-Dichlorophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2,4-Dimethylphenol	mg/kg	< 4.39	< 0.740	0.108 J	0.129 J	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2,4-Dinitrophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2,4-Dinitrotoluene	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2,6-Dinitrotoluene	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2-Chloronaphthalene	mg/kg	< 0.439	< 0.0740	< 0.0711	< 0.0371	< 0.375	< 0.0698	< 0.348	< 0.0350	< 0.0780	< 0.0409	< 0.0850
2-Chlorophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2-Methyl-4,6-dinitrophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
2-Nitrophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
3,3-Dichlorobenzidine	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
4-Bromophenyl phenyl ether	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
4-Chloro-3-Methylphenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
4-Chlorophenyl phenyl ether	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
4-Nitrophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Acenaphthene	mg/kg	< 0.439	0.0195 J	< 0.0711	< 0.0371	< 0.375	< 0.0698	< 0.348	0.00722 J	0.0528 J	0.0825	0.0391 J
Acenaphthylene	mg/kg	< 0.439	0.0242 J	0.0310 J	< 0.0371	< 0.375	< 0.0698	< 0.348	< 0.0350	0.0225 J	0.0226 J	0.0369 J
Anthracene	mg/kg	0.108 J	0.0438 J	0.0193 J	< 0.0371	< 0.375	< 0.0698	< 0.348	< 0.0350	0.132	0.265	0.521
Benz(a)anthracene	mg/kg	0.541	0.27	0.0456 J	0.0198 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.642	1.41	2.54
Benzidine	mg/kg	< 22.0	< 3.71	< 3.57	< 1.86	< 18.8	< 3.50	< 17.5	< 1.75	< 3.91	< 2.05	< 4.26
Benzo(a)pyrene	mg/kg	0.511	0.31	0.0334 J	0.00844 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.64	1.31	1.83
Benzo(b)fluoranthene	mg/kg	0.771	0.487	0.114	0.0331 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.864	1.74	2.66
Benzo(g,h,i)perylene	mg/kg	0.290 J	0.13	0.0735	0.0138 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.274	0.555	0.803
Benzo(k)fluoranthene	mg/kg	0.247 J	0.14	0.0363 J	0.0114 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.292	0.551	0.909
bis(2-Chloroethoxy)methane	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
bis(2-Chloroethyl)ether	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
bis(2-Ethylhexyl)phthalate	mg/kg	17.7	0.624 J	1.28	< 0.371	0.989 J	< 0.698	< 3.48	2.68	1	< 0.409	< 0.850
Butyl benzyl phthalate	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	0.0315 J	< 3.48	0.503	0.0307 J	< 0.409	< 0.850
Chrysene	mg/kg	0.532	0.226	0.0422 J	0.0316 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.656	1.34	2.8
Dibenz(a,h)anthracene	mg/kg	< 0.439	0.0377 J	< 0.0711	< 0.0371	< 0.375	< 0.0698	< 0.348	< 0.0350	0.0798	0.168	0.22
Diethyl phthalate	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	0.0602 J	< 0.780	< 0.409	< 0.850
Dimethyl phthalate	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Di-n-butyl phthalate	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	0.406	< 0.780	< 0.409	< 0.850
Di-n-octyl phthalate	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Fluoranthene	mg/kg	0.991	0.454	0.0838	0.0614	0.0787 J	< 0.0698	< 0.348	0.0135 J	1.44	2.7	6.7
Fluorene	mg/kg	< 0.439	0.0195 J	< 0.0711	< 0.0371	< 0.375	< 0.0698	< 0.348	0.0151 J	0.0414 J	0.0765	0.0557 J
Hexachlorobenzene	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850

Table 1
Soil Data (0-1 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-24	MIP-32	MIP-33	MIP-34	MIP-44	MIP-45	MIP-49	MIP-51	MIP-52	SB22-01	SB22-02
	Sample Name:	MIP-24 (0-1) (101322)	MIP-32 (0-1) (101322)	MIP-33 (0-1) (101322)	MIP-34 (0-1) (101222)	MIP-44 (0-1) (101222)	MIP-45 (0-1) (101322)	MIP-49 (0-1) (101322)	MIP-51 (0-1) (101322)	MIP-52 (0-1) (101322)	SB22-01 (0-1) (033122)	SB22-02 (0-1) (033122)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Hexachlorocyclopentadiene	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Hexachloroethane	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Indeno(1,2,3-cd)pyrene	mg/kg	0.340 J	0.143	0.0662 J	0.0147 J	< 0.375	< 0.0698	< 0.348	< 0.0350	0.342	0.681	0.911
Isophorone	mg/kg	4.22 J	0.171 J	2.84	< 0.371	< 3.75	0.0314 J	0.429 J	< 0.350	0.455 J	< 0.409	< 0.850
Nitrobenzene	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
N-Nitrosodimethylamine	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
N-Nitrosodi-n-propylamine	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
N-Nitrosodiphenylamine	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Pentachlorophenol	mg/kg	< 4.39	< 0.740	< 0.711	< 0.371	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Phenanthrene	mg/kg	0.495	0.309	0.0385 J	0.0483	< 0.375	< 0.0698	< 0.348	0.0148 J	0.876	1.25	1.62
Phenol	mg/kg	< 4.39	< 0.740	< 0.711	0.0687 J	< 3.75	< 0.698	< 3.48	< 0.350	< 0.780	< 0.409	< 0.850
Pyrene	mg/kg	0.773	0.388	0.0992	0.0483	0.113 J	< 0.0698	< 0.348	0.0140 J	1.08	1.94	5.22
Metals												
Arsenic	mg/kg	12.9	16.1	2.26	3.23	0.773 J	1.01 J	1.43 J	< 2.10	7.3	12.2	12.9
Barium	mg/kg	199	180	543 O1V	186	186	11.1	62	34.7	125	520	171
Cadmium	mg/kg	3.14	1.01	1.09	1.4	1.68	0.270 J	0.641	0.147 J	1.08	0.349 J	0.144 J
Chromium	mg/kg	165	38.7	322 J6O1	414	143	4.66	24.4	3.31	178	48.4	33.1
Lead	mg/kg	754	195	1530 O1V	106	234	10	105	12.1	694	521	127
Mercury	mg/kg	181	0.549	3.32	1.01	6.75	0.789	0.182	< 0.0420	1.92	0.196	0.0995
Selenium	mg/kg	< 2.64	< 2.22	< 2.13	< 2.23	< 2.25	< 2.10	< 2.09	< 2.10	< 2.34	1.35 J	1.11 J
Silver	mg/kg	< 1.32	< 1.11	< 1.07	1.04 J	0.407 J	< 1.05	< 1.05	< 1.05	< 1.17	0.215 J	< 1.28
Other												
Total Solids	%	75.8	90	93.7	89.8	88.8	95.5	95.7	95.3	85.4	81.5	78.3

Table 1
Soil Data (0-1 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	SB22-03	SB22-04	SB22-05	SB22-06	SB22-07	SB22-08	SB22-09	SB22-10
	Sample Name:	SB22-03 (0-1) (033122)	SB22-04 (0-1) (033122)	SB22-05 (0-1) (033122)	SB22-06 (0-1) (033122)	SB22-07 (0-1) (033122)	SB22-08 (0-1) (033122)	SB22-09 (0-1) (033122)	SB22-10 (0-1) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Volatile Organic Compounds									
1,1,1,2-Tetrachloroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1,1-Trichloroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1,2,2-Tetrachloroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1,2-Trichloroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1-Dichloroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1-Dichloroethene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,1-Dichloropropene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,2,3-Trichlorobenzene	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
1,2,3-Trichloropropane	mg/kg	< 0.0174 J4	< 0.0188 J4	< 0.0197 J4	< 0.0192 J4	< 0.0199 J4	< 0.0194 J4	< 0.0188	< 0.0216
1,2,3-Trimethylbenzene	mg/kg	< 0.00697	0.0393	0.0103	< 0.00770	< 0.00795	< 0.00777	< 0.00750	0.00380 J
1,2,4-Trichlorobenzene	mg/kg	< 0.0174 [< 0.395]	< 0.0188 [< 0.831]	< 0.0197 [< 0.419]	< 0.0192 [< 0.417]	< 0.0199 [< 0.836]	< 0.0194 [< 0.412]	< 0.0188 [< 0.409]	< 0.0216 [< 0.439]
1,2,4-Trimethylbenzene	mg/kg	0.00822	0.0527	0.0375	0.02	< 0.00795	< 0.00777	0.00264 J	0.00600 J
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0348	< 0.0378	< 0.0394	< 0.0385	< 0.0397	< 0.0389	< 0.0375 C3	< 0.0432 C3
1,2-Dibromoethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,2-Dichlorobenzene	mg/kg	< 0.00697 [< 0.395]	< 0.00754 [< 0.831]	< 0.00787 [< 0.419]	< 0.00770 [< 0.417]	< 0.00795 [< 0.836]	< 0.00777 [< 0.412]	< 0.00750 [< 0.409]	< 0.00864 [< 0.439]
1,2-Dichloroethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
1,2-Dichloropropane	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
1,3,5-Trimethylbenzene	mg/kg	< 0.00697	0.0556	0.0146	0.0107	< 0.00795	< 0.00777	< 0.00750	< 0.00864
1,3-Dichlorobenzene	mg/kg	< 0.00697 [< 0.395]	< 0.00754 [< 0.831]	< 0.00787 [< 0.419]	< 0.00770 [< 0.417]	< 0.00795 [< 0.836]	< 0.00777 [< 0.412]	< 0.00750 [< 0.409]	< 0.00864 [< 0.439]
1,3-Dichloropropane	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
1,4-Dichlorobenzene	mg/kg	< 0.00697 [< 0.395]	< 0.00754 [< 0.831]	< 0.00787 [< 0.419]	< 0.00770 [< 0.417]	< 0.00795 [< 0.836]	< 0.00777 [< 0.412]	< 0.00750 [< 0.409]	< 0.00864 [< 0.439]
2,2-Dichloropropane	mg/kg	< 0.00348 C3	< 0.00378 C3	< 0.00394 C3	< 0.00385 C3	< 0.00397 C3	< 0.00389 C3	< 0.00375	< 0.00432
2-Butanone (MEK)	mg/kg	< 0.139	< 0.151	< 0.157	< 0.154	< 0.159	< 0.155	< 0.150	< 0.173
2-Chlorotoluene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
4-Chlorotoluene	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
4-Methyl-2-Pentanone	mg/kg	< 0.0348 J4	0.167 C5J4	0.0921 C5J4	< 0.0385 J4	< 0.0397 J4	< 0.0389 J4	< 0.0375	< 0.0432
Acetone	mg/kg	< 0.0697	0.417 C5	< 0.0787	0.0839 C5	< 0.0795	< 0.0777	< 0.0750 C3	< 0.0864 C3
Acrylonitrile	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188 C3	< 0.0216 C3
Benzene	mg/kg	< 0.00139	0.00178	0.00332	< 0.00154	< 0.00159	0.00146 J	0.0303	0.00188
Bromobenzene	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
Bromodichloromethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Bromoform	mg/kg	< 0.0348	< 0.0378	< 0.0394	< 0.0385	< 0.0397	< 0.0389	< 0.0375	< 0.0432
Bromomethane	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
CFC-11	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
CFC-12	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Chlorobenzene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Chlorodibromomethane	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Chloroethane	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
Chloroform	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Chloromethane	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
cis-1,2-Dichloroethene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
cis-1,3-Dichloropropene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	0.008	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
Dibromomethane	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
Dichloromethane	mg/kg	< 0.0348	< 0.0378	< 0.0394	< 0.0385	< 0.0397	< 0.0389	< 0.0375	< 0.0432
Di-isopropyl ether	mg/kg	< 0.00139	< 0.00151	< 0.00157	< 0.00154	< 0.00159	< 0.00155	< 0.00150	< 0.00173
Ethylbenzene	mg/kg	< 0.00348	0.049	0.0296	< 0.00385	< 0.00397	< 0.00389	0.00146 J	0.00230 J
Hexachloro-1,3-butadiene	mg/kg	< 0.0348 C3 [< 0.395]	< 0.0378 C3 [< 0.831]	< 0.0394 C3 [< 0.419]	< 0.0385 C3 [< 0.417]	< 0.0397 C3 [< 0.836]	< 0.0389 C3 [< 0.412]	< 0.0375 [< 0.409]	< 0.0432 [< 0.439]
Isopropylbenzene	mg/kg	< 0.00348	0.00505	0.0137	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
m,p-Xylenes	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA

Table 1
Soil Data (0-1 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	SB22-03	SB22-04	SB22-05	SB22-06	SB22-07	SB22-08	SB22-09	SB22-10
	Sample Name:	SB22-03 (0-1) (033122)	SB22-04 (0-1) (033122)	SB22-05 (0-1) (033122)	SB22-06 (0-1) (033122)	SB22-07 (0-1) (033122)	SB22-08 (0-1) (033122)	SB22-09 (0-1) (033122)	SB22-10 (0-1) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.00139	< 0.00151	< 0.00157	< 0.00154	< 0.00159	< 0.00155	< 0.00150	< 0.00173
Naphthalene	mg/kg	< 0.0174 [< 0.0395]	0.0155 J [0.0600 J]	0.0261 [0.0124 J]	0.356 [< 0.0417]	< 0.0199 [< 0.0836]	0.0151 J [0.0197 J]	< 0.0188 C3 [< 0.0409]	0.0114 C3J [< 0.0439]
n-Butylbenzene	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
n-Propylbenzene	mg/kg	< 0.00697	0.00611 J	0.00468 J	0.00243 J	< 0.00795	< 0.00777	< 0.00750	< 0.00864
o-Xylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
Styrene (Monomer)	mg/kg	< 0.0174	< 0.0188	< 0.0197	< 0.0192	< 0.0199	< 0.0194	< 0.0188	< 0.0216
tert-Butylbenzene	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
Tetrachloroethene	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375 J4	< 0.00432 J4
Toluene	mg/kg	0.00949	0.106	0.0167	0.0166	0.00486 J	0.00340 J	0.00675 J	0.0306
Total Xylenes	mg/kg	0.0242	0.508	0.327	0.0728	0.0205	0.00552 J	0.0109	0.0517
trans-1,2-Dichloroethene	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
trans-1,3-Dichloropropene	mg/kg	< 0.00697	< 0.00754	< 0.00787	< 0.00770	< 0.00795	< 0.00777	< 0.00750	< 0.00864
Trichloroethene	mg/kg	< 0.00139	< 0.00151	< 0.00157	< 0.00154	< 0.00159	< 0.00155	< 0.00150	< 0.00173
Vinyl chloride	mg/kg	< 0.00348	< 0.00378	< 0.00394	< 0.00385	< 0.00397	< 0.00389	< 0.00375	< 0.00432
Semi-Volatile Organic Compounds									
2,2-Oxybis(1-Chloropropane)	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2,4,6-Trichlorophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2,4-Dichlorophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2,4-Dimethylphenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2,4-Dinitrophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2,4-Dinitrotoluene	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2,6-Dinitrotoluene	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2-Chloronaphthalene	mg/kg	< 0.0395	< 0.0831	< 0.0419	< 0.0417	< 0.0836	< 0.0412	< 0.0409	< 0.0439
2-Chlorophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2-Methyl-4,6-dinitrophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
2-Nitrophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
3,3-Dichlorobenzidine	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
4-Bromophenyl phenyl ether	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
4-Chloro-3-Methylphenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
4-Chlorophenyl phenyl ether	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
4-Nitrophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Acenaphthene	mg/kg	0.00679 J	0.0242 J	0.0127 J	0.0298 J	< 0.0836	< 0.0412	0.0241 J	< 0.0439
Acenaphthylene	mg/kg	0.0102 J	0.0577 J	0.00891 J	< 0.0417	< 0.0836	< 0.0412	0.00629 J	0.00652 J
Anthracene	mg/kg	0.0260 J	0.0865	0.0751	0.0847	< 0.0836	< 0.0412	0.134	0.0314 J
Benz(a)anthracene	mg/kg	0.0965	0.377	0.357	0.31	< 0.0836	0.0271 J	0.644	0.162
Benzidine	mg/kg	< 1.98	< 4.17	< 2.10	< 2.09	< 4.19	< 2.07	< 2.05	< 2.20
Benzo(a)pyrene	mg/kg	0.0948	0.484	0.395	0.288	< 0.0836	0.0303 J	0.629	0.181
Benzo(b)fluoranthene	mg/kg	0.148	0.74	0.474	0.364	< 0.0836	0.0423	0.788	0.207
Benzo(g,h,i)perylene	mg/kg	0.0769	0.256	0.221	0.187	< 0.0836	0.0246 J	0.35	0.111
Benzo(k)fluoranthene	mg/kg	0.0571	0.235	0.162	0.128	< 0.0836	0.0150 J	0.295	0.0785
bis(2-Chloroethoxy)methane	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
bis(2-Chloroethyl)ether	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
bis(2-Ethylhexyl)phthalate	mg/kg	0.340 J	0.298 J	0.0856 J	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Butyl benzyl phthalate	mg/kg	0.0220 J	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Chrysene	mg/kg	0.0805	0.331	0.356	0.308	< 0.0836	0.0233 J	0.653	0.17
Dibenz(a,h)anthracene	mg/kg	0.0177 J	0.0716 J	0.0466	0.0449	< 0.0836	< 0.0412	0.0886	0.0261 J
Diethyl phthalate	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Dimethyl phthalate	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Di-n-butyl phthalate	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Di-n-octyl phthalate	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Fluoranthene	mg/kg	0.188	0.671	0.741	0.656	< 0.0836	0.0477	1.37	0.343
Fluorene	mg/kg	< 0.0395	0.0230 J	< 0.0419	0.0246 J	< 0.0836	< 0.0412	0.0195 J	< 0.0439
Hexachlorobenzene	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439

Table 1
Soil Data (0-1 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	SB22-03	SB22-04	SB22-05	SB22-06	SB22-07	SB22-08	SB22-09	SB22-10
	Sample Name:	SB22-03 (0-1) (033122)	SB22-04 (0-1) (033122)	SB22-05 (0-1) (033122)	SB22-06 (0-1) (033122)	SB22-07 (0-1) (033122)	SB22-08 (0-1) (033122)	SB22-09 (0-1) (033122)	SB22-10 (0-1) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Hexachlorocyclopentadiene	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Hexachloroethane	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Indeno(1,2,3-cd)pyrene	mg/kg	0.0826	0.291	0.239	0.187	< 0.0836	0.0250 J	0.395	0.116
Isophorone	mg/kg	0.0824 J	2.16	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Nitrobenzene	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
N-Nitrosodimethylamine	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
N-Nitrosodi-n-propylamine	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
N-Nitrosodiphenylamine	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Pentachlorophenol	mg/kg	< 0.395	< 0.831	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Phenanthrene	mg/kg	0.0942	0.353	0.292	0.341	< 0.0836	0.0241 J	0.5	0.142
Phenol	mg/kg	< 0.395	0.0775 J	< 0.419	< 0.417	< 0.836	< 0.412	< 0.409	< 0.439
Pyrene	mg/kg	0.148	0.522	0.618	0.485	< 0.0836	0.0422	1.12	0.288
Metals									
Arsenic	mg/kg	5.66	23	16.4	12.5	8.78	18.8	9.89	11.2
Barium	mg/kg	131	118	129	252	88.2	44	105	70.5
Cadmium	mg/kg	0.491 J	0.574 J	0.147 J	0.284 J	0.0619 J	0.155 J	0.0635 J	0.257 J
Chromium	mg/kg	67.1	75.3	24.8	34.9	21.1	27.5	20.1	33.7
Lead	mg/kg	192	242	52.3	167	26.7	30.3	30.7	42.4
Mercury	mg/kg	0.185	5.1	0.0267 J	0.357	0.0687	0.0502	0.0393 J	0.233
Selenium	mg/kg	0.966 J	1.39 J	< 2.52	1.82 J	< 2.51	1.69 J	< 2.46	1.43 J
Silver	mg/kg	< 1.19	< 1.25	< 1.26	< 1.25	< 1.26	< 1.24	< 1.23	< 1.32
Other									
Total Solids	%	84.4	80.1	79.5	79.8	79.6	80.8	81.5	75.8

< - Result is less than reporting limit.
mg/kg - Milligrams per kilogram.
SVOCs - Semi-volatile organic compounds.
VOCs - Volatile organic compounds.
B - The same analyte is found in the associated blank.
C3 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
J - The identification of the analyte is acceptable; the reported value is an estimate.
J2 - Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3 - The associated batch QC was outside the established quality control range for precision.
J4 - The associated batch QC was outside the established quality control range for accuracy.
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-04	MIP-04	MIP-04	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-08	MIP-08
	Sample Name:	MIP04-2_20211210	MIP04-5_20211210	MIP04-7.5_20211210	MIP07-2_20211210	MIP07-3_20211210	MIP07-4_20211210	MIP07-6_20211210	MIP07-7_20211210	MIP07-8_20211210	MIP08-2_20211210	MIP08-3_20211210	
	Sample Date:	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	
	Depth (ft bgs):	1.9-2.1	4.9-5.1	7.4-7.6	1.9-2.1	2.9-3.1	3.9-4.1	5.9-6.1	6.9-7.1	7.9-8.1	1.9-2.1	2.9-3.1	
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1,1-Trichloroethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,1,2,2-Tetrachloroethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,1,2-Trichloroethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,1-Dichloroethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,1-Dichloroethene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,1-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,3-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2,4-Trichlorobenzene	mg/kg	< 0.0040 [NA]	< 0.0037 [NA]	< 0.0038 [NA]	< 0.29 [NA]	< 0.20 [NA]	< 0.22 [NA]	< 0.22 [NA]	< 0.17 [NA]	< 0.19 [NA]	< 4.8 [NA]	< 27 [NA]	
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,2-Dibromoethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,2-Dichlorobenzene	mg/kg	< 0.0040 [NA]	< 0.0037 [NA]	< 0.0038 [NA]	< 0.29 [NA]	< 0.20 [NA]	< 0.22 [NA]	< 0.22 [NA]	< 0.17 [NA]	< 0.19 [NA]	< 4.8 [NA]	< 27 [NA]	
1,2-Dichloroethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,2-Dichloropropane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,3-Dichlorobenzene	mg/kg	< 0.0040 [NA]	< 0.0037 [NA]	< 0.0038 [NA]	< 0.29 [NA]	< 0.20 [NA]	< 0.22 [NA]	< 0.22 [NA]	< 0.17 [NA]	< 0.19 [NA]	< 4.8 [NA]	< 27 [NA]	
1,3-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,4-Dichlorobenzene	mg/kg	< 0.0040 [NA]	< 0.0037 [NA]	< 0.0038 [NA]	< 0.29 [NA]	< 0.20 [NA]	< 0.22 [NA]	< 0.22 [NA]	< 0.17 [NA]	< 0.19 [NA]	< 4.8 [NA]	< 27 [NA]	
2,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Butanone (MEK)	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54	
2-Chlorotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Chlorotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Methyl-2-Pentanone	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	20	< 54	
Acetone	mg/kg	0.043	< 0.015	0.062	< 1.2	< 0.80	< 0.88	< 0.87	< 0.67	< 0.76	< 19	< 110	
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Bromobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Bromodichloromethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Bromoform	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Bromomethane	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54	
Carbon Disulfide	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54	
Carbon Tetrachloride	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
CFC-11	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
CFC-12	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Chlorobenzene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Chlorodibromomethane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Chloroethane	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54	
Chloroform	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Chloromethane	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54	
cis-1,2-Dichloroethene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
cis-1,3-Dichloropropene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Cyclohexane	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	
Cymene (p-Isopropyltoluene)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Dichloromethane	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54	
Di-isopropyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Ethylbenzene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	0.4	< 0.17	< 0.19	840	1,900	
Hexachloro-1,3-butadiene	mg/kg	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	
Isopropylbenzene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	3.1	16	< 0.19	11	28	
m,p-Xylenes	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	0.94	< 0.44	1.2	< 0.34	< 0.38	3,300	7,300	
Methyl Acetate	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27	

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-04	MIP-04	MIP-04	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-08	MIP-08
	Sample Name:	MIP04-2_20211210	MIP04-5_20211210	MIP04-7.5_20211210	MIP07-2_20211210	MIP07-3_20211210	MIP07-4_20211210	MIP07-6_20211210	MIP07-7_20211210	MIP07-8_20211210	MIP08-2_20211210	MIP08-3_20211210
	Sample Date:	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	1.9-2.1	4.9-5.1	7.4-7.6	1.9-2.1	2.9-3.1	3.9-4.1	5.9-6.1	6.9-7.1	7.9-8.1	1.9-2.1	2.9-3.1
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	< 0.0081	< 0.0074	< 0.0076	< 0.58	< 0.40	< 0.44	< 0.44	< 0.34	< 0.38	< 9.5	< 54
Methylcyclohexane	mg/kg	< 0.0040	< 0.0037	< 0.0038	0.56	0.2	< 0.22	0.33	0.85	0.19	4.9	< 27
Methyl-tert-butylether	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27
Naphthalene	mg/kg	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]
n-Butylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	790	1,900
sec-Butylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27
tert-Butylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27
Toluene	mg/kg	< 0.0040	0.0072	0.0072	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	330	530
Total Xylenes	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	0.98	< 0.22	1.3	< 0.17	< 0.19	4,100	9,200
trans-1,2-Dichloroethene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27
trans-1,3-Dichloropropene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27
Trichloroethene	mg/kg	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8	< 27
Vinyl chloride	mg/kg	< 0.0016	< 0.0015	< 0.0015	< 0.12	< 0.080	< 0.088	< 0.087	< 0.067	< 0.076	< 1.9	< 11
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-04	MIP-04	MIP-04	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-08	MIP-08
	Sample Name:	MIP04-2_20211210	MIP04-5_20211210	MIP04-7.5_20211210	MIP07-2_20211210	MIP07-3_20211210	MIP07-4_20211210	MIP07-6_20211210	MIP07-7_20211210	MIP07-8_20211210	MIP08-2_20211210	MIP08-3_20211210
	Sample Date:	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	1.9-2.1	4.9-5.1	7.4-7.6	1.9-2.1	2.9-3.1	3.9-4.1	5.9-6.1	6.9-7.1	7.9-8.1	1.9-2.1	2.9-3.1
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other												
Total Solids	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-08	MIP-08	MIP-08	MIP-08	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09
	Sample Name:	MIP08-4_20211210	MIP08-5_20211210	MIP08-6_20211210	MIP08-7_20211210	MIP09-02_20211210	MIP09-3_20211210	MIP09-4_20211210	MIP09-5_20211210	MIP09-6_20211210	MIP09-7_20211210	MIP09-8_20211210
	Sample Date:	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	3.9-4.1	4.9-5.1	5.9-6.1	6.9-7.1	1.9-2.1	2.9-3.1	3.9-4.1	4.9-5.1	5.9-6.1	6.9-7.1	7.9-8.1
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,1,2,2-Tetrachloroethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,1,2-Trichloroethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,1-Dichloroethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	0.22	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,1-Dichloroethene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,1-Dichloropropene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,3-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	mg/kg	< 21 [NA]	< 2.6 [NA]	< 5.0 [NA]	< 3.4 [NA]	< 0.21 [NA]	< 2.3 [NA]	< 3.2 [NA]	< 4.2 [NA]	< 0.22 [NA]	< 0.19 [NA]	< 0.27 [NA]
1,2,4-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,2-Dibromoethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,2-Dichlorobenzene	mg/kg	< 21 [NA]	< 2.6 [NA]	< 5.0 [NA]	< 3.4 [NA]	< 0.21 [NA]	< 2.3 [NA]	< 3.2 [NA]	< 4.2 [NA]	< 0.22 [NA]	< 0.19 [NA]	< 0.27 [NA]
1,2-Dichloroethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,2-Dichloropropane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
1,3,5-Trimethylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	mg/kg	< 21 [NA]	< 2.6 [NA]	< 5.0 [NA]	< 3.4 [NA]	< 0.21 [NA]	< 2.3 [NA]	< 3.2 [NA]	< 4.2 [NA]	< 0.22 [NA]	< 0.19 [NA]	< 0.27 [NA]
1,3-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	mg/kg	< 21 [NA]	< 2.6 [NA]	< 5.0 [NA]	< 3.4 [NA]	< 0.21 [NA]	< 2.3 [NA]	< 3.2 [NA]	< 4.2 [NA]	< 0.22 [NA]	< 0.19 [NA]	< 0.27 [NA]
2,2-Dichloropropane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone (MEK)	mg/kg	< 42	< 5.1	< 10	< 6.9	140	120	17	< 8.3	< 0.44	< 0.38	< 0.54
2-Chlorotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	mg/kg	< 42	< 5.1	< 10	< 6.9	7.1	10	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
Acetone	mg/kg	< 84	< 10	< 20	< 14	1.2	< 9.3	< 13	< 17	< 0.88	< 0.77	< 1.1
Acrylonitrile	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Bromobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Bromoform	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Bromomethane	mg/kg	< 42	< 5.1	< 10	< 6.9	< 0.42	< 4.6	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
Carbon Disulfide	mg/kg	< 42	< 5.1	< 10	< 6.9	< 0.42	< 4.6	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
Carbon Tetrachloride	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
CFC-11	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
CFC-12	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Chlorobenzene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Chlorodibromomethane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Chloroethane	mg/kg	< 42	< 5.1	< 10	< 6.9	< 0.42	< 4.6	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
Chloroform	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Chloromethane	mg/kg	< 42	< 5.1	< 10	< 6.9	< 0.42	< 4.6	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
cis-1,2-Dichloroethene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	2	7.1	9.4	5.3	< 0.22	< 0.19	< 0.27
cis-1,3-Dichloropropene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Cyclohexane	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Cymene (p-Isopropyltoluene)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibromomethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dichloromethane	mg/kg	< 42	< 5.1	< 10	< 6.9	< 0.42	< 4.6	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
Di-isopropyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	mg/kg	1,400	230	390	400	1.8	88	220	370	14	< 0.19	< 0.27
Hexachloro-1,3-butadiene	mg/kg	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]
Isopropylbenzene	mg/kg	28	4.7	14	22	< 0.21	7.7	16	19	4.9	6.6	17
m,p-Xylenes	mg/kg	5,300	790	1,500	1,300	5.9	290	750	1,200	26	< 0.38	< 0.54
Methyl Acetate	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-08	MIP-08	MIP-08	MIP-08	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09
	Sample Name:	MIP08-4_20211210	MIP08-5_20211210	MIP08-6_20211210	MIP08-7_20211210	MIP09-02_20211210	MIP09-3_20211210	MIP09-4_20211210	MIP09-5_20211210	MIP09-6_20211210	MIP09-7_20211210	MIP09-8_20211210
	Sample Date:	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	3.9-4.1	4.9-5.1	5.9-6.1	6.9-7.1	1.9-2.1	2.9-3.1	3.9-4.1	4.9-5.1	5.9-6.1	6.9-7.1	7.9-8.1
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	< 42	< 5.1	< 10	< 6.9	< 0.42	< 4.6	< 6.5	< 8.3	< 0.44	< 0.38	< 0.54
Methylcyclohexane	mg/kg	< 21	< 2.6	< 5.0	5.1	0.27	10	14	11	0.79	1	3.5
Methyl-tert-butylether	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Naphthalene	mg/kg	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]	NA [NA]
n-Butylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
o-Xylene	mg/kg	1,300	18	260	170	1.8	78	190	280	3.6	< 0.19	< 0.27
sec-Butylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene (Monomer)	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
tert-Butylbenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Toluene	mg/kg	230	2.7	< 5.0	< 3.4	29	680	1,200	1,000	6.1	0.28	0.51
Total Xylenes	mg/kg	6,600	810	1,700	1,500	7.7	370	940	1,500	30	< 0.19	< 0.27
trans-1,2-Dichloroethene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
trans-1,3-Dichloropropene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Trichloroethene	mg/kg	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22	< 0.19	< 0.27
Vinyl chloride	mg/kg	< 8.4	< 1.0	< 2.0	< 1.4	< 0.085	< 0.93	< 1.3	< 1.7	< 0.088	< 0.077	< 0.11
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dichlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dimethylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chloronaphthalene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Chlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Nitrophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benz(a)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzidine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyl benzyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diethyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dimethyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-butyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Di-n-octyl phthalate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachlorobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-08	MIP-08	MIP-08	MIP-08	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09	MIP-09
	Sample Name:	MIP08-4_20211210	MIP08-5_20211210	MIP08-6_20211210	MIP08-7_20211210	MIP09-02_20211210	MIP09-3_20211210	MIP09-4_20211210	MIP09-5_20211210	MIP09-6_20211210	MIP09-7_20211210	MIP09-8_20211210
	Sample Date:	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	3.9-4.1	4.9-5.1	5.9-6.1	6.9-7.1	1.9-2.1	2.9-3.1	3.9-4.1	4.9-5.1	5.9-6.1	6.9-7.1	7.9-8.1
Hexachlorocyclopentadiene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hexachloroethane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isophorone	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrobenzene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodi-n-propylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pentachlorophenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenol	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals												
Arsenic	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Other												
Total Solids	%	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiutents	Location:	MIP-09	MIP-09	MIP-09	MIP-14	MIP-14	MIP-14	MIP-14	MIP-16B	MIP-16B	MIP-20	MIP-20	MIP-20
	Sample Name:	MIP-9 (1-2) (101322)	MIP-9 (2-3) (101322)	MIP-9 (5-6) (101322)	MIP14-2_20211210	MIP14-3_20211210	MIP14-6_20211210	MIP16B (1-2) (101322)	MIP-16B (5-6) (101322)	MIP20-4_20211210	MIP20-5_20211210	MIP20-6_20211210	
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	12/10/2021	12/10/2021	12/10/2021	10/13/2022	10/13/2022	12/10/2021	12/10/2021	12/10/2021	
	Depth (ft bgs):	1-2	2-3	5-6	1.9-2.1	2.9-3.1	5.9-6.1	1-2	5-6	3.9-4.1	4.9-5.1	5.9-6.1	
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	NA	NA	NA	< 0.00321	< 0.00352	NA	NA	NA	
1,1,1-Trichloroethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,1,2,2-Tetrachloroethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,1,2-Trichloroethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,1-Dichloroethane	mg/kg	2.91	4.46	0.757	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352 J4	< 0.0036	< 0.0041	< 0.0046	
1,1-Dichloroethene	mg/kg	0.0418 J	0.0620 J	0.0136 J	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,1-Dichloropropene	mg/kg	< 0.0699	< 0.0751	< 0.0305	NA	NA	NA	< 0.00321	< 0.00352 J4	NA	NA	NA	
1,2,3-Trichlorobenzene	mg/kg	< 0.350 C4	< 0.375 C4	< 0.152 C4	NA	NA	NA	< 0.0161	< 0.0176	NA	NA	NA	
1,2,3-Trichloropropane	mg/kg	< 0.350	< 0.375	< 0.152	NA	NA	NA	< 0.0161	< 0.0176	NA	NA	NA	
1,2,3-Trimethylbenzene	mg/kg	25.7	46	59	NA	NA	NA	0.328	0.00252 J	NA	NA	NA	
1,2,4-Trichlorobenzene	mg/kg	< 0.350 C4 [< 0.393]	< 0.375 C4 [< 0.405]	< 0.152 C4 [< 0.406]	< 0.0040 [NA]	< 0.0048 [NA]	< 0.0061 [NA]	< 0.0161 [< 0.373]	< 0.0176 C3 [< 0.393]	< 0.0036 [NA]	< 0.0041 [NA]	< 0.0046 [NA]	
1,2,4-Trimethylbenzene	mg/kg	101	204	279	NA	NA	NA	0.622	0.00508 J	NA	NA	NA	
1,2-Dibromo-3-chloropropane	mg/kg	< 0.699	< 0.751	< 0.305	< 0.0040	< 0.0048	< 0.0061	< 0.0321	< 0.0352 C3	< 0.0036	< 0.0041	< 0.0046	
1,2-Dibromoethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,2-Dichlorobenzene	mg/kg	< 0.140 [< 0.393]	< 0.150 [< 0.405]	< 0.0610 [< 4.06]	< 0.0040 [NA]	< 0.0048 [NA]	< 0.0061 [NA]	< 0.00642 [< 0.373]	< 0.00704 [< 0.393]	< 0.0036 [NA]	< 0.0041 [NA]	< 0.0046 [NA]	
1,2-Dichloroethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
1,2-Dichloropropane	mg/kg	< 0.140	< 0.150	< 0.0610	< 0.0040	< 0.0048	< 0.0061	< 0.00642	< 0.00704	< 0.0036	< 0.0041	< 0.0046	
1,3,5-Trimethylbenzene	mg/kg	55.4	122	114	NA	NA	NA	0.6	0.00393 J	NA	NA	NA	
1,3-Dichlorobenzene	mg/kg	< 0.140 [< 0.393]	< 0.150 [< 0.405]	< 0.0610 [< 4.06]	< 0.0040 [NA]	< 0.0048 [NA]	< 0.0061 [NA]	< 0.00642 [< 0.373]	< 0.00704 [< 0.393]	< 0.0036 [NA]	< 0.0041 [NA]	< 0.0046 [NA]	
1,3-Dichloropropane	mg/kg	< 0.140	< 0.150	< 0.0610	NA	NA	NA	< 0.00642	< 0.00704	NA	NA	NA	
1,4-Dichlorobenzene	mg/kg	< 0.140 [< 0.393]	< 0.150 [< 0.405]	< 0.0610 [< 4.06]	< 0.0040 [NA]	< 0.0048 [NA]	< 0.0061 [NA]	< 0.00642 [< 0.373]	< 0.00704 [< 0.393]	< 0.0036 [NA]	< 0.0041 [NA]	< 0.0046 [NA]	
2,2-Dichloropropane	mg/kg	< 0.0699	< 0.0751	< 0.0305	NA	NA	NA	< 0.00321	< 0.00352 J4	NA	NA	NA	
2-Butanone (MEK)	mg/kg	166	149	3.61	< 0.0080	< 0.0096	< 0.012	< 0.128	< 0.141	< 0.0073	< 0.0082	< 0.0092	
2-Chlorotoluene	mg/kg	< 0.0699	< 0.0751	< 0.0305	NA	NA	NA	< 0.00321	< 0.00352	NA	NA	NA	
4-Chlorotoluene	mg/kg	< 0.140	< 0.150	< 0.0610	NA	NA	NA	< 0.00642	< 0.00704	NA	NA	NA	
4-Methyl-2-Pentanone	mg/kg	61.3	71.5	< 0.305	< 0.0080	< 0.0096	< 0.012	0.847	< 0.0352	< 0.0073	< 0.0082	< 0.0092	
Acetone	mg/kg	1.72	1.7	< 0.610	< 0.016	< 0.019	< 0.024	< 0.0642	< 0.0704	0.043	0.1	0.24	
Acrylonitrile	mg/kg	< 0.350	< 0.375	< 0.152	NA	NA	NA	< 0.0161 J3	< 0.0176	NA	NA	NA	
Benzene	mg/kg	1.44	2.37	0.613	< 0.0040	< 0.0048	< 0.0061	0.00315	< 0.00141	< 0.0036	< 0.0041	< 0.0046	
Bromobenzene	mg/kg	< 0.350	< 0.375	< 0.152	NA	NA	NA	< 0.0161	< 0.0176	NA	NA	NA	
Bromodichloromethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
Bromoform	mg/kg	< 0.699	< 0.751	< 0.305	< 0.0040	< 0.0048	< 0.0061	< 0.0321	< 0.0352	< 0.0036	< 0.0041	< 0.0046	
Bromomethane	mg/kg	< 0.350	< 0.375	< 0.152	< 0.0080	< 0.0096	< 0.012	< 0.0161	< 0.0176	< 0.0073	< 0.0082	< 0.0092	
Carbon Disulfide	mg/kg	NA	NA	NA	< 0.0080	< 0.0096	< 0.012	NA	NA	< 0.0073	< 0.0082	< 0.0092	
Carbon Tetrachloride	mg/kg	< 0.140 J4	< 0.150 J4	< 0.0610 J4	< 0.0040	< 0.0048	< 0.0061	< 0.00642	< 0.00704	< 0.0036	< 0.0041	< 0.0046	
CFC-11	mg/kg	< 0.0699 C3	< 0.0751 C3	< 0.0305 C3	< 0.0040	< 0.0048	< 0.0061	< 0.00321 C4	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
CFC-12	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
Chlorobenzene	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
Chlorodibromomethane	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
Chloroethane	mg/kg	< 0.140 J4	< 0.150 J4	< 0.0610 J4	< 0.0080	< 0.0096	< 0.012	< 0.00642	< 0.00704	< 0.0073	< 0.0082	< 0.0092	
Chloroform	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
Chloromethane	mg/kg	< 0.350	< 0.375	< 0.152	< 0.0080	< 0.0096	< 0.012	< 0.0161	< 0.0176	< 0.0073	< 0.0082	< 0.0092	
cis-1,2-Dichloroethene	mg/kg	21.3	33.6	6.26	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
cis-1,3-Dichloropropene	mg/kg	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352	< 0.0036	< 0.0041	< 0.0046	
Cyclohexane	mg/kg	NA	NA	NA	< 0.0040	< 0.0048	< 0.0061	NA	NA	< 0.0036	< 0.0041	< 0.0046	
Cymene (p-Isopropyltoluene)	mg/kg	1.18	1.88	3.28	NA	NA	NA	0.0128	< 0.00704	NA	NA	NA	
Dibromomethane	mg/kg	< 0.140	< 0.150	< 0.0610	NA	NA	NA	< 0.00642 J4	< 0.00704	NA	NA	NA	
Dichloromethane	mg/kg	< 0.699	< 0.751	< 0.305	< 0.0080	< 0.0096	< 0.012	< 0.0321	< 0.0352	< 0.0073	< 0.0082	< 0.0092	
Di-isopropyl ether	mg/kg	< 0.0280	< 0.0300	< 0.0122	NA	NA	NA	< 0.00128	< 0.00141	NA	NA	NA	
Ethylbenzene	mg/kg	238	372	445	< 0.0040	< 0.0048	< 0.0061	0.181	0.00217 BJ	< 0.0036	< 0.0041	< 0.0046	
Hexachloro-1,3-butadiene	mg/kg	< 0.699 [< 0.393]	< 0.751 [< 0.405]	< 0.305 [< 0.406]	NA [NA]	NA [NA]	NA [NA]	< 0.0321 [< 0.373]	< 0.0352 [< 0.393]	NA [NA]	NA [NA]	NA [NA]	
Isopropylbenzene	mg/kg	26.6	44.6	30.3	< 0.0040	< 0.0048	< 0.0061	0.0226	0.000852 J	< 0.0036	< 0.0041	< 0.0046	
m,p-Xylenes	mg/kg	NA	NA	NA	< 0.0080	< 0.0096	< 0.012	NA	NA	< 0.0073	< 0.0082	< 0.0092	
Methyl Acetate	mg/kg	NA	NA	NA	< 0.0040	< 0.0048	< 0.0061	NA	NA	< 0.0036	< 0.0041	< 0.0046	

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-09	MIP-09	MIP-09	MIP-14	MIP-14	MIP-14	MIP-16B	MIP-16B	MIP-20	MIP-20	MIP-20
	Sample Name:	MIP-9 (1-2) (101322)	MIP-9 (2-3) (101322)	MIP-9 (5-6) (101322)	MIP14-2_ 20211210	MIP14-3_ 20211210	MIP14-6_ 20211210	MIP-16B (1-2) (101322)	MIP-16B (5-6) (101322)	MIP20-4_ 20211210	MIP20-5_ 20211210	MIP20-6_ 20211210
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	12/10/2021	12/10/2021	12/10/2021	10/13/2022	10/13/2022	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	1-2	2-3	5-6	1.9-2.1	2.9-3.1	5.9-6.1	1-2	5-6	3.9-4.1	4.9-5.1	5.9-6.1
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	< 0.0080	< 0.0096	< 0.012	NA	NA	< 0.0073	< 0.0082	< 0.0092
Methylcyclohexane	mg/kg	NA	NA	NA	< 0.0040	< 0.0048	< 0.0061	NA	NA	< 0.0036	< 0.0041	< 0.0046
Methyl-tert-butylether	mg/kg	< 0.0280	< 0.0300	< 0.0122	< 0.0040	< 0.0048	< 0.0061	< 0.00128	< 0.00141	< 0.0036	< 0.0041	< 0.0046
Naphthalene	mg/kg	9.12 [0.332]	19.5 [5.2]	14.1 J [5.42]	NA [NA]	NA [NA]	NA [NA]	0.0329 [< 0.0373]	< 0.0176 [< 0.0393]	NA [NA]	NA [NA]	NA [NA]
n-Butylbenzene	mg/kg	3.86	6.29	6.1	NA	NA	NA	0.0168 B	< 0.0176	NA	NA	NA
n-Propylbenzene	mg/kg	39.7	70.9	71.9	NA	NA	NA	0.0364	< 0.00704	NA	NA	NA
o-Xylene	mg/kg	NA	NA	NA	< 0.0040	< 0.0048	< 0.0061	NA	NA	< 0.0036	< 0.0041	< 0.0046
sec-Butylbenzene	mg/kg	2.59	3.89	5.68	NA	NA	NA	0.0139 J	< 0.0176	NA	NA	NA
Styrene (Monomer)	mg/kg	< 0.350	< 0.375	< 0.152	< 0.0040	< 0.0048	< 0.0061	< 0.0161	< 0.0176	< 0.0036	< 0.0041	< 0.0046
tert-Butylbenzene	mg/kg	0.151	0.153	0.588	NA	NA	NA	0.00705	< 0.00704	NA	NA	NA
Tetrachloroethene	mg/kg	42.1	42.7	0.533	< 0.0040	< 0.0048	< 0.0061	0.0371	< 0.00352	< 0.0036	< 0.0041	< 0.0046
Toluene	mg/kg	2,270 E	3,630	1,490	< 0.0040	< 0.0048	< 0.0061	0.609	0.00598 J	< 0.0036	< 0.0041	< 0.0046
Total Xylenes	mg/kg	994	1,550	1,940	< 0.0040	< 0.0048	< 0.0061	3.74	0.00925 B	< 0.0036	< 0.0041	< 0.0046
trans-1,2-Dichloroethene	mg/kg	0.0737 J	0.111 J	0.0130 J	< 0.0040	< 0.0048	< 0.0061	< 0.00642	< 0.00704	< 0.0036	< 0.0041	< 0.0046
trans-1,3-Dichloropropene	mg/kg	< 0.140	< 0.150	< 0.0610	< 0.0040	< 0.0048	< 0.0061	< 0.00642	< 0.00704	< 0.0036	< 0.0041	< 0.0046
Trichloroethene	mg/kg	12.7	20.1	0.0433	< 0.0040	< 0.0048	< 0.0061	0.0145	< 0.00141	< 0.0036	< 0.0041	< 0.0046
Vinyl chloride	mg/kg	0.0494 JJ4	< 3.00	< 3.05 J4	< 0.0016	< 0.0019	< 0.0024	< 0.00321	< 0.00352	< 0.0015	< 0.0016	< 0.0018
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2,4,6-Trichlorophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2,4-Dichlorophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2,4-Dimethylphenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2,4-Dinitrophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2,4-Dinitrotoluene	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2,6-Dinitrotoluene	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2-Chloronaphthalene	mg/kg	< 0.0393	< 0.0405	< 0.0406	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
2-Chlorophenol	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2-Methyl-4,6-dinitrophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
2-Nitrophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
3,3-Dichlorobenzidine	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
4-Bromophenyl phenyl ether	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
4-Chloro-3-Methylphenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
4-Chlorophenyl phenyl ether	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
4-Nitrophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Acenaphthene	mg/kg	< 0.0393	0.0229 J	0.0212	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Acenaphthylene	mg/kg	< 0.0393	< 0.0405	< 0.0406	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Anthracene	mg/kg	< 0.0393	0.0230 J	0.0173 J	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Benz(a)anthracene	mg/kg	0.0117 J	0.0977	0.0907	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Benzidine	mg/kg	< 1.97	< 2.03	< 2.04	NA	NA	NA	< 1.87	< 1.97	NA	NA	NA
Benzo(a)pyrene	mg/kg	< 0.0393	0.0436	0.0416	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Benzo(b)fluoranthene	mg/kg	0.0145 J	0.125	0.11	NA	NA	NA	0.0159 J	< 0.0393	NA	NA	NA
Benzo(g,h,i)perylene	mg/kg	< 0.0393	0.0483	0.0472	NA	NA	NA	0.00760 J	< 0.0393	NA	NA	NA
Benzo(k)fluoranthene	mg/kg	< 0.0393	0.0412	0.0344 J	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
bis(2-Chloroethoxy)methane	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
bis(2-Chloroethyl)ether	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
bis(2-Ethylhexyl)phthalate	mg/kg	0.104 J	0.964	0.75	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Butyl benzyl phthalate	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Chrysene	mg/kg	0.0136 J	0.119	0.105	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Dibenz(a,h)anthracene	mg/kg	< 0.0393	0.0154 J	0.0130 J	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Diethyl phthalate	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Dimethyl phthalate	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Di-n-butyl phthalate	mg/kg	< 0.393	0.0998 J	0.0293 J	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Di-n-octyl phthalate	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Fluoranthene	mg/kg	0.0273 J	0.259	0.239	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Fluorene	mg/kg	< 0.0393	0.0399 J	0.0375 J	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Hexachlorobenzene	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-09	MIP-09	MIP-09	MIP-14	MIP-14	MIP-14	MIP-16B	MIP-16B	MIP-20	MIP-20	MIP-20
	Sample Name:	MIP-9 (1-2) (101322)	MIP-9 (2-3) (101322)	MIP-9 (5-6) (101322)	MIP14-2_20211210	MIP14-3_20211210	MIP14-6_20211210	MIP-16B (1-2) (101322)	MIP-16B (5-6) (101322)	MIP20-4_20211210	MIP20-5_20211210	MIP20-6_20211210
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	12/10/2021	12/10/2021	12/10/2021	10/13/2022	10/13/2022	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):	1-2	2-3	5-6	1.9-2.1	2.9-3.1	5.9-6.1	1-2	5-6	3.9-4.1	4.9-5.1	5.9-6.1
Hexachlorocyclopentadiene	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Hexachloroethane	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.0393	0.0475	0.0485	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Isophorone	mg/kg	5.74	14.1	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Nitrobenzene	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
N-Nitrosodimethylamine	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
N-Nitrosodi-n-propylamine	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
N-Nitrosodiphenylamine	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Pentachlorophenol	mg/kg	< 0.393	< 0.405	< 0.406	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Phenanthrene	mg/kg	0.0253 J	0.247	0.199	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Phenol	mg/kg	< 0.393	< 0.405	< 4.06	NA	NA	NA	< 0.373	< 0.393	NA	NA	NA
Pyrene	mg/kg	0.0211 J	0.192	0.184	NA	NA	NA	< 0.0373	< 0.0393	NA	NA	NA
Metals												
Arsenic	mg/kg	5.6	10.5	22.6	NA	NA	NA	4.67	< 2.36	NA	NA	NA
Barium	mg/kg	17.2	16.2	210	NA	NA	NA	78.2	176	NA	NA	NA
Cadmium	mg/kg	0.0686 J	0.125 J	0.290 J	NA	NA	NA	0.111 J	< 0.589	NA	NA	NA
Chromium	mg/kg	16.2	17.9	46.6	NA	NA	NA	24	32.2	NA	NA	NA
Lead	mg/kg	8.07	13.8	63.6	NA	NA	NA	63.9	5.05	NA	NA	NA
Mercury	mg/kg	0.0592	0.0549	0.204	NA	NA	NA	0.0508	0.0605	NA	NA	NA
Selenium	mg/kg	< 2.36	< 2.43	< 2.44	NA	NA	NA	1.45 J	1.38 J	NA	NA	NA
Silver	mg/kg	< 1.18	< 1.22	< 1.22	NA	NA	NA	< 1.12	< 1.18	NA	NA	NA
Other												
Total Solids	%	84.7	82.3	82	NA	NA	NA	89.3	84.8	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-20	MIP-24	MIP-24	MIP-32	MIP-32	MIP-32	MIP-33	MIP-33	MIP-33	MIP-34	MIP-34
	Sample Name:	MIP20-7_20211210	MIP-24 (0-1) (101322)	MIP-24 (6-7) (101322)	MIP-32 (0-1) (101322)	MIP-32 (5-6) (101322)	MIP-32 (0-1) (101322)	MIP-33 (0-1) (101322)	MIP-33 (2-3) (101322)	MIP-33 (7-8) (101322)	MIP-34 (0-1) (101222)	MIP-34 (5-6) (101222)
	Sample Date:	12/10/2021	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022
	Depth (ft bgs):	6.9-7.1	0-1	6-7	0-1	5-6	0-1	0-1	2-3	7-8	0-1	5-6
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg	NA	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1,1-Trichloroethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	0.0110 C5	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1,2,2-Tetrachloroethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1,2-Trichloroethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1-Dichloroethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1-Dichloroethene	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,1-Dichloropropene	mg/kg	NA	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,2,3-Trichlorobenzene	mg/kg	NA	< 0.0291 C4	< 0.140 C4	< 0.0169 C4	< 0.0178 C4	< 0.0142 C4	< 0.0187 C4	< 0.139 C4	< 0.0163 C4	< 0.184 C4	
1,2,3-Trichloropropane	mg/kg	NA	< 0.0291	< 0.140	< 0.0169	< 0.0178	< 0.0142	< 0.0187	< 0.139	< 0.0163	< 0.184	
1,2,3-Trimethylbenzene	mg/kg	NA	0.143	9.87	0.116	0.068	0.781	2.48	0.375	5.93	0.225	
1,2,4-Trichlorobenzene	mg/kg	< 0.0046 [NA]	< 0.0291 C4 [< 4.39]	< 0.140 C4 [< 0.390]	< 0.0169 C4 [< 0.740]	< 0.0178 C4 [< 0.397]	< 0.0142 C4 [< 0.711]	< 0.0187 C4 [< 0.406]	< 0.139 C4 [< 0.388]	< 0.0163 C4 [< 0.371]	< 0.184 C4 [< 0.455]	
1,2,4-Trimethylbenzene	mg/kg	NA	0.17	19.1	0.369	0.177	1.41	4.84	0.573	14.7	0.995	
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0046	< 0.0582	< 0.279	< 0.0337	< 0.0356	< 0.0284	< 0.0374	< 0.279	< 0.0327	< 0.368	
1,2-Dibromoethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	0.000738 J	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,2-Dichlorobenzene	mg/kg	< 0.0046 [NA]	< 0.0116 [< 4.39]	< 0.0559 [< 0.390]	< 0.00673 [< 0.740]	0.000798 J [< 0.397]	0.000653 J [< 0.711]	< 0.00747 [< 0.406]	< 0.0558 [< 0.388]	< 0.00652 [< 0.371]	< 0.0737 [< 0.455]	
1,2-Dichloroethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
1,2-Dichloropropane	mg/kg	< 0.0046	< 0.0116	< 0.0559	< 0.00673	< 0.00712	< 0.00567	< 0.00747	< 0.0558	< 0.00652	< 0.0737	
1,3,5-Trimethylbenzene	mg/kg	NA	0.151	7.75	0.204	0.0601	0.97	2.18	0.174	5.58	0.311	
1,3-Dichlorobenzene	mg/kg	< 0.0046 [NA]	< 0.0116 [< 4.39]	< 0.0559 [< 0.390]	< 0.00673 [< 0.740]	< 0.00712 [< 0.397]	< 0.00567 [< 0.711]	< 0.00747 [< 0.406]	< 0.0558 [< 0.388]	< 0.00652 [< 0.371]	< 0.0737 [< 0.455]	
1,3-Dichloropropane	mg/kg	NA	< 0.0116	< 0.0559	< 0.00673	< 0.00712	< 0.00567	< 0.00747	< 0.0558	< 0.00652	< 0.0737	
1,4-Dichlorobenzene	mg/kg	< 0.0046 [NA]	< 0.0116 [< 4.39]	< 0.0559 [< 0.390]	0.00441 J [< 0.740]	< 0.00712 [< 0.397]	0.000823 J [< 0.711]	< 0.00747 [< 0.406]	< 0.0558 [< 0.388]	< 0.00652 [< 0.371]	< 0.0737 [< 0.455]	
2,2-Dichloropropane	mg/kg	NA	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
2-Butanone (MEK)	mg/kg	< 0.0092	< 0.233	< 1.12	< 0.135	< 0.142	< 0.113	< 0.149	< 1.12	< 0.130	< 1.47	
2-Chlorotoluene	mg/kg	NA	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
4-Chlorotoluene	mg/kg	NA	< 0.0116	< 0.0559	< 0.00673	< 0.00712	< 0.00567	< 0.00747	< 0.0558	< 0.00652	< 0.0737	
4-Methyl-2-Pentanone	mg/kg	< 0.0092	< 0.0582	< 0.279	< 0.0337	< 0.0356	< 0.0284	0.133	< 0.279	4.19	< 0.368	
Acetone	mg/kg	0.31	< 0.116	< 0.559	< 0.0673	< 0.0712	< 0.0567	< 0.0747	< 0.558	0.0558 J	< 0.737	
Acrylonitrile	mg/kg	NA	< 0.0291	< 0.140	< 0.0169	< 0.0178	< 0.0142	< 0.0187	< 0.139	< 0.0163	< 0.184	
Benzene	mg/kg	< 0.0046	0.00233 J	< 0.0112	0.0701	0.00465	0.253	0.148	0.00836 J	0.00424	0.0794	
Bromobenzene	mg/kg	NA	< 0.0291	< 0.140	< 0.0169	< 0.0178	< 0.0142	< 0.0187	< 0.139	< 0.0163	< 0.184	
Bromodichloromethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
Bromoform	mg/kg	< 0.0046	< 0.0582	< 0.279	< 0.0337	< 0.0356	< 0.0284	< 0.0374	< 0.279	< 0.0327	< 0.368	
Bromomethane	mg/kg	< 0.0092	< 0.0291	< 0.140	< 0.0169	< 0.0178	< 0.0142	< 0.0187	< 0.139	< 0.0163	< 0.184	
Carbon Disulfide	mg/kg	< 0.0092	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon Tetrachloride	mg/kg	< 0.0046	< 0.0116 J4	< 0.0559 J4	< 0.00673 J4	< 0.00712 J4	< 0.00567 J4	< 0.00747 J4	< 0.0558 J4	< 0.00652 J4	< 0.0737 J4	
CFC-11	mg/kg	< 0.0046	< 0.00582 C3	< 0.0279 C3	< 0.00337 C3	< 0.00356 C3	< 0.00284 C3	< 0.00374 C3	< 0.0279 C3	< 0.00327 C3	< 0.0368 C3	
CFC-12	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
Chlorobenzene	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
Chlorodibromomethane	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
Chloroethane	mg/kg	< 0.0092	< 0.0116 J4	< 0.0559 J4	< 0.00673 J4	< 0.00712 J4	< 0.00567 J4	< 0.00747 J4	< 0.0558 J4	< 0.00652 J4	< 0.0737 J4	
Chloroform	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
Chloromethane	mg/kg	< 0.0092	< 0.0291	< 0.140	< 0.0169	< 0.0178	< 0.0142	< 0.0187	< 0.139	< 0.0163	< 0.184	
cis-1,2-Dichloroethene	mg/kg	< 0.0046	0.00494 J	< 0.0279	0.00242 J	0.00178 J	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
cis-1,3-Dichloropropene	mg/kg	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374	< 0.0279	< 0.00327	< 0.0368	
Cyclohexane	mg/kg	< 0.0046	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Cymene (p-Isopropyltoluene)	mg/kg	NA	0.0161 B	1.66	0.0199	0.0117	0.0433	0.26	0.0579 B	0.936	< 0.0737	
Dibromomethane	mg/kg	NA	< 0.0116	< 0.0559	< 0.00673	< 0.00712	< 0.00567	< 0.00747	< 0.0558	< 0.00652	< 0.0737	
Dichloromethane	mg/kg	< 0.0092	< 0.0582	< 0.279	< 0.0337	< 0.0356	< 0.0284	< 0.0374	< 0.279	< 0.0327	< 0.368	
Di-isopropyl ether	mg/kg	NA	< 0.00233	< 0.0112	< 0.00135	0.00204	< 0.00113	< 0.00149	< 0.0112	< 0.00130	< 0.0147	
Ethylbenzene	mg/kg	< 0.0046	0.0344	63.4	0.0508	0.145	36.7	44.2	1.55	3.02	1.12	
Hexachloro-1,3-butadiene	mg/kg	NA [NA]	< 0.0582 [< 4.39]	< 0.279 [< 0.390]	< 0.0337 [< 0.740]	< 0.0356 [< 0.397]	< 0.0284 [< 0.711]	< 0.0374 [< 0.406]	< 0.279 [< 0.388]	< 0.0327 [< 0.371]	< 0.368 [< 0.455]	
Isopropylbenzene	mg/kg	< 0.0046	0.0271	11.8	0.043	0.427	0.726	1.03	6.72	0.252	27.5	
m,p-Xylenes	mg/kg	< 0.0092	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methyl Acetate	mg/kg	< 0.0046	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-20	MIP-24	MIP-24	MIP-32	MIP-32	MIP-32	MIP-33	MIP-33	MIP-33	MIP-34	MIP-34
	Sample Name:	MIP20-7_20211210	MIP-24 (0-1) (101322)	MIP-24 (6-7) (101322)	MIP-32 (0-1) (101322)	MIP-32 (5-6) (101322)	MIP-32 (0-1) (101322)	MIP-33 (0-1) (101322)	MIP-33 (2-3) (101322)	MIP-33 (7-8) (101322)	MIP-34 (0-1) (101222)	MIP-34 (5-6) (101222)
	Sample Date:	12/10/2021	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022
	Depth (ft bgs):	6.9-7.1	0-1	6-7	0-1	5-6	0-1	0-1	2-3	7-8	0-1	5-6
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	< 0.0092	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	< 0.0046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.0046	< 0.00233	< 0.0112	< 0.00135	< 0.00142	< 0.00113	< 0.00149	< 0.0112	< 0.0112	< 0.00130	< 0.0147
Naphthalene	mg/kg	NA [NA]	0.0562 [< 0.439]	3.71 [0.571]	0.0661 [0.166]	0.0343 [0.0194 J]	0.306 [0.0728]	0.912 [0.108]	0.561 [0.516]	0.415 [0.127]	0.715 [0.466]	
n-Butylbenzene	mg/kg	NA	< 0.0291	3.84	0.0150 J	0.19	0.042	0.17	3.71	0.74	< 0.184	
n-Propylbenzene	mg/kg	NA	0.0237	16.1	0.0394	0.326	0.499	1.69	11.2	0.534	91.4	
o-Xylene	mg/kg	< 0.0046	NA	NA	NA	NA	NA	NA	NA	NA	NA	
sec-Butylbenzene	mg/kg	NA	0.0178 J	5.04	0.0216	0.591	0.115	0.217	3.81	0.64	7.28	
Styrene (Monomer)	mg/kg	< 0.0046	0.00349 BJ	< 0.140	< 0.0169	< 0.0178	< 0.0142	< 0.0187	< 0.139	< 0.0163	< 0.184	
tert-Butylbenzene	mg/kg	NA	< 0.0116	0.869	0.00299 J	0.332	0.0323	0.054	0.674	0.0872	0.678	
Tetrachloroethene	mg/kg	< 0.0046	0.00245 J	< 0.0279	0.124	< 0.00356	0.00128 J	< 0.00374	< 0.0279	0.00267 J	< 0.0368	
Toluene	mg/kg	< 0.0046	0.0404	0.293	0.0422	0.134	0.113	8.65	< 0.0558	1.02	0.267	
Total Xylenes	mg/kg	< 0.0046	0.398	233	0.62	1.65	16.3	129	3.75	70.9	1.52	
trans-1,2-Dichloroethene	mg/kg	< 0.0046	< 0.0116	< 0.0559	< 0.00673	< 0.00712	< 0.00567	< 0.00747	< 0.0558	< 0.00652	< 0.0737	
trans-1,3-Dichloropropene	mg/kg	< 0.0046	< 0.0116	< 0.0559	< 0.00673	< 0.00712	< 0.00567	< 0.00747	< 0.0558	< 0.00652	< 0.0737	
Trichloroethene	mg/kg	< 0.0046	< 0.00233	< 0.0112	< 0.00142	< 0.00142	< 0.00113	< 0.00149	< 0.0112	< 0.00130	< 0.0147	
Vinyl chloride	mg/kg	< 0.0018	< 0.00582 J4	< 0.0279 J4	< 0.00337 J4	< 0.00356 J4	< 0.00284 J4	< 0.00374 J4	< 0.0279 J4	< 0.00327 J4	< 0.0368 J4	
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2,4,6-Trichlorophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2,4-Dichlorophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2,4-Dimethylphenol	mg/kg	NA	< 4.39	0.598	< 0.740	< 0.397	0.108 J	0.241 J	< 0.388	0.129 J	< 0.455	
2,4-Dinitrophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2,4-Dinitrotoluene	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2,6-Dinitrotoluene	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2-Chloronaphthalene	mg/kg	NA	< 0.439	< 0.0390	< 0.0740	< 0.0397	< 0.0711	< 0.0406	< 0.0388	< 0.0371	< 0.0455	
2-Chlorophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2-Methyl-4,6-dinitrophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
2-Nitrophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
3,3-Dichlorobenzidine	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
4-Bromophenyl phenyl ether	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
4-Chloro-3-Methylphenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
4-Chlorophenyl phenyl ether	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
4-Nitrophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
Acenaphthene	mg/kg	NA	< 0.439	0.0121 J	0.0195 J	< 0.0397	< 0.0711	0.122	< 0.0388	< 0.0371	0.0230 J	
Acenaphthylene	mg/kg	NA	< 0.439	< 0.0390	0.0242 J	< 0.0397	0.0310 J	0.00617 J	< 0.0388	< 0.0371	0.0105 J	
Anthracene	mg/kg	NA	0.108 J	0.0252 J	0.0438 J	< 0.0397	0.0193 J	0.367	< 0.0388	< 0.0371	0.0221 J	
Benz(a)anthracene	mg/kg	NA	0.541	0.0805	0.27	0.00840 J	0.0456 J	0.0396 J	0.00974 J	0.0198 J	0.0793	
Benzidine	mg/kg	NA	< 22.0	< 1.95	< 3.71	< 1.99	< 3.57	< 2.04	< 1.95	< 1.86	< 2.28	
Benzo(a)pyrene	mg/kg	NA	0.511	0.0714	0.31	0.00960 J	0.0334 J	0.0163 J	0.00790 J	0.00844 J	0.0821	
Benzo(b)fluoranthene	mg/kg	NA	0.771	0.0916	0.487	0.0153 J	0.114	0.0321 J	0.0115 J	0.0331 J	0.131	
Benzo(g,h,i)perylene	mg/kg	NA	0.290 J	0.0441	0.13	0.00833 J	0.0735	0.0158 J	< 0.0388	0.0138 J	0.0685	
Benzo(k)fluoranthene	mg/kg	NA	0.247 J	0.0315 J	0.14	< 0.0397	0.0363 J	0.00968 J	< 0.0388	0.0114 J	0.0335 J	
bis(2-Chloroethoxy)methane	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
bis(2-Chloroethyl)ether	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
bis(2-Ethylhexyl)phthalate	mg/kg	NA	17.7	0.221 J	0.624 J	< 0.397	1.28	< 0.406	0.153 J	< 0.371	0.689	
Butyl benzyl phthalate	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
Chrysene	mg/kg	NA	0.532	0.0356 J	0.226	< 0.0397	0.0422 J	0.0385 J	0.00910 J	0.0316 J	0.0998	
Dibenz(a,h)anthracene	mg/kg	NA	< 0.439	< 0.0390	0.0377 J	< 0.0397	< 0.0711	< 0.0406	< 0.0388	< 0.0371	0.0185 J	
Diethyl phthalate	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
Dimethyl phthalate	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
Di-n-butyl phthalate	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
Di-n-octyl phthalate	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	
Fluoranthene	mg/kg	NA	0.991	0.187	0.454	0.0222 J	0.0838	0.21	0.0217 J	0.0614	0.178	
Fluorene	mg/kg	NA	< 0.439	0.0192 J	0.0195 J	< 0.0397	< 0.0711	0.19	< 0.0388	< 0.0371	0.0366 J	
Hexachlorobenzene	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455	

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-20	MIP-24	MIP-24	MIP-32	MIP-32	MIP-33	MIP-33	MIP-33	MIP-34	MIP-34
	Sample Name:	MIP20-7_20211210	MIP-24 (0-1) (101322)	MIP-24 (6-7) (101322)	MIP-32 (0-1) (101322)	MIP-32 (5-6) (101322)	MIP-33 (0-1) (101322)	MIP-33 (2-3) (101322)	MIP-33 (7-8) (101322)	MIP-34 (0-1) (101222)	MIP-34 (5-6) (101222)
	Sample Date:	12/10/2021	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022
	Depth (ft bgs):	6.9-7.1	0-1	6-7	0-1	5-6	0-1	2-3	7-8	0-1	5-6
Hexachlorocyclopentadiene	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
Hexachloroethane	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
Indeno(1,2,3-cd)pyrene	mg/kg	NA	0.340 J	0.0481	0.143	< 0.0397	0.0662 J	0.0152 J	< 0.0388	0.0147 J	0.0704
Isophorone	mg/kg	NA	4.22 J	< 0.390	0.171 J	< 0.397	2.84	0.0493 J	< 0.388	< 0.371	< 0.455
Nitrobenzene	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
N-Nitrosodimethylamine	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
N-Nitrosodi-n-propylamine	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
N-Nitrosodiphenylamine	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
Pentachlorophenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	< 0.371	< 0.455
Phenanthrene	mg/kg	NA	0.495	0.123	0.309	0.0138 J	0.0385 J	0.466	0.0157 J	0.0483	0.134
Phenol	mg/kg	NA	< 4.39	< 0.390	< 0.740	< 0.397	< 0.711	< 0.406	< 0.388	0.0687 J	< 0.455
Pyrene	mg/kg	NA	0.773	0.144	0.388	0.0177 J	0.0992	0.15	0.0164 J	0.0483	0.139
Metals											
Arsenic	mg/kg	NA	12.9	3.22	16.1	1.77 J	2.26	5.55	1.71 J	3.23	10.2
Barium	mg/kg	NA	199	149	180	48.9	543 O1V	57.6	98.4	186	93.9
Cadmium	mg/kg	NA	3.14	0.146 J	1.01	0.0732 J	1.09	0.160 J	0.0777 J	1.4	0.391 J
Chromium	mg/kg	NA	165	36.3	38.7	22.6	322 J6O1	49.6	26.3	414	22.3
Lead	mg/kg	NA	754	13.2	195	15.3	1530 O1V	26	9.26	106	69
Mercury	mg/kg	NA	181	0.0435 J	0.549	0.35	3.32	0.279	0.072	1.01	0.252
Selenium	mg/kg	NA	< 2.64	< 2.34	< 2.22	< 2.39	< 2.13	< 2.44	< 2.33	< 2.23	< 2.73
Silver	mg/kg	NA	< 1.32	< 1.17	< 1.11	< 1.19	< 1.07	< 1.22	< 1.17	1.04 J	< 1.37
Other											
Total Solids	%	NA	75.8	85.4	90	83.8	93.7	82	85.7	89.8	73.2

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-36	MIP-36	MIP-38	MIP-38	MIP-40	MIP-40	MIP-40	MIP-44	MIP-44	MIP-45	MIP-45
	Sample Name:	MIP-36 (1-2) (101322)	MIP-36 (4-5) (101322)	MIP-38 (4-5) (101322)	MIP-38 (6-7) (101322)	MIP-40 (2-3) (101322)	MIP-40 (4-5) (101322)	MIP-40 (6-7) (101322)	MIP-44 (0-1) (101222)	MIP-44 (5-6) (101222)	MIP-45 (0-1) (101322)	MIP-45 (4-5) (101322)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022	10/13/2022	10/13/2022
Depth (ft bgs):												
1-2												
4-5												
4-5												
6-7												
2-3												
4-5												
6-7												
0-1												
5-6												
0-1												
4-5												
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
1,1,1-Trichloroethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	0.266 C5	< 0.00282	2.87
1,1,2,2-Tetrachloroethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	1.23
1,1,2-Trichloroethane	mg/kg	0.0155	< 0.0257	0.0295	3.83	0.0274	0.0143	3.48	< 0.00335	< 0.0262	< 0.00282	< 0.0775
1,1-Dichloroethane	mg/kg	< 0.00317 J4	< 0.0257 J4	< 0.00337 J4	< 0.0279 J4	0.0108 C5J4	< 0.00317 J4	< 0.0272 J4	0.000704 J	0.0872	0.00831 C5	2.23 C5
1,1-Dichloroethene	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	0.00765 J	< 0.00282	0.846
1,1-Dichloropropene	mg/kg	< 0.00317 J4	< 0.0257 J4	< 0.00337 J4	< 0.0279 J4	< 0.00321 J4	< 0.00317 J4	< 0.0272 J4	< 0.00335	< 0.0262	< 0.00282	< 0.0775
1,2,3-Trichlorobenzene	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168 C4	< 0.131 C4	< 0.0141 C4	< 0.387 C4
1,2,3-Trichloropropane	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168	< 0.131	< 0.0141	< 0.387
1,2,3-Trimethylbenzene	mg/kg	0.033	26.4	0.567	93.4	0.846	0.0171	20	0.219	132	0.0194	21.8
1,2,4-Trichlorobenzene	mg/kg	< 0.0158 C3 [< 0.372]	< 0.128 C3 [< 0.375]	< 0.0168 C3 [< 0.382]	< 0.140 C3 [< 0.387]	< 0.0161 C3 [< 0.375]	< 0.0159 C3 [< 0.371]	< 0.136 C3 [< 0.388]	< 0.0168 C4 [< 3.75]	< 0.131 C4 [< 0.377]	0.0141 C4J4 [< 0.698< 0.387 C4J4 [< 0.419	
1,2,4-Trimethylbenzene	mg/kg	0.102	151	4.34	511	4.8	0.0904	98.3	0.562	697	0.0952	81.6
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0317 C3	< 0.257 C3	< 0.0337 C3	< 0.279 C3	< 0.0321 C3	< 0.0317 C3	< 0.272 C3	< 0.0335	< 0.262	< 0.0282 C3	< 0.775 C3
1,2-Dibromoethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
1,2-Dichlorobenzene	mg/kg	< 0.00634 [< 0.372]	< 0.0513 [< 0.375]	< 0.00673 [< 0.382]	< 0.0559 [< 0.387]	< 0.00642 [< 0.375]	< 0.00635 [< 0.371]	< 0.0543 [< 0.388]	< 0.00671 [< 3.75]	< 0.0524 [< 3.77]	< 0.00565 [< 0.698]	< 0.155 [< 0.419]
1,2-Dichloroethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
1,2-Dichloropropane	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671	< 0.0524	< 0.00565	< 0.155
1,3,5-Trimethylbenzene	mg/kg	0.0298	57.1	1.48	179	1.59	0.0346	35.9	0.251	274	0.0265	55.3
1,3-Dichlorobenzene	mg/kg	< 0.00634 [< 0.372]	< 0.0513 [< 0.375]	< 0.00673 [< 0.382]	< 0.0559 [< 0.387]	< 0.00642 [< 0.375]	< 0.00635 [< 0.371]	< 0.0543 [< 0.388]	< 0.00671 [< 3.75]	< 0.0524 [< 3.77]	< 0.00565 [< 0.698]	< 0.155 [< 0.419]
1,3-Dichloropropane	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671	< 0.0524	< 0.00565	< 0.155
1,4-Dichlorobenzene	mg/kg	< 0.00634 [< 0.372]	< 0.0513 [< 0.375]	< 0.00673 [< 0.382]	< 0.0559 [< 0.387]	< 0.00642 [< 0.375]	< 0.00635 [< 0.371]	< 0.0543 [< 0.388]	< 0.00671 [< 3.75]	< 0.0524 [< 3.77]	< 0.00565 [< 0.698]	< 0.155 [< 0.419]
2,2-Dichloropropane	mg/kg	< 0.00317 J4	< 0.0257 J4	< 0.00337 J4	< 0.0279 J4	< 0.00321 J4	< 0.00317 J4	< 0.0272 J4	< 0.00335	< 0.0262	< 0.00282	< 0.0775
2-Butanone (MEK)	mg/kg	< 0.127	< 1.03	< 0.135	< 1.12	0.812	0.0999 J	< 1.09	0.0857 J	10.9	< 0.113	< 3.10
2-Chlorotoluene	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
4-Chlorotoluene	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671	< 0.0524	< 0.00565	< 0.155
4-Methyl-2-Pentanone	mg/kg	0.0164 J	11.3	< 0.0337	15.5	0.127	< 0.0317	12.4	< 0.0335	< 0.262	< 0.0282	< 0.775
Acetone	mg/kg	< 0.0634	< 0.513	< 0.0673	< 0.559	< 0.0642	< 0.0635	< 0.543	< 0.0671	< 0.524	< 0.0565	< 1.55
Acrylonitrile	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168	< 0.131	< 0.0141	< 0.387
Benzene	mg/kg	0.0308	0.0738	0.00296	0.049	0.0208	0.00119 J	< 0.0109	0.00134 J	0.696	0.00926	1.23
Bromobenzene	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168	< 0.131	< 0.0141	< 0.387
Bromodichloromethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
Bromoform	mg/kg	< 0.0317	< 0.257	< 0.0337	< 0.279	< 0.0321	< 0.0317	< 0.272	< 0.0335	< 0.262	< 0.0282	< 0.775
Bromomethane	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168	< 0.131	< 0.0141 C3	< 0.387 C3
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671 J4	< 0.0524 J4	< 0.00565	< 0.155
CFC-11	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335 C3	< 0.0262 C3	< 0.00282	< 0.0775
CFC-12	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282 C3	< 0.0775 C3
Chlorobenzene	mg/kg	0.00503	0.121	0.00182 J	0.136	0.00819	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	0.158
Chlorodibromomethane	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
Chloroethane	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671 J4	< 0.0524 J4	< 0.00565	< 0.155
Chloroform	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
Chloromethane	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168	< 0.131	< 0.0141	< 0.387
cis-1,2-Dichloroethene	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	0.388	< 0.00317	< 0.0272	0.00684	1.64	0.00316	17.5
cis-1,3-Dichloropropene	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335	< 0.0262	< 0.00282	< 0.0775
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	< 0.00634	1.18	0.0296	3.55	0.023	< 0.00635	0.818	0.0577	4.35	< 0.00565	0.697
Dibromomethane	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671	< 0.0524	< 0.00565	< 0.155
Dichloromethane	mg/kg	< 0.0317	< 0.257	< 0.0337	< 0.279	< 0.0321	< 0.0317	< 0.272	< 0.0335	< 0.262	< 0.0282	< 0.775
Di-isopropyl ether	mg/kg	< 0.00127	< 0.0103	< 0.00135	< 0.0112	< 0.00128	< 0.00127	< 0.0109	< 0.00134	< 0.0105	< 0.00113	< 0.0310
Ethylbenzene	mg/kg	0.118	181	0.452	96.8	8.63	0.0591	40.9	0.19	380	0.12	134
Hexachloro-1,3-butadiene	mg/kg	< 0.0317 [< 0.372]	< 0.257 [< 0.375]	< 0.0337 [< 0.382]	< 0.279 [< 0.387]	< 0.0.						

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-36	MIP-36	MIP-38	MIP-38	MIP-40	MIP-40	MIP-40	MIP-44	MIP-44	MIP-45	MIP-45
	Sample Name:	MIP-36 (1-2) (101322)	MIP-36 (4-5) (101322)	MIP-38 (4-5) (101322)	MIP-38 (6-7) (101322)	MIP-40 (2-3) (101322)	MIP-40 (4-5) (101322)	MIP-40 (6-7) (101322)	MIP-44 (0-1) (101222)	MIP-44 (5-6) (101222)	MIP-45 (0-1) (101322)	MIP-45 (4-5) (101322)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022	10/13/2022	10/13/2022
	Depth (ft bgs):	1-2	4-5	4-5	6-7	2-3	4-5	6-7	0-1	5-6	0-1	4-5
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.00127	< 0.0103	< 0.00135	< 0.0112	< 0.00128	< 0.00127	< 0.0109	< 0.00134	< 0.0105	< 0.00113	< 0.0310
Naphthalene	mg/kg	1.46 C3 [0.0579]	6.07 C3 [2.98]	0.166 C3 [0.0354 J]	7.78 C3 [3.01]	0.312 C3 [0.0555]	0.0451 C3 [< 0.0371]	3.65 C3 [2.39]	0.113 [0.328 J]	12.4 J [5.82]	0.0122 C3J [< 0.0698]	6.21 C3 [0.887]
n-Butylbenzene	mg/kg	0.117	2.13	0.143	6.58	0.0421	0.0373	2.95	0.0759	10.1	< 0.0141	< 0.387
n-Propylbenzene	mg/kg	0.678	32.1	3.37	115	1.2	0.449	33.1	0.033	176	0.0465	33.5
o-Xylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	0.0418	2.18	0.139	5.99	0.0331	0.0463	2.23	0.0726	8.11	0.00505 J	1.7
Styrene (Monomer)	mg/kg	< 0.0158	< 0.128	< 0.0168	< 0.140	< 0.0161	< 0.0159	< 0.136	< 0.0168	< 0.131	< 0.0141	< 0.387
tert-Butylbenzene	mg/kg	0.00248 J	< 0.0513	0.00738	< 0.0559	0.00371 J	0.00354 J	0.141	0.0267	0.344	0.00375 J	< 0.155
Tetrachloroethene	mg/kg	< 0.00317	< 3.21	< 0.00337	0.0468	< 0.00321	< 0.00317	< 1.36	0.00432	0.25	< 0.00282	30.2
Toluene	mg/kg	0.0886	162	0.057	1.39	22.3	0.0711	0.315	0.138	1,210	0.18	1,210
Total Xylenes	mg/kg	0.276	732	1.41	402	34.9	0.198	116	2.2	1,730	0.373	564
trans-1,2-Dichloroethene	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	0.00693	< 0.00635	< 0.0543	< 0.00671	< 0.0524	< 0.00565	< 0.155
trans-1,3-Dichloropropene	mg/kg	< 0.00634	< 0.0513	< 0.00673	< 0.0559	< 0.00642	< 0.00635	< 0.0543	< 0.00671	< 0.0524	< 0.00565	< 0.155
Trichloroethene	mg/kg	< 0.00127	< 0.0103	< 0.00135	< 0.0112	< 0.00128	< 0.00135	< 0.0109	< 0.00134	0.0144	< 0.00113	9.40 C5
Vinyl chloride	mg/kg	< 0.00317	< 0.0257	< 0.00337	< 0.0279	< 0.00321	< 0.00317	< 0.0272	< 0.00335 J4	0.0317 C5J4	0.00488	< 0.0775
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
2,4,6-Trichlorophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2,4-Dichlorophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2,4-Dimethylphenol	mg/kg	< 0.372	0.270 J	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2,4-Dinitrophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2,4-Dinitrotoluene	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2,6-Dinitrotoluene	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2-Chloronaphthalene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
2-Chlorophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
2-Methyl-4,6-dinitrophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
2-Nitrophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
3,3-Dichlorobenzidine	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
4-Bromophenyl phenyl ether	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
4-Chloro-3-Methylphenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
4-Chlorophenyl phenyl ether	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
4-Nitrophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Acenaphthene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Acenaphthylene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Anthracene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Benz(a)anthracene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Benzidine	mg/kg	< 1.86	< 1.88	< 1.92	< 1.94	< 1.88	< 1.86	< 1.95	< 18.8	< 1.89	< 3.50	< 2.10
Benzo(a)pyrene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Benzo(b)fluoranthene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Benzo(g,h,i)perylene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Benzo(k)fluoranthene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
bis(2-Chloroethoxy)methane	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
bis(2-Chloroethyl)ether	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
bis(2-Ethylhexyl)phthalate	mg/kg	0.369 J	0.231 J	< 0.382	0.511	< 0.375	< 0.371	0.122 J	0.989 J	0.841	< 0.698	< 0.419
Butyl benzyl phthalate	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	0.0315 J	< 0.419
Chrysene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Dibenz(a,h)anthracene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Diethyl phthalate	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Dimethyl phthalate	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Di-n-butyl phthalate	mg/kg	< 0.372	< 0.375	< 0.382	0.0258 J	< 0.375	< 0.371	0.0135 J	< 3.75	0.0792 J	< 0.698	< 0.419
Di-n-octyl phthalate	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Fluoranthene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	0.0787 J	< 0.0377	< 0.0698	< 0.0419
Fluorene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Hexachlorobenzene	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	MIP-36	MIP-36	MIP-38	MIP-38	MIP-40	MIP-40	MIP-40	MIP-44	MIP-44	MIP-45	MIP-45
	Sample Name:	MIP-36 (1-2) (101322)	MIP-36 (4-5) (101322)	MIP-38 (4-5) (101322)	MIP-38 (6-7) (101322)	MIP-40 (2-3) (101322)	MIP-40 (4-5) (101322)	MIP-40 (6-7) (101322)	MIP-44 (0-1) (101222)	MIP-44 (5-6) (101222)	MIP-45 (0-1) (101322)	MIP-45 (4-5) (101322)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/12/2022	10/12/2022	10/13/2022	10/13/2022
	Depth (ft bgs):	1-2	4-5	4-5	6-7	2-3	4-5	6-7	0-1	5-6	0-1	4-5
Hexachlorocyclopentadiene	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Hexachloroethane	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Isophorone	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	0.0314 J	< 0.419
Nitrobenzene	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
N-Nitrosodimethylamine	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
N-Nitrosodi-n-propylamine	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
N-Nitrosodiphenylamine	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Pentachlorophenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 0.377	< 0.698	< 0.419
Phenanthrene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	< 0.375	< 0.0377	< 0.0698	< 0.0419
Phenol	mg/kg	< 0.372	< 0.375	< 0.382	< 0.387	< 0.375	< 0.371	< 0.388	< 3.75	< 3.77	< 0.698	< 0.419
Pyrene	mg/kg	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388	0.113 J	< 0.0377	< 0.0698	< 0.0419
Metals												
Arsenic	mg/kg	1.51 J	23.2	< 2.29	2.51	3.8	9.42	14.8	0.773 J	6.12	1.01 J	8.66
Barium	mg/kg	41.1	144	23.3	69.3	64.5	66.8	380	186	20.1	11.1	379
Cadmium	mg/kg	< 0.558	0.0818 J	< 0.573	< 0.580	0.136 J	< 0.556	0.442 J	1.68	0.0692 J	0.270 J	0.341 J
Chromium	mg/kg	42.4	87.2	21.7	37.3	78.3	47.6	120	143	47.8	4.66	43.8
Lead	mg/kg	12.1	38.4	5.94	9.49	29.7	11.2	22.3	234	8.86	10	42.3
Mercury	mg/kg	0.0259 J	0.0698	0.0467	0.139	0.0366 J	0.0410 J	0.117	6.75	0.098	0.789	0.19
Selenium	mg/kg	1.52 J	3.23	1.06 J	< 2.32	1.78 J	1.14 J	3.7	< 2.25	< 2.26	< 2.10	3.8
Silver	mg/kg	< 1.12	< 1.13	< 1.15	< 1.16	< 1.12	< 1.11	< 1.17	0.407 J	< 1.13	< 1.05	< 1.26
Other												
Total Solids	%	89.6	88.9	87.2	86.1	88.9	89.9	85.8	88.8	88.4	95.5	79.4

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-47	MIP-47	MIP-49	MIP-49	MIP-51	MIP-51	MIP-51	MIP-52	MIP-52	SB22-01	SB22-01
	Sample Name:	MIP-47 (1-2) (101322)	MIP-47 (5-6) (101322)	MIP-49 (0-1) (101322)	MIP-49 (5-6) (101322)	MIP-51 (0-1) (101322)	MIP-51 (4-5) (101322)	MIP-51 (5-6) (101322)	MIP-52 (0-1) (101322)	MIP-52 (1-2) (101322)	SB22-01 (0-1) (033122)	SB22-01 (5-6) (033122)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	1-2	5-6	0-1	5-6	0-1	4-5	5-6	0-1	1-2	0-1	5-6
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,1,1-Trichloroethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,1,2,2-Tetrachloroethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,1,2-Trichloroethane	mg/kg	< 0.00319	0.484	< 0.00274	< 0.0288	< 0.0245	3.77	0.861	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,1-Dichloroethane	mg/kg	0.00642 C5	< 0.00377 J4	0.0148 C5	0.204 C5	< 0.0245 J4	0.123 C5J4	0.112 C5J4	0.00642	0.0314	< 0.00378	< 0.00355
1,1-Dichloroethene	mg/kg	< 0.00319	< 0.00377	< 0.00274	0.0785	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,1-Dichloropropene	mg/kg	< 0.00319	< 0.00377 J4	< 0.00274	< 0.0288	< 0.0245 J4	< 0.0260 J4	< 0.0284 J4	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,2,3-Trichlorobenzene	mg/kg	< 0.0160 C4	< 0.0188	< 0.0137 C4	< 0.144 C4	< 0.123	< 0.130	< 0.142	< 0.0168 C4	< 0.0195 C4	< 0.0189	< 0.0177
1,2,3-Trichloropropane	mg/kg	< 0.0160	< 0.0188	< 0.0137	< 0.144	< 0.123	< 0.130	< 0.142	< 0.0168	< 0.0195	< 0.0189	< 0.0177
1,2,3-Trimethylbenzene	mg/kg	0.0347	3.1	0.192	9.69	105	95.1	51.4	0.0406	0.863	0.00523 J	< 0.00709
1,2,4-Trichlorobenzene	mg/kg	0.0160 C4J4 [< 0.372	< 0.0188 C3 [< 0.412]	< 0.0137 C4J4 [< 3.48]	< 0.144 C4J4 [< 0.396]	< 0.123 C3 [< 0.350]	< 0.130 C3 [< 1.92]	< 0.142 C3 [< 0.399]	< 0.0168 C4 [< 0.780]	< 0.0195 C4 [< 0.426]	< 0.0189 [< 0.409]	< 0.0177 [< 0.393]
1,2,4-Trimethylbenzene	mg/kg	0.162	18.5	0.319	39.5	228	325	149	0.0829	3.96	0.00641 J	< 0.00709
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0319 C3	< 0.0377 C3	< 0.0274 C3	< 0.288 C3	< 0.245 C3	< 0.260 C3	< 0.284 C3	< 0.0336	< 0.0390	< 0.0378 C3	< 0.0355 C3
1,2-Dibromoethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,2-Dichlorobenzene	mg/kg	< 0.00638 [< 0.372]	< 0.00753 [< 0.412]	< 0.00547 [< 3.48]	< 0.0576 [< 0.396]	< 0.0490 [< 0.350]	< 0.0520 [< 0.382]	< 0.0568 [< 0.399]	< 0.00672 [< 0.780]	< 0.00780 [< 0.426]	< 0.00756 [< 0.409]	< 0.00709 [< 0.393]
1,2-Dichloroethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
1,2-Dichloropropane	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672	< 0.00780	< 0.00756	< 0.00709
1,3,5-Trimethylbenzene	mg/kg	0.026	7.04	0.106	19	83.5	125	60.2	0.0645	1.5	0.00324 J	< 0.00709
1,3-Dichlorobenzene	mg/kg	< 0.00638 [< 0.372]	< 0.00753 [< 0.412]	< 0.00547 [< 3.48]	< 0.0576 [< 0.396]	< 0.0490 [< 0.350]	< 0.0520 [< 0.382]	< 0.0568 [< 0.399]	< 0.00672 [< 0.780]	< 0.00780 [< 0.426]	< 0.00756 [< 0.409]	< 0.00709 [< 0.393]
1,3-Dichloropropane	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672	< 0.00780	< 0.00756	< 0.00709
1,4-Dichlorobenzene	mg/kg	< 0.00638 [< 0.372]	< 0.00753 [< 0.412]	< 0.00547 [< 3.48]	< 0.0576 [< 0.396]	< 0.0490 [< 0.350]	< 0.0520 [< 0.382]	< 0.0568 [< 0.399]	< 0.00672 [< 0.780]	< 0.00780 [< 0.426]	< 0.00756 [< 0.409]	< 0.00709 [< 0.393]
2,2-Dichloropropane	mg/kg	< 0.00319	< 0.00377 J4	< 0.00274	< 0.0288	< 0.0245 J4	< 0.0260 J4	< 0.0284 J4	< 0.00336	< 0.00390	< 0.00378	< 0.00355
2-Butanone (MEK)	mg/kg	< 0.128	< 0.151	< 0.109	< 1.15	< 0.980	21.7	128	< 0.134	0.648	< 0.151	< 0.142
2-Chlorotoluene	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	0.0601	< 0.0260	0.0467	< 0.00336	< 0.00390	< 0.00378	< 0.00355
4-Chlorotoluene	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672	< 0.00780	< 0.00756	< 0.00709
4-Methyl-2-Pentanone	mg/kg	< 0.0319	2.05	< 0.0274	< 0.288	0.753	16.7	18.2	< 0.0336	0.878	< 0.0378	< 0.0355
Acetone	mg/kg	< 0.0638	< 0.0753	< 0.0547	< 0.576	< 0.490	5.26 C5	37.3 C5	< 0.0672	< 0.0780	< 0.0756 C3	< 0.0709 C3
Acrylonitrile	mg/kg	< 0.0160	< 0.0188	< 0.0137	< 0.144	< 0.123	< 0.130	< 0.142	< 0.0168	< 0.0195	< 0.0189 C3	< 0.0177 C3
Benzene	mg/kg	0.0403	0.0963	0.0162	0.0972	< 0.00980	0.753	0.557	0.0185	0.0704	0.00823	< 0.00142
Bromobenzene	mg/kg	< 0.0160	< 0.0188	< 0.0137	< 0.144	< 0.123	< 0.130	< 0.142	< 0.0168	< 0.0195	< 0.0189	< 0.0177
Bromodichloromethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
Bromoform	mg/kg	< 0.0319	< 0.0377	< 0.0274	< 0.288	< 0.245	< 0.260	< 0.284	< 0.0336	< 0.0390	< 0.0378	< 0.0355
Bromomethane	mg/kg	< 0.0160 C3	< 0.0188	< 0.0137 C3	< 0.144 C3	< 0.123	< 0.130	< 0.142	< 0.0168	< 0.0195	< 0.0189	< 0.0177
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672 J4	< 0.00780 J4	< 0.00756	< 0.00709
CFC-11	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336 C3	< 0.00390 C3	< 0.00378	< 0.00355
CFC-12	mg/kg	< 0.00319 C3	< 0.00377	< 0.00274 C3	< 0.0288 C3	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
Chlorobenzene	mg/kg	0.00481	0.0241	0.105	0.0635	< 0.0245	0.125	0.0412	< 0.00336	0.0151	< 0.00378	< 0.00355
Chlorodibromomethane	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
Chloroethane	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672 J4	< 0.00780 J4	< 0.00756	< 0.00709
Chloroform	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
Chloromethane	mg/kg	< 0.0160	< 0.0188	< 0.0137	< 0.144	< 0.123	< 0.130	< 0.142	< 0.0168	< 0.0195	< 0.0189	< 0.0177
cis-1,2-Dichloroethene	mg/kg	< 0.00319	0.0359	< 0.00274	2.1	< 0.0245	1.57	1.89	0.00167 J	1.02	< 0.00378	< 0.00355
cis-1,3-Dichloropropene	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336	< 0.00390	< 0.00378	< 0.00355
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	< 0.00638	0.158	0.0582	0.294	2.91	3.44	1.69	0.00629 BJ	0.0254	< 0.00756	< 0.00709
Dibromomethane	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672	< 0.00780	< 0.00756	< 0.00709
Dichloromethane	mg/kg	< 0.0319	< 0.0377	< 0.0274	< 0.288	< 0.245	< 0.260	< 0.284	< 0.0336	< 0.0390	< 0.0378	< 0.0355
Di-isopropyl ether	mg/kg	< 0.00128	< 0.00151	< 0.00109	< 0.0115	< 0.00980	< 0.0104	< 0.0114	< 0.00134	0.00152 J	< 0.00151	< 0.00142
Ethylbenzene	mg/kg	0.263	13.1	0.484	8							

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	MIP-47	MIP-47	MIP-49	MIP-49	MIP-51	MIP-51	MIP-51	MIP-52	MIP-52	SB22-01	SB22-01
	Sample Name:	MIP-47 (1-2) (101322)	MIP-47 (5-6) (101322)	MIP-49 (0-1) (101322)	MIP-49 (5-6) (101322)	MIP-51 (0-1) (101322)	MIP-51 (4-5) (101322)	MIP-51 (5-6) (101322)	MIP-52 (0-1) (101322)	MIP-52 (1-2) (101322)	SB22-01 (0-1) (033122)	SB22-01 (5-6) (033122)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	1-2	5-6	0-1	5-6	0-1	4-5	5-6	0-1	1-2	0-1	5-6
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.00128	< 0.00151	< 0.00109	< 0.0115	< 0.00980	< 0.0104	< 0.0114	< 0.00134	0.0209	< 0.00151	< 0.00142
Naphthalene	mg/kg	0.0484 C3 [0.0777]	2.76 C3 [0.317]	0.138 C3 [< 0.348]	1.05 C3 [0.648]	8.00 C3 [4.2]	16.3 C3 [9.38]	6.62 C3 [4.07]	0.0238 [0.0542 J]	0.456 [0.0479]	0.0374 C3 [0.0228 J]	< 0.0177 C3 [< 0.0393]
n-Butylbenzene	mg/kg	0.0191	0.731	0.112	0.494	3.56	5.76	1.52	0.0195	0.0566	< 0.0189	< 0.0177
n-Propylbenzene	mg/kg	0.207	5.86	0.247	17	15	72.3	32.2	0.199	1.41	0.00221 J	< 0.00709
o-Xylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	0.0125 J	0.431	0.143	0.711	3.04	5.14	2.2	0.0305	0.0626	< 0.0189	< 0.0177
Styrene (Monomer)	mg/kg	< 0.0160	< 0.0188	< 0.0137	< 0.144	< 0.123	< 0.130	< 0.142	< 0.0168	< 0.0195	< 0.0189	< 0.0177
tert-Butylbenzene	mg/kg	< 0.00638	0.0232	0.22	< 0.0576	< 0.0490	< 0.0520	< 0.0568	0.00545 J	0.00413 J	< 0.00756	< 0.00709
Tetrachloroethene	mg/kg	< 0.00319	< 0.00377	< 0.00274	1.01	0.344	1.76	1.01	0.00286 J	0.00426	0.00169 JJ4	< 0.00355 J4
Toluene	mg/kg	0.0268	6.31	0.0899	477	12.6	1,390	913	0.0885	20.8	0.0396	< 0.00709
Total Xylenes	mg/kg	0.0932	52.6	1.98	354	434	1,930	971	0.599	24.8	0.0396	< 0.00922
trans-1,2-Dichloroethene	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672	0.00379 J	< 0.00756	< 0.00709
trans-1,3-Dichloropropene	mg/kg	< 0.00638	< 0.00753	< 0.00547	< 0.0576	< 0.0490	< 0.0520	< 0.0568	< 0.00672	< 0.00780	< 0.00756	< 0.00709
Trichloroethene	mg/kg	< 0.00128	< 0.00151	< 0.00109	0.0585 C5	< 0.00980	0.0872 C5	0.0625 C5	0.00187	0.0027	< 0.00151	< 0.00142
Vinyl chloride	mg/kg	< 0.00319	< 0.00377	< 0.00274	< 0.0288	< 0.0245	< 0.0260	< 0.0284	< 0.00336 J4	0.0222 C5J4	< 0.00378	< 0.00355
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2,4,6-Trichlorophenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2,4-Dichlorophenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 1.92	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2,4-Dimethylphenol	mg/kg	< 0.372	0.122 J	< 3.48	< 0.396	< 0.350	< 1.92	< 0.399	< 0.780	0.0787 J	< 0.409	< 0.393
2,4-Dinitrophenol	mg/kg	< 0.372 J3	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2,4-Dinitrotoluene	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2,6-Dinitrotoluene	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2-Chloronaphthalene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	< 0.0780	< 0.0426	< 0.0409	< 0.0393
2-Chlorophenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2-Methyl-4,6-dinitrophenol	mg/kg	< 0.372 J3	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
2-Nitrophenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 1.92	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
3,3-Dichlorobenzidine	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
4-Bromophenyl phenyl ether	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
4-Chloro-3-Methylphenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 1.92	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
4-Chlorophenyl phenyl ether	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
4-Nitrophenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Acenaphthene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	0.00722 J	< 0.0382	< 0.0399	0.0528 J	< 0.0426	0.0825	< 0.0393
Acenaphthylene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.0225 J	< 0.0426	0.0226 J	< 0.0393
Anthracene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.132	< 0.0426	0.265	< 0.0393
Benz(a)anthracene	mg/kg	0.00898 J	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.642	< 0.0426	1.41	< 0.0393
Benzidine	mg/kg	< 1.87 J6	< 2.07	< 17.5	< 1.99	< 1.75	< 1.92	< 2.00	< 3.91	< 2.14	< 2.05	< 1.97
Benzo(a)pyrene	mg/kg	0.0106 J	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.64	< 0.0426	1.31	< 0.0393
Benzo(b)fluoranthene	mg/kg	0.0171 J	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.864	< 0.0426	1.74	< 0.0393
Benzo(g,h,i)perylene	mg/kg	0.00920 J	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.274	< 0.0426	0.555	< 0.0393
Benzo(k)fluoranthene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.292	< 0.0426	0.551	< 0.0393
bis(2-Chloroethoxy)methane	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 1.92	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
bis(2-Chloroethyl)ether	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
bis(2-Ethylhexyl)phthalate	mg/kg	< 0.372	< 0.412	< 3.48	0.387 J	2.68	3.34	1.33	1	< 0.426	< 0.409	< 0.393
Butyl benzyl phthalate	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	0.503	0.955	0.413	0.0307 J	< 0.426	< 0.409	< 0.393
Chrysene	mg/kg	0.00868 J	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.656	< 0.0426	1.34	< 0.0393
Dibenz(a,h)anthracene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.0798	< 0.0426	0.168	< 0.0393
Diethyl phthalate	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	0.0602 J	0.321 J	0.150 J	< 0.780	< 0.426	< 0.409	< 0.393
Dimethyl phthalate	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Di-n-butyl phthalate	mg/kg	< 0.372	< 0.412	< 3.48	0.0342 J	0.406	0.552	0.252 J	< 0.780	< 0.426	< 0.409	< 0.393
Di-n-octyl phthalate	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	0.380 J	0.226 BJ	< 0.780	< 0.426	< 0.409	< 0.393
Fluoranthene	mg/kg	0.0182 J	0.00885 J	< 0.348	< 0.0396	0.0135 J	0.0228 J	0.0125 BJ	1.44	< 0.0426	2.7	< 0.0393
Fluorene	mg/kg	< 0.0372	0.00736 J	< 0.348	< 0.0396	0.0151 J	0.0174 J	0.0108 J	0.0414 J	< 0.0426	0.0765	< 0.0393
Hexachlorobenzene	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiueents	Location:	MIP-47	MIP-47	MIP-49	MIP-49	MIP-51	MIP-51	MIP-51	MIP-52	MIP-52	SB22-01	SB22-01
	Sample Name:	MIP-47 (1-2) (101322)	MIP-47 (5-6) (101322)	MIP-49 (0-1) (101322)	MIP-49 (5-6) (101322)	MIP-51 (0-1) (101322)	MIP-51 (4-5) (101322)	MIP-51 (5-6) (101322)	MIP-52 (0-1) (101322)	MIP-52 (1-2) (101322)	SB22-01 (0-1) (033122)	SB22-01 (5-6) (033122)
	Sample Date:	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	10/13/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	1-2	5-6	0-1	5-6	0-1	4-5	5-6	0-1	1-2	0-1	5-6
Hexachlorocyclopentadiene	mg/kg	< 0.372 J6	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Hexachloroethane	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.0372	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382	< 0.0399	0.342	< 0.0426	0.681	< 0.0393
Isophorone	mg/kg	< 0.372	< 0.412	0.429 J	< 0.396	< 0.350	0.248 J	0.240 J	0.455 J	0.0150 J	< 0.409	< 0.393
Nitrobenzene	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 1.92	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
N-Nitrosodimethylamine	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
N-Nitrosodi-n-propylamine	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
N-Nitrosodiphenylamine	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Pentachlorophenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Phenanthrene	mg/kg	0.0141 J	0.0306 J	< 0.348	< 0.0396	0.0148 J	0.0265 J	0.0117 BJ	0.876	< 0.0426	1.25	< 0.0393
Phenol	mg/kg	< 0.372	< 0.412	< 3.48	< 0.396	< 0.350	< 0.382	< 0.399	< 0.780	< 0.426	< 0.409	< 0.393
Pyrene	mg/kg	0.0174 J	0.0309 J	< 0.348	< 0.0396	0.0140 J	0.0353 J	0.0138 J	1.08	< 0.0426	1.94	< 0.0393
Metals												
Arsenic	mg/kg	< 2.24	< 2.47	1.43 J	10.2	< 2.10	10.7	3.55	7.3	7.39	12.2	4
Barium	mg/kg	31.5	144	62	49.4	34.7	64.1	126	125	21.6	520	64.3
Cadmium	mg/kg	2.5	0.317 J	0.641	0.0660 J	0.147 J	0.0601 J	0.0678 J	1.08	0.140 J	0.349 J	< 0.590
Chromium	mg/kg	27.8	38.3	24.4	34.1	3.31	73.5	51.7	178	25.3	48.4	26.4
Lead	mg/kg	1120	8.96	105	11.3	12.1	49.8	21.4	694	15.5	521	11.5
Mercury	mg/kg	0.146	0.151	0.182	0.112	< 0.0420	0.117	0.0467 J	1.92	0.0538	0.196	< 0.0472
Selenium	mg/kg	< 2.24	1.75 J	< 2.09	< 2.38	< 2.10	1.58 J	0.924 J	< 2.34	< 2.56	1.35 J	< 2.36
Silver	mg/kg	0.185 J	< 1.24	< 1.05	< 1.19	< 1.05	< 1.15	< 1.20	< 1.17	< 1.28	0.215 J	< 1.18
Other												
Total Solids	%	89.4	80.8	95.7	84.1	95.3	87.2	83.5	85.4	78.1	81.5	84.7

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	SB22-02	SB22-02	SB22-03	SB22-03	SB22-04	SB22-04	SB22-05	SB22-05	SB22-06	SB22-06	SB22-07
	Sample Name:	SB22-02 (0-1) (033122)	SB22-02 (4-5) (033122)	SB22-03 (0-1) (033122)	SB22-03 (4-5) (033122)	SB22-04 (0-1) (033122)	SB22-04 (3-4) (033122)	SB22-05 (0-1) (033122)	SB22-05 (7-8) (033122)	SB22-06 (0-1) (033122)	SB22-06 (4-5) (033122)	SB22-07 (0-1) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	4-5	0-1	4-5	0-1	3-4	0-1	7-8	0-1	4-5	0-1
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1,1-Trichloroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1,2,2-Tetrachloroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1,2-Trichloroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1-Dichloroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1-Dichloroethene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,1-Dichloropropene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,2,3-Trichlorobenzene	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
1,2,3-Trichloropropane	mg/kg	< 0.0202	< 0.0198	< 0.0174 J4	< 0.0192 J4	< 0.0188 J4	< 0.0193 J4	< 0.0197 J4	< 0.0202 J4	< 0.0192 J4	< 0.0185 J4	< 0.0199 J4
1,2,3-Trimethylbenzene	mg/kg	0.00279 J	< 0.00793	< 0.00697	< 0.00770	0.0393	0.00811	0.0103	< 0.00806	< 0.00770	< 0.00739	< 0.00795
1,2,4-Trichlorobenzene	mg/kg	< 0.0202 [< 0.850]	< 0.0198 [< 0.422]	< 0.0174 [< 0.395]	< 0.0192 [< 0.412]	< 0.0188 [< 0.831]	< 0.0193 [< 0.414]	< 0.0197 [< 0.419]	< 0.0202 [< 0.421]	< 0.0192 [< 0.417]	< 0.0185 [< 0.404]	< 0.0199 [< 0.836]
1,2,4-Trimethylbenzene	mg/kg	0.00863	< 0.00793	0.00822	0.00611 J	0.0527	0.0154	0.0375	0.00622 J	0.02	< 0.00739	< 0.00795
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0405 C3	< 0.0397 C3	< 0.0348	< 0.0385	< 0.0378	< 0.0387	< 0.0394	< 0.0403	< 0.0385	< 0.0369	< 0.0397
1,2-Dibromoethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,2-Dichlorobenzene	mg/kg	< 0.00810 [< 0.850]	< 0.00793 [< 0.422]	< 0.00697 [< 0.395]	< 0.00770 [< 0.412]	< 0.00754 [< 0.831]	< 0.00774 [< 0.414]	< 0.00787 [< 0.419]	< 0.00806 [< 0.421]	< 0.00770 [< 0.417]	< 0.00739 [< 0.404]	< 0.00795 [< 0.836]
1,2-Dichloroethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
1,2-Dichloropropane	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
1,3,5-Trimethylbenzene	mg/kg	0.00432 J	< 0.00793	< 0.00697	< 0.00770	0.0556	0.00706 J	0.0146	< 0.00806	0.0107	< 0.00739	< 0.00795
1,3-Dichlorobenzene	mg/kg	< 0.00810 [< 0.850]	< 0.00793 [< 0.422]	< 0.00697 [< 0.395]	< 0.00770 [< 0.412]	< 0.00754 [< 0.831]	< 0.00774 [< 0.414]	< 0.00787 [< 0.419]	< 0.00806 [< 0.421]	< 0.00770 [< 0.417]	< 0.00739 [< 0.404]	< 0.00795 [< 0.836]
1,3-Dichloropropane	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
1,4-Dichlorobenzene	mg/kg	< 0.00810 [< 0.850]	< 0.00793 [< 0.422]	< 0.00697 [< 0.395]	< 0.00770 [< 0.412]	< 0.00754 [< 0.831]	< 0.00774 [< 0.414]	< 0.00787 [< 0.419]	< 0.00806 [< 0.421]	< 0.00770 [< 0.417]	< 0.00739 [< 0.404]	< 0.00795 [< 0.836]
2,2-Dichloropropane	mg/kg	< 0.00405	< 0.00397	< 0.00348 C3	< 0.00385 C3	< 0.00378 C3	< 0.00387 C3	< 0.00394 C3	< 0.00403 C3	< 0.00385 C3	< 0.00369 C3	< 0.00397 C3
2-Butanone (MEK)	mg/kg	< 0.162	< 0.159	< 0.139	< 0.154	< 0.151	< 0.155	< 0.157	< 0.161	< 0.154	< 0.148	< 0.159
2-Chlorotoluene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
4-Chlorotoluene	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
4-Methyl-2-Pentanone	mg/kg	< 0.0405	< 0.0397	< 0.0348 J4	< 0.0385 J4	0.167 C5J4	< 0.0387 J4	0.0921 C5J4	< 0.0403 J4	< 0.0385 J4	< 0.0369 J4	< 0.0397 J4
Acetone	mg/kg	0.0763 C3J	< 0.0793 C3	< 0.0697	< 0.0770	0.417 C5	< 0.0774	< 0.0787	< 0.0806	0.0839 C5	0.0917 C5	< 0.0795
Acrylonitrile	mg/kg	< 0.0202 C3	< 0.0198 C3	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
Benzene	mg/kg	0.00183	< 0.00159	< 0.00139	0.00346	0.00178	0.00879	0.00332	< 0.00161	< 0.00154	< 0.00148	< 0.00159
Bromobenzene	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
Bromodichloromethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Bromoform	mg/kg	< 0.0405	< 0.0397	< 0.0348	< 0.0385	< 0.0378	< 0.0387	< 0.0394	< 0.0403	< 0.0385	< 0.0369	< 0.0397
Bromomethane	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
CFC-11	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
CFC-12	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Chlorobenzene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Chlorodibromomethane	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Chloroethane	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
Chloroform	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Chloromethane	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
cis-1,2-Dichloroethene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
cis-1,3-Dichloropropene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	< 0.00810	< 0.00793	0.008	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
Dibromomethane	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
Dichloromethane	mg/kg	< 0.0405	< 0.0397	< 0.0348	< 0.0385	< 0.0378	< 0.0387	< 0.0394	< 0.0403	< 0.0385	< 0.0369	< 0.0397
Di-isopropyl ether	mg/kg	< 0.00162	< 0.00159	< 0.00139	< 0.00154	< 0.00151	< 0.00155	< 0.00157	< 0.00161	< 0.00154	< 0.00148	< 0.00159
Ethylbenzene	mg/kg	0.00154 J	< 0.00397	< 0.00348	< 0.00385	0.049	< 0.00387	0.0296	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Hexachloro-1,3-butadiene	mg/kg	< 0.0405 [< 0.850]	< 0.0397 [< 0.422]	< 0.0348 C3 [< 0.395]	< 0.0385 C3 [< 0.412]	< 0.0378 C3 [< 0.831]	< 0.0387 C3 [< 0.414]	< 0.0394 C3 [< 0.419]	< 0.0403 C3 [< 0.421]	< 0.0385 C3 [< 0.417]	< 0.0369 C3 [< 0.404]	< 0.0397 C3 [< 0.836]
Isopropylbenzene	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	0.00505	0.00145 J	0.0137	< 0.00403	< 0.00385	< 0.00369	< 0.00397
m,p-Xylenes	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	SB22-02	SB22-02	SB22-03	SB22-03	SB22-04	SB22-04	SB22-05	SB22-05	SB22-06	SB22-06	SB22-07
	Sample Name:	SB22-02 (0-1) (033122)	SB22-02 (4-5) (033122)	SB22-03 (0-1) (033122)	SB22-03 (4-5) (033122)	SB22-04 (0-1) (033122)	SB22-04 (3-4) (033122)	SB22-05 (0-1) (033122)	SB22-05 (7-8) (033122)	SB22-06 (0-1) (033122)	SB22-06 (4-5) (033122)	SB22-07 (0-1) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	4-5	0-1	4-5	0-1	3-4	0-1	7-8	0-1	4-5	0-1
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.00162	< 0.00159	< 0.00139	< 0.00154	< 0.00151	< 0.00155	< 0.00157	< 0.00161	< 0.00154	< 0.00148	< 0.00159
Naphthalene	mg/kg	< 0.0202 C3 [< 0.0850 J]	0.0198 C3 [< 0.0422	< 0.0174 [< 0.0395]	0.0171 J [0.0344 J]	0.0155 J [0.0600 J]	0.0162 J [0.0274 J]	0.0261 [0.0124 J]	< 0.0202 [0.0143 J]	0.356 [< 0.0417]	0.00820 J [< 0.0404]	< 0.0199 [< 0.0836]
n-Butylbenzene	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
n-Propylbenzene	mg/kg	0.00170 J	< 0.00793	< 0.00697	< 0.00770	0.00611 J	0.00232 J	0.00468 J	< 0.00806	0.00243 J	< 0.00739	< 0.00795
o-Xylene	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
Styrene (Monomer)	mg/kg	< 0.0202	< 0.0198	< 0.0174	< 0.0192	< 0.0188	< 0.0193	< 0.0197	< 0.0202	< 0.0192	< 0.0185	< 0.0199
tert-Butylbenzene	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
Tetrachloroethene	mg/kg	< 0.00405 J4	< 0.00397 J4	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Toluene	mg/kg	0.00591 J	< 0.00793	0.00949	0.0174	0.106	0.0164	0.0167	0.0163	0.0166	< 0.00739	0.00486 J
Total Xylenes	mg/kg	0.0196	0.00211 J	0.0242	0.0269	0.508	0.175	0.327	0.0163	0.0728	< 0.00960	0.0205
trans-1,2-Dichloroethene	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
trans-1,3-Dichloropropene	mg/kg	< 0.00810	< 0.00793	< 0.00697	< 0.00770	< 0.00754	< 0.00774	< 0.00787	< 0.00806	< 0.00770	< 0.00739	< 0.00795
Trichloroethene	mg/kg	< 0.00162	< 0.00159	< 0.00139	< 0.00154	< 0.00151	< 0.00155	< 0.00157	< 0.00161	< 0.00154	< 0.00148	< 0.00159
Vinyl chloride	mg/kg	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397
Semi-Volatile Organic Compounds												
2,2-Oxybis(1-Chloropropane)	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2,4,6-Trichlorophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2,4-Dichlorophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2,4-Dimethylphenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2,4-Dinitrophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2,4-Dinitrotoluene	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2,6-Dinitrotoluene	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2-Chloronaphthalene	mg/kg	< 0.0850	< 0.0422	< 0.0395	< 0.0412	< 0.0831	< 0.0414	< 0.0419	< 0.0421	< 0.0417	< 0.0404	< 0.0836
2-Chlorophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2-Methyl-4,6-dinitrophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
2-Nitrophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
3,3-Dichlorobenzidine	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
4-Bromophenyl phenyl ether	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
4-Chloro-3-Methylphenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
4-Chlorophenyl phenyl ether	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
4-Nitrophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Acenaphthene	mg/kg	0.0391 J	< 0.0422	0.00679 J	< 0.0412	0.0242 J	0.00851 J	0.0127 J	< 0.0421	0.0298 J	< 0.0404	< 0.0836
Acenaphthylene	mg/kg	0.0369 J	< 0.0422	0.0102 J	0.00940 J	0.0577 J	0.00725 J	0.00891 J	< 0.0421	< 0.0417	< 0.0404	< 0.0836
Anthracene	mg/kg	0.521	< 0.0422	0.0260 J	0.0242 J	0.0865	0.0170 J	0.0751	< 0.0421	0.0847	< 0.0404	< 0.0836
Benz(a)anthracene	mg/kg	2.54	0.0429	0.0965	0.183 J3	0.377	0.102	0.357	0.0284 J	0.31	< 0.0404	< 0.0836
Benzidine	mg/kg	< 4.26	< 2.11	< 1.98	< 2.07 J6	< 4.17	< 2.08	< 2.10	< 2.11	< 2.09	< 2.03	< 4.19
Benzo(a)pyrene	mg/kg	1.83	0.0496	0.0948	0.200 J3	0.484	0.128	0.395	0.0253 J	0.288	< 0.0404	< 0.0836
Benzo(b)fluoranthene	mg/kg	2.66	0.0802	0.148	0.291 J3	0.74	0.189	0.474	0.0491	0.364	< 0.0404	< 0.0836
Benzo(g,h,i)perylene	mg/kg	0.803	0.0423	0.0769	0.173	0.256	0.0922	0.221	0.0237 J	0.187	< 0.0404	< 0.0836
Benzo(k)fluoranthene	mg/kg	0.909	0.0194 J	0.0571	0.106	0.235	0.0562	0.162	0.0135 J	0.128	< 0.0404	< 0.0836
bis(2-Chloroethoxy)methane	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
bis(2-Chloroethyl)ether	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
bis(2-Ethylhexyl)phthalate	mg/kg	< 0.850	< 0.422	0.340 J	< 0.412	0.298 J	< 0.414	0.0856 J	< 0.421	< 0.417	< 0.404	< 0.836
Butyl benzyl phthalate	mg/kg	< 0.850	< 0.422	0.0220 J	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Chrysene	mg/kg	2.8	0.0423	0.0805	0.203 J3	0.331	0.0924	0.356	0.0314 J	0.308	< 0.0404	< 0.0836
Dibenz(a,h)anthracene	mg/kg	0.22	< 0.0422	0.0177 J	0.0427	0.0716 J	0.0255 J	0.0466	< 0.0421	0.0449	< 0.0404	< 0.0836
Diethyl phthalate	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Dimethyl phthalate	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Di-n-butyl phthalate	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Di-n-octyl phthalate	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Fluoranthene	mg/kg	6.7	0.0779	0.188	0.266 J3J5	0.671	0.158	0.741	0.0397 J	0.656	< 0.0404	< 0.0836
Fluorene	mg/kg	0.0557 J	< 0.0422	< 0.0395	< 0.0412	0.0230 J	< 0.0414	< 0.0419	< 0.0421	0.0246 J	< 0.0404	< 0.0836
Hexachlorobenzene	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	SB22-02	SB22-02	SB22-03	SB22-03	SB22-04	SB22-04	SB22-05	SB22-05	SB22-06	SB22-06	SB22-07
	Sample Name:	SB22-02 (0-1) (033122)	SB22-02 (4-5) (033122)	SB22-03 (0-1) (033122)	SB22-03 (4-5) (033122)	SB22-04 (0-1) (033122)	SB22-04 (3-4) (033122)	SB22-05 (0-1) (033122)	SB22-05 (7-8) (033122)	SB22-06 (0-1) (033122)	SB22-06 (4-5) (033122)	SB22-07 (0-1) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	0-1	4-5	0-1	4-5	0-1	3-4	0-1	7-8	0-1	4-5	0-1
Hexachlorocyclopentadiene	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Hexachloroethane	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Indeno(1,2,3-cd)pyrene	mg/kg	0.911	0.0403 J	0.0826	0.191	0.291	0.0896	0.239	0.0176 J	0.187	< 0.0404	< 0.0836
Isophorone	mg/kg	< 0.850	< 0.422	0.0824 J	< 0.412	2.16	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Nitrobenzene	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
N-Nitrosodimethylamine	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
N-Nitrosodi-n-propylamine	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
N-Nitrosodiphenylamine	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Pentachlorophenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	< 0.831	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Phenanthrene	mg/kg	1.62	0.0367 J	0.0942	0.105 J3	0.353	0.0933	0.292	0.0326 J	0.341	< 0.0404	< 0.0836
Phenol	mg/kg	< 0.850	< 0.422	< 0.395	< 0.412	0.0775 J	< 0.414	< 0.419	< 0.421	< 0.417	< 0.404	< 0.836
Pyrene	mg/kg	5.22	0.064	0.148	0.215 J3	0.522	0.126	0.618	0.0380 J	0.485	< 0.0404	< 0.0836
Metals												
Arsenic	mg/kg	12.9	5.47	5.66	10.3	23	16	16.4	14	12.5	2.18 J	8.78
Barium	mg/kg	171	125	131	185	118	135	129	276	252	91.9	88.2
Cadmium	mg/kg	0.144 J	0.298 J	0.491 J	0.241 J	0.574 J	0.752	0.147 J	0.171 J	0.284 J	0.0755 J	0.0619 J
Chromium	mg/kg	33.1	26.3	67.1	22.8	75.3	19.2	24.8	18.7	34.9	23.9	21.1
Lead	mg/kg	127	43.6	192	93.3	242	95.4	52.3	84.6	167	10.4	26.7
Mercury	mg/kg	0.0995	0.728	0.185	0.624	5.1	0.213	0.0267 J	0.074	0.357	0.0449 J	0.0687
Selenium	mg/kg	1.11 J	< 2.53	0.966 J	2.18 J	1.39 J	1.42 J	< 2.52	1.35 J	1.82 J	< 2.43	< 2.51
Silver	mg/kg	< 1.28	< 1.27	< 1.19	< 1.24	< 1.25	< 1.24	< 1.26	< 1.26	< 1.25	< 1.21	< 1.26
Other												
Total Solids	%	78.3	79	84.4	80.8	80.1	80.4	79.5	79.2	79.8	82.4	79.6

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	SB22-07	SB22-08	SB22-08	SB22-09	SB22-09	SB22-10	SB22-10
	Sample Name:	SB22-07 (1-2) (033122)	SB22-08 (0-1) (033122)	SB22-08 (6-7) (033122)	SB22-09 (0-1) (033122)	SB22-09 (4-5) (033122)	SB22-10 (0-1) (033122)	SB22-10 (5-6) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	1-2	0-1	6-7	0-1	4-5	0-1	5-6
Volatile Organic Compounds								
1,1,1,2-Tetrachloroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1,1-Trichloroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1,2,2-Tetrachloroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1,2-trichloro-1,2,2-trifluoroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1,2-Trichloroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1-Dichloroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1-Dichloroethene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,1-Dichloropropene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,2,3-Trichlorobenzene	mg/kg	< 0.0168	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
1,2,3-Trichloropropane	mg/kg	< 0.0168 J4	< 0.0194 J4	< 0.0186 J4	< 0.0188	< 0.0196	< 0.0216	< 0.0190
1,2,3-Trimethylbenzene	mg/kg	0.987	< 0.00777	< 0.00746	< 0.00750	< 0.00785	0.00380 J	< 0.00760
1,2,4-Trichlorobenzene	mg/kg	< 0.0168 [< 3.87]	< 0.0194 [< 0.412]	< 0.0186 [< 0.407]	< 0.0188 [< 0.409]	< 0.0196 [< 0.416]	< 0.0216 [< 0.439]	< 0.0190 [< 0.409]
1,2,4-Trimethylbenzene	mg/kg	2.93	< 0.00777	< 0.00746	0.00264 J	< 0.00785	0.00600 J	< 0.00760
1,2-Dibromo-3-chloropropane	mg/kg	< 0.0336	< 0.0389	< 0.0373	< 0.0375 C3	< 0.0392 C3	< 0.0432 C3	< 0.0380 C3
1,2-Dibromoethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,2-Dichlorobenzene	mg/kg	< 0.00672 [< 3.87]	< 0.00777 [< 0.412]	< 0.00746 [< 0.407]	< 0.00750 [< 0.409]	< 0.00785 [< 0.416]	< 0.00864 [< 0.439]	< 0.00760 [< 0.409]
1,2-Dichloroethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,2-Dichloropropane	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
1,3,5-Trimethylbenzene	mg/kg	1.23	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
1,3-Dichlorobenzene	mg/kg	< 0.00672 [< 3.87]	< 0.00777 [< 0.412]	< 0.00746 [< 0.407]	< 0.00750 [< 0.409]	< 0.00785 [< 0.416]	< 0.00864 [< 0.439]	< 0.00760 [< 0.409]
1,3-Dichloropropane	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
1,4-Dichlorobenzene	mg/kg	< 0.00672 [< 3.87]	< 0.00777 [< 0.412]	< 0.00746 [< 0.407]	< 0.00750 [< 0.409]	< 0.00785 [< 0.416]	< 0.00864 [< 0.439]	< 0.00760 [< 0.409]
2,2-Dichloropropane	mg/kg	< 0.00336 C3	< 0.00389 C3	< 0.00373 C3	< 0.00375	< 0.00392	< 0.00432	< 0.00380
2-Butanone (MEK)	mg/kg	< 0.134	< 0.155	< 0.149	< 0.150	< 0.157	< 0.173	< 0.152
2-Chlorotoluene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
4-Chlorotoluene	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
4-Methyl-2-Pentanone	mg/kg	< 0.0336 J4	< 0.0389 J4	< 0.0373 J4	< 0.0375	< 0.0392	< 0.0432	< 0.0380
Acetone	mg/kg	< 0.0672	< 0.0777	< 0.0746	< 0.0750 C3	< 0.0785 C3	< 0.0864 C3	< 0.0760 C3
Acrylonitrile	mg/kg	< 0.0168	< 0.0194	< 0.0186	< 0.0188 C3	< 0.0196 C3	< 0.0216 C3	< 0.0190 C3
Benzene	mg/kg	< 0.00134	0.00146 J	< 0.00149	0.0303	0.000766 J	0.00188	0.000711 J
Bromobenzene	mg/kg	< 0.0168	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
Bromodichloromethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Bromoform	mg/kg	< 0.0336	< 0.0389	< 0.0373	< 0.0375	< 0.0392	< 0.0432	< 0.0380
Bromomethane	mg/kg	< 0.0168	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
Carbon Disulfide	mg/kg	NA	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
CFC-11	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
CFC-12	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Chlorobenzene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Chlorodibromomethane	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Chloroethane	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
Chloroform	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Chloromethane	mg/kg	< 0.0168	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
cis-1,2-Dichloroethene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
cis-1,3-Dichloropropene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Cyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Cymene (p-Isopropyltoluene)	mg/kg	0.0558	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
Dibromomethane	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
Dichloromethane	mg/kg	< 0.0336	< 0.0389	< 0.0373	< 0.0375	< 0.0392	< 0.0432	< 0.0380
Di-isopropyl ether	mg/kg	< 0.00134	< 0.00155	< 0.00149	< 0.00150	< 0.00157	< 0.00173	< 0.00152
Ethylbenzene	mg/kg	0.305	< 0.00389	< 0.00373	0.00146 J	< 0.00392	0.00230 J	< 0.00380
Hexachloro-1,3-butadiene	mg/kg	< 0.0336 C3 [< 3.87]	< 0.0389 C3 [< 0.412]	< 0.0373 C3 [< 0.407]	< 0.0375 [< 0.409]	< 0.0392 [< 0.416]	< 0.0432 [< 0.439]	< 0.0380 [< 0.409]
Isopropylbenzene	mg/kg	0.0707	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
m,p-Xylenes	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl Acetate	mg/kg	NA	NA	NA	NA	NA	NA	NA

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constituents	Location:	SB22-07	SB22-08	SB22-08	SB22-09	SB22-09	SB22-10	SB22-10
	Sample Name:	SB22-07 (1-2) (033122)	SB22-08 (0-1) (033122)	SB22-08 (6-7) (033122)	SB22-09 (0-1) (033122)	SB22-09 (4-5) (033122)	SB22-10 (0-1) (033122)	SB22-10 (5-6) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	1-2	0-1	6-7	0-1	4-5	0-1	5-6
Methyl N-Butyl Ketone (2-Hexanone)	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methylcyclohexane	mg/kg	NA	NA	NA	NA	NA	NA	NA
Methyl-tert-butylether	mg/kg	< 0.00134	< 0.00155	< 0.00149	< 0.00150	< 0.00157	< 0.00173	< 0.00152
Naphthalene	mg/kg	0.0831 [< 0.387]	0.0151 J [0.0197 J]	< 0.0186 [< 0.0407]	< 0.0188 C3 [< 0.0409]	< 0.0196 C3 [0.0145 J]	0.0114 C3J [< 0.0439]	< 0.0190 C3 [< 0.0409]
n-Butylbenzene	mg/kg	0.0721	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
n-Propylbenzene	mg/kg	0.163	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
o-Xylene	mg/kg	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	mg/kg	0.0796	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
Styrene (Monomer)	mg/kg	< 0.0168	< 0.0194	< 0.0186	< 0.0188	< 0.0196	< 0.0216	< 0.0190
tert-Butylbenzene	mg/kg	0.0196	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
Tetrachloroethene	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375 J4	< 0.00392 J4	< 0.00432 J4	0.00343 JJ4
Toluene	mg/kg	0.183	0.00340 J	< 0.00746	0.00675 J	0.00235 J	0.0306	0.00515 J
Total Xylenes	mg/kg	2.1	0.00552 J	0.00239 J	0.0109	0.00364 J	0.0517	0.00404 J
trans-1,2-Dichloroethene	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
trans-1,3-Dichloropropene	mg/kg	< 0.00672	< 0.00777	< 0.00746	< 0.00750	< 0.00785	< 0.00864	< 0.00760
Trichloroethene	mg/kg	< 0.00134	< 0.00155	< 0.00149	< 0.00150	< 0.00157	< 0.00173	< 0.00152
Vinyl chloride	mg/kg	< 0.00336	< 0.00389	< 0.00373	< 0.00375	< 0.00392	< 0.00432	< 0.00380
Semi-Volatile Organic Compounds								
2,2-Oxybis(1-Chloropropane)	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2,4,6-Trichlorophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2,4-Dichlorophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2,4-Dimethylphenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2,4-Dinitrophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2,4-Dinitrotoluene	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2,6-Dinitrotoluene	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2-Chloronaphthalene	mg/kg	< 0.387	< 0.0412	< 0.0407	< 0.0409	< 0.0416	< 0.0439	< 0.0409
2-Chlorophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2-Methyl-4,6-dinitrophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
2-Nitrophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
3,3-Dichlorobenzidine	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
4-Bromophenyl phenyl ether	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
4-Chloro-3-Methylphenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
4-Chlorophenyl phenyl ether	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
4-Nitrophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Acenaphthene	mg/kg	< 0.387	< 0.0412	< 0.0407	0.0241 J	0.0224 J	< 0.0439	< 0.0409
Acenaphthylene	mg/kg	< 0.387	< 0.0412	< 0.0407	0.00629 J	0.0106 J	0.00652 J	< 0.0409
Anthracene	mg/kg	< 0.387	< 0.0412	< 0.0407	0.134	0.318	0.0314 J	0.0135 J
Benz(a)anthracene	mg/kg	< 0.387	0.0271 J	< 0.0407	0.644	2.6	0.162	0.0611
Benzidine	mg/kg	< 19.4	< 2.07	< 2.04	< 2.05	< 2.09	< 2.20	< 2.05
Benzo(a)pyrene	mg/kg	< 0.387	0.0303 J	< 0.0407	0.629	2.25	0.181	0.0942
Benzo(b)fluoranthene	mg/kg	< 0.387	0.0423	< 0.0407	0.788	3.58	0.207	0.133
Benzo(g,h,i)perylene	mg/kg	< 0.387	0.0246 J	< 0.0407	0.35	1.18	0.111	0.0687
Benzo(k)fluoranthene	mg/kg	< 0.387	0.0150 J	< 0.0407	0.295	1.16	0.0785	0.0469
bis(2-Chloroethoxy)methane	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
bis(2-Chloroethyl)ether	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
bis(2-Ethylhexyl)phthalate	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Butyl benzyl phthalate	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Chrysene	mg/kg	< 0.387	0.0233 J	< 0.0407	0.653	2.67	0.17	0.0648
Dibenz(a,h)anthracene	mg/kg	< 0.387	< 0.0412	< 0.0407	0.0886	0.342	0.0261 J	0.0152 J
Diethyl phthalate	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Dimethyl phthalate	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Di-n-butyl phthalate	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Di-n-octyl phthalate	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Fluoranthene	mg/kg	< 0.387	0.0477	< 0.0407	1.37	5.73	0.343	0.113
Fluorene	mg/kg	< 0.387	< 0.0412	< 0.0407	0.0195 J	0.0122 J	< 0.0439	< 0.0409
Hexachlorobenzene	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409

Table 2
Combined Soil Data (0-8 ft bgs)
AkzoNoble Coatings Inc.
Birmingham, Alabama



Constiuents	Location:	SB22-07	SB22-08	SB22-08	SB22-09	SB22-09	SB22-10	SB22-10
	Sample Name:	SB22-07 (1-2) (033122)	SB22-08 (0-1) (033122)	SB22-08 (6-7) (033122)	SB22-09 (0-1) (033122)	SB22-09 (4-5) (033122)	SB22-10 (0-1) (033122)	SB22-10 (5-6) (033122)
	Sample Date:	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022	3/31/2022
	Depth (ft bgs):	1-2	0-1	6-7	0-1	4-5	0-1	5-6
Hexachlorocyclopentadiene	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Hexachloroethane	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.387	0.0250 J	< 0.0407	0.395	1.41	0.116	0.0629
Isophorone	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Nitrobenzene	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
N-Nitrosodimethylamine	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
N-Nitrosodi-n-propylamine	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
N-Nitrosodiphenylamine	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Pentachlorophenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Phenanthrene	mg/kg	< 0.387	0.0241 J	< 0.0407	0.5	1.5	0.142	0.0675
Phenol	mg/kg	< 3.87	< 0.412	< 0.407	< 0.409	< 0.416	< 0.439	< 0.409
Pyrene	mg/kg	< 0.387	0.0422	< 0.0407	1.12	4.62	0.288	0.0815
Metals								
Arsenic	mg/kg	12.3	18.8	4.51	9.89	14	11.2	8.25
Barium	mg/kg	480	44	85.4	105	91.3 J5	70.5	73.8
Cadmium	mg/kg	0.857	0.155 J	0.0605 J	0.0635 J	< 0.624	0.257 J	0.245 J
Chromium	mg/kg	17.9	27.5	21.7	20.1	37.9	33.7	37
Lead	mg/kg	189	30.3	13.2	30.7	33.1 O1	42.4	23.3
Mercury	mg/kg	< 0.0465	0.0502	< 0.0489	0.0393 J	0.11	0.233	0.0420 J
Selenium	mg/kg	2.30 J	1.69 J	< 2.44	< 2.46	1.41 J	1.43 J	1.55 J
Silver	mg/kg	< 1.16	< 1.24	< 1.22	< 1.23	< 1.25 O1	< 1.32	< 1.23
Other								
Total Solids	%	85.9	80.8	81.8	81.5	80.1	75.8	81.5

< - Result is less than reporting limit.
mg/kg - Milligrams per kilogram.
SVOCs - Semi-volatile organic compounds.
VOCs - Volatile organic compounds.
B - The same analyte is found in the associated blank.
C3 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
J - The identification of the analyte is acceptable; the reported value is an estimate.
J2 - Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3 - The associated batch QC was outside the established quality control range for precision.
J4 - The associated batch QC was outside the established quality control range for accuracy.
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Table 3
Groundwater Data
AkzoNobel Coatings Inc.
Birmingham, Alabama



Constituents	Location: Sample Name:	MW-01 MW-1-101422	MW-02 MW-2-101222	MW-03 MW-3-101722	MW-04R MW-4R-101822	MW-05 MW-5-101222	MW-06 MW-6-101422	MW-07 MW-7-101222	MW-11R MW-11R-101822	MW-13 MW-13-101822	MW-14 MW-14-101822	MW-15 MW-15-101822	MW-16 MW-16-101822	PMW-09 PMW-9-101322	PMW-12 PMW-12-101822
	Sample Date	10/14/2022	10/12/2022	10/17/2022	10/18/2022	10/12/2022	10/14/2022	10/12/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/12/2022	10/18/2022
Volitale Organic Compounds															
1,1,1,2-Tetrachloroethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,1-Trichloroethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2,2-Tetrachloroethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-trichloro-1,2,2-trifluoroethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1,2-Trichloroethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	0.515 J	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethane	µg/l	251	< 1.00	< 1.00	164	0.242 J	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	µg/l	26.1 J	< 1.00	< 1.00	33.6 J	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloropropene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2,3-Trichlorobenzene	µg/l	< 50.0	< 1.00 C4	< 1.00 J4	< 50.0 J4	< 1.00 C4	< 1.00	< 1.00 C4	< 1.00 J4	< 20.0 J4	< 1.00 J4	< 1.00 J4	< 1.00 J4	< 1.00 C4	< 1.00 J4
1,2,3-Trichloropropane	µg/l	< 125	< 2.50	< 2.50	< 125	< 2.50	< 2.50	< 2.50	< 2.50	< 50.0	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50
1,2,3-Trimethylbenzene	µg/l	418	< 1.00	6.73	433	< 1.00	0.446 J	< 1.00	< 1.00	297	0.815 J	< 1.00	< 1.00	< 1.00	< 1.00
1,2,4-Trichlorobenzene	µg/l	< 50.0 [< 50.0]	< 1.00 C4 [< 10.0]	< 1.00 J4 [< 10.0]	< 50.0 J4 [< 10.0]	< 1.00 C4 [< 10.0]	< 1.00 [< 10.0]	< 1.00 C4 [< 10.0]	< 1.00 J4 [< 10.0]	< 20.0 J4 [< 10.0]	< 1.00 J4 [< 10.0]	< 1.00 J4 [< 10.0]	< 1.00 J4 [< 10.0]	< 1.00 C4 [< 10.0]	< 1.00 J4 [< 10.0]
1,2,4-Trimethylbenzene	µg/l	1,470	< 1.00	27.1	1,870	1.49	< 1.00	< 1.00	< 1.00	558	1.61	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dibromo-3-chloropropane	µg/l	< 250	< 5.00 C3J3	< 5.00	< 250	< 5.00 C3J3	< 5.00	< 5.00 C3J3	< 5.00	< 100	< 5.00	< 5.00	< 5.00	< 5.00 C3J3	< 5.00
1,2-Dibromoethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichlorobenzene	µg/l	< 50.0 [< 50.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 50.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 20.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]
1,2-Dichloroethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2-Dichloropropane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	µg/l	559	< 1.00	6.66	678	0.340 J	< 1.00	< 1.00	< 1.00	189	0.712 J	< 1.00	< 1.00	< 1.00	< 1.00
1,3-Dichlorobenzene	µg/l	< 50.0 [< 50.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 50.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 20.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]
1,3-Dichloropropane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,4-Dichlorobenzene	µg/l	< 50.0 [< 50.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 50.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 20.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]
2,2-Dichloropropane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
2-Butanone (MEK)	µg/l	152,000 C5	< 10.0	< 10.0	190 J	8.71 J	< 10.0	< 10.0	< 10.0	< 200	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Chlorotoluene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
4-Chlorotoluene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
4-Methyl-2-Pentanone	µg/l	19,000	< 10.0	< 10.0	201 J	< 10.0	< 10.0	< 10.0	< 10.0	< 200	0.880 J	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	µg/l	16,000 J	< 50.0	< 50.0	< 2,500	< 50.0	< 50.0	< 50.0	< 50.0	< 1,000	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Acrolein	µg/l	< 2,500	< 50.0	< 50.0 J4	< 2,500 J4	< 50.0	< 50.0	< 50.0	< 50.0 J4	< 1,000 J4	< 50.0 J4	< 50.0 J4	< 50.0 J4	< 50.0	< 50.0 J4
Acrylonitrile	µg/l	< 500	< 10.0	< 500	< 500	< 10.0	< 10.0	< 10.0	< 10.0	< 200	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Benzene	µg/l	250	< 1.00	0.109 J	70.1	6.39	3.04	< 1.00	0.123 J	9.73 J	0.278 J	0.132 J	< 1.00	< 1.00	< 1.00
Bromobenzene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromochloromethane	µg/l	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromoform	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Bromomethane	µg/l	< 250	< 5.00 C3	< 5.00	< 250	< 5.00 C3	< 5.00	< 5.00 C3	< 5.00	< 100	< 5.00	< 5.00	< 5.00	< 5.00 C3	< 5.00
Carbon Tetrachloride	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CFC-11	µg/l	< 250	< 5.00	< 5.00	< 250	< 5.00	< 5.00	< 5.00	< 5.00	< 100	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
CFC-12	µg/l	< 250 J3	< 5.00	< 5.00	< 250	< 5.00	< 5.00 J3	< 5.00	< 5.00	< 100	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Chlorobenzene	µg/l	8.30 J	< 1.00	< 1.00	< 50.0	2.95	1.84	0.390 J	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chlorodibromomethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Chloroethane	µg/l	< 250	< 5.00	< 5.00	< 250	2.60 J	4.94 J	< 5.00	< 5.00	< 100	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Chloroform	µg/l	< 250	< 5.00 J4	< 5.00	< 250	< 5.00 J4	< 5.00	< 5.00 J4	< 5.00	< 100	1.34 J	< 5.00	< 5.00	< 5.00 J4	< 5.00
Chloromethane	µg/l	< 125 J3	< 2.50	< 2.50	< 125	< 2.50	< 2.50 J3	< 2.50	< 2.50	< 50.0	< 2.50	< 2.50	< 2.50	< 2.50	< 2.50
cis-1,2-Dichloroethene	µg/l	3,410	< 1.00	0.164 J	2,480	1.75	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
cis-1,3-Dichloropropene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Cymene (p-Isopropyltoluene)	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	12.6 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibromomethane	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dichloromethane	µg/l	< 250	< 5.00	< 5.00	< 250	< 5.00	< 5.00	< 5.00	< 5.00	< 100	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Di-isopropyl ether	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	0.630 J	0.718 J	0.245 J	< 1.00	< 20.0	< 1.00	0.464 J	0.169 J	< 1.00	< 1.00
Ethylbenzene	µg/l	3,950	< 1.00	105	9,670	15.1	2.66	< 1.00	< 1.00	5,540	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Hexachloro-1,3-butadiene	µg/l	< 50.0 [< 50.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 50.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 20.0 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]	< 1.00 [< 10.0]
Isopropylbenzene	µg/l	121	< 1.00	23.3	278	389	175	0.623 J	< 1.00	189	6.76	8.63	< 1.00	< 1.00	< 1.00
Methyl-tert-butylether	µg/l	< 50.0	0.161 J	< 1.00	< 50.0	8.84	7.25	0.285 J	< 1.00	< 20.0	< 1.00	0.138 J	1.46	< 1.00	< 1.00

Table 3
Groundwater Data
AkzoNobel Coatings Inc.
Birmingham, Alabama



Constituents	Location: Sample Name:	MW-01 MW-1-101422	MW-02 MW-2-101222	MW-03 MW-3-101722	MW-04R MW-4R-101822	MW-05 MW-5-101222	MW-06 MW-6-101422	MW-07 MW-7-101222	MW-11R MW-11R-101822	MW-13 MW-13-101822	MW-14 MW-14-101822	MW-15 MW-15-101822	MW-16 MW-16-101822	PMW-09 PMW-9-101322	PMW-12 PMW-12-101822
	Sample Date	10/14/2022	10/12/2022	10/17/2022	10/18/2022	10/12/2022	10/14/2022	10/12/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/12/2022	10/18/2022
Naphthalene	µg/l	174 C3J [54.2]	< 5.00 C3J3 [< 1.00]	< 5.00 [0.332 J]	37.2 J [11.0 31.5 Q]	< 5.00 C3J3 [0.912 J]	< 5.00 C3 [0.451 J]	< 5.00 C3J3 [< 1.00]	< 5.00 [< 1.00]	96.6 J [39]	< 5.00 [< 1.00]	< 5.00 [< 1.00]	< 5.00 [< 1.00]	< 5.00 C3J3 [< 1.00]	< 5.00 [< 1.00]
n-Butylbenzene	µg/l	< 50.0	< 1.00	0.781 J	< 50.0	46.3	71.1	< 1.00	< 1.00	17.6 J	< 1.00	1.92	< 1.00	0.464 J	< 1.00
n-Propylbenzene	µg/l	252	< 1.00	24.6	373	884	464	< 1.00	< 1.00	218	3.32	2.1	< 1.00	< 1.00	< 1.00
sec-Butylbenzene	µg/l	< 50.0	< 1.00	3.22	10.6 J	84	90.4	1.26	< 1.00	29.1	0.825 J	11.9	< 1.00	0.799 J	< 1.00
Styrene (Monomer)	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
tert-Butylbenzene	µg/l	< 50.0	0.135 J	1.72	< 50.0	12.7	8.5	6.68	< 1.00	8.80 J	0.312 J	16.2	0.879 J	< 1.00	< 1.00
Tetrachloroethene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	0.364 J	< 1.00
Toluene	µg/l	97,900	< 1.00	20.4	89,200	44.6	< 1.00	< 1.00	< 1.00	77.1 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Total Xylenes	µg/l	25,000	< 3.00	439	33,500	42	0.266 J	< 3.00	< 3.00	17,800	2.61 J	0.646 J	< 3.00	< 3.00	< 3.00
trans-1,2-Dichloroethene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	0.156 J	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
trans-1,3-Dichloropropene	µg/l	< 50.0	< 1.00	< 1.00	< 50.0	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Trichloroethene	µg/l	< 50.0	< 1.00 J4	< 1.00	< 50.0	< 1.00 J4	< 1.00	< 1.00 J4	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00 J4	< 1.00
Vinyl chloride	µg/l	49.1 J	< 1.00	< 1.00	87.4	0.422 J	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Semi-Volatile Organic Compounds															
2,2-Oxybis(1-Chloropropane)	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4,6-Trichlorophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4-Dichlorophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4-Dimethylphenol	µg/l	144	< 10.0	0.663 J	49.4 J4 85.0 Q	3.38 J	< 10.0	< 10.0	< 10.0 J4	15.1 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0	< 10.0 J4
2,4-Dinitrophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,4-Dinitrotoluene	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2,6-Dinitrotoluene	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Chloronaphthalene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
2-Chlorophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Methyl-4,6-dinitrophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
2-Nitrophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
3,3-Dichlorobenzidine	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Bromophenyl phenyl ether	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Chloro-3-Methylphenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Chlorophenyl phenyl ether	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Nitrophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Acenaphthene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	0.232 J	< 1.00	0.332 J	0.133 BJ	0.147 BJ	< 1.00	0.467 BJ	0.148 BJ	< 1.00	< 1.00
Acenaphthylene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Anthracene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benz(a)anthracene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.206 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benzidine	µg/l	< 50.0	< 10.0	< 10.0	< 10.0 J4	< 10.0	< 10.0	< 10.0	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0	< 10.0 J4
Benzo(a)pyrene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.149 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benzo(b)fluoranthene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.210 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benzo(g,h,i)perylene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.164 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Benzo(k)fluoranthene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
bis(2-Chloroethoxy)methane	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
bis(2-Chloroethyl)ether	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
bis(2-Ethylhexyl)phthalate	µg/l	< 15.0	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Butyl benzyl phthalate	µg/l	< 15.0	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Chrysene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.141 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibenz(a,h)anthracene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.0703 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Diethyl phthalate	µg/l	4.82 J	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Dimethyl phthalate	µg/l	< 15.0	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	0.388 J	< 3.00
Di-n-butyl phthalate	µg/l	< 15.0	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Di-n-octyl phthalate	µg/l	< 15.0	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
Fluoranthene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.242 BJ	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Fluorene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	0.190 J	< 1.00	< 1.00	0.145 BJ	0.127 BJ	< 1.00	< 1.00	0.141 BJ	< 1.00	< 1.00
Hexachlorobenzene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Hexachlorocyclopentadiene	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Hexachloroethane	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Indeno(1,2,3-cd)pyrene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00

Table 3
Groundwater Data
AkzoNobel Coatings Inc.
Birmingham, Alabama



Constituents	Location: Sample Name:	MW-01 MW-1-101422	MW-02 MW-2-101222	MW-03 MW-3-101722	MW-04R MW-4R-101822	MW-05 MW-5-101222	MW-06 MW-6-101422	MW-07 MW-7-101222	MW-11R MW-11R-101822	MW-13 MW-13-101822	MW-14 MW-14-101822	MW-15 MW-15-101822	MW-16 MW-16-101822	PMW-09 PMW-9-101322	PMW-12 PMW-12-101822
	Sample Date	10/14/2022	10/12/2022	10/17/2022	10/18/2022	10/12/2022	10/14/2022	10/12/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/12/2022	10/18/2022
Isophorone	µg/l	1,830	< 10.0	< 10.0	< 10.0	1.28 J	0.272 J	< 10.0	< 10.0	< 10.0	0.242 J	< 10.0	< 10.0	< 10.0	< 10.0
Nitrobenzene	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
N-Nitrosodimethylamine	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
N-Nitrosodi-n-propylamine	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
N-Nitrosodiphenylamine	µg/l	< 50.0	< 10.0 J4	< 10.0	< 10.0 J4	< 10.0 J4	< 10.0	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4
Pentachlorophenol	µg/l	< 50.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Phenanthrene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	0.193 J	< 1.00	< 1.00	0.255 BJ	0.159 BJ	< 1.00	< 1.00	0.259 BJ	< 1.00	0.132 BJ
Phenol	µg/l	265	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
Pyrene	µg/l	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.174 BJ	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Metals															
Arsenic	µg/l	99.2	< 20.0	< 10.0	< 10.0	23.3	8.56 J	5.11 J	16.1	< 10.0	< 10.0	12	4.77 J	< 20.0	< 10.0
Barium	µg/l	1,010	197	147	499	812	869	234	55.2	1,970	310	320	206	29.6	< 5.00
Cadmium	µg/l	2.33 J	0.474 J	< 2.00	< 2.00	0.706 J	0.435 J	0.409 J	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 5.00	< 2.00
Chromium	µg/l	2.18 J	< 7.00	< 10.0	2.95 J	< 7.00	< 7.00	< 7.00	7.70 J	1.75 J	1.45 J	1.45 J	< 10.0	1.46 J	< 10.0
Lead	µg/l	21.6	2.51 J	< 6.00	< 6.00	2.31 J	3.31 J	1.93 J	8.91	3.46 J	< 6.00	< 6.00	< 6.00	< 10.0	< 6.00
Mercury	µg/l	0.113 J	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200
Selenium	µg/l	8.13 J	3.36 J	< 10.0	< 10.0	< 20.0	< 20.0	< 20.0	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0	< 20.0	< 10.0
Silver	µg/l	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00	< 5.00
Dissolved Gases															
Methane	µg/l	NA	NA	4,540	671	NA	NA	NA	1,130	13,900	596	12,100	1,330	NA	5,780

< - Result is less than reporting limit.
ug/l - Micrograms per liter.
B - The same analyte is found in the associated blank.
C3 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
J - The identification of the analyte is acceptable; the reported value is an estimate.
J2 - Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3 - The associated batch QC was outside the established quality control range for precision.
J4 - The associated batch QC was outside the established quality control range for accuracy.
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

Table 4
Selection of Constituents of Concern for Surface Soil (0-1 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Level [c]				Is Constituent a COC [d]?			
	Number of			% FOD	Minimum (mg/kg)	- Maximum (mg/kg)	Minimum (mg/kg)	- Maximum (mg/kg)	Residential Soil			Industrial Soil		Residential Soil		Industrial Soil			
	Detects	/	Samples						(mg/kg)	[basis]		(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale		
Volitale Organic Compounds																			
1,1,1,2-Tetrachloroethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	2.0E+00	c	8.8E+00	c	no	ND	no	ND
1,1,1-Trichloroethane	1	/	19	5	2.74E-03	-	2.45E-02	1.10E-02	-	1.10E-02	MIP-32(10/13/2022)	8.1E+02	ns	3.6E+03	ns	no	BSL	no	BSL
1,1,2,2-Tetrachloroethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	6.0E-01	c	2.7E+00	c	no	ND	no	ND
1,1,2-trichloro-1,2,2-trifluoroethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	6.7E+02	n	2.8E+03	ns	no	ND	no	ND
1,1,2-Trichloroethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	1.5E-01	n	6.3E-01	n	no	ND	no	ND
1,1-Dichloroethane	4	/	19	21	2.84E-03	-	2.45E-02	7.04E-04	-	1.48E-02	MIP-49(10/13/2022)	3.6E+00	c	1.6E+01	c	no	BSL	no	BSL
1,1-Dichloroethene	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	2.3E+01	n	1.0E+02	n	no	ND	no	ND
1,1-Dichloropropene	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	1.8E+00	c**	8.2E+00	c**	no	ND	no	ND
1,2,3-Trichlorobenzene	0	/	19	0	1.37E-02	-	1.23E-01	—	-	—	—	6.3E+00	n	9.3E+01	n	no	ND	no	ND
1,2,3-Trichloropropane	0	/	19	0	1.37E-02	-	1.23E-01	—	-	—	—	5.1E-03	c*	1.1E-01	c*	no	ND	no	ND
1,2,3-Trimethylbenzene	14	/	19	74	6.97E-03	-	7.95E-03	2.79E-03	-	1.05E+02	MIP-51(10/13/2022)	3.4E+01	n	2.0E+02	n	YES	ASL	no	BSL
1,2,4-Trichlorobenzene	0	/	19	0	1.37E-02	-	1.23E-01	—	-	—	—	5.8E+00	n	2.6E+01	n	no	ND	no	ND
1,2,4-Trimethylbenzene	17	/	19	90	7.77E-03	-	7.95E-03	2.64E-03	-	2.28E+02	MIP-51(10/13/2022)	3.0E+01	n	1.8E+02	n	YES	ASL	YES	ASL
1,2-Dibromo-3-chloropropane	0	/	19	0	2.74E-02	-	2.45E-01	—	-	—	—	5.3E-03	c*	6.4E-02	c*	no	ND	no	ND
1,2-Dibromoethane	1	/	19	5	2.74E-03	-	2.45E-02	7.38E-04	-	7.38E-04	MIP-33(10/13/2022)	3.6E-02	c	1.6E-01	c	no	BSL	no	BSL
1,2-Dichlorobenzene	1	/	19	5	5.47E-03	-	4.90E-02	6.53E-04	-	6.53E-04	MIP-33(10/13/2022)	1.8E+02	n	9.3E+02	ns	no	BSL	no	BSL
1,2-Dichloroethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	4.6E-01	c**	2.0E+00	c**	no	ND	no	ND
1,2-Dichloropropane	0	/	19	0	5.47E-03	-	4.90E-02	—	-	—	—	1.6E+00	n	6.6E+00	n	no	ND	no	ND
1,3,5-Trimethylbenzene	14	/	19	74	6.97E-03	-	8.64E-03	3.24E-03	-	8.35E+01	MIP-51(10/13/2022)	2.7E+01	n	1.5E+02	n	YES	ASL	no	BSL
1,3-Dichlorobenzene	0	/	19	0	5.47E-03	-	4.90E-02	—	-	—	—	1.8E+02	n	9.3E+02	ns	no	ND	no	ND
1,3-Dichloropropane	0	/	19	0	5.47E-03	-	4.90E-02	—	-	—	—	1.6E+02	n	2.3E+03	ns	no	ND	no	ND
1,4-Dichlorobenzene	2	/	19	11	5.47E-03	-	4.90E-02	8.23E-04	-	4.41E-03	MIP-32(10/13/2022)	2.6E+00	c	1.1E+01	c	no	BSL	no	BSL
2,2-Dichloropropane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	NA		NA		no	ND	no	ND
2-Butanone (MEK)	1	/	19	5	1.09E-01	-	9.80E-01	8.57E-02	-	8.57E-02	MIP-44(10/12/2022)	2.7E+03	n	1.9E+04	n	no	BSL	no	BSL
2-Chlorotoluene	1	/	19	5	2.74E-03	-	5.82E-03	6.01E-02	-	6.01E-02	MIP-51(10/13/2022)	1.6E+02	n	2.3E+03	ns	no	BSL	no	BSL
4-Chlorotoluene	0	/	19	0	5.47E-03	-	4.90E-02	—	-	—	—	1.6E+02	n	2.3E+03	ns	no	ND	no	ND
4-Methyl-2-Pentanone	4	/	19	21	2.74E-02	-	5.82E-02	9.21E-02	-	4.19E+00	MIP-34(10/12/2022)	3.3E+03	n	1.4E+04	ns	no	BSL	no	BSL
Acetone	4	/	19	21	5.47E-02	-	4.90E-01	5.58E-02	-	4.17E-01	SB22-04(3/31/2022)	7.0E+03	n	1.1E+05	nm	no	BSL	no	BSL
Acrylonitrile	0	/	19	0	1.37E-02	-	1.23E-01	—	-	—	—	2.5E-01	c**	1.1E+00	c**	no	ND	no	ND
Benzene	15	/	19	79	1.39E-03	-	9.80E-03	1.34E-03	-	2.53E-01	MIP-33(10/13/2022)	1.2E+00	c**	5.1E+00	c**	no	BSL	no	BSL
Bromobenzene	0	/	19	0	1.37E-02	-	1.23E-01	—	-	—	—	2.9E+01	n	1.8E+02	n	no	ND	no	ND
Bromodichloromethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	2.9E-01	c	1.3E+00	c	no	ND	no	ND
Bromoform	0	/	19	0	2.74E-02	-	2.45E-01	—	-	—	—	1.9E+01	c**	8.6E+01	c*	no	ND	no	ND
Bromomethane	0	/	19	0	1.37E-02	-	1.23E-01	—	-	—	—	6.8E-01	n	3.0E+00	n	no	ND	no	ND
Carbon Tetrachloride	0	/	19	0	5.47E-03	-	4.90E-02	—	-	—	—	6.5E-01	c*	2.9E+00	c*	no	ND	no	ND
CFC-11	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	2.3E+03	ns	3.5E+04	ns	no	ND	no	ND
CFC-12	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	8.7E+00	n	3.7E+01	n	no	ND	no	ND
Chlorobenzene	1	/	19	5	2.82E-03	-	2.45E-02	1.05E-01	-	1.05E-01	MIP-49(10/13/2022)	2.8E+01	n	1.3E+02	n	no	BSL	no	BSL
Chlorodibromomethane	0	/	19	0	2.74E-03	-	2.45E-02	—	-	—	—	8.3E+00	c*	3.9E+01	c*	no	ND	no	ND
Chloroethane	0	/	19	0	5.47E-03	-	4.90E-02	—	-	—	—	5.4E+02	n	2.3E+03	ns	no	ND	no	ND

Table 4
Selection of Constituents of Concern for Surface Soil (0-1 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Level [c]				Is Constituent a COC [d]?			
	Number of			% FOD	Minimum (mg/kg)	- Maximum (mg/kg)	Minimum (mg/kg)	- Maximum (mg/kg)	Residential Soil			Industrial Soil		Residential Soil		Industrial Soil			
	Detects	/	Samples						(mg/kg)	[basis]		(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale		
Chloroform	0	/	19	0	2.74E-03	- 2.45E-02	–	-	–	–	3.2E-01	c*	1.4E+00	c*	no	ND	no	ND	
Chloromethane	0	/	19	0	1.37E-02	- 1.23E-01	–	-	–	–	1.1E+01	n	4.6E+01	n	no	ND	no	ND	
cis-1,2-Dichloroethene	5	/	19	26	2.74E-03	- 2.45E-02	1.67E-03	- 6.84E-03	MIP-44(10/12/2022)	6.3E+00	n	3.7E+01	n	no	BSL	no	BSL		
cis-1,3-Dichloropropene	[e] 0	/	19	0	2.74E-03	- 2.45E-02	–	-	–	–	1.8E+00	c**	8.2E+00	c**	no	ND	no	ND	
Cymene (p-Isopropyltoluene)	[g] 9	/	19	47	5.65E-03	- 8.64E-03	6.29E-03	- 2.91E+00	MIP-51(10/13/2022)	1.9E+02	n	9.9E+02	ns	no	BSL	no	BSL		
Dibromomethane	0	/	19	0	5.47E-03	- 4.90E-02	–	-	–	–	2.4E+00	n	9.9E+00	n	no	ND	no	ND	
Dichloromethane	0	/	19	0	2.74E-02	- 2.45E-01	–	-	–	–	3.5E+01	n	3.2E+02	n	no	ND	no	ND	
Di-isopropyl ether	0	/	19	0	1.09E-03	- 9.80E-03	–	-	–	–	2.2E+02	n	9.4E+02	n	no	ND	no	ND	
Ethylbenzene	15	/	19	79	3.48E-03	- 3.97E-03	1.46E-03	- 3.67E+01	MIP-33(10/13/2022)	5.8E+00	c*	2.5E+01	c*	YES	ASL	YES	ASL		
Hexachloro-1,3-butadiene	0	/	19	0	2.74E-02	- 2.45E-01	–	-	–	–	1.2E+00	c**	5.3E+00	c*	no	ND	no	ND	
Isopropylbenzene	11	/	19	58	3.48E-03	- 4.32E-03	5.05E-03	- 5.32E+00	MIP-51(10/13/2022)	1.9E+02	n	9.9E+02	ns	no	BSL	no	BSL		
Methyl-tert-butylether	0	/	19	0	1.09E-03	- 9.80E-03	–	-	–	–	4.7E+01	c*	2.1E+02	c*	no	ND	no	ND	
Naphthalene	15	/	19	79	1.74E-02	- 2.02E-02	1.14E-02	- 8.00E+00	MIP-51(10/13/2022)	2.0E+00	c**	8.6E+00	c**	YES	ASL	no	BSL		
n-Butylbenzene	7	/	19	37	1.41E-02	- 2.91E-02	1.50E-02	- 3.56E+00	MIP-51(10/13/2022)	3.9E+02	ns	5.8E+03	ns	no	BSL	no	BSL		
n-Propylbenzene	14	/	19	74	6.97E-03	- 8.64E-03	1.70E-03	- 1.50E+01	MIP-51(10/13/2022)	3.8E+02	ns	2.4E+03	ns	no	BSL	no	BSL		
sec-Butylbenzene	9	/	19	47	1.74E-02	- 2.16E-02	5.05E-03	- 3.04E+00	MIP-51(10/13/2022)	7.8E+02	ns	1.2E+04	ns	no	BSL	no	BSL		
Styrene	1	/	19	5	1.37E-02	- 1.23E-01	3.49E-03	- 3.49E-03	MIP-24(10/13/2022)	6.0E+02	n	3.5E+03	ns	no	BSL	no	BSL		
tert-Butylbenzene	7	/	19	37	6.97E-03	- 4.90E-02	2.99E-03	- 2.20E-01	MIP-49(10/13/2022)	7.8E+02	ns	1.2E+04	ns	no	BSL	no	BSL		
Tetrachloroethene	8	/	19	42	2.74E-03	- 4.32E-03	1.28E-03	- 3.44E-01	MIP-51(10/13/2022)	8.1E+00	n	3.9E+01	n	no	BSL	no	BSL		
Toluene	19	/	19	100	–	-	–	-	1.26E+01	MIP-51(10/13/2022)	4.9E+02	n	4.7E+03	ns	no	BSL	no	BSL	
Total Xylenes	19	/	19	100	–	-	–	-	4.34E+02	MIP-51(10/13/2022)	5.8E+01	n	2.5E+02	n	YES	ASL	YES	ASL	
trans-1,2-Dichloroethene	0	/	19	0	5.47E-03	- 4.90E-02	–	-	–	–	7.0E+00	n	3.0E+01	n	no	ND	no	ND	
trans-1,3-Dichloropropene	[e] 0	/	19	0	5.47E-03	- 4.90E-02	–	-	–	–	1.8E+00	c**	8.2E+00	c**	no	ND	no	ND	
Trichloroethene	2	/	19	11	1.09E-03	- 9.80E-03	1.87E-03	- 1.41E-02	MIP-32(10/13/2022)	4.1E-01	n	1.9E+00	n	no	BSL	no	BSL		
Vinyl chloride	1	/	19	5	2.74E-03	- 2.45E-02	4.88E-03	- 4.88E-03	MIP-45(10/13/2022)	5.9E-02	c	1.7E+00	c*	no	BSL	no	BSL		
Semi-Volatile Organic Compounds																			
2,2-Oxybis(1-Chloropropane)	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	NA		NA		no	ND	no	ND	
2,4,6-Trichlorophenol	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	6.3E+00	n	8.2E+01	n	no	ND	no	ND	
2,4-Dichlorophenol	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	1.9E+01	n	2.5E+02	n	no	ND	no	ND	
2,4-Dimethylphenol	2	/	19	11	3.50E-01	- 4.39E+00	1.08E-01	- 1.29E-01	MIP-34(10/12/2022)	1.3E+02	n	1.6E+03	n	no	BSL	no	BSL		
2,4-Dinitrophenol	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	1.3E+01	n	1.6E+02	n	no	ND	no	ND	
2,4-Dinitrotoluene	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	1.7E+00	c**	7.4E+00	c*	no	ND	no	ND	
2,6-Dinitrotoluene	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	3.6E-01	c**	1.5E+00	c*	no	ND	no	ND	
2-Chloronaphthalene	0	/	19	0	3.50E-02	- 4.39E-01	–	-	–	–	4.8E+02	n	6.0E+03	n	no	ND	no	ND	
2-Chlorophenol	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	3.9E+01	n	5.8E+02	n	no	ND	no	ND	
2-Methyl-4,6-dinitrophenol	0	/	19	0	3.50E-01	- 4.39E+00	–	-	–	–	5.1E-01	n	6.6E+00	n	no	ND	no	ND	

Table 4
Selection of Constituents of Concern for Surface Soil (0-1 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Level [c]				Is Constituent a COC [d]?				
	Number of			% FOD	Minimum (mg/kg)	- Maximum (mg/kg)	Minimum (mg/kg)	- Maximum (mg/kg)	Residential Soil			Industrial Soil		Residential Soil		Industrial Soil				
	Detects	/	Samples						(mg/kg)	[basis]		(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale			
2-Nitrophenol	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	NA		NA		no	ND	no	ND	
3,3-Dichlorobenzidine	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	1.2E+00	c	5.1E+00	c	no	ND	no	ND	
4-Bromophenyl phenyl ether	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	NA		NA		no	ND	no	ND	
4-Chloro-3-Methylphenol	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	6.3E+02	n	8.2E+03	n	no	ND	no	ND	
4-Chlorophenyl phenyl ether	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	NA		NA		no	ND	no	ND	
4-Nitrophenol	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	NA		NA		no	ND	no	ND	
Acenaphthene	[h]	10	/	19	53	3.71E-02	-	4.39E-01	6.79E-03	-	8.25E-02	SB22-01(3/31/2022)	3.6E+02	n	4.5E+03	n	no	BSL	no	BSL
Acenaphthylene		10	/	19	53	3.50E-02	-	4.39E-01	6.29E-03	-	5.77E-02	SB22-04(3/31/2022)	3.6E+02	n	4.5E+03	n	no	BSL	no	BSL
Anthracene		12	/	19	63	3.50E-02	-	3.75E-01	1.93E-02	-	5.21E-01	SB22-02(3/31/2022)	1.8E+03	n	2.3E+04	n	no	BSL	no	BSL
Benz(a)anthracene		14	/	19	74	3.50E-02	-	3.75E-01	1.98E-02	-	2.54E+00	SB22-02(3/31/2022)	1.1E+00	c	2.1E+01	c	YES	ASL	no	BSL
Benzdine	0	/	19	0	1.75E+00	-	2.20E+01	–	-	–	–	5.3E-04	c	1.0E-02	c	no	ND	no	ND	
Benzo(a)pyrene	14	/	19	74	3.50E-02	-	3.75E-01	8.44E-03	-	1.83E+00	SB22-02(3/31/2022)	1.1E-01	c*	2.1E+00	c*	YES	ASL	no	BSL	
Benzo(b)fluoranthene	14	/	19	74	3.50E-02	-	3.75E-01	3.31E-02	-	2.66E+00	SB22-02(3/31/2022)	1.1E+00	c	2.1E+01	c	YES	ASL	no	BSL	
Benzo(g,h,i)perylene	[i]	14	/	19	74	3.50E-02	-	3.75E-01	1.38E-02	-	8.03E-01	SB22-02(3/31/2022)	1.8E+02	n	2.3E+03	n	no	BSL	no	BSL
Benzo(k)fluoranthene		14	/	19	74	3.50E-02	-	3.75E-01	1.14E-02	-	9.09E-01	SB22-02(3/31/2022)	1.1E+01	c	2.1E+02	c	no	BSL	no	BSL
bis(2-Chloroethoxy)methane	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	1.9E+01	n	2.5E+02	n	no	ND	no	ND	
bis(2-Chloroethyl)ether	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	2.3E-01	c	1.0E+00	c	no	ND	no	ND	
bis(2-Ethylhexyl)phthalate	9	/	19	47	3.71E-01	-	3.48E+00	8.56E-02	-	1.77E+01	MIP-24(10/13/2022)	3.9E+01	c**	1.6E+02	c*	no	BSL	no	BSL	
Butyl benzyl phthalate	4	/	19	21	3.71E-01	-	4.39E+00	2.20E-02	-	5.03E-01	MIP-51(10/13/2022)	2.9E+02	c**	1.2E+03	c*	no	BSL	no	BSL	
Chrysene	14	/	19	74	3.50E-02	-	3.75E-01	2.33E-02	-	2.80E+00	SB22-02(3/31/2022)	1.1E+02	c	2.1E+03	c	no	BSL	no	BSL	
Dibenz(a,h)anthracene	10	/	19	53	3.50E-02	-	4.39E-01	1.77E-02	-	2.20E-01	SB22-02(3/31/2022)	1.1E-01	c	2.1E+00	c	YES	ASL	no	BSL	
Diethyl phthalate	[j]	1	/	19	5	3.71E-01	-	4.39E+00	6.02E-02	-	6.02E-02	MIP-51(10/13/2022)	5.1E+03	n	6.6E+04	n	no	BSL	no	BSL
Dimethyl phthalate		0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	5.1E+03	n	6.6E+04	n	no	ND	no	ND
Di-n-butyl phthalate		1	/	19	5	3.71E-01	-	4.39E+00	4.06E-01	-	4.06E-01	MIP-51(10/13/2022)	6.3E+02	n	8.2E+03	n	no	BSL	no	BSL
Di-n-octyl phthalate		0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	6.3E+01	n	8.2E+02	n	no	ND	no	ND
Fluoranthene	16	/	19	84	6.98E-02	-	3.48E-01	1.35E-02	-	6.70E+00	SB22-02(3/31/2022)	2.4E+02	n	3.0E+03	n	no	BSL	no	BSL	
Fluorene	8	/	19	42	3.71E-02	-	4.39E-01	1.51E-02	-	7.65E-02	SB22-01(3/31/2022)	2.4E+02	n	3.0E+03	n	no	BSL	no	BSL	
Hexachlorobenzene	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	7.8E-02	n	9.6E-01	c**	no	ND	no	ND	
Hexachlorocyclopentadiene	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	1.8E-01	n	7.5E-01	n	no	ND	no	ND	
Hexachloroethane	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	1.8E+00	c**	8.0E+00	c**	no	ND	no	ND	
Indeno(1,2,3-cd)pyrene	14	/	19	74	3.50E-02	-	3.75E-01	1.47E-02	-	9.11E-01	SB22-02(3/31/2022)	1.1E+00	c	2.1E+01	c	no	BSL	no	BSL	
Isophorone	8	/	19	42	3.50E-01	-	3.75E+00	3.14E-02	-	4.22E+00	MIP-24(10/13/2022)	5.7E+02	c**	2.4E+03	c**	no	BSL	no	BSL	
Nitrobenzene	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	5.1E+00	c**	2.2E+01	c**	no	ND	no	ND	
N-Nitrosodimethylamine	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	2.0E-03	c*	3.4E-02	c*	no	ND	no	ND	
N-Nitrosodi-n-propylamine	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	7.8E-02	c	3.3E-01	c	no	ND	no	ND	
N-Nitrosodiphenylamine	0	/	19	0	3.50E-01	-	4.39E+00	–	-	–	–	1.1E+02	c	4.7E+02	c	no	ND	no	ND	

Table 4
Selection of Constituents of Concern for Surface Soil (0-1 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Level [c]				Is Constituent a COC [d]?				
	Number of			% FOD	Minimum (mg/kg)	- Maximum (mg/kg)	Minimum (mg/kg)	- Maximum (mg/kg)	Residential Soil			Industrial Soil		Residential Soil		Industrial Soil				
	Detects	/	Samples						(mg/kg)	[basis]		(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale			
Pentachlorophenol		0	/	19	0	3.50E-01	-	4.39E+00	—	-	—	—	1.0E+00	c*	4.0E+00	c*	no	ND	no	ND
Phenanthrene	[i]	15	/	19	79	6.98E-02	-	3.75E-01	1.48E-02	-	1.62E+00	SB22-02(3/31/2022)	1.8E+02	n	2.3E+03	n	no	BSL	no	BSL
Phenol		2	/	19	11	3.50E-01	-	4.39E+00	6.87E-02	-	7.75E-02	SB22-04(3/31/2022)	1.9E+03	n	2.5E+04	n	no	BSL	no	BSL
Pyrene		16	/	19	84	6.98E-02	-	3.48E-01	1.40E-02	-	5.22E+00	SB22-02(3/31/2022)	1.8E+02	n	2.3E+03	n	no	BSL	no	BSL
Metals																				
Arsenic		18	/	19	95	2.10E+00	-	2.10E+00	7.73E-01	-	2.30E+01	SB22-04(3/31/2022)	6.8E-01	c**G	3.0E+00	c*G	YES	ASL	YES	ASL
Barium		19	/	19	100	—	-	—	1.11E+01	-	5.43E+02	MIP-33(10/13/2022)	1.5E+03	n	2.2E+04	n	no	BSL	no	BSL
Cadmium	[k]	19	/	19	100	—	-	—	6.19E-02	-	3.14E+00	MIP-24(10/13/2022)	7.1E-01	n	1.0E+01	n	YES	ASL	no	BSL
Chromium	[l]	19	/	19	100	—	-	—	3.31E+00	-	4.14E+02	MIP-34(10/12/2022)	1.2E+04	n	1.8E+05	nm	no	BSL	no	BSL
Lead		19	/	19	100	—	-	—	1.00E+01	-	1.53E+03	MIP-33(10/13/2022)	4.0E+02	G	8.0E+02	G	YES	ASL	YES	ASL
Mercury		18	/	19	95	4.20E-02	-	4.20E-02	2.67E-02	-	1.81E+02	MIP-24(10/13/2022)	2.3E+00	n	3.5E+01	n	YES	ASL	YES	ASL
Selenium		7	/	19	37	2.09E+00	-	2.64E+00	9.66E-01	-	1.82E+00	SB22-06(3/31/2022)	3.9E+01	n	5.8E+02	n	no	BSL	no	BSL
Silver		3	/	19	16	1.05E+00	-	1.32E+00	2.15E-01	-	1.04E+00	MIP-34(10/12/2022)	3.9E+01	n	5.8E+02	n	no	BSL	no	BSL

–

Not applicable.

%

Percent.

*

Non-cancer screening values is less than 100× the cancer screening level.

**

Non-cancer screening value is less than 10× the cancer screening level.

c

Cancer effect.

COC

Constituent of concern.

FOD

Frequency of detection.

ft bgs

Feet below ground surface.

L

Lead screening level is based on blood lead levels.

m

Concentration may exceed ceiling limit.

mg/kg

Milligram per kilogram.

n

Non-cancer effect.

NA

Not applicable.

ND

Not detected.

R

Relative bioavailability factor incorporated.

s

Concentration may exceed residual saturation (Csat) level.

[a]

All constituents analyzed for at the site are presented.

[b]

Depth interval is presented in feet below ground surface.

[c]

Screening levels are the United States Environmental Protection Agency (USEPA) residential and industrial soil Regional Screening Levels (RSLs) (USEPA 2023a).
All screening levels are based on a target cancer risk of 1×10⁻⁶ and a target non-cancer hazard of 0.1.

[d]

A constituent with a maximum detected concentration below the screening level (BSL) was not identified as a COC.

[e]

The screening level for 1,3-Dichloropropene is presented.

[f]

The screening level for 1,2-Dichlorobenzene is presented.

[g]

The screening level for cumene is presented.

[h]

The screening level for acenaphthene is presented.

[i]

The screening level for pyrene is presented.

[j]

The screening level for diethyl phthalate is presented.

[k]

The screening level for cadmium (diet) is presented.

[l]

The screening level for chromium (III) is presented.

Table 5
Selection of Constituents of Concern for Combined Soil (0-8 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Levels [c]						Is Constituent a COC [d)?					
	Number of			% FOD	Minimum (mg/kg)	Maximum (mg/kg)	Minimum (mg/kg)	Maximum (mg/kg)	Residential Soil			Industrial Soil		Protection of Groundwater		Residential Soil		Industrial Soil		Protection of Groundwater			
	Detects	/	Samples						(mg/kg)	[basis]		(mg/kg)	[basis]	(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale	(YES, no)	Rationale		
Volitale Organic Compounds																							
1,1,1,2-Tetrachloroethane	0	/	54	0	2.74E-03	-	7.75E-02	-	-	-	-	2.0E+00	c	8.8E+00	c	2.2E-04	c*	no	ND	no	ND	no	ND
1,1,1-Trichloroethane	3	/	83	4	2.74E-03	-	2.70E+01	1.10E-02	-	2.87E+00	MIP-45(4-5)	8.1E+02	ns	3.6E+03	ns	7.0E-02	n	no	BSL	no	BSL	YES	ASL
1,1,2,2-Tetrachloroethane	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	6.0E-01	c	2.7E+00	c	3.0E-05	c	no	ND	no	ND	no	ND
1,1,2-trichloro-1,2,2-trifluoroethane	1	/	83	1	2.74E-03	-	2.70E+01	1.23E+00	-	1.23E+00	MIP-45(4-5)	6.7E+02	n	2.8E+03	ns	2.6E+00	n	no	BSL	no	BSL	no	BSL
1,1,2-Trichloroethane	9	/	83	11	2.74E-03	-	2.70E+01	1.43E-02	-	3.83E+00	MIP-38(6-7)	1.5E-01	n	6.3E-01	n	1.6E-03	n	YES	ASL	YES	ASL	YES	ASL
1,1-Dichloroethane	16	/	83	19	2.84E-03	-	2.70E+01	7.04E-04	-	4.46E+00	MIP-09(2-3)	3.6E+00	c	1.6E+01	c	7.8E-04	c	YES	ASL	no	BSL	YES	ASL
1,1-Dichloroethene	6	/	83	7	2.74E-03	-	2.70E+01	7.65E-03	-	8.46E-01	MIP-45(4-5)	2.3E+01	n	1.0E+02	n	2.5E-03	n	no	BSL	no	BSL	YES	ASL
1,1-Dichloropropene	0	/	54	0	2.74E-03	-	7.75E-02	-	-	-	-	1.8E+00	c**	8.2E+00	c**	1.7E-04	c**	no	ND	no	ND	no	ND
1,2,3-Trichlorobenzene	0	/	54	0	1.37E-02	-	3.87E-01	-	-	-	-	6.3E+00	n	9.3E+01	n	2.1E-03	n	no	ND	no	ND	no	ND
1,2,3-Trichloropropane	0	/	54	0	1.37E-02	-	3.87E-01	-	-	-	-	5.1E-03	c*	1.1E-01	c*	3.2E-07	c*	no	ND	no	ND	no	ND
1,2,3-Trimethylbenzene	41	/	54	76	6.97E-03	-	8.06E-03	2.52E-03	-	1.32E+02	MIP-44(5-6)	3.4E+01	n	2.0E+02	n	8.1E-03	n	YES	ASL	no	BSL	YES	ASL
1,2,4-Trichlorobenzene	0	/	83	0	3.60E-03	-	2.70E+01	-	-	-	-	5.8E+00	n	2.6E+01	n	2.0E-01	n	no	ND	no	ND	no	ND
1,2,4-Trimethylbenzene	46	/	54	85	7.09E-03	-	7.95E-03	2.64E-03	-	6.97E+02	MIP-44(5-6)	3.0E+01	n	1.8E+02	n	8.1E-03	n	YES	ASL	YES	ASL	YES	ASL
1,2-Dibromo-3-chloropropane	0	/	83	0	3.60E-03	-	2.70E+01	-	-	-	-	5.3E-03	c*	6.4E-02	c*	8.6E-05	c	no	ND	no	ND	no	ND
1,2-Dibromoethane	1	/	83	1	2.74E-03	-	2.70E+01	7.38E-04	-	7.38E-04	MIP-33(0-1)	3.6E-02	c	1.6E-01	c	1.4E-05	c	no	BSL	no	BSL	YES	ASL
1,2-Dichlorobenzene	2	/	83	2	3.60E-03	-	2.70E+01	6.53E-04	-	7.98E-04	MIP-32(5-6)	1.8E+02	n	9.3E+02	ns	5.8E-01	n	no	BSL	no	BSL	no	BSL
1,2-Dichloroethane	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	4.6E-01	c**	2.0E+00	c**	1.4E-03	c**	no	ND	no	ND	no	ND
1,2-Dichloropropane	0	/	83	0	3.60E-03	-	2.70E+01	-	-	-	-	1.6E+00	n	6.6E+00	n	1.7E-03	n	no	ND	no	ND	no	ND
1,3,5-Trimethylbenzene	41	/	54	76	6.97E-03	-	8.64E-03	3.24E-03	-	2.74E+02	MIP-44(5-6)	2.7E+01	n	1.5E+02	n	8.7E-03	n	YES	ASL	YES	ASL	YES	ASL
1,3-Dichlorobenzene	0	/	83	0	3.60E-03	-	2.70E+01	-	-	-	-	1.8E+02	n	9.3E+02	ns	5.8E-01	n	no	ND	no	ND	no	ND
1,3-Dichloropropane	0	/	54	0	5.47E-03	-	1.55E-01	-	-	-	-	1.6E+02	n	2.3E+03	ns	1.3E-02	n	no	ND	no	ND	no	ND
1,4-Dichlorobenzene	2	/	83	2	3.60E-03	-	2.70E+01	8.23E-04	-	4.41E-03	MIP-32(0-1)	2.6E+00	c	1.1E+01	c	7.2E-02	c	no	BSL	no	BSL	no	BSL
2,2-Dichloropropane	0	/	54	0	2.74E-03	-	7.75E-02	-	-	-	-	NA		NA		NA		no	ND	no	ND	no	ND
2-Butanone (MEK)	13	/	83	16	7.30E-03	-	5.40E+01	8.57E-02	-	1.66E+02	MIP-09(1-2)	2.7E+03	n	1.9E+04	n	1.2E-01	n	no	BSL	no	BSL	YES	ASL
2-Chlorotoluene	2	/	54	4	2.74E-03	-	7.75E-02	4.67E-02	-	6.01E-02	MIP-51(0-1)	1.6E+02	n	2.3E+03	ns	2.3E-02	n	no	BSL	no	BSL	YES	ASL
4-Chlorotoluene	0	/	54	0	5.47E-03	-	1.55E-01	-	-	-	-	1.6E+02	n	2.3E+03	ns	2.4E-02	n	no	ND	no	ND	no	ND
4-Methyl-2-Pentanone	20	/	83	24	7.30E-03	-	5.40E+01	1.64E-02	-	7.15E+01	MIP-09(2-3)	3.3E+03	n	1.4E+04	ns	1.4E-01	n	no	BSL	no	BSL	YES	ASL
Acetone	16	/	83	19	1.50E-02	-	1.10E+02	4.30E-02	-	3.73E+01	MIP-51(5-6)	7.0E+03	n	1.1E+05	nm	3.7E-01	n	no	BSL	no	BSL	YES	ASL
Acrylonitrile	0	/	54	0	1.37E-02	-	3.87E-01	-	-	-	-	2.5E-01	c**	1.1E+00	c**	1.1E-05	c**	no	ND	no	ND	no	ND
Benzene	41	/	83	49	1.34E-03	-	2.70E+01	7.11E-04	-	2.37E+00	MIP-09(2-3)	1.2E+00	c**	5.1E+00	c**	2.6E-03	c**	YES	ASL	no	BSL	YES	ASL
Bromobenzene	0	/	54	0	1.37E-02	-	3.87E-01	-	-	-	-	2.9E+01	n	1.8E+02	n	4.2E-03	n	no	ND	no	ND	no	ND
Bromodichloromethane	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	2.9E-01	c	1.3E+00	c	2.2E-02	c	no	ND	no	ND	no	ND
Bromoform	0	/	83	0	3.60E-03	-	2.70E+01	-	-	-	-	1.9E+01	c**	8.6E+01	c*	2.1E-02	c*	no	ND	no	ND	no	ND
Bromomethane	0	/	83	0	7.30E-03	-	5.40E+01	-	-	-	-	6.8E-01	n	3.0E+00	n	1.9E-04	n	no	ND	no	ND	no	ND
Carbon Disulfide	0	/	29	0	7.30E-03	-	5.40E+01	-	-	-	-	7.7E+01	n	3.5E+02	n	2.4E-02	n	no	ND	no	ND	no	ND
Carbon Tetrachloride	0	/	83	0	3.60E-03	-	2.70E+01	-	-	-	-	6.5E-01	c*	2.9E+00	c*	1.9E-03	c*	no	ND	no	ND	no	ND
CFC-11	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	2.3E+03	ns	3.5E+04	ns	3.3E-01	n	no	ND	no	ND	no	ND
CFC-12	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	8.7E+00	n	3.7E+01	n	3.0E-02	n	no	ND	no	ND	no	ND
Chlorobenzene	13	/	83	16	2.82E-03	-	2.70E+01	1.82E-03	-	1.58E-01	MIP-45(4-5)	2.8E+01	n	1.3E+02	n	6.8E-02	n	no	BSL	no	BSL	YES	ASL
Chlorodibromomethane	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	8.3E+00	c*	3.9E+01	c*	2.1E-02	c*	no	ND	no	ND	no	ND
Chloroethane	0	/	83	0	5.47E-03	-	5.40E+01	-	-	-	-	5.4E+02	n	2.3E+03	ns	2.4E-01	n	no	ND	no	ND	no	ND
Chloroform	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	3.2E-01	c*	1.4E+00	c*	2.2E-02	c*	no	ND	no	ND	no	ND
Chloromethane	0	/	83	0	7.30E-03	-	5.40E+01	-	-	-	-	1.1E+01	n	4.6E+01	n	4.9E-03	n	no	ND	no	ND	no	ND
cis-1,2-Dichloroethene	21	/	83	25	2.74E-03	-	2.70E+01	1.67E-03	-	3.36E+01	MIP-09(2-3)	6.3E+00	n	3.7E+01	n	2.1E-02	n	YES	ASL	no	BSL	YES	ASL
cis-1,3-Dichloropropene	0	/	83	0	2.74E-03	-	2.70E+01	-	-	-	-	1.8E+00	c**	8.2E+00	c**	1.7E-04	c**	no	ND	no	ND	no	ND
Cyclohexane	0	/	29	0	3.60E-03	-	2.70E+01	-	-	-	-	6.5E+02	ns	2.7E+03	ns	1							

Table 5
Selection of Constituents of Concern for Combined Soil (0-8 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Levels [c]						Is Constituent a COC [d)?					
	Number of			% FOD	Minimum (mg/kg)	Maximum (mg/kg)	Minimum (mg/kg)	Maximum (mg/kg)	Residential Soil			Industrial Soil		Protection of Groundwater		Residential Soil		Industrial Soil		Protection of Groundwater			
	Detects	/	Samples						(mg/kg)	(mg/kg)		(mg/kg)	(mg/kg)	(mg/kg)	[basis]	(mg/kg)	[basis]	(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale
Methyl-tert-butylether	1	/	83	1	1.09E-03	-	2.70E+01	2.09E-02	-	2.09E-02	MIP-52(1-2)	4.7E+01	c*	2.1E+02	c*	3.2E-03	c*	no	BSL	no	BSL	YES	ASL
Naphthalene	45	/	54	83	1.74E-02	-	2.02E-02	8.20E-03	-	1.95E+01	MIP-09(2-3)	2.0E+00	c**	8.6E+00	c**	3.8E-04	c**	YES	ASL	YES	ASL	YES	ASL
n-Butylbenzene	30	/	54	56	1.41E-02	-	3.87E-01	1.50E-02	-	1.01E+01	MIP-44(5-6)	3.9E+02	ns	5.8E+03	ns	3.2E-01	n	no	BSL	no	BSL	YES	ASL
n-Propylbenzene	40	/	54	74	6.97E-03	-	8.64E-03	1.70E-03	-	1.76E+02	MIP-44(5-6)	3.8E+02	ns	2.4E+03	ns	1.2E-01	n	no	BSL	no	BSL	YES	ASL
o-Xylene	11	/	29	38	3.60E-03	-	2.90E-01	1.80E+00	-	1.90E+03	MIP-08(2.9-3.1)	6.4E+01	n	2.8E+02	n	1.9E-02	n	YES	ASL	YES	ASL	YES	ASL
sec-Butylbenzene	34	/	54	63	1.74E-02	-	2.16E-02	5.05E-03	-	8.11E+00	MIP-44(5-6)	7.8E+02	ns	1.2E+04	ns	5.9E-01	n	no	BSL	no	BSL	YES	ASL
Styrene	1	/	83	1	3.60E-03	-	2.70E+01	3.49E-03	-	3.49E-03	MIP-24(0-1)	6.0E+02	n	3.5E+03	ns	1.1E-01	n	no	BSL	no	BSL	no	BSL
tert-Butylbenzene	25	/	54	46	6.38E-03	-	1.55E-01	2.48E-03	-	8.69E-01	MIP-24(6-7)	7.8E+02	ns	1.2E+04	ns	1.6E-01	n	no	BSL	no	BSL	YES	ASL
Tetrachloroethene	20	/	83	24	2.74E-03	-	2.70E+01	1.28E-03	-	4.27E+01	MIP-09(2-3)	8.1E+00	n	3.9E+01	n	2.3E-03	n	YES	ASL	YES	ASL	YES	ASL
Toluene	62	/	83	75	3.60E-03	-	5.00E+00	2.35E-03	-	3.63E+03	MIP-09(2-3)	4.9E+02	n	4.7E+03	ns	6.9E-01	n	YES	ASL	no	BSL	YES	ASL
Total Xylenes	65	/	83	78	3.60E-03	-	2.90E-01	2.11E-03	-	9.20E+03	MIP-08(2.9-3.1)	5.8E+01	n	2.5E+02	n	9.9E+00	n	YES	ASL	YES	ASL	YES	ASL
trans-1,2-Dichloroethene	5	/	83	6	3.60E-03	-	2.70E+01	3.79E-03	-	1.11E-01	MIP-09(2-3)	7.0E+00	n	3.0E+01	n	3.1E-02	n	no	BSL	no	BSL	YES	ASL
trans-1,3-Dichloropropene	[e] 0	/	83	0	3.60E-03	-	2.70E+01	—	-	—	—	1.8E+00	c**	8.2E+00	c**	1.7E-04	c**	no	ND	no	ND	no	ND
Trichloroethene	12	/	83	15	1.09E-03	-	2.70E+01	1.87E-03	-	2.01E+01	MIP-09(2-3)	4.1E-01	n	1.9E+00	n	1.8E-03	n	YES	ASL	YES	ASL	YES	ASL
Vinyl chloride	4	/	83	5	1.50E-03	-	1.10E+01	4.88E-03	-	4.94E-02	MIP-09(1-2)	5.9E-02	c	1.7E+00	c*	6.9E-04	c	no	BSL	no	BSL	YES	ASL
Semi-Volatile Organic Compounds																							
2,2-Oxybis(1-Chloropropane)	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	NA		NA		NA		no	ND	no	ND	no	ND
2,4,6-Trichlorophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	6.3E+00	n	8.2E+01	n	1.2E-03	n	no	ND	no	ND	no	ND
2,4-Dichlorophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	1.9E+01	n	2.5E+02	n	2.3E-03	n	no	ND	no	ND	no	ND
2,4-Dimethylphenol	8	/	54	15	3.50E-01	-	4.39E+00	7.87E-02	-	5.98E-01	MIP-24(6-7)	1.3E+02	n	1.6E+03	n	4.2E-02	n	no	BSL	no	BSL	YES	ASL
2,4-Dinitrophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	1.3E+01	n	1.6E+02	n	4.4E-03	n	no	ND	no	ND	no	ND
2,4-Dinitrotoluene	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	1.7E+00	c**	7.4E+00	c*	3.2E-04	c*	no	ND	no	ND	no	ND
2,6-Dinitrotoluene	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	3.6E-01	c**	1.5E+00	c*	6.7E-05	c*	no	ND	no	ND	no	ND
2-Chloronaphthalene	0	/	54	0	3.50E-02	-	4.39E-01	—	-	—	—	4.8E+02	n	6.0E+03	n	3.9E-01	n	no	ND	no	ND	no	ND
2-Chlorophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	3.9E+01	n	5.8E+02	n	8.9E-03	n	no	ND	no	ND	no	ND
2-Methyl-4,6-dinitrophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	5.1E-01	n	6.6E+00	n	2.6E-04	n	no	ND	no	ND	no	ND
2-Nitrophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	NA		NA		NA		no	ND	no	ND	no	ND
3,3-Dichlorobenzidine	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	1.2E+00	c	5.1E+00	c	8.2E-04	c	no	ND	no	ND	no	ND
4-Bromophenyl phenyl ether	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	NA		NA		NA		no	ND	no	ND	no	ND
4-Chloro-3-Methylphenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	6.3E+02	n	8.2E+03	n	1.7E-01	n	no	ND	no	ND	no	ND
4-Chlorophenyl phenyl ether	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	NA		NA		NA		no	ND	no	ND	no	ND
4-Nitrophenol	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	NA		NA		NA		no	ND	no	ND	no	ND
Acenaphthene	17	/	54	32	3.71E-02	-	4.39E-01	6.79E-03	-	1.22E-01	MIP-33(2-3)	3.6E+02	n	4.5E+03	n	5.5E-01	n	no	BSL	no	BSL	no	BSL
Acenaphthylene	15	/	54	28	3.50E-02	-	4.39E-01	6.17E-03	-	5.77E-02	SB22-04(0-1)	3.6E+02	n	4.5E+03	n	5.5E-01	n	no	BSL	no	BSL	no	BSL
Anthracene	21	/	54	39	3.50E-02	-	3.87E-01	1.35E-02	-	5.21E-01	SB22-02(0-1)	1.8E+03	n	2.3E+04	n	5.8E+00	n	no	BSL	no	BSL	no	BSL
Benz(a)anthracene	29	/	54	54	3.50E-02	-	3.87E-01	8.40E-03	-	2.60E+00	SB22-09(4-5)	1.1E+00	c	2.1E+01	c	1.1E-02	c	YES	ASL	no	BSL	YES	ASL
Benzidine	0	/	54	0	1.75E+00	-	2.20E+01	—	-	—	—	5.3E-04	c	1.0E-02	c	2.8E-07	c	no	ND	no	ND	no	ND
Benzo(a)pyrene	28	/	54	52	3.50E-02	-	3.87E-01	7.90E-03	-	2.25E+00	SB22-09(4-5)	1.1E-01	c*	2.1E+00	c*	2.4E-01	c*	YES	ASL	YES	ASL	YES	ASL
Benzo(b)fluoranthene	30	/	54	56	3.50E-02	-	3.87E-01	1.15E-02	-	3.58E+00	SB22-09(4-5)	1.1E+00	c	2.1E+01	c	3.0E-01	c	YES	ASL	no	BSL	YES	ASL
Benzo(g,h,i)perylene	28	/	54	52	3.50E-02	-	3.87E-01	7.60E-03	-	1.18E+00	SB22-09(4-5)	1.8E+02	n	2.3E+03	n	1.3E+00	n	no	BSL	no	BSL	no	BSL
Benzo(k)fluoranthene	25	/	54	46	3.50E-02	-	3.87E-01	9.68E-03	-	1.16E+00	SB22-09(4-5)	1.1E+01	c	2.1E+02	c	2.9E+00	c	no	BSL	no	BSL	no	BSL
bis(2-Chloroethoxy)methane	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	1.9E+01	n	2.5E+02	n	1.3E-03	n	no	ND	no	ND	no	ND
bis(2-Chloroethyl)ether	0	/	54	0	3.50E-01	-	4.39E+00	—	-	—	—	2.3E-01	c	1.0E+00	c	3.6E-06	c	no	ND	no	ND	no	ND
bis(2-Ethylhexyl)phthalate	23	/	54	43	3.71E-01	-	3.87E+00	8.56E-02	-	1.77E+01	MIP-24(0-1)	3.9E+01	c**	1.6E+02	c*	1.4E+00	c**	no	BSL	no	BSL	YES	ASL
Butyl benzyl phthalate	6	/	54	11	3.71E-01	-	4.39E+00	2.20E-02															

Table 5
Selection of Constituents of Concern for Combined Soil (0-8 ft bgs)
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Depth Interval) [b]	Screening Levels [c]						Is Constituent a COC [d]?					
	Number of			% FOD	Minimum (mg/kg)	- Maximum (mg/kg)	Minimum (mg/kg)	- Maximum (mg/kg)	Residential Soil			Industrial Soil		Protection of Groundwater		Residential Soil		Industrial Soil		Protection of Groundwater			
	Detects	/	Samples						[basis]	[basis]		(mg/kg)	[basis]	(mg/kg)	[basis]	(YES, no)	Rationale	(YES, no)	Rationale	(YES, no)	Rationale		
Nitrobenzene	0	/	54	0	3.50E-01	- 4.39E+00	—	-	—	—	5.1E+00	c**	2.2E+01	c**	9.2E-05	c**	no	ND	no	ND	no	ND	
N-Nitrosodimethylamine	0	/	54	0	3.50E-01	- 4.39E+00	—	-	—	—	2.0E-03	c*	3.4E-02	c*	2.7E-08	c*	no	ND	no	ND	no	ND	
N-Nitrosodi-n-propylamine	0	/	54	0	3.50E-01	- 4.39E+00	—	-	—	—	7.8E-02	c	3.3E-01	c	8.1E-06	c	no	ND	no	ND	no	ND	
N-Nitrosodiphenylamine	0	/	54	0	3.50E-01	- 4.39E+00	—	-	—	—	1.1E+02	c	4.7E+02	c	6.7E-02	c	no	ND	no	ND	no	ND	
Pentachlorophenol	0	/	54	0	3.50E-01	- 4.39E+00	—	-	—	—	1.0E+00	c*	4.0E+00	c*	1.4E-03	c*	no	ND	no	ND	no	ND	
Phenanthrene	[k] 33	/	54	61	3.71E-02	- 3.87E-01	1.17E-02	-	1.62E+00	SB22-02(0-1)	1.8E+02	n	2.3E+03	n	1.3E+00	n	no	BSL	no	BSL	YES	ASL	
Phenol	2	/	54	4	3.50E-01	- 4.39E+00	6.87E-02	-	7.75E-02	SB22-04(0-1)	1.9E+03	n	2.5E+04	n	3.3E-01	n	no	BSL	no	BSL	no	BSL	
Pyrene	34	/	54	63	3.71E-02	- 3.87E-01	1.38E-02	-	5.22E+00	SB22-02(0-1)	1.8E+02	n	2.3E+03	n	1.3E+00	n	no	BSL	no	BSL	YES	ASL	
Metals																							
Arsenic	49	/	54	91	2.10E+00	- 2.47E+00	7.73E-01	-	2.32E+01	MIP-36(4-5)	6.8E-01	c**G	3.0E+00	c*G	2.9E-01	c*	YES	ASL	YES	ASL	YES	ASL	
Barium	54	/	54	100	—	-	—	-	5.43E+02	MIP-33(0-1)	1.5E+03	n	2.2E+04	n	8.2E+01	n	no	BSL	no	BSL	YES	ASL	
Cadmium	[m] 47	/	54	87	5.56E-01	- 6.24E-01	6.01E-02	-	3.14E+00	MIP-24(0-1)	7.1E-01	n	1.0E+01	n	NA		YES	ASL	no	BSL	no	NSL	
Chromium	[n] 54	/	54	100	—	-	—	-	4.14E+02	MIP-34(0-1)	1.2E+04	n	1.8E+05	nm	4.0E+06	n	no	BSL	no	BSL	no	BSL	
Lead	54	/	54	100	—	-	—	-	1.53E+03	MIP-33(0-1)	4.0E+02	G	8.0E+02	G	1.4E+01		YES	ASL	YES	ASL	YES	ASL	
Mercury	50	/	54	93	4.20E-02	- 4.89E-02	2.59E-02	-	1.81E+02	MIP-24(0-1)	2.3E+00	n	3.5E+01	n	NA		YES	ASL	YES	ASL	YES	NSL	
Selenium	25	/	54	46	2.09E+00	- 2.73E+00	9.24E-01	-	3.80E+00	MIP-45(4-5)	3.9E+01	n	5.8E+02	n	2.6E-01	n	no	BSL	no	BSL	YES	ASL	
Silver	4	/	54	7	1.05E+00	- 1.37E+00	1.85E-01	-	1.04E+00	MIP-34(0-1)	3.9E+01	n	5.8E+02	n	8.0E-02	n	no	BSL	no	BSL	YES	ASL	

–	Not applicable.	FOD	Frequency of detection.	R	Relative bioavailability factor incorporated.
%	Percent.	L	Lead screening level is based on blood lead levels.	s	Concentration may exceed residual saturation (Csat) level.
*	Non-cancer screening values is less than 100× the cancer screening level.	m	Concentration may exceed ceiling limit.		
**	Non-cancer screening value is less than 10× the cancer screening level.	mg/kg	Milligram per kilogram.		
c	Cancer effect.	n	Non-cancer effect.		
COC	Constituent of concern.	NA	Not applicable.		
ft bgs	Feet below ground surface.	ND	Not detected.		
[a]	All constituents analyzed for at the site are presented.				
[b]	Depth interval is presented in feet below ground surface.				
[c]	Screening levels are the United States Environmental Protection Agency (USEPA) industrial soil Regional Screening Levels (RSLs) and the Protection of Groundwater SSLs (USEPA 2023a). All screening levels are based on a target cancer risk of 1×10 ⁻⁶ and a target non-cancer hazard of 0.1 (to account for additive effects).				
[d]	A constituent with a maximum detected concentration above the screening level (ASL) was identified as a COC. A constituent with a maximum detected concentration below the screening level (BSL) was not identified as a COC. Constituents with no screening levels (NSL) were not identified as COCs.				
[e]	The screening level for 1,3-Dichloropropene is presented.				
[f]	The screening level for 1,2-Dichlorobenzene is presented.				
[g]	The screening level for cumene is presented.				
[h]	The screening level for m-xylene is presented.				
[i]	The screening level for cyclohexane is presented.				
[j]	The screening level for acenaphthene is presented.				
[k]	The screening level for pyrene is presented.				
[l]	The screening level for diethyl phthalate is presented.				
[m]	The screening level for cadmium (diet) is presented.				
[n]	The screening level for chromium (III) is presented.				

Table 6
Selection of Constituents of Concern for Groundwater
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Sample Collection Date)	Screening Levels [b]				Is Constituent a COC? [c]					
	Number of			% FOD	Minimum (mg/L)	- (mg/L)	Maximum (mg/L)	Minimum (mg/L)	- (mg/L)	Maximum (mg/L)		MCL/Tapwater		Vapor Intrusion - Industrial	Vapor Intrusion - Residential	Direct Contact based on MCL/Tapwater		Vapor Intrusion - Industrial		Vapor Intrusion - Residential	
	Detects	/	Samples									(mg/L)	[basis]	(mg/L)	(YES, no)	Rationale	(YES, no)	Rationale	(YES, no)	Rationale	
Volitale Organic Compounds																					
1,1,1,2-Tetrachloroethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	5.7E-04	c*	NA	NA	no	ND	no	ND	no	ND
1,1,1-Trichloroethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	2.0E-01	n	NA	NA	no	ND	no	ND	no	ND
1,1,2,2-Tetrachloroethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	7.6E-05	c	NA	NA	no	ND	no	ND	no	ND
1,1,2-trichloro-1,2,2-trifluoroethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	1.0E+00	n	NA	NA	no	ND	no	ND	no	ND
1,1,2-Trichloroethane	1	/	14	7	1.00E-03	-	5.00E-02	5.15E-04	-	5.15E-04	MW-06(10/14/2022)	5.0E-03	n	NA	NA	no	BSL	no	NSL	no	NSL
1,1-Dichloroethane	3	/	14	21	1.00E-03	-	2.00E-02	2.42E-04	-	2.51E-01	MW-01(10/14/2022)	2.8E-03	c	4.34E-02	7.64E-03	YES	ASL	YES	ASL	YES	ASL
1,1-Dichloroethene	2	/	14	14	1.00E-03	-	2.00E-02	2.61E-02	-	3.36E-02	MW-04R(10/18/2022)	7.0E-03	n	1.03E-01	1.95E-02	YES	ASL	no	BSL	YES	ASL
1,1-Dichloropropene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	4.7E-04	c**	NA	4.84E-03	no	ND	no	ND	no	ND
1,2,3-Trichlorobenzene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	7.0E-04	n	NA	NA	no	ND	no	ND	no	ND
1,2,3-Trichloropropane	0	/	14	0	2.50E-03	-	1.25E-01	-	-	-	-	7.5E-07	c*	NA	NA	no	ND	no	ND	no	ND
1,2,3-Trimethylbenzene	6	/	14	43	1.00E-03	-	1.00E-03	4.46E-04	-	4.33E-01	MW-04R(10/18/2022)	5.5E-03	n	NA	NA	YES	ASL	no	NSL	no	NSL
1,2,4-Trichlorobenzene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	7.0E-02	n	NA	NA	no	ND	no	ND	no	ND
1,2,4-Trimethylbenzene	6	/	14	43	1.00E-03	-	1.00E-03	1.49E-03	-	1.87E+00	MW-04R(10/18/2022)	5.6E-03	n	NA	NA	YES	ASL	no	NSL	no	NSL
1,2-Dibromo-3-chloropropane	0	/	14	0	5.00E-03	-	2.50E-01	-	-	-	-	2.0E-04	c	NA	2.81E-05	no	ND	no	ND	no	ND
1,2-Dibromoethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	5.0E-05	c	NA	1.76E-04	no	ND	no	ND	no	ND
1,2-Dichlorobenzene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	6.0E-01	n	NA	2.66E-01	no	ND	no	ND	no	ND
1,2-Dichloroethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	5.0E-03	c**	NA	2.24E-03	no	ND	no	ND	no	ND
1,2-Dichloropropane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	5.0E-03	n	NA	3.62E-03	no	ND	no	ND	no	ND
1,3,5-Trimethylbenzene	6	/	14	43	1.00E-03	-	1.00E-03	3.40E-04	-	6.78E-01	MW-04R(10/18/2022)	6.0E-03	n	NA	NA	YES	ASL	no	NSL	no	NSL
1,3-Dichlorobenzene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	6.0E-01	n	NA	2.66E-01	no	ND	no	ND	no	ND
1,3-Dichloropropane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	3.7E-02	n	NA	NA	no	ND	no	ND	no	ND
1,4-Dichlorobenzene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	7.5E-02	c	NA	2.59E-03	no	ND	no	ND	no	ND
2,2-Dichloropropane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	NA	NA	NA	NA	no	ND	no	ND	no	ND
2-Butanone (MEK)	3	/	14	21	1.00E-02	-	2.00E-01	8.71E-03	-	1.52E+02	MW-01(10/14/2022)	5.6E-01	n	NA	2.24E+02	YES	ASL	no	NSL	no	BSL
2-Chlorotoluene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	2.4E-02	n	NA	NA	no	ND	no	ND	no	ND
4-Chlorotoluene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	2.5E-02	n	NA	NA	no	ND	no	ND	no	ND
4-Methyl-2-Pentanone	3	/	14	21	1.00E-02	-	2.00E-01	8.80E-04	-	1.90E+01	MW-01(10/14/2022)	6.3E-01	n	NA	5.55E+01	YES	ASL	no	NSL	no	BSL
Acetone	1	/	14	7	5.00E-02	-	2.50E+00	1.60E+01	-	1.60E+01	MW-01(10/14/2022)	1.8E+00	n	NA	NA	YES	ASL	no	NSL	no	NSL
Acrolein	0	/	14	0	5.00E-02	-	2.50E+00	-	-	-	-	4.2E-06	n	NA	4.18E-04	no	ND	no	ND	no	ND
Acrylonitrile	0	/	14	0	1.00E-02	-	5.00E-01	-	-	-	-	5.2E-05	c**	NA	7.32E-03	no	ND	no	ND	no	ND
Benzene	9	/	14	64	1.00E-03	-	1.00E-03	1.09E-04	-	2.50E-01	MW-01(10/14/2022)	5.0E-03	c**	9.25E-03	1.59E-03	YES	ASL	YES	ASL	YES	ASL
Bromobenzene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	6.2E-03	n	NA	6.20E-02	no	ND	no	ND	no	ND
Bromochloromethane	0	/	0	0	-	-	-	-	-	-	-	8.3E-03	n	NA	6.99E-02	no	ND	no	ND	no	ND
Bromodichloromethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	1.3E-04	c	NA	8.76E-04	no	ND	no	ND	no	ND
Bromoform	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	3.3E-03	c*	NA	1.17E-01	no	ND	no	ND	no	ND
Bromomethane	0	/	14	0	5.00E-03	-	2.50E-01	-	-	-	-	7.5E-04	n	NA	1.74E-03	no	ND	no	ND	no	ND
Carbon Tetrachloride	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	5.0E-03	c*	NA	4.15E-04	no	ND	no	ND	no	ND
CFC-11	0	/	14	0	5.00E-03	-	2.50E-01	-	-	-	-	5.2E-01	n	NA	NA	no	ND	no	ND	no	ND
CFC-12	0	/	14	0	5.00E-03	-	2.50E-01	-	-	-	-	2.0E-02	n	NA	7.44E-04	no	ND	no	ND	no	ND
Chlorobenzene	4	/	14	29	1.00E-03	-	5.00E-02	3.90E-04	-	8.30E-03	MW-01(10/14/2022)	1.0E-01	n	NA	4.10E-02	no	BSL	no	NSL	no	BSL
Chlorodibromomethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	8.7E-04	c*	NA	NA	no	ND	no	ND	no	ND
Chloroethane	2	/	14	14	5.00E-03	-	2.50E-01	2.60E-03	-	4.94E-03	MW-06(10/14/2022)	8.3E-01	n	NA	9.19E-01	no	BSL	no	NSL	no	BSL
Chloroform	1	/	14	7	5.00E-03	-	2.50E-01	1.34E-03	-	1.34E-03	MW-14(10/18/2022)	2.2E-04	c*	4.64E-03	8.14E-04	YES	ASL	no	BSL	YES	ASL
Chloromethane	0	/	14	0	2.50E-03	-	1.25E-01	-	-	-	-	1.9E-02	n	NA	2.60E-02	no	ND	no	ND	no	ND
cis-1,2-Dichloroethene	4	/	14	29	1.00E-03	-	2.00E-02	1.64E-04	-	3.41E+00	MW-01(10/14/2022)	7.0E-02	n	1.38E-01	2.50E-02	YES	ASL	YES	ASL	YES	ASL
cis-1,3-Dichloropropene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	4.7E-04	c**	NA	4.84E-03	no	ND	no	ND	no	ND
Cymene (p-Isopropyltoluene)	1	/	14	7	1.00E-03	-	5.00E-02	1.26E-02	-	1.26E-02	MW-13(10/18/2022)	4.5E-02	n	5.92E-01	8.87E-02	no	BSL	no	BSL	no	BSL
Dibromomethane	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	8.3E-04	n	NA	1.24E-02	no	ND	no	ND	no	ND
Dichloromethane	0	/	14	0	5.00E-03	-	2.50E-01	-	-	-	-	5.0E-03	n	NA	4.71E-01	no	ND	no	ND	no	ND
Di-isopropyl ether	5	/	14	36	1.00E-03	-	5.00E-02	1.69E-04	-	7.18E-04	MW-06(10/14/2022)	1.5E-01	n	NA	6.97E-01	no	BSL	no	NSL	no	BSL
Ethylbenzene	6	/	14	43	1.00E-03	-	1.00E-03	2.66E-03	-	9.67E+00	MW-04R(10/18/2022)	7.0E-01	c*	2.20E-02	3.49E-03	YES	ASL	YES	ASL	YES	ASL
Hexachloro-1,3-butadiene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	1.4E-04	c**	NA	3.03E-04	no	ND	no	ND	no	ND
Isopropylbenzene	9	/	14	64	1.00E-03	-	1.00E-03	6.23E-04	-	3.89E-01	MW-05(10/12/2022)	4.5E-02	n	5.92E-01	8.87E-02	YES	ASL	no	BSL	YES	ASL
Methyl-tert-butylether	6	/	14	43	1.00E-03	-	5.00E-02	1.38E-04	-	8.84E-03	MW-05(10/12/2022)	1.4E-02	c*	NA	4.50E-01	no	BSL	no	NSL	no	BSL
Naphthalene	6	/	14	43	1.00E-03	-	1.00E-03	3.32E-04	-	1.74E-01	MW-01(10/14/2022)	1.2E-04	c**	3.22E-02	4.59E-03	YES	ASL	YES	ASL	YES	ASL

Table 6
Selection of Constituents of Concern for Groundwater
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Sample Collection Date)	Screening Levels [b]				Is Constituent a COC? [c]					
	Number of			% FOD	Minimum (mg/L)	- (mg/L)	Maximum (mg/L)	Minimum (mg/L)	- (mg/L)	Maximum (mg/L)		MCL/Tapwater		Vapor Intrusion - Industrial	Vapor Intrusion - Residential	Direct Contact based on MCL/Tapwater		Vapor Intrusion - Industrial		Vapor Intrusion - Residential	
	Detects	/	Samples									(mg/L)	[basis]	(mg/L)	(YES, no)	Rationale	(YES, no)	Rationale	(YES, no)	Rationale	
n-Butylbenzene	6	/	14	43	1.00E-03	-	5.00E-02	4.64E-04	-	7.11E-02	MW-06(10/14/2022)	1.0E-01	n	NA	NA	no	BSL	no	NSL	no	NSL
n-Propylbenzene	8	/	14	57	1.00E-03	-	1.00E-03	2.10E-03	-	8.84E-01	MW-05(10/12/2022)	6.6E-02	n	NA	NA	YES	ASL	no	NSL	no	NSL
sec-Butylbenzene	9	/	14	64	1.00E-03	-	5.00E-02	7.99E-04	-	9.04E-02	MW-06(10/14/2022)	2.0E-01	n	NA	NA	no	BSL	no	NSL	no	NSL
Styrene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	1.0E-01	n	NA	NA	no	ND	no	ND	no	ND
tert-Butylbenzene	9	/	14	64	1.00E-03	-	5.00E-02	1.35E-04	-	1.62E-02	MW-15(10/18/2022)	6.9E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Tetrachloroethene	1	/	14	7	1.00E-03	-	5.00E-02	3.64E-04	-	3.64E-04	PMW-09(10/12/2022)	5.0E-03	n	NA	NA	no	BSL	no	NSL	no	NSL
Toluene	5	/	14	36	1.00E-03	-	1.00E-03	2.04E-02	-	9.79E+01	MW-01(10/14/2022)	1.0E+00	n	NA	NA	YES	ASL	no	NSL	no	NSL
Total Xylenes	8	/	14	57	3.00E-03	-	3.00E-03	2.66E-04	-	3.35E+01	MW-04R(10/18/2022)	1.0E+01	n	NA	NA	YES	ASL	no	NSL	no	NSL
trans-1,2-Dichloroethene	1	/	14	7	1.00E-03	-	5.00E-02	1.56E-04	-	1.56E-04	MW-06(10/14/2022)	1.0E-01	n	NA	1.09E-02	no	BSL	no	NSL	no	BSL
trans-1,3-Dichloropropene	[d] 0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	4.7E-04	c**	NA	4.84E-03	no	ND	no	ND	no	ND
Trichloroethene	0	/	14	0	1.00E-03	-	5.00E-02	-	-	-	-	5.0E-03	n	NA	NA	no	ND	no	ND	no	ND
Vinyl chloride	3	/	14	21	1.00E-03	-	2.00E-02	4.22E-04	-	8.74E-02	MW-04R(10/18/2022)	2.0E-03	c	NA	NA	YES	ASL	no	NSL	no	NSL
Semi-Volatile Organic Compounds																					
2,2-Oxybis(1-Chloropropane)	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	NA	NA	NA	NA	no	ND	no	ND	no	ND
2,4,6-Trichlorophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.2E-03	n	NA	NA	no	ND	no	ND	no	ND
2,4-Dichlorophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	4.6E-03	n	NA	NA	no	ND	no	ND	no	ND
2,4-Dimethylphenol	5	/	14	36	1.00E-02	-	1.00E-02	6.63E-04	-	1.44E-01	MW-01(10/14/2022)	3.6E-02	n	NA	NA	YES	ASL	no	NSL	no	NSL
2,4-Dinitrophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	3.9E-03	n	NA	NA	no	ND	no	ND	no	ND
2,4-Dinitrotoluene	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	2.4E-04	c*	NA	NA	no	ND	no	ND	no	ND
2,6-Dinitrotoluene	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	4.9E-05	c*	NA	NA	no	ND	no	ND	no	ND
2-Chloronaphthalene	0	/	14	0	1.00E-03	-	5.00E-03	-	-	-	-	7.5E-02	n	NA	NA	no	ND	no	ND	no	ND
2-Chlorophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	9.1E-03	n	NA	NA	no	ND	no	ND	no	ND
2-Methyl-4,6-dinitrophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.5E-04	n	NA	NA	no	ND	no	ND	no	ND
2-Nitrophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	NA	NA	NA	NA	no	ND	no	ND	no	ND
3,3-Dichlorobenzidine	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.3E-04	c	NA	NA	no	ND	no	ND	no	ND
4-Bromophenyl phenyl ether	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	NA	NA	NA	NA	no	ND	no	ND	no	ND
4-Chloro-3-Methylphenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.4E-01	n	NA	NA	no	ND	no	ND	no	ND
4-Chlorophenyl phenyl ether	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	NA	NA	NA	NA	no	ND	no	ND	no	ND
4-Nitrophenol	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	NA	NA	NA	NA	no	ND	no	ND	no	ND
Acenaphthene	[g] 6	/	14	43	1.00E-03	-	5.00E-03	1.33E-04	-	4.67E-04	MW-15(10/18/2022)	5.3E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Acenaphthylene	0	/	14	0	1.00E-03	-	5.00E-03	-	-	-	-	5.3E-02	n	NA	NA	no	ND	no	ND	no	ND
Anthracene	0	/	14	0	1.00E-03	-	5.00E-03	-	-	-	-	1.8E-01	n	NA	NA	no	ND	no	ND	no	ND
Benz(a)anthracene	1	/	14	7	1.00E-03	-	5.00E-03	2.06E-04	-	2.06E-04	MW-11R(10/18/2022)	3.0E-05	c	NA	3.44E-02	YES	ASL	no	NSL	no	BSL
Benzidine	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.1E-07	c	NA	NA	no	ND	no	ND	no	ND
Benzo(a)pyrene	1	/	14	7	1.00E-03	-	5.00E-03	1.49E-04	-	1.49E-04	MW-11R(10/18/2022)	2.0E-04	c*	NA	NA	no	BSL	no	NSL	no	NSL
Benzo(b)fluoranthene	1	/	14	7	1.00E-03	-	5.00E-03	2.10E-04	-	2.10E-04	MW-11R(10/18/2022)	2.5E-04	c	NA	NA	no	BSL	no	NSL	no	NSL
Benzo(g,h,i)perylene	[h] 1	/	14	7	1.00E-03	-	5.00E-03	1.64E-04	-	1.64E-04	MW-11R(10/18/2022)	1.2E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Benzo(k)fluoranthene	0	/	14	0	1.00E-03	-	5.00E-03	-	-	-	-	2.5E-03	c	NA	NA	no	ND	no	ND	no	ND
bis(2-Chloroethoxy)methane	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	5.9E-03	n	NA	NA	no	ND	no	ND	no	ND
bis(2-Chloroethyl)ether	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.4E-05	c	NA	1.22E-02	no	ND	no	ND	no	ND
bis(2-Ethylhexyl)phthalate	0	/	14	0	3.00E-03	-	1.50E-02	-	-	-	-	6.0E-03	c**	NA	NA	no	ND	no	ND	no	ND
Butyl benzyl phthalate	0	/	14	0	3.00E-03	-	1.50E-02	-	-	-	-	1.6E-02	c*	NA	NA	no	ND	no	ND	no	ND
Chrysene	1	/	14	7	1.00E-03	-	5.00E-03	1.41E-04	-	1.41E-04	MW-11R(10/18/2022)	2.5E-02	c	NA	NA	no	BSL	no	NSL	no	NSL
Dibenz(a,h)anthracene	1	/	14	7	1.00E-03	-	5.00E-03	7.03E-05	-	7.03E-05	MW-11R(10/18/2022)	2.5E-05	c	NA	NA	YES	ASL	no	NSL	no	NSL
Diethyl phthalate	1	/	14	7	3.00E-03	-	3.00E-03	4.82E-03	-	4.82E-03	MW-01(10/14/2022)	1.5E+00	n	NA	NA	no	BSL	no	NSL	no	NSL
Dimethyl phthalate	[i] 1	/	14	7	3.00E-03	-	1.50E-02	3.88E-04	-	3.88E-04	PMW-09(10/12/2022)	1.5E+00	n	NA	NA	no	BSL	no	NSL	no	NSL
Di-n-butyl phthalate	0	/	14	0	3.00E-03	-	1.50E-02	-	-	-	-	9.0E-02	n	NA	NA	no	ND	no	ND	no	ND
Di-n-octyl phthalate	0	/	14	0	3.00E-03	-	1.50E-02	-	-	-	-	2.0E-02	n	NA	NA	no	ND	no	ND	no	ND
Fluoranthene	1	/	14	7	1.00E-03	-	5.00E-03	2.42E-04	-	2.42E-04	MW-11R(10/18/2022)	8.0E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Fluorene	4	/	14	29	1.00E-03	-	5.00E-03	1.27E-04	-	1.90E-04	MW-05(10/12/2022)	2.9E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Hexachlorobenzene	0	/	14	0	1.00E-03	-	5.00E-03	-	-	-	-	1.0E-03	c**	NA	8.78E-05	no	ND	no	ND	no	ND
Hexachlorocyclopentadiene	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	5.0E-02	n	NA	1.89E-05	no	ND	no	ND	no	ND
Hexachloroethane	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	3.3E-04	c**	NA	1.60E-03	no	ND	no	ND	no	ND
Indeno(1,2,3-cd)pyrene	0	/	14	0	1.00E-03	-	5.00E-03	-	-	-	-	2.5E-04	c	NA	NA	no	ND	no	ND	no	ND
Isophorone	4	/	14	29	1.00E-02	-	1.00E-02	2.42E-04	-	1.83E+00	MW-01(10/14/2022)	7.8E-02	c**	NA	NA	YES	ASL	no	NSL	no	NSL
Nitrobenzene	0	/	14	0	1.00E-02	-	5.00E-02	-	-	-	-	1.4E-04	c**	NA	7.15E-02	no	ND	no	ND	no	ND

Table 6
Selection of Constituents of Concern for Groundwater
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Frequency of Detection				Detection Limits			Detected Concentrations			Location of Maximum Concentration (Sample Collection Date)	Screening Levels [b]				Is Constituent a COC? [c]					
	Number of Detects / Samples			% FOD	Minimum (mg/L)	- (mg/L)	Maximum (mg/L)	Minimum (mg/L)	- (mg/L)	Maximum (mg/L)		MCL/Tapwater		Vapor Intrusion - Industrial	Vapor Intrusion - Residential	Direct Contact based on MCL/Tapwater		Vapor Intrusion - Industrial		Vapor Intrusion - Residential	
												(mg/L)	[basis]	(mg/L)	(mg/L)	(YES, no)	Rationale	(YES, no)	Rationale	(YES, no)	Rationale
N-Nitrosodimethylamine	0	/	14	0	1.00E-02	-	5.00E-02	—	-	—	—	1.1E-07	c*	NA	9.73E-04	no	ND	no	ND	no	ND
N-Nitrosodi-n-propylamine	0	/	14	0	1.00E-02	-	5.00E-02	—	-	—	—	1.1E-05	c	NA	NA	no	ND	no	ND	no	ND
N-Nitrosodiphenylamine	0	/	14	0	1.00E-02	-	5.00E-02	—	-	—	—	1.2E-02	c	NA	NA	no	ND	no	ND	no	ND
Pentachlorophenol	0	/	14	0	1.00E-02	-	5.00E-02	—	-	—	—	1.0E-03	c*	NA	NA	no	ND	no	ND	no	ND
Phenanthrene	[h] 5	/	14	36	1.00E-03	-	5.00E-03	1.32E-04	-	2.59E-04	MW-16(10/18/2022)	1.2E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Phenol	1	/	14	7	1.00E-02	-	1.00E-02	2.65E-01	-	2.65E-01	MW-01(10/14/2022)	5.8E-01	n	NA	NA	no	BSL	no	NSL	no	NSL
Pyrene	1	/	14	7	1.00E-03	-	5.00E-03	1.74E-04	-	1.74E-04	MW-11R(10/18/2022)	1.2E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Metals													NA								
Arsenic	7	/	14	50	1.00E-02	-	2.00E-02	4.77E-03	-	9.92E-02	MW-01(10/14/2022)	1.0E-02	c*	NA	NA	YES	ASL	no	NSL	no	NSL
Barium	13	/	14	93	5.00E-03	-	5.00E-03	2.96E-02	-	1.97E+00	MW-13(10/18/2022)	2.0E+00	n	NA	NA	no	BSL	no	NSL	no	NSL
Cadmium	[j] 5	/	14	36	2.00E-03	-	5.00E-03	4.09E-04	-	2.33E-03	MW-01(10/14/2022)	NA	NA	NA	NA	no	NSL	no	NSL	no	NSL
Chromium	[k] 7	/	14	50	7.00E-03	-	1.00E-02	1.45E-03	-	7.70E-03	MW-11R(10/18/2022)	2.2E+00	n	NA	NA	no	BSL	no	NSL	no	NSL
Lead	7	/	14	50	6.00E-03	-	1.00E-02	1.93E-03	-	2.16E-02	MW-01(10/14/2022)	1.5E-02	G	NA	NA	YES	ASL	no	NSL	no	NSL
Mercury	1	/	14	7	2.00E-04	-	2.00E-04	1.13E-04	-	1.13E-04	MW-01(10/14/2022)	2.0E-03	n	NA	NA	no	BSL	no	NSL	no	NSL
Selenium	2	/	14	14	1.00E-02	-	2.00E-02	3.36E-03	-	8.13E-03	MW-01(10/14/2022)	5.0E-02	n	NA	NA	no	BSL	no	NSL	no	NSL
Silver	0	/	14	0	5.00E-03	-	5.00E-03	—	-	—	—	9.4E-03	n	NA	NA	no	ND	no	ND	no	ND
Dissolved Gases																					
Methane	8	/	8	100	—	-	—	5.96E-01	-	1.39E+01	MW-13(10/18/2022)	NA	NA	NA	NA	no	NSL	no	NSL	no	NSL

% Percent.
COC Constituent of concern.
FOD Frequency of detection.
mg/L Milligram per liter.

NC Non-cancer based screening values.

[a] Only constituents of potential concern are presented.
All constituents analyzed for at the site are presented.
For duplicate samples, the highest detected concentration or the lowest detection limit were used.

[b] The direct contact screening values reflect the United States Environmental Protection Agency (USEPA) maximum contaminant level (MCL), if available, followed by the tap-water Regional Screening Level (RSL) (USEPA 2023a).
The USEPA Vapor Intrusion Screening Levels (VISLs) are presented (USEPA 2023b). The USEPA VISLs reflect an excess lifetime cancer risk (ELCR) of 1×10-6 for constituents with cancer based endpoints and an Hi of 0.1 for non-cancer endpoints.

[c] Constituents with a maximum concentration above the screening level (ASL) was identified as a COC.
Constituents with a maximum concentration below the screening levels (BSL) were not identified as COCs.
Constituents with no screening levels (NSL) were not identified as COPCs.

[d] The screening level for 1,3-Dichloropropene is presented.

[e] The screening level for 1,2-Dichlorobenzene is presented.

[f] The screening level for cumene is presented.

[g] The screening level for acenaphthene is presented.

[h] The screening level for pyrene is presented.

[i] The screening level for diethyl phthalate is presented.

[j] The screening level for cadmium (diet) is presented.

[k] The screening level for chromium (III) is presented.

Table 7
Summary of Constituents of Concern
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent [a]	Constituent of Concern?						
	Surface Soil		Combined Soil			Groundwater	
	Direct Contact Residential (YES/no)	Direct Contact Industrial (YES/no)	Direct Contact Residential (YES/no)	Direct Contact Industrial (YES/no)	Leaching (YES/no)	Direct Contact (YES/no)	Vapor Intrusion - Industrial (YES/no)
Volitale Organic Compounds							
1,1,1-Trichloroethane	no	no	no	no	YES	no	no
1,1,2-Trichloroethane	no	no	YES	YES	YES	no	no
1,1-Dichloroethane	no	no	YES	no	YES	YES	YES
1,1-Dichloroethene	no	no	no	no	YES	YES	no
1,2,3-Trimethylbenzene	YES	no	YES	no	YES	YES	no
1,2,4-Trimethylbenzene	YES	YES	YES	YES	YES	YES	no
1,2-Dibromoethane	no	no	no	no	YES	no	no
1,3,5-Trimethylbenzene	YES	no	YES	YES	YES	YES	no
2-Butanone (MEK)	no	no	no	no	YES	YES	no
2-Chlorotoluene	no	no	no	no	YES	no	no
4-Methyl-2-Pentanone	no	no	no	no	YES	YES	no
Acetone	no	no	no	no	YES	YES	no
Benzene	no	no	YES	no	YES	YES	YES
Chlorobenzene	no	no	no	no	YES	no	no
Chloroform	no	no	no	no	no	YES	no
cis-1,2-Dichloroethene	no	no	YES	no	YES	YES	YES
Cymene (p-Isopropyltoluene)	no	no	no	no	YES	no	no
Ethylbenzene	YES	YES	YES	YES	YES	YES	YES
Isopropylbenzene	no	no	no	no	YES	YES	no
m,p-Xylenes	no	no	YES	YES	YES	no	no
Methylcyclohexane	no	no	no	no	YES	no	no
Methyl-tert-butylether	no	no	no	no	YES	no	no
Naphthalene	YES	no	YES	YES	YES	YES	YES
n-Butylbenzene	no	no	no	no	YES	no	no
n-Propylbenzene	no	no	no	no	YES	YES	no
o-Xylene	no	no	YES	YES	YES	no	no
sec-Butylbenzene	no	no	no	no	YES	no	no
tert-Butylbenzene	no	no	no	no	YES	no	no
Tetrachloroethene	no	no	YES	YES	YES	no	no
Toluene	no	no	YES	no	YES	YES	no
Total Xylenes	YES	YES	YES	YES	YES	YES	no
trans-1,2-Dichloroethene	no	no	no	no	YES	no	no
Trichloroethene	no	no	YES	YES	YES	no	no
Vinyl chloride	no	no	no	no	YES	YES	no
Semi-Volatile Organic Compounds							
2,4-Dimethylphenol	no	no	no	no	YES	YES	no
Benz(a)anthracene	YES	no	YES	no	YES	YES	no
Benzo(a)pyrene	YES	no	YES	YES	YES	no	no
Benzo(b)fluoranthene	YES	no	YES	no	YES	no	no
bis(2-Ethylhexyl)phthalate	no	no	no	no	YES	no	no
Butyl benzyl phthalate	no	no	no	no	YES	no	no
Dibenz(a,h)anthracene	YES	no	YES	no	YES	YES	no
Di-n-butyl phthalate	no	no	no	no	YES	no	no
Indeno(1,2,3-cd)pyrene	no	no	YES	no	YES	no	no
Isophorone	no	no	no	no	YES	YES	no
Phenanthrene	no	no	no	no	YES	no	no
Pyrene	no	no	no	no	YES	no	no
Metals							
Arsenic	YES	YES	YES	YES	YES	YES	no
Barium	no	no	no	no	YES	no	no
Cadmium	YES	no	YES	no	no	no	no
Lead	YES	YES	YES	YES	YES	YES	no
Mercury	YES	YES	YES	YES	YES	no	no
Selenium	no	no	no	no	YES	no	no
Silver	no	no	no	no	YES	no	no

–

Not a constituent of potential concern in this medium.

avg

Average.

COC

Constituent of concern.

[a] Only detected constituents of concern are presented.

Table 8
Receptor Exposure Parameters
AkzoNobel Coatings Inc.
Birmingham, Alabama

Parameter	Symbol	Units	Site Worker		Construction Worker		Adolescent Trespasser	
			Value	[ref]	Value	[ref]	(6 to 16 years)	[ref]
<u>General Factors</u>								
Averaging Time (cancer)	ATc	days	25,550	[1,2,a]	25,550	[1,2,a]	25,550	[1,2,a]
Averaging Time (non-cancer)	ATnc	days	9,125	[1,2,a]	182	[1,2,a]	3,650	[1,2,a]
Body Weight	BW	kg	80	[1,2]	80	[1,2]	45	[3]
Exposure Frequency	EF	days/year	250	[2,3]	90	PJ [b]	52	PJ [f]
Exposure Duration	ED	years	25	[1,2]	1	[3]	10	PJ
Age-Dependent Adjustment Factor	ADAF	unitless	–		–		3	[5]
Conversion Factor	CF1	day/hour	0.042		0.042		0.042	
Conversion Factor	CF2	mg/kg	1E+06		1E+06		1E+06	
Conversion Factor	CF3	µg/mg	1E+03		1E+03		1E+03	
Conversion Factor	CF4	mg/µg	1E-03		1E-03		1E-03	
<u>Subchronic Exposure</u>								
Exposure Frequency - subchronic	EFsc	days/week	–		5	PJ [b]	–	
Exposure Duration - subchronic	EDsc	weeks	–		26	PJ [b]	–	
<u>Inhalation</u>								
Mutagenic Age-Adjusted Intake Factor, Soil Inhalatic	IFMsi	years	–		–			
Exposure Time	ET	hour/day	8	[2]	4	[4]	1	PJ
<u>Groundwater - Ingestion (Oral)</u>								
Age-Averaged Intake Factor, Groundwater Oral	IFgwo	L-yr/kg/day	-		-		-	
Groundwater Ingestion Rate	IRgw	L/day	1	[1]	0.002	PJ [c]	–	
<u>Groundwater - Dermal Contact</u>								
Event Frequency	EV	event/day	1		1		1	
Exposed Skin Surface Area	SSAgw	cm²	3,527	[2]	3,527	[2]	–	
Exposure Time; groundwater contact	ETgw	hours/day	–		2	PJ	–	
<u>Soil - Ingestion (Oral)</u>								
Incidental Soil Ingestion Rate	IRs	mg/day	100	[2,4]	330	[4]	50	[e]
Fraction Ingested from Source	FI	unitless	1		1		1	
<u>Soil - Dermal Contact</u>								
Exposed Skin Surface Area	SSAs	cm²	3,527	[2]	3,527	[2]	5,700	[6]
Soil-to-Skin Adherence Rate	SAR	mg/cm²/day	0.12	[2]	0.3	[2,6,d]	0.07	[2]
–	Not applicable.	PJ	Professional judgment.					
cm²	Square centimeter.	USEPA	United States Environmental Protection Agency					
kg	Kilogram.	VDEQ	Virginia Department of Environmental Quality					
L	Liters.							
References [ref]:								
[1]	USEPA 1989	[3]	USEPA 2002a	[5]	USEPA 2005			
[2]	USEPA 2014	[4]	VDEQ 2022	[6]	USEPA 2004			
[a]	The averaging time for cancer risk is the expected lifespan of 70 years, expressed in days.							
	The averaging time for non-cancer hazard is the total exposure duration (ED), expressed in days.							
[b]	The excavation worker is assumed to work 90 days during one year as it is a small site.							
[c]	The incidental groundwater ingestion rate for the excavation worker is assumed to be 1/10 th the ingestion rate during swimming (USEPA 2011a).							
[d]	The soil-to-skin adherence factor for the excavation worker is based on the 95 th weighted percentile adherence factor for construction workers (USEPA 2004a).							
[e]	The incidental soil ingestion rate for the trespasser was set at the central tendency soil ingestion rate for 6 to <21 years.							
[f]	Tresspasser will be onsite for the 6 warmer months of the year, twice per week.							

Table 9
Risk Based Target Level Equations for Exposure to Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

ROUTE-SPECIFIC CONCENTRATION GOALS:

Oral:

$$(RBTL_o)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times BW \times (AT_C \text{ or } AT_{NC}) \times (10^6 \text{ mg/kg})}{IRs \times RBF \times FI \times EF \times ED \times (CSF_o \text{ or } [1/RfD_o])}$$

Dermal:

$$(RBTL_d)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times BW \times (AT_C \text{ or } AT_{NC}) \times (10^6 \text{ mg/kg})}{SSAs \times SAR \times ABSd \times EF \times ED \times (CSF_a \text{ or } [1/RfD_a])}$$

Inhalation:
(Volatiles)

$$(RBTL_i)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times VF \times (AT_C \text{ or } AT_{NC})}{ET \times CF \times EF \times ED \times ([IUR \times 10^3 \text{ } \mu\text{g/mg}] \text{ or } [1/RfC])}$$

$$VF = \frac{Q/C_{vol} \times [3.14 \times D_A \times T]^{1/2}}{2 \times \rho_b \times D_A \times (10,000 \text{ cm}^2/\text{m}^2)}$$

$$D_A = \frac{[(\theta_{as}^{3.33} \times D_{air} \times H_o) + (\theta_{ws}^{3.33} \times D_{wat})] / \theta_T^2}{(\rho_b \times Koc \times Foc) + \theta_{ws} + (\theta_{as} \times H_o)}$$

Inhalation:
(non-volatiles)

$$(RBTL_i)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times PEF \times (AT_C \text{ or } AT_{NC})}{ET \times CF \times EF \times ED \times ([IUR \times 10^3 \text{ } \mu\text{g/mg}] \text{ or } [1/RfC])}$$

$$PEF = \frac{Q/C_{wind} \times (3,600 \text{ sec/hr})}{RPF \times (1-V) \times (Um/Ut)^3 \times Fx}$$

RBTL BASED ON CANCER EFFECTS: (combining all exposure routes)

$$RBTL_C = \frac{1}{[1 / (RBTL_o)_C] + [1 / (RBTL_d)_C] + [1 / (RBTL_i)_C]}$$

RBTL BASED ON NON-CANCER EFFECTS: (combining all exposure routes)

$$RBTL_{NC} = \frac{1}{[1 / (RBTL_o)_{NC}] + [1 / (RBTL_d)_{NC}] + [1 / (RBTL_i)_{NC}]}$$

RBTL = MINIMUM of $RBTL_C$ and $RBTL_{NC}$

RBTL for volatiles with melting point less than 30°C should not exceed the soil saturation limit (C_{sat}):

$$C_{sat} = \frac{S}{\rho_b} \times [(Koc \times Foc \times \rho_b) + \theta_{ws} + (H_o \times \theta_{as})]$$

Variable Definitions:

θ_{as}	Air-filled porosity of the soil (unitless) (Table 14).
θ_T	Total soil porosity (unitless) (Table 14).
θ_{ws}	Water-filled porosity of the soil (unitless) (Table 14).
ρ_b	Dry soil bulk density (g/cm ³) (Table 14).
ABSd	Dermal absorption efficiency (unitless).
AT_C	Averaging time for cancer effects (days) (Table 8).
AT_{NC}	Averaging time for non-cancer effects (days) (Table 8).
BW	Body weight (kg) (Table 8).
CF	Conversion factor 0.042 day/hour.
C_{sat}	Constituent saturation limit in soil (mg/kg) (Table 14).
CSF	Cancer slope factor for oral (CSFo) or dermal (adjusted to an absorbed dose, CSFa) exposure (kg-day/mg [inverse mg/kg/day]).
D_A	Apparent diffusivity in soil (cm ² /sec) (Table 14).
D_{air}	Constituent diffusivity in air (cm ² /sec) (Table 14).
D_{wat}	Constituent diffusivity in water (cm ² /sec) (Table 14).
ED	Exposure duration (years) (Table 8).
EF	Exposure frequency (days/year) (Table 8).
ET	Exposure time (hrs/day) (Table 8).
FI	Fraction ingested from area of concern (unitless) (Table 8).
Foc	Fraction organic carbon in the soil (unitless) (Table 14).
F(x)	Function of Ut/Um (unitless); $Fx = 0.18 \times (8x^3 + 12x) \times \exp[-(x^2)]$, where $x = 0.886 \times (Ut/Um)$ (Table 13).
HBG	Health-based concentration goal for soil (mg/kg).

Table 9
Risk Based Target Level Equations for Exposure to Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

Ho	Dimensionless Henry's law constant (unitless); calculated as $H_o = H / RT$ (Table 14).		
IRs	Ingestion rate of soil (mg/day) (Table 8).		
IUR	Inhalation unit risk (m ³ /mg) (Table 19).		
Koc	Organic carbon partition coefficient (cm ³ /g = mL/g = L/kg) (Table 14).		
PEF _{wind}	Particulate emission factor due to wind (m ³ /kg) (Table 13).		
Q/C _{vol}	Volatile emission flux per unit concentration [(g/m ² /sec)/(kg/m ³)] (Table 14).		
Q/C _{wind}	Particulate emission flux per unit concentration [(g/m ² /sec)/(kg/m ³)] (Table 13).		
RBF	Relative bioavailability factor; constituent specific; default of 100% (i.e., 1) unless otherwise indicated (unitless). RBF for arsenic in soil was set at 60% (i.e., 0.6) consistent with USEPA recommendations (USEPA 2023a).		
RBTL	Risk-Based Target Level (mg/kg).		
RfC	Reference concentration (mg/m ³) (Table 17).		
RfD	Reference dose for oral (RfDo) and dermal (adjusted to an absorbed dose, RfDa), exposure (mg/kg/day) (Table 16).		
RPF	Respirable particle fraction (0.036 g/m ² /hr) (Table 13).		
RT	Product of the universal gas constant ($R = 8.206 \times 10^{-5}$ atm-m ³ /mol/K) and the relevant Kelvin temperature ($T = 298.15$ K); $RT = 0.02447$ atm-m ³ /mol.		
S	Constituent solubility limit in water (mg/L).		
SAR	Soil-to-skin adherence rate (mg/cm ² /day) (Table 8).		
SSAs	Exposed skin surface area for soil contact (cm ²) (Table 8).		
T	Exposure interval (sec) (Table 14).		
TCR	Target cancer risk (unitless).		
THQ	Target hazard quotient for non-cancer effects (unitless).		
U _m	Mean annual wind speed (m/sec) (Table 13).		
U _t	Equivalent threshold value of windspeed at 7 meters (11.32 m/sec) (Table 13).		
V	Fraction of vegetative cover (unitless) (Table 13).		
VF-sl	Soil volatilization factor (m ³ /kg) (Table 14).		
x	Intermediate value in the calculation of PEF; $x = 0.886 \times (U_t/U_m)$ (Table 13).		
cm ²	Square centimeter.	m ²	Square meter.
g	Gram.	m ³	Cubic meter.
hr	Hour.	mg	Milligram.
kg	Kilogram.	μg	Microgram.
m	Meter.	sec	Second.

Table 10
Risk Based Target Level Equations for Construction Worker Exposure to Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

ROUTE-SPECIFIC CONCENTRATION GOALS:

Oral:

$$(RBTL_o)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times BW \times (AT_C \text{ or } AT_{NC}) \times (10^6 \text{ mg/kg})}{IRS \times RBF \times FI \times EF \times ED \times (CSF_o \text{ or } [1/RfD_o])}$$

Dermal:

$$(RBTL_d)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times BW \times (AT_C \text{ or } AT_{NC}) \times (10^6 \text{ mg/kg})}{SSAs \times SAR \times ABSd \times EF \times ED \times (CSF_a \text{ or } [1/RfD_a])}$$

Inhalation:
(Volatiles)

$$(RBTL_i)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times VF_{SC} \times (AT_C \text{ or } AT_{NC})}{VF_{sc} \times ET \times CF \times EF \times ED \times ([IUR \times 10^3 \text{ } \mu\text{g/mg}] \text{ or } [1/RfC])}$$

$$VF_{SC} = \frac{Q/C_{sa} \times (1/F_D) \times [3.14 \times D_A \times T]^{1/2}}{2 \times \rho_b \times D_A \times (10,000 \text{ cm}^2/\text{m}^2)}$$

$$D_A = \frac{[(\theta_{as}^{3.33} \times D_{air} \times H_o) + (\theta_{ws}^{3.33} \times D_{wat})] / \theta_T^2}{(\rho_b \times Koc \times Foc) + \theta_{ws} + (\theta_{as} \times H_o)}$$

Inhalation:
(non-volatiles)

$$(RBTL_i)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times PEF_{SC} \times (AT_C \text{ or } AT_{NC})}{ET \times CF \times EF \times ED \times ([IUR \times 10^3 \text{ } \mu\text{g/mg}] \text{ or } [1/RfC])}$$

$$PEF_{SC} = \frac{Q/C_{sr} \times (1/F_D) \times T \times A_R}{556 \times (W/3)^{0.4} \times [(365 - p)/365] \times \Sigma VKT}$$

RBTL BASED ON CANCER EFFECTS: (combining all exposure routes)

$$RBTL_C = \frac{1}{[1 / (RBTL_o)_C] + [1 / (RBTL_d)_C] + [1 / (RBTL_i)_C]}$$

RBTL BASED ON NON-CANCER EFFECTS: (combining all exposure routes)

$$RBTL_{NC} = \frac{1}{[1 / (RBTL_o)_{NC}] + [1 / (RBTL_d)_{NC}] + [1 / (RBTL_i)_{NC}]}$$

RBTL = MINIMUM of $RBTL_C$ and $RBTL_{NC}$

RBTL for VOCs with melting point less than 30°C should not exceed the soil saturation limit (C_{sat}):

$$C_{sat} = \frac{S}{\rho_b} \times [(Koc \times Foc \times \rho_b) + \theta_{ws} + (H_o \times \theta_{as})]$$

Variable Definitions:

θ_{as}	Air-filled porosity of the soil (unitless) (Table 14).
θ_T	Total soil porosity (unitless) (Table 14).
θ_{ws}	Water-filled porosity of the soil (unitless) (Table 14).
ρ_b	Dry soil bulk density (g/cm ³) (Table 14).
ABSd	Dermal absorption efficiency (unitless).
AT_C	Averaging time for cancer effects (days) (Table 8).
AT_{NC}	Averaging time for non-cancer effects (days) (Table 8).
A_R	Surface area of contaminated road (m ²) (Table 13).
BW	Body weight (kg) (Table 8).
C_{sat}	Constituent saturation limit in soil (mg/kg) (Table 14).
CSF	Cancer slope factor for oral (CSFo) or dermal (adjusted to an absorbed dose, CSFa) exposure (kg-day/mg [inverse mg/kg/day])
D_A	Apparent diffusivity in soil (cm ² /sec) (Table 14).
D_{air}	Constituent diffusivity in air (cm ² /sec) (Table 14).
D_{wat}	Constituent diffusivity in water (cm ² /sec) (Table 14).
ED	Exposure duration (years) (Table 8).
EF	Exposure frequency (days/year) (Table 8).
F_D	Dispersion correction factor (unitless).
FI	Fraction ingested from area of concern (unitless) (Table 8).
Foc	Fraction organic carbon in the soil (unitless) (Table 14).
H_o	Dimensionless Henry's law constant (unitless); calculated as $H_o = H / RT$ (Table 14).

Table 10
Risk Based Target Level Equations for Construction Worker Exposure to Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

IRs	Ingestion rate of soil (mg/day) (Table 8).		
IUR	Inhalation unit risk (m ³ /μg) (Table 19).		
Koc	Organic carbon partition coefficient (cm ³ /g = mL/g = L/kg) (Table 14).		
p	Number of days with 0.01 inches of precipitation (days/year) (Table 13).		
PEF _{cons}	Particulate emission factor during construction road activities (m ³ /kg) (Table 13).		
Q/C _{sr}	Particulate emission flux per unit concentration [(g/m ² /sec)/(kg/m ³)] (Table 13).		
Q/C _{sa}	Volatile emission flux per unit concentration [(g/m ² /sec)/(kg/m ³)] (Table 13).		
RBF	Relative bioavailability factor; constituent specific; default of 100% (i.e., 1) unless otherwise indicated (unitless). RBF for arsenic in soil was set at 60% (i.e., 0.6) consistent with USEPA recommendations (USEPA 2023a).		
RBTL	Risk-Based Target Level (mg/kg).		
RfC	Reference concentration (mg/m ³) (Table 17).		
RfD	Reference dose for oral (RfDo) and dermal (adjusted to an absorbed dose, RfDa), exposure (mg/kg/day) (Table 16).		
RT	Product of the universal gas constant (R = 8.206 × 10 ⁻⁵ atm-m ³ /mol/K) and the relevant Kelvin temperature (T = 298.15 K); RT = 0.02447 atm-m ³ /mol.		
S	Constituent solubility limit in water (mg/L).		
SAR	Soil-to-skin adherence rate (mg/cm ² /day) (Table 8).		
SSAs	Exposed skin surface area for soil contact (cm ²) (Table 8).		
T	Exposure interval (sec).		
TCR	Target cancer risk (unitless).		
THQ	Target hazard quotient for non-cancer effects (unitless).		
VF-sl _{cons}	Soil volatilization factor (m ³ /kg) during construction activities (Table 14).		
ΣVKT	Sum of fleet vehicle kilometers traveled during construction (number of vehicles [V] x length of road segment [LR] x number of construction days per year [CD]) (km) (Table 13).		
W	Mean vehicle weight (tons) (Table 13).		

cm ²	Square centimeter.	m ²	Square meter.
g	Gram.	m ³	Cubic meter.
hr	Hour.	mg	Milligram.
kg	Kilogram.	μg	Microgram.
m	Meter.	sec	Second.

Table 11
Risk Based Target Level Equations for Groundwater Based on Construction Worker Exposure
AkzoNobel Coatings Inc.
Birmingham, Alabama

ROUTE-SPECIFIC CONCENTRATION GOALS:

$$\text{Oral: } (RBTL_o)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times BW \times (AT_C \text{ or } AT_{NC})}{IR_{gw} \times EF \times ED \times [CSF_o \text{ or } (1/RfD_o)]}$$

$$\text{Dermal: } (RBTL_d)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times BW \times (AT_C \text{ or } AT_{NC})}{SSA_{gw} \times DA \times EF \times ED \times [CSF_a \text{ or } (1/RfD_a)]}$$

$$\text{Inorganics: } DA [0] = \frac{K_p \times ET_{gw}}{1000 \text{ cm}^3/\text{L}}$$

$$\text{Organics: } DA [1] = \frac{2 FA \times K_p}{1000 \text{ cm}^3/\text{L}} \times \sqrt{(6 \tau \times ET_{gw}) / \pi} \quad \text{if } ET_{gw} \leq t^*$$

$$\text{or } DA [2] = \frac{FA \times K_p}{1000 \text{ cm}^3/\text{L}} \times \left(\frac{ET_{gw}}{1+B} + \frac{2 \tau (1+3B+3B^2)}{(1+B)^2} \right) \quad \text{if } ET_{gw} > t^*$$

$$\text{Inhalation: } (RBTL_i)_{C \text{ or } NC} = \frac{(TCR \text{ or } THQ) \times (AT_C \text{ or } AT_{NC})}{VF_{sw} \times ET_{gw} \times CF \times EF \times ED \times [CSF_i \times 10^3 \mu\text{g}/\text{mg} \text{ or } (1/RfD_i)]}$$

$$\text{where: } VF_{sw} = \frac{(1000 \text{ L}/\text{m}^3)}{(1/k_{il}) + [1/(H_o \times k_{ig})]} \times \frac{SA}{Hb \times Wb \times Um} \quad (\text{USEPA 1988})$$

$$\text{where: } VF_{trench} = \frac{k_i \times A \times F \times 10^{-3} \times 10^4 \times 3600}{ACH \times V} \quad (\text{VDEQ 2022})$$

$$k_i = \frac{1}{k_{il}} + \frac{1}{k_{ig}}$$

$$\text{where: } VF_{trench} = \frac{H \times D_{air} \times \theta_{as}^{3.33} \times A \times F \times 10^{-3} \times 10^4 \times 3600}{RT \times L_d \times ACH \times V \times \theta_r^2} \quad (\text{VDEQ 2022})$$

groundwater does not intersect trench bottom

$$L_d = L_{gw} - D_{trench}$$

RBTL BASED ON CANCER EFFECTS: (combining all exposure routes)

$$RBTL_C = \frac{1}{[1 / (RBTL_o)_C] + [1 / (RBTL_d)_C] + [1 / (RBTL_i)_C]}$$

HBG BASED ON NON-CANCER EFFECTS: (combining all exposure routes)

$$RBTL_{NC} = \frac{1}{[1 / (RBTL_o)_{NC}] + [1 / (RBTL_d)_{NC}] + [1 / (RBTL_i)_{NC}]}$$

RBTL = MINIMUM of $RBTL_C$ and $RBTL_{NC}$

Variable Definitions:

τ	Lag time for dermal absorption through the skin (hour) (Table 15).
A	Area of trench (length x width) (m^2) (Table 14).
ACH	Air changes per hour (h ⁻¹) (Table 14).
AT_C	Averaging time for cancer effects (days) (Table 8).
AT_{NC}	Averaging time for non-cancer effects (days) (Table 8).
B	Dimensionless ratio of the permeability coefficient of a compound through the stratum corneum relative to its permeability coefficient across the viable epidermis (unitless) (Table 15).
BW	Body weight (kg) (Table 8).
CF	Conversion factor 0.042 day/hour.
CSF	Cancer slope factor for oral (CSF _o) or dermal (adjusted to an absorbed dose, CSF _a) exposure (kg-day/mg [inverse mg/kg/day])
DA	Dermal absorption factor ($\text{L}/\text{cm}^2/\text{day}$), calculated using Equation [0], [1], or [2], as appropriate (Table 15).

Table 11
Risk Based Target Level Equations for Groundwater Based on Construction Worker Exposure
AkzoNobel Coatings Inc.
Birmingham, Alabama

ED	Exposure duration (years) (Table 8).
EF	Exposure frequency (days/year) (Table 8).
ET _{gw}	Exposure time for groundwater contact (hours/day) (Table 8).
F	Fraction of trench floor through which contaminant can enter (unitless) (Table 14).
FA	Fraction of absorbed water (unitless) (Table 15).
H	Henry's law constant (atm-m ³ /mol) (Table 14).
H _b	Height of mixing zone (2 m) (Table 14).
H _o	Dimensionless Henry's law constant (unitless); calculated as $H_o = H / RT$ (Table 14).
IR _{gw}	Incidental ingestion rate of groundwater (L/day) (Table 8).
IUR	Inhalation unit risk (m ³ /μg) (Table 19).
K _i	Overall mass transfer coefficient of contaminant (cm/sec) (Table 14).
K _{IG}	Gas-phase mass transfer coefficient (cm/sec) » $(0.833 \text{ cm/sec}) \times [(18 \text{ g/mol})/\text{MW}]^{0.335} \times (T/298.15)^{1.005}$ (Table 14).
K _{IL}	Liquid-phase mass transfer coefficient (cm/sec) » $(0.002 \text{ cm/sec}) \times (T/298.15) \times [(32 \text{ g/mol})/\text{MW}]^{1/2}$ (Table 14).
K _p	Permeability coefficient (cm/hour) (Table 15).
MW	Molecular weight (Table 14).
RBTL	Risk-Based Target Level.
RfC	Reference concentration (mg/m ³) (Table 17).
RfD	Reference dose for oral (RfDo) and dermal (adjusted to an absorbed dose, RfDa), exposure (mg/kg/day) (Table 16).
RT	Product of the universal gas constant ($R = 8.206 \times 10^{-5} \text{ atm-m}^3/\text{mol/K}$) and the relevant Kelvin temperature ($T = 298 \text{ K}$) (Table 14).
SA	Source area (1 m ²) (Table 14).
SSAgw	Exposed skin surface area for groundwater contact (cm ²) (Table 8).
t*	Time required to reach steady state (hr) (Table 15).
TCR	Target cancer risk (unitless).
THQ	Target hazard quotient for non-cancer effects (unitless).
U _m	Mean wind speed (m/sec) (Table 14).
V	Volume of trench (m ³) (Table 14).
VF-w	Volatilization factor from exposed water (L/m ³) (USEPA 1988) (Table 14).
VF-gw _{trench}	Volatilization factor in a trench (L/m ³) (VDEQ 2018) (Table 14).
W _b	Width of mixing zone (1 m) (Table 14).

atm-m ³ /mol	Atmosphere per cubic meter per mole.	L	Liter.
cm	Centimeter.	m	Meter.
cm ²	Square centimeter.	m ²	Square meter.
cm ³	Cubic centimeter.	m ³	Cubic meter.
g	Gram.	mg	Milligram.
hr	Hour.	μg	Microgram.
K	Kelvin.	mol	Mole.
kg	Kilogram.	sec	Seconds.

Table 12
Soil Volatilization Factors
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Constituent Specific Physical Parameters [a]										Enthalpy of vaporization at soil temp. [b] (ΔH _v) (cal/mol)	Henry's Law Constant at soil temp. [b] (H _o) (unitless)	Saturation Limit in Soil [c] (C _{sat}) (mg/kg)	Apparent Diffusivity (D _a) (cm²/sec)	Soil Volatilization Factor [b]	
	Molecular Weight (MW) (g/mol)	Melting Point (T _m) (°C)	Henry's Law Constant at 25°C (H) (atm·m³/mol)	Diffusivity in Air (D _{air}) (cm²/sec)	Diffusivity in Water (D _{wat}) (cm²/sec)	Partition Coefficient (K _{oc}) (mL/g)	Solubility in Water (S) (mg/L)	Enthalpy of vaporization at boiling point, (ΔH _v) (cal/mol)	Normal Boiling Point (T _b) (K)	Critical Temperature (T _c) (K)					Soil Volatilization Factor [b] Passive (VF-sI) (m³/kg)	Soil Volatilization Factor [b] Soil Invasive (VF-sI _{cons}) (m³/kg)
Volitale Organic Compounds																
1,1,2-Trichloroethane	1.3E+02	-3.7E+01	8.2E-04	6.7E-02	1.0E-05	6.1E+01	4.6E+03	8.3E+03	3.9E+02	6.0E+02	9.5E+03	2.4E-02	1.3E+03	1.7E-04	9.1E+03	1.0E+03
1,1-Dichloroethane	9.9E+01	-9.7E+01	5.6E-03	8.4E-02	1.1E-05	3.2E+01	5.0E+03	6.9E+03	3.3E+02	5.2E+02	7.4E+03	1.8E-01	1.2E+03	1.8E-03	2.8E+03	3.1E+02
1,1-Dichloroethene	9.7E+01	-1.2E+02	2.6E-02	8.6E-02	1.1E-05	3.2E+01	2.4E+03	6.3E+03	3.0E+02	4.8E+02	6.4E+03	8.5E-01	8.7E+02	6.2E-03	1.5E+03	1.7E+02
1,2,3-Trimethylbenzene	1.2E+02	-2.5E+01	4.4E-03	6.1E-02	8.0E-06	6.3E+02	7.5E+01	1.2E+04	4.5E+02	6.6E+02	1.4E+04	1.0E-01	1.1E+02	1.4E-04	1.0E+04	1.1E+03
1,2,4-Trimethylbenzene	1.2E+02	-4.4E+01	6.2E-03	6.1E-02	7.9E-06	6.1E+02	5.7E+01	9.4E+03	4.4E+02	6.5E+02	1.2E+04	1.6E-01	8.0E+01	2.1E-04	8.3E+03	9.0E+02
1,3,5-Trimethylbenzene	1.2E+02	-4.5E+01	8.8E-03	6.0E-02	7.8E-06	6.0E+02	4.8E+01	9.3E+03	4.4E+02	6.4E+02	1.2E+04	2.3E-01	6.7E+01	3.0E-04	6.9E+03	7.5E+02
2-Butanone (MEK)	7.2E+01	-8.7E+01	5.7E-05	9.1E-02	1.0E-05	4.5E+00	2.2E+05	7.5E+03	3.5E+02	5.4E+02	8.3E+03	1.7E-03	3.6E+04	3.1E-05	2.2E+04	2.4E+03
4-Methyl-2-Pentanone	1.0E+02	-8.4E+01	1.4E-04	7.0E-02	8.3E-06	1.3E+01	1.9E+04	8.2E+03	3.9E+02	5.8E+02	9.7E+03	4.0E-03	3.4E+03	4.8E-05	1.7E+04	1.9E+03
Acetone	5.8E+01	-9.5E+01	3.5E-05	1.1E-01	1.1E-05	2.4E+00	1.0E+06	7.0E+03	3.3E+02	5.1E+02	7.5E+03	1.1E-03	1.6E+05	2.4E-05	2.5E+04	2.7E+03
Benzene	7.8E+01	5.5E+00	5.6E-03	9.0E-02	1.0E-05	1.5E+02	1.8E+03	7.3E+03	3.5E+02	5.6E+02	8.0E+03	1.7E-01	8.4E+02	9.7E-04	3.9E+03	4.2E+02
Chloroform	1.2E+02	-6.4E+01	3.7E-03	7.7E-02	1.1E-05	3.2E+01	8.0E+03	7.0E+03	3.3E+02	5.4E+02	7.5E+03	1.1E-01	1.9E+03	1.1E-03	3.6E+03	3.9E+02
cis-1,2-Dichloroethene	9.7E+01	-8.0E+01	4.1E-03	8.8E-02	1.1E-05	4.0E+01	6.4E+03	7.2E+03	3.3E+02	5.4E+02	7.7E+03	1.3E-01	1.6E+03	1.3E-03	3.3E+03	3.6E+02
Ethylbenzene	1.1E+02	-9.5E+01	7.9E-03	6.8E-02	8.5E-06	4.5E+02	1.7E+02	8.5E+03	4.1E+02	6.2E+02	1.0E+04	2.2E-01	1.8E+02	4.3E-04	5.9E+03	6.4E+02
Isopropylbenzene	1.2E+02	-9.6E+01	1.2E-02	6.0E-02	7.9E-06	7.0E+02	6.1E+01	1.0E+04	4.3E+02	6.3E+02	1.2E+04	3.0E-01	9.8E+01	3.4E-04	6.6E+03	7.2E+02
m,p-Xylenes	1.1E+02	-4.8E+01	7.2E-03	6.9E-02	8.5E-06	3.8E+02	1.6E+02	8.5E+03	4.1E+02	6.2E+02	1.0E+04	2.0E-01	1.5E+02	4.5E-04	5.7E+03	6.2E+02
Naphthalene	1.3E+02	8.0E+01	4.4E-04	6.0E-02	8.4E-06	1.5E+03	3.1E+01	1.0E+04	4.9E+02	7.5E+02	1.3E+04	1.1E-02	NA	6.4E-06	4.8E+04	5.2E+03
n-Propylbenzene	1.2E+02	-1.0E+02	1.1E-02	6.0E-02	7.8E-06	8.1E+02	5.2E+01	9.1E+03	4.3E+02	6.4E+02	1.1E+04	2.8E-01	9.5E+01	2.8E-04	7.2E+03	7.8E+02
o-Xylene	1.1E+02	-2.5E+01	5.2E-03	6.9E-02	8.6E-06	3.8E+02	1.8E+02	8.7E+03	4.2E+02	6.3E+02	1.0E+04	1.5E-01	1.7E+02	3.2E-04	6.7E+03	7.3E+02
Tetrachloroethene	1.7E+02	-2.2E+01	1.8E-02	5.0E-02	9.5E-06	9.5E+01	2.1E+02	8.3E+03	3.9E+02	6.2E+02	9.5E+03	5.1E-01	8.8E+01	1.8E-03	2.8E+03	3.1E+02
Toluene	9.2E+01	-9.5E+01	6.6E-03	7.8E-02	9.2E-06	2.3E+02	5.3E+02	7.9E+03	3.8E+02	5.9E+02	9.1E+03	2.0E-01	3.4E+02	7.0E-04	4.6E+03	5.0E+02
Total Xylenes	1.1E+02	-2.5E+01	6.6E-03	6.9E-02	8.5E-06	3.8E+02	1.1E+02	8.5E+03	4.1E+02	6.2E+02	1.0E+04	1.9E-01	1.0E+02	4.1E-04	6.0E+03	6.5E+02
Trichloroethene	1.3E+02	-8.5E+01	9.9E-03	6.9E-02	1.0E-05	6.1E+01	1.3E+03	7.5E+03	3.6E+02	5.7E+02	8.3E+03	3.0E-01	4.1E+02	1.9E-03	2.8E+03	3.0E+02
Vinyl chloride	6.2E+01	-1.5E+02	2.8E-02	1.1E-01	1.2E-05	2.2E+01	8.8E+03	5.0E+03	2.6E+02	4.3E+02	4.6E+03	9.7E-01	3.2E+03	8.7E-03	1.3E+03	1.4E+02
Semi-Volatile Organic Compounds																
2,4-Dimethylphenol	1.2E+02	2.5E+01	9.5E-07	6.2E-02	8.3E-06	4.9E+02	7.9E+03	NV	NV	NV	NV	NV	NV	NV	NV	NV
Benz(a)anthracene	2.3E+02	8.4E+01	1.2E-05	2.6E-02	6.7E-06	1.8E+05	9.4E-03	1.6E+04	7.1E+02	9.8E+02	2.4E+04	2.0E-04	NA	8.2E-10	4.2E+06	4.6E+05
Benzo(a)pyrene	2.5E+02	1.8E+02	4.6E-07	2.5E-02	6.6E-06	5.9E+05	1.6E-03	NV	NV	NV	NV	NV	NV	NV	NV	NV
Dibenz(a,h)anthracene	2.8E+02	2.7E+02	1.4E-07	2.4E-02	6.0E-06	1.9E+06	2.5E-03	NV	NV	NV	NV	NV	NV	NV	NV	NV
Isophorone	1.4E+02	-8.1E+00	6.6E-06	5.3E-02	7.5E-06	6.5E+01	1.2E+04	NV	NV	NV	NV	NV	NV	NV	NV	NV
Metals																
Arsenic	7.5E+01	2.7E+02	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Lead	2.1E+02	3.3E+02	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Mercury	2.7E+02	2.8E+02	NV	NV	NV	NV	6.9E+04	NV	NV	NV	NV	NV	NV	NV	NV	NV

Model Input Parameters:

Soil =	C	clay	Soil type (site-specific).
Ts =	18.3	°C	Average soil temperature (USEPA 2017a) (site-specific).
Ts =	291	K	Temperature in Kelvin.
Foc =	0.002	unitless	Fraction organic carbon (USEPA 2002b default).
ρ _b =	1.43	g/cm³	Soil dry bulk density for silty clay (USEPA 2017a).
θ _T =	0.459	unitless	Total soil porosity for silty clay (USEPA 2017a).
θ _{as} =	0.244	unitless	Air-filled soil porosity [= θ _T - θ _{ws}].
θ _{ws} =	0.215	unitless	Water-filled soil porosity for silty clay (USEPA 2017a).
Q/C _{vol} =	68.18	(g/m²/sec)/(kg/m³)	Volatilization flux per unit concentration under passive conditions (USEPA 2002b default).
Q/C _{sa} =	14.31	(g/m²/sec)/(kg/m³)	Volatilization flux per unit concentration under soil invasive conditions (USEPA 2002b default).
Tres =	8.2E+08	second	Exposure interval for a residential scenario (based on 26 years).
Tcons =	7.8E+06	second	Exposure interval under soil invasive conditions (site-specific).
CD =	90	days	Construction duration in days (site-specific).
t _c =	2160	hour	Construction time in hours (site-specific).
F _D =	0.188	unitless	Dispersion Correction Factor (site-specific).

°C	Degress Celsius.	g/mol	Gram per mole.	mg/kg	Milligram per kilogram.
atm·m³/mol	Atmosphere per cubic meter per mole.	g/m²/sec	Gram per meter squared per second.	mg/L	Milligram per liter.
cal/mol	Calorie per mol.	K	Kelvin.	mL/g	Milliliter per gram.
cm²/sec	Centimer squared per second.	kg/m³	Kilogram per cubic meter.		
g/cm²	Gram per cubic centimeter.	m³/kg	Cubic meter per kilogram.		

[a] Constituent-specific parameters were obtained from the Chemical Specific Parameters Table from the Regional Screening Level Table (USEPA 2023a).
[b] Enthalpy of vaporization and Henry's Law Constant were adjusted for soil temperature based on USEPA recommended methods (USEPA 2001).
[c] Csat and VF calculated using equations from USEPA 2002b. See Table 9 and Table 10.
Csat was calculated for constituents that might potentially be liquid at soil temperature of 30°C (i.e. for constituents whose melting point is less than 30°C).
VF was only calculated for constituents that have a volatilization potential (i.e., Henry's Law Constant greater than 1 x 10⁻⁵ atm·m³/mol or a vapor pressure greater than 1 mm Hg).

Table 13
Soil Particulate Emission Factors
AkzoNobel Coatings Inc.
Birmingham, Alabama

Particulate Emission Factor:			
PEF _{cons}	=	1.07E+07	m ³ /kg
Particulate emission factor (m ³ /kg) during construction road activities; site-specific using USEPA (2002) equation.			
PEF _{wind}	=	8.31E+12	m ³ /kg
Particulate emission factor (m ³ /kg) due to wind under passive conditions; site-specific using USEPA (2002) equation.			

Particulate Emission Factor for Wind-Blown Fugitive Dust for Commercial/Industrial and Residential Scenarios

$$PEF_{wind} = \frac{Q}{C_{wind}} \times \left[\frac{3600}{0.036 \times (1 - V) \times \left(\frac{U_m}{U_t} \right)^3 \times F(x)} \right]$$

F(x)	=	0.0002	unitless	Function of x; F(x) = 0.18 × (8x ³ + 12x) × exp(-x ²) (USEPA 2002b default).
Q/Cwind	=	93.77	(g/m ² /sec)/(kg/m ³)	Wind-related particulate emission flux per unit concentration (USEPA 2002 default).
RPF	=	0.036	g/m ² /hour	Respirable particle fraction (USEPA 2002b default).
U _m	=	2.8	m/sec	Mean annual wind speed for Birmingham, AL (NOAA, 2022)
U _t	=	11.32	m/sec	Equivalent threshold value of windspeed at 7 meters (USEPA 2002b default).
V	=	0.5	unitless	Fraction vegetative cover (USEPA 2002b default).
x	=	3.621	unitless	Function of U _t /U _m ; x = 0.886 × (U _t /U _m) (USEPA 2002b default).

g	Gram.	m ³	Cubic meter.
kg	Kilogram.	PEF _{cons}	Particulate emission factor during construction road activities (m ³ /kg).
km	Kilometer.	PEF _{wind}	Particulate emission factor due to wind (m ³ /kg).
NOAA	National Oceanic and Atmospheric Administration.	sec	Second.
m ²	Square meter.	USEPA	United States Environmental Protection Agency.

Table 13
Soil Particulate Emission Factors
AkzoNobel Coatings Inc.
Birmingham, Alabama

Particulate Emission Factor for Construction Soil Invasive Activities

$$PEF_{sc} = \frac{Q}{C_{sr}} \times \frac{1}{F_D} \times \left[\frac{T \times A_R}{556 \times \left(\frac{W}{3}\right)^{0.4} \times \frac{365-p}{365} \times \Sigma VKT} \right]$$

A_c	=	0.5	acres	Areal extent of site soil contamination (USEPA 2002b default).
A_R	=	274	m ²	Surface area of contaminated road ($A_R = L_R \times W_R$) (USEPA 2002b default).
CD	=	90	days/year	Construction duration in days (site-specific).
F_D	=	0.188	unitless	Dispersion correction factor [$FD = 0.1852 + (5.3537/t_c) + (-9.6318/t_c^2)$] (USEPA 2002b default).
L_R	=	45.0	meters	Length of road segment ($L_R = A_c \times 4047$) ^{0.5} (USEPA 2002b default).
p	=	117	days/year	Number of days with 0.01 inches of precipitation for Birmingham, Alabama (NOAA, 2023).
Q/C_{sr}	=	23.02	(g/m ² -sec per kg/m ³)	Inverse of 1-hr avg. air concentration at center of the square emission source (USEPA 2002b default). $Q/C_{sr} = A \times \exp [(\ln A_c - B)^2/C]$. Constants: A = 12.9351 (unitless); B = 5.7383 (unitless); C = 71.7711 (unitless) (USEPA 2002b default).
t_c	=	2160	hour	Construction time in hours (site-specific).
T	=	7.78E+06	seconds	Construction time in seconds (site-specific).
V	=	9	unitless	Number of vehicles (site-specific).
ΣVKT	=	36	km	Sum of fleet vehicle kilometers traveled during construction ($V \times L_R \times CD$) (site-specific).
W	=	12.5	tons	Mean vehicle weight ($W = [(5 \text{ cars} \times 2 \text{ tons/car}) + 7 \text{ trucks} \times 20 \text{ tons/truck}]/12 \text{ vehicles}$) (site-specific).
W_R	=	6.1	meters	Width of the road segment (USEPA 2002 default).

g	Gram.	m ²	Square meter.
hr	Hour.	m ³	Cubic meter.
kg	Kilogram.	PEF _{cons}	Particulate emission factor during construction road activities (m ³ /kg).
km	Kilometer.	sec	Second.
NOAA	National Oceanic and Atmospheric Administration.	USEPA	United States Environmental Protection Agency.

Table 14
Water Volatilization Factors
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Constituent-Specific Physical Parameters [a]										Enthalpy of Vaporization at Water Temp. [b] (ΔH _v) (cal/mol)	Henry's Law Constant at Water Temp. [b] (H) (atm·m³/mol)	Henry's Law Constant at Water Temp. [b] (H _o) (unitless)	Gas-Phase Mass Transfer Coefficient (K _{ig}) (cm/sec)	Liquid-Phase Mass Transfer Coefficient (K _{il}) (cm/sec)	Overall Mass Transfer Coefficient (K _i) (cm/sec)	Volatilization Factor [c] Exposed Water in a Trench (VF·gw _{trench}) (L/m³)
	Molecular Weight (MW) (g/mol)	Melting Point (T _m) (°C)	Henry's Law Constant at Ref. Temp. (H) (atm·m³/mol)	Diffusivity in Air (D) (cm²/sec)	Diffusivity in Water (D _{wat}) (cm²/sec)	Partition Coefficient (K _{oc}) (mL/g)	Solubility in Water (S) (mg/L)	Enthalpy of Vaporization at Boiling Point (ΔH _v) (cal/mol)	Normal Boiling Point (T _b) (K)	Critical Temperature (T _c) (K)							
Volitale Organic Compounds																	
1,1,2-Trichloroethane	1.33E+02	-3.66E+01	8.24E-04	6.69E-02	1.00E-05	6.07E+01	4.59E+03	8.32E+03	3.87E+02	6.02E+02	9.50E+03	5.70E-04	2.38E-02	4.2E-01	9.57E-04	8.7E-04	1.29E+01
1,1-Dichloroethane	9.90E+01	-9.69E+01	5.62E-03	8.36E-02	1.06E-05	3.18E+01	5.04E+03	6.90E+03	3.31E+02	5.23E+02	7.36E+03	4.22E-03	1.77E-01	4.6E-01	1.11E-03	1.1E-03	1.62E+01
1,1-Dichloroethene	9.69E+01	-1.23E+02	2.61E-02	8.63E-02	1.10E-05	3.18E+01	2.42E+03	6.25E+03	3.05E+02	4.82E+02	6.41E+03	2.03E-02	8.51E-01	4.6E-01	1.12E-03	1.1E-03	1.65E+01
1,2,3-Trimethylbenzene	1.20E+02	-2.54E+01	4.36E-03	6.13E-02	8.02E-06	6.27E+02	7.52E+01	1.17E+04	4.49E+02	6.64E+02	1.45E+04	2.49E-03	1.04E-01	4.3E-01	1.01E-03	9.9E-04	1.46E+01
1,2,4-Trimethylbenzene	1.20E+02	-4.38E+01	6.16E-03	6.07E-02	7.92E-06	6.14E+02	5.70E+01	9.37E+03	4.42E+02	6.49E+02	1.16E+04	3.93E-03	1.64E-01	4.3E-01	1.01E-03	9.9E-04	1.47E+01
1,3,5-Trimethylbenzene	1.20E+02	-4.47E+01	8.77E-03	6.02E-02	7.84E-06	6.02E+02	4.82E+01	9.32E+03	4.38E+02	6.37E+02	1.16E+04	5.59E-03	2.34E-01	4.3E-01	1.01E-03	1.0E-03	1.47E+01
2-Butanone (MEK)	7.21E+01	-8.66E+01	5.69E-05	9.14E-02	1.02E-05	4.51E+00	2.23E+05	7.48E+03	3.53E+02	5.37E+02	8.32E+03	4.12E-05	1.72E-03	5.1E-01	1.30E-03	5.3E-04	7.76E+00
4-Methyl-2-Pentanone	1.00E+02	-8.40E+01	1.38E-04	6.98E-02	8.35E-06	1.26E+01	1.90E+04	8.24E+03	3.90E+02	5.75E+02	9.71E+03	9.46E-05	3.96E-03	4.6E-01	1.11E-03	6.9E-04	1.01E+01
Acetone	5.81E+01	-9.48E+01	3.50E-05	1.06E-01	1.15E-05	2.36E+00	1.00E+06	6.96E+03	3.29E+02	5.08E+02	7.46E+03	2.62E-05	1.10E-03	5.5E-01	1.45E-03	4.3E-04	6.29E+00
Benzene	7.81E+01	5.50E+00	5.55E-03	8.95E-02	1.03E-05	1.46E+02	1.79E+03	7.34E+03	3.53E+02	5.62E+02	8.03E+03	4.06E-03	1.70E-01	5.0E-01	1.25E-03	1.2E-03	1.82E+01
Chloroform	1.19E+02	-6.36E+01	3.67E-03	7.69E-02	1.09E-05	3.18E+01	7.95E+03	6.99E+03	3.34E+02	5.36E+02	7.47E+03	2.74E-03	1.15E-01	4.3E-01	1.01E-03	9.9E-04	1.46E+01
cis-1,2-Dichloroethene	9.69E+01	-8.00E+01	4.08E-03	8.84E-02	1.13E-05	3.96E+01	6.41E+03	7.22E+03	3.33E+02	5.36E+02	7.70E+03	3.02E-03	1.27E-01	4.6E-01	1.12E-03	1.1E-03	1.63E+01
Ethylbenzene	1.06E+02	-9.49E+01	7.88E-03	6.85E-02	8.46E-06	4.46E+02	1.69E+02	8.50E+03	4.09E+02	6.17E+02	1.01E+04	5.33E-03	2.23E-01	4.5E-01	1.07E-03	1.1E-03	1.57E+01
Isopropylbenzene	1.20E+02	-9.60E+01	1.15E-02	6.03E-02	7.86E-06	6.98E+02	6.13E+01	1.03E+04	4.26E+02	6.31E+02	1.25E+04	7.08E-03	2.96E-01	4.3E-01	1.01E-03	1.0E-03	1.48E+01
m,p-Xylenes	1.06E+02	-4.78E+01	7.18E-03	6.85E-02	8.46E-06	3.75E+02	1.61E+02	8.44E-06	4.12E+02	6.17E+02	1.01E-05	7.18E-03	3.00E-01	4.5E-01	1.07E-03	1.1E-03	1.57E+01
Napthalene	1.28E+02	8.02E+01	4.40E-04	6.05E-02	8.38E-06	1.54E+03	3.10E+01	1.03E+04	4.91E+02	7.48E+02	1.27E+04	2.68E-04	1.12E-02	4.2E-01	9.77E-04	8.1E-04	1.20E+01
n-Propylbenzene	1.20E+02	-9.95E+01	1.05E-02	6.02E-02	7.83E-06	8.13E+02	5.22E+01	9.12E+03	4.32E+02	6.38E+02	1.12E+04	6.81E-03	2.85E-01	4.3E-01	1.01E-03	1.0E-03	1.48E+01
o-Xylene	1.06E+02	-2.52E+01	5.18E-03	6.91E-02	8.56E-06	3.83E+02	1.78E+02	8.53E-06	4.18E+02	6.30E+02	1.02E-05	5.18E-03	2.17E-01	4.5E-01	1.07E-03	1.1E-03	1.57E+01
Tetrachloroethene	1.66E+02	-2.23E+01	1.77E-02	5.05E-02	9.46E-06	9.49E+01	2.06E+02	9.46E-06	3.94E+02	6.20E+02	1.08E-05	1.77E-02	7.40E-01	3.9E-01	8.59E-04	8.6E-04	1.26E+01
Toluene	9.21E+01	-9.49E+01	6.64E-03	7.78E-02	9.20E-06	2.34E+02	5.26E+02	7.93E+03	3.84E+02	5.92E+02	9.06E+03	4.67E-03	1.95E-01	4.7E-01	1.15E-03	1.1E-03	1.68E+01
Total Xylenes	1.06E+02	-2.52E+01	6.63E-03	6.85E-02	8.46E-06	3.83E+02	1.06E+02	8.52E+03	4.12E+02	6.20E+02	1.01E+04	4.48E-03	1.87E-01	4.5E-01	1.07E-03	1.1E-03	1.56E+01
Trichloroethene	1.31E+02	-8.47E+01	9.85E-03	6.87E-02	1.02E-05	6.07E+01	1.28E+03	1.02E-05	3.60E+02	5.71E+02	1.13E-05	9.84E-03	4.12E-01	4.2E-01	9.65E-04	9.6E-04	1.42E+01
Vinyl chloride	6.25E+01	-1.54E+02	2.78E-02	1.07E-01	1.20E-05	2.17E+01	8.80E+03	4.97E+03	2.60E+02	4.25E+02	4.63E+03	2.32E-02	9.71E-01	5.4E-01	1.40E-03	1.4E-03	2.06E+01
Semi-Volatile Organic Compounds																	
2,4-Dimethylphenol	1.22E+02	2.45E+01	9.51E-07	6.22E-02	8.31E-06	4.92E+02	7.87E+03	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Benz(a)anthracene	2.28E+02	8.40E+01	1.20E-05	2.61E-02	6.75E-06	1.77E+05	9.40E-03	1.60E+04	7.11E+02	9.79E+02	2.35E+04	4.81E-06	2.01E-04	3.5E-01	7.32E-04	6.4E-05	9.44E-01
Benzo(a)pyrene	2.52E+02	1.77E+02	4.57E-07	2.55E-02	6.58E-06	5.87E+05	1.62E-03	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Dibenz(a,h)anthracene	2.78E+02	2.70E+02	1.41E-07	2.36E-02	6.02E-06	1.91E+06	2.49E-03	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Isophorone	1.38E+02	-8.10E+00	6.64E-06	5.25E-02	7.53E-06	6.52E+01	1.20E+04	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Metals																	
Arsenic	7.49E+01	2.70E+02	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Lead	2.07E+02	3.28E+02	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV
Mercury	2.72E+02	2.77E+02	NV	NV	NV	NV	6.90E+04	NV	NV	NV	NV	NV	NV	NV	NV	NV	NV

Mass Transfer Coefficient Parameters

Default input parameters, as presented in the table beneath, were used.

Parameter	Unit	Value	
MWH ₂ O	g/mol	18.02	Molecular weight of water.
MWO ₂	g/mol	32.00	Molecular weight of oxygen.
kL,O ₂	cm/sec	0.002	Liquid-phase mass transfer coefficient of oxygen at 25°C.
kG,H ₂ O	cm/sec	0.833	Gas-phase mass transfer coefficient of water vapor at 25°C.
R	atm-m³/mole-K	0.000082	Ideal gas constant.
Tgw	°C	18.3	Temperature of groundwater (USEPA 2017a).
T	K	291.45	Average system absolute temperature.

Table 14
Water Volatilization Factors
AkzoNobel Coatings Inc.
Birmingham, Alabama

Trench Model Input Parameters:

Default input parameters, as presented in the table beneath, were used.

Parameter	Unit	Value	
A	m ²	2.23	Area of trench (length × width). Assumed to be 3 feet wide and 8 feet long (VDEQ 2022 default).
F	unitless	1	Fraction of trench floor through which contaminant can enter (VDEQ 2022 default).
V	m ³	2.72	Volume of trench (area × depth).
ACH	h ⁻¹	46	Air changes per hour (Thompson et al. 2017).
D _{Trench}	m	1.2192	Depth of trench which is equal to the depth of groundwater (4 feet).
θ _{as}	cm ³ /cm ³	0.244	Air-filled porosity in the vadose zone (default for clay) (site-specific).
θ _T	cm ³ /cm ³	0.459	Total porosity in the vadose zone (default for clay) (site-specific).

–	Not applicable.	g/mol	Gram per mole.	m ²	Square meter.
atm-m ³ /mol	Atmosphere per meter cubed per mole.	h ⁻¹	Inverse hour.	m ³	Cubic meter.
°C	Degrees Celsius.	°K	Degrees Kelvin.	NV	Not volatile.
cal/mol	Calories per mol.	L/m ³	Liter per cubic meter.		
cm/sec	Centimeter per second.				

[a] Constituent-specific parameters were obtained from the Chemical Specific Parameters Table from the Regional Screening Level Table (USEPA 2023a).

[b] Enthalpy of vaporization and Henry's Law Constant were adjusted for soil temperature based on USEPA recommended methods (USEPA 2001).

[c] Volatilization factors for water in a trench were calculated using Virginia Department of Environmental Quality trench model (VDEQ 2022).

Table 15
Dermal Absorption Parameters
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	ABSd [a]	Permeability Constant		Within EPD?	Non-Steady State Dermal Absorption Parameters [c]				DA_0.6708hr		DA_0.54hr		DA_0.71hr		DA_2hr	
		Kp (cm/hour) [b]	Value [Ref]		FA (unitless)	τ (hour)	t* (hour)	B (unitless)	[d]		[d]		[d]		[d]	
									(L/cm²/event)	(L/cm²/event)	(L/cm²/event)	(L/cm²/event)	(L/cm²/event)	(L/cm²/event)		
Volitale Organic Compounds																
1,1,2-Trichloroethane	0	5.04E-03	RSL	Yes	1	5.87E-01	1.41E+00	2.24E-02	8.74E-06	[1]	7.85E-06	[1]	9.00E-06	[1]	1.59E-05	[2]
1,1-Dichloroethane	0	6.75E-03	RSL	Yes	1	3.77E-01	9.04E-01	2.58E-02	9.38E-06	[1]	8.41E-06	[1]	9.65E-06	[1]	1.84E-05	[2]
1,1-Dichloroethene	0	1.17E-02	RSL	Yes	1	3.67E-01	8.81E-01	4.43E-02	1.60E-05	[1]	1.44E-05	[1]	1.65E-05	[1]	3.14E-05	[2]
1,2,3-Trimethylbenzene	0	8.97E-02	RSL	Yes	1	4.95E-01	1.19E+00	3.78E-01	1.43E-04	[1]	1.28E-04	[1]	1.47E-04	[1]	2.50E-04	[2]
1,2,4-Trimethylbenzene	0	8.57E-02	RSL	Yes	1	4.95E-01	1.19E+00	3.61E-01	1.37E-04	[1]	1.23E-04	[1]	1.40E-04	[1]	2.39E-04	[2]
1,3,5-Trimethylbenzene	0	6.21E-02	RSL	Yes	1	4.95E-01	1.19E+00	2.62E-01	9.89E-05	[1]	8.88E-05	[1]	1.02E-04	[1]	1.75E-04	[2]
2-Butanone (MEK)	0	9.62E-04	RSL	Yes	1	2.66E-01	6.40E-01	3.14E-03	1.16E-06	[2]	1.01E-06	[1]	1.20E-06	[2]	2.43E-06	[2]
4-Methyl-2-Pentanone	0	3.19E-03	RSL	Yes	1	3.83E-01	9.18E-01	1.23E-02	4.47E-06	[1]	4.01E-06	[1]	4.60E-06	[1]	8.77E-06	[2]
Acetone	0	5.12E-04	RSL	Yes	1	2.22E-01	5.34E-01	1.50E-03	5.71E-07	[2]	5.04E-07	[2]	5.91E-07	[2]	1.25E-06	[2]
Benzene	0	1.49E-02	RSL	Yes	1	2.88E-01	6.91E-01	5.07E-02	1.81E-05	[1]	1.62E-05	[1]	1.91E-05	[2]	3.74E-05	[2]
Chloroform	0	6.83E-03	RSL	Yes	1	4.90E-01	1.18E+00	2.87E-02	1.08E-05	[1]	9.71E-06	[1]	1.11E-05	[1]	2.02E-05	[2]
cis-1,2-Dichloroethene	0	1.10E-02	RSL	Yes	1	3.67E-01	8.81E-01	4.17E-02	1.51E-05	[1]	1.35E-05	[1]	1.55E-05	[1]	2.95E-05	[2]
Ethylbenzene	0	4.93E-02	RSL	Yes	1	4.13E-01	9.92E-01	1.95E-01	7.18E-05	[1]	6.44E-05	[1]	7.38E-05	[1]	1.31E-04	[2]
Isopropylbenzene	0	8.97E-02	RSL	Yes	1	4.95E-01	1.19E+00	3.78E-01	1.43E-04	[1]	1.28E-04	[1]	1.47E-04	[1]	2.50E-04	[2]
m,p-Xylenes	0	5.32E-02	RSL	Yes	1	4.13E-01	9.92E-01	2.11E-01	7.74E-05	[1]	6.95E-05	[1]	7.97E-05	[1]	1.41E-04	[2]
Naphthalene	0.13	4.66E-02	RSL	Yes	1	5.49E-01	1.32E+00	2.03E-01	7.82E-05	[1]	7.01E-05	[1]	8.04E-05	[1]	1.39E-04	[2]
n-Propylbenzene	0	9.39E-02	RSL	Yes	1	4.95E-01	1.19E+00	3.96E-01	1.50E-04	[1]	1.34E-04	[1]	1.54E-04	[1]	2.61E-04	[2]
o-Xylene	0	4.71E-02	RSL	Yes	1	4.13E-01	9.92E-01	1.87E-01	6.86E-05	[1]	6.15E-05	[1]	7.05E-05	[1]	1.25E-04	[2]
Tetrachloroethene	0	3.34E-02	RSL	Yes	1	8.92E-01	2.14E+00	1.65E-01	7.14E-05	[1]	6.41E-05	[1]	7.35E-05	[1]	1.23E-04	[1]
Toluene	0	3.11E-02	RSL	Yes	1	3.45E-01	8.28E-01	1.15E-01	4.14E-05	[1]	3.71E-05	[1]	4.25E-05	[1]	7.97E-05	[2]
Total Xylenes	0	5.00E-02	RSL	Yes	1	4.13E-01	9.92E-01	1.98E-01	7.28E-05	[1]	6.53E-05	[1]	7.49E-05	[1]	1.33E-04	[2]
Trichloroethene	0	1.16E-02	RSL	Yes	1	5.72E-01	1.37E+00	5.11E-02	1.99E-05	[1]	1.78E-05	[1]	2.04E-05	[1]	3.60E-05	[2]
Vinyl chloride	0	8.38E-03	RSL	Yes	1	2.35E-01	5.65E-01	2.55E-02	9.53E-06	[2]	8.26E-06	[1]	9.85E-06	[2]	2.04E-05	[2]
Semi-Volatile Organic Compounds																
2,4-Dimethylphenol	0.1	1.09E-02	RSL	Yes	1	5.08E-01	1.22E+00	4.63E-02	1.76E-05	[1]	1.58E-05	[1]	1.81E-05	[1]	3.24E-05	[2]
Benz(a)anthracene	0.13	5.52E-01	RSL	No	1	2.00E+00	8.48E+00	3.21E+00	—		—		—		—	
Benzo(a)pyrene	0.13	7.13E-01	RSL	No	1	2.72E+00	1.18E+01	4.36E+00	—		—		—		—	
Dibenz(a,h)anthracene	0.13	9.53E-01	RSL	No	0.6	3.81E+00	1.69E+01	6.12E+00	—		—		—		—	
Isophorone	0.1	3.54E-03	RSL	Yes	1	6.25E-01	1.50E+00	1.60E-02	6.33E-06	[1]	5.68E-06	[1]	6.52E-06	[1]	1.15E-05	[2]
Metals																
Arsenic	0.03	1.00E-03	RSL	Yes	1	2.76E-01	6.63E-01	3.33E-03	6.71E-07	[0]	5.40E-07	[0]	7.10E-07	[0]	2.00E-06	[0]
Lead	0	1.00E-04	RSL	Yes	1	1.52E+00	3.65E+00	5.54E-04	6.71E-08	[0]	5.40E-08	[0]	7.10E-08	[0]	2.00E-07	[0]
Mercury	0	1.00E-03	RSL	Yes	1	3.49E+00	8.36E+00	6.34E-03	6.71E-07	[0]	5.40E-07	[0]	7.10E-07	[0]	2.00E-06	[0]

– For constituents falling outside of the EPD, dermal absorption from water is not expected to occur.
cm/hour Centimeter per hour.
L/cm²/event Liter per centimeter squared per event.
RSL Regional Screening Level

[a] Dermal absorption efficiency (ABSd) for uptake of constituents from a soil matrix (unitless), from United States Environmental Protection Agency (USEPA 2023a).
[b] Permeability coefficient for dermal contact with constituents in water (centimeters per hour), from USEPA 2023a.
[c] Absorption parameters for use in the non-steady state model for dermal contact with constituents in water, from USEPA 2023a.
τ = Lag time for dermal absorption through the skin.
t* = Time required to reach steady state.
B = Ratio of the permeability coefficient through the stratus corneum relative to the permeability coefficient across the viable epidermis.
FA = Fraction of absorbed water.
[d] Dermal absorption factor (DA) calculated according to equations presented in USEPA 2004 (using Equation [1], or [2] as indicated in Table 11 and Table).

Table 16
Noncarcinogenic Toxicity Values for Oral and Dermal Exposure
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Oral RfD (mg/kg/day) [a]				Adjustment Factor	Dermal RfD		Subchronic		Chronic	
						(mg/kg/day) [b]		Target Site/ Critical Effect	Confidence Level/ Uncertainty Factor	Target Site/ Critical Effect	Confidence Level/ Uncertainty Factor
	Subchronic	[ref]	Chronic	[ref]		Subchronic	Chronic				
Volitale Organic Compounds											
1,1,2-Trichloroethane	4.0E-03	PPRTV	4.0E-03	I	1	4.0E-03	4.0E-03	Liver; Toxicity	Low \ 1000	Whole body	Medium \ 1000
1,1-Dichloroethane	2.0E+00	PPRTV	2.0E-01	P	1	2.0E+00	2.0E-01	Kidney	Low \ 300	Kidney	Low \ 3000
1,1-Dichloroethene	9.0E-03	HEAST	5.0E-02	I	1	9.0E-03	5.0E-02	Liver	NA \ 1000	Liver	Medium \ 100
1,2,3-Trimethylbenzene	4.0E-02	IRIS	1.0E-02	I	1	4.0E-02	1.0E-02	NA	NA	Nervous system	Low \ 300
1,2,4-Trimethylbenzene	4.0E-02	IRIS	1.0E-02	I	1	4.0E-02	1.0E-02	NA	NA	Nervous system	Low \ 300
1,3,5-Trimethylbenzene	4.0E-02	IRIS	1.0E-02	I	1	4.0E-02	1.0E-02	NA	NA	Nervous system	Low \ 300
2-Butanone (MEK)	2.0E+00	HEAST	6.0E-01	I	1	2.0E+00	6.0E-01	Fetus	NA \ 1000	Body weight	Low \ 1000
4-Methyl-2-Pentanone	8.0E-01	HEAST	NA		1	8.0E-01	NA	Whole body; Liver; Liver; Kidney; Kidney; Kidney	NA \ 300	Whole body; Liver; Liver; Kidney; Kidney; Kidney	NA \ 3000
Acetone	6.0E-01	ATSDR	9.0E-01	I	1	6.0E-01	9.0E-01	Hematological	NA \ 100	Neurological	Medium \ 1000
Benzene	1.0E-02	PPRTV	4.0E-03	I	1	1.0E-02	4.0E-03	Blood	Medium \ 100	Blood	Medium \ 300
Chloroform	1.0E-01	ATSDR	1.0E-02	I	1	1.0E-01	1.0E-02	Hepatic	NA \ 100	Liver	Medium \ 100
cis-1,2-Dichloroethene	2.0E-02	PPRTV	2.0E-03	I	1	2.0E-02	2.0E-03	Kidney	Low \ 300	kidney	low \ 3000
Ethylbenzene	5.0E-02	PPRTV	5.0E-02	P	1	5.0E-02	5.0E-02	Liver	Medium \ 1000	Hepatic, Urinary	Low \ 1000
Isopropylbenzene	4.0E-01	HEAST	1.0E-01	I	1	4.0E-01	1.0E-01	Kidney	NA \ 300	Kidney	Low \ 1000
m,p-Xylenes	2.0E-01	c	2.0E-01	G	1	2.0E-01	2.0E-01	NA	NA	Other	Medium \ 1000
Naphthalene	6.0E-01	ATSDR	2.0E-02	I	1	6.0E-01	2.0E-02	Neurological	NA \ 90	Body weight	Low \ 3000
n-Propylbenzene	1.0E-01	SCREEN	1.0E-01	X	1	1.0E-01	1.0E-01	NA	NA	NA	NA
o-Xylene	2.0E-01	c	2.0E-01	G	1	2.0E-01	2.0E-01	NA	NA	Other	Medium \ 1000
Tetrachloroethene	8.0E-03	ATSDR	6.0E-03	I	1	8.0E-03	6.0E-03	Neurological	NA \ 100	Nervous System	medium \ 1000
Toluene	8.0E-01	PPRTV	8.0E-02	I	1	8.0E-01	8.0E-02	Kidney	Medium \ 300	Kidney	Medium \ 3000
Total Xylenes	4.0E-01	PPRTV	2.0E-01	I	1	4.0E-01	2.0E-01	Whole body	Low-to-medium \ 1000	Other	Medium \ 1000
Trichloroethene	5.0E-04	ATSDR	5.0E-04	I	1	5.0E-04	5.0E-04	Developmental/Immunological	NA	Heart	High \ 10
Vinyl chloride	3.0E-03	c	3.0E-03	I	1	3.0E-03	3.0E-03	NA	NA	Liver	Medium \ 30
Semi-Volatile Organic Compounds											
2,4-Dimethylphenol	5.0E-02	PPRTV	2.0E-02	I	1	5.0E-02	2.0E-02	Whole body	Low \ 1000	Whole body	Low \ 3000
Benz(a)anthracene	NA	NA	NA		1	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	3.0E-04	c	3.0E-04	I	1	3.0E-04	3.0E-04	NA	NA	Developmental	Medium \ 300
Dibenz(a,h)anthracene	NA	NA	NA		1	NA	NA	NA	NA	NA	NA
Isophorone	3.0E+00	ATSDR	2.0E-01	I	1	3.0E+00	2.0E-01	Other	NA \ 100	Urinary	Low \ 1000
Metals											
Arsenic	3.0E-04	c	3.0E-04	I	1	3.0E-04	3.0E-04	Skin	NA \ 10	Skin and blood	Medium \ 3
Lead	NA	NA	NA		1	NA	NA	NA	NA	NA	NA
Mercury	3.0E-03	NA	3.0E-04	I	0.07	2.1E-04	2.1E-05	Renal	NA \ 100	Immune, Urinary	High \ 1000

References [ref]:

ATSDR	Agency for Toxic Substances Disease Registry (ATSDR 2023).
Cal EPA	CalEPA, Toxicity Criteria database (CalEPA 2023).
G	See section 5 of the user's guide for special considerations.
HEAST	United States Environmental Protection Agency (USEPA), Health Effects Summary Table (HEAST) (USEPA 2011b).
I	USEPA, Integrated Risk Information System (IRIS) (USEPA 2023c).
P	USEPA, Provisional Peer Reviewed Toxicity Values (PPRTV) (USEPA 2023d).
SCREEN	USEPA, Provisional Peer Reviewed Toxicity Values (PPRTV) (USEPA 2023d).
X	Provisional Peer Reviewed Toxicity Values Appendix (PPRTV) (USEPA 2023d).

[a] Toxicity values were obtained following USEPA recommended hierarchy (USEPA 2003).
[b] The oral-to-dermal adjustment factor (oral absorption efficiency) as used to calculate the dermal reference dose (RfD) values (USEPA 2004).
RfD (dermal) = RfD (oral) × Adjustment Factor (oral absorption efficiency).

c The chronic value is used.
mg/kg/day Milligram per kilogram per day.
NA Not available or applicable.
RfD Reference dose.

Table 17
Noncarcinogenic Toxicity Values for Inhalation Exposure
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Inhalation RfC (mg/m ³) [a]				Subchronic		Chronic	
	Subchronic	[ref]	Chronic	[ref]	Target Site/ Critical Effect	Confidence Level/ Uncertainty Factor	Target Site/ Critical Effect	Confidence Level/ Uncertainty Factor
Volitale Organic Compounds								
1,1,2-Trichloroethane	1.1E-02	ATSDR	2.0E-04	X	Liver; Toxicity	Low \ 1000	Whole body	Medium \ 1000
1,1-Dichloroethane	NA		NA		Kidney	Low \ 300	Kidney	Low \ 3000
1,1-Dichloroethene	4.0E-03	ATSDR	2.0E-01	I	Liver	NA \ 1000	Liver	Medium \ 100
1,2,3-Trimethylbenzene	2.0E-01	IRIS	6.0E-02	I	NA	NA	Nervous system	Low \ 300
1,2,4-Trimethylbenzene	2.0E-01	IRIS	6.0E-02	I	NA	NA	Nervous system	Low \ 300
1,3,5-Trimethylbenzene	2.0E-01	IRIS	6.0E-02	I	NA	NA	Nervous system	Low \ 300
2-Butanone (MEK)	1.0E+00	HEAST	5.0E+00	I	Fetus	NA \ 1000	Body weight	Low \ 1000
					Whole body; Liver; Liver;		Whole body; Liver; Liver;	
4-Methyl-2-Pentanone	8.0E-01	HEAST	3.0E+00	I	Kidney; Kidney; Kidney	NA \ 300	Kidney; Kidney; Kidney	NA \ 3000
Acetone	NA		NA		Hematological	NA \ 100	Neurological	Medium \ 1000
Benzene	8.0E-02	PPRTV	3.0E-02	I	Blood	Medium \ 100	Blood	Medium \ 300
Chloroform	2.4E-01	ATSDR	9.8E-02	A	Hepatic	NA \ 100	Liver	Medium \ 100
cis-1,2-Dichloroethene	4.0E-01	SCREEN	4.0E-02	X	Kidney	Low \ 300	kidney	low \ 3000
Ethylbenzene	9.0E+00	PPRTV	1.0E+00	I	Liver	Medium \ 1000	Hepatic, Urinary	Low \ 1000
Isopropylbenzene	9.0E-02	HEAST	4.0E-01	I	Kidney	NA \ 300	Kidney	Low \ 1000
m,p-Xylenes	1.0E-01	c	1.0E-01	G	NA	NA	Other	Medium \ 1000
Naphthalene	3.0E-03		3.0E-03	I	Neurological	NA \ 90	Body weight	Low \ 3000
n-Propylbenzene	1.0E+00	SCREEN	1.0E+00	X	NA	NA	NA	NA
o-Xylene	1.0E-01	c	1.0E-01	G	NA	NA	Other	Medium \ 1000
Tetrachloroethene	4.1E-02	ATSDR	4.0E-02	I	Neurological	NA \ 100	Nervous System	medium \ 1000
Toluene	5.0E+00	PPRTV	5.0E+00	I	Kidney	Medium \ 300	Kidney	Medium \ 3000
Total Xylenes	4.0E-01	PPRTV	1.0E-01	I	Whole body	Low-to-medium \ 1000	Other	Medium \ 1000
Trichloroethene	2.2E-03	ATSDR	2.0E-03	I	Developmental/Immunological	NA	Heart	High \ 10
Vinyl chloride	1.0E-01	c	1.0E-01	I	NA	NA	Liver	Medium \ 30
Semi-Volatile Organic Compounds								
2,4-Dimethylphenol	NA		NA		Whole body	Low \ 1000	Whole body	Low \ 3000
Benz(a)anthracene	NA		NA		NA	NA	NA	NA
Benzo(a)pyrene	2.0E-06	c	2.0E-06	I	NA	NA	Developmental	Medium \ 300
Dibenz(a,h)anthracene	NA		NA		NA	NA	NA	NA
Isophorone	2.0E+00	c	2.0E+00	C	Other	NA \ 100	Urinary	Low \ 1000
Metals								
Arsenic	1.5E-05	c	1.5E-05	C	Skin	NA \ 10	Skin and blood	Medium \ 3
Lead	NA		NA		NA	NA	NA	NA
Mercury	3.0E-04		3.0E-04	G	Renal	NA \ 100	Immune, Urinary	High \ 1000

References [ref]:

A	Agency for Toxic Substances Disease Registry (ATSDR 2023).
ATSDR	Agency for Toxic Substances Disease Registry (ATSDR 2023).
C	CalEPA, Toxicity Criteria database (CalEPA 2023).
CalEPA	CalEPA, Toxicity Criteria database (CalEPA 2023).
G	See section 5 of the user's guide for special considerations.
HEAST	USEPA, Health Effects Summary Table (HEAST) (USEPA 2011b).
I	USEPA, Integrated Risk Information System (IRIS) (USEPA 2023c).
IRIS	United States Environmental Protection Agency (USEPA), Integrated Risk Information System (IRIS) (USEPA 2023c).
NA	Not available.
PPRTV SCREEN	USEPA, Provisional Peer Reviewed Toxicity Values (PPRTV) (USEPA 2023d).
X	Provisional Peer Reviewed Toxicity Values Appendix (PPRTV) (USEPA 2023d).

[a] Toxicity values were obtained following USEPA recommended hierarchy (USEPA 2003).

c The chronic value is used if subchronic value is not available.

mg/m³ Milligram per cubic meter.

NA Not available or not applicable.

Table 18
Carcinogenic Toxicity Values for Oral and Dermal Exposure
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Oral CSF [a]		Adjustment	Dermal CSF [b]	Mutagen	Tumor	Weight of Evidence
	(mg/kg/day) ⁻¹	[ref]	Factor [b]	(mg/kg/day) ⁻¹		Site	Classification [c]
Volitale Organic Compounds							
1,1,2-Trichloroethane	5.7E-02	IRIS	1	5.7E-02		Liver	C
1,1-Dichloroethane	5.7E-03	Cal EPA	1	5.7E-03		NA	C
1,1-Dichloroethene	NA		1	NA		NA	C
1,2,3-Trimethylbenzene	NA		1	NA		NA	NA
1,2,4-Trimethylbenzene	NA		1	NA		NA	NA
1,3,5-Trimethylbenzene	NA		1	NA		NA	NA
2-Butanone (MEK)	NA		1	NA		NA	D
4-Methyl-2-Pentanone	NA		1	NA		NA	NA
Acetone	NA		1	NA		NA	D
Benzene	5.5E-02	IRIS	1	5.5E-02		Blood	A
Chloroform	3.1E-02	Cal EPA	1	3.1E-02		NA	L/N
cis-1,2-Dichloroethene	NA		1	NA		NA	D
Ethylbenzene	1.1E-02	Cal EPA	1	1.1E-02		NA	D
Isopropylbenzene	NA		1	NA		NA	D
m,p-Xylenes	NA		1	NA		NA	D
Naphthalene	1.2E-01	Cal EPA	1	1.2E-01		NA	C
n-Propylbenzene	NA		1	NA		NA	NA
o-Xylene	NA		1	NA		NA	D
Tetrachloroethene	2.1E-03	IRIS	1	2.1E-03		Liver	L
Toluene	NA		1	NA		NA	D
Total Xylenes	NA		1	NA		NA	D
Trichloroethene	4.6E-02	IRIS	1	4.6E-02	M	Kidney, Liver	H
Vinyl chloride	7.2E-01	IRIS	1	7.2E-01	M	Liver	A
Semi-Volatile Organic Compounds							
2,4-Dimethylphenol	NA		1	NA		NA	NA
Benz(a)anthracene	1.0E-01	E	1	1.0E-01	M	NA	B2
Benzo(a)pyrene	1.0E+00	IRIS	1	1.0E+00	M	Gastrointestinal	A
Dibenz(a,h)anthracene	1.0E+00	E	1	1.0E+00	M	NA	B2
Isophorone	9.5E-04	IRIS	1	9.5E-04		Preputial gland	C
Metals							
Arsenic	1.5E+00	IRIS	1	1.5E+00		Skin	A
Lead	NA		1	NA		NA	NA
Mercury	NA		0.07	NA		NA	C

References [ref]:
CalEPA California Environmental Protection Agency (CalEPA), Toxicity Criteria Database (CalEPA 2023).
E Environmental Criteria and Assessment Office as referenced in the United States Environmental Protection Agency (USEPA) Regional Screening Level Table (USEPA 2023a).
IRIS United States Environmental Protection Agency (USEPA), Integrated Risk Information System (IRIS) (USEPA 2023c).

[a] Toxicity values were obtained following USEPA recommended hierarchy (USEPA 2003).
[b] The oral-to-dermal adjustment factor (oral absorption efficiency) as used to calculate the dermal CSFd values (USEPA 2004).
CSF (dermal) = CSF (oral) / Adjustment Factor (oral absorption efficiency)
[c] The USEPA 1986 hierarchical cancer classification system and the more recent (USEPA 2005) narrative system were used.
The most up-to-date classification is presented for each constituent.
1986 A: Human carcinogen (sufficient evidence of carcinogenicity in humans).
B: Probable human carcinogen.
B2 - Sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans.
C: Possible human carcinogen (limited evidence of carcinogenicity in animals and inadequate or lack of human data).
D: Not classifiable as to human carcinogenicity (inadequate or no evidence).
2005 H: Carcinogenic to humans.
L: Likely to be carcinogenic to humans.
L/N: Likely to be carcinogenic above a specified dose but not likely to be carcinogenic below that dose because a key event in tumor formation does not occur below that dose.

CSF Cancer slope factor.
(mg/kg/day)⁻¹ Inverse milligram per kilogram per day (risk per unit dose).
M Carcinogen with a mutagenic mode of action; evaluated through use of age-dependent adjustment factors (ADAFs).
NA Not available or not applicable.

Table 19
Carcinogenic Toxicity Values for Inhalation Exposure
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Inhalation Unit Risk (IUR) [a] (µg/m³) ⁻¹ [ref]		Tumor Site	Weight of Evidence Classification [b]
Volitale Organic Compounds				
1,1,2-Trichloroethane	1.60E-05	IRIS	Liver	C
1,1-Dichloroethane	1.60E-06	Cal EPA	NA	C
1,1-Dichloroethene	NA		NA	C
1,2,3-Trimethylbenzene	NA		NA	NA
1,2,4-Trimethylbenzene	NA		NA	NA
1,3,5-Trimethylbenzene	NA		NA	NA
2-Butanone (MEK)	NA		NA	D
4-Methyl-2-Pentanone	NA		NA	NA
Acetone	NA		NA	D
Benzene	7.80E-06	IRIS	Blood	A
Chloroform	2.30E-05	IRIS	Liver	L/N
cis-1,2-Dichloroethene	NA		NA	D
Ethylbenzene	2.50E-06	Cal EPA	NA	D
Isopropylbenzene	NA		NA	D
m,p-Xylenes	NA		NA	D
Naphthalene	3.40E-05	Cal EPA	NA	C
n-Propylbenzene	NA		NA	NA
o-Xylene	NA		NA	D
Tetrachloroethene	2.60E-07	IRIS	liver	L
Toluene	NA		NA	D
Total Xylenes	NA		NA	D
Trichloroethene	4.10E-06	IRIS	Kidney, Liver	H
Vinyl chloride	4.40E-06	IRIS	Liver	A
Semi-Volatile Organic Compounds				
2,4-Dimethylphenol	NA		NA	NA
Benz(a)anthracene	6.00E-05	E	NA	B2
Benzo(a)pyrene	6.00E-04	IRIS	Gastrointestinal, Respiratory	A
Dibenz(a,h)anthracene	6.00E-04	E	NA	B2
Isophorone	NA		NA	C
Metals				
Arsenic	4.30E-03	IRIS	Lung	A
Lead	NA		NA	NA
Mercury	NA		NA	C

References [ref]:

CalEPA	California Environmental Protection Agency (CalEPA), Toxicity Criteria Database (CalEPA 2023).
E	Environmental Criteria and Assessment Office as referenced in the USEPA Regional Screening Level Table (USEPA 2023a)
IRIS	United States Environmental Protection Agency (USEPA), Integrated Risk Information System (IRIS; USEPA 2023c).
NA	Not available.

[a] Toxicity values were obtained following USEPA recommended hierarchy (USEPA 2003).

[b] The USEPA 1986 hierarchal cancer classification system and the more recent (USEPA 2005) narrative system were used. The most up-to-date classification is presented for each constituent.

1986 A: Human carcinogen (sufficient evidence of carcinogenicity in humans).

B: Probable human carcinogen.

B2 - sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans.

C: Possible human carcinogen (limited evidence of carcinogenicity in animals and inadequate or lack of human data).

D: Not classifiable as to human carcinogenicity (inadequate or no evidence).

2005 H: Carcinogenic to humans.

L: Likely to be carcinogenic to humans.

L/N: Likely to be carcinogenic above a specified dose but not likely to be carcinogenic below that dose because a key event in tumor formation does not occur below that dose.

($\mu\text{g}/\text{m}^3$)⁻¹ Inverse microgram per cubic meter.

NA Not available or not applicable.

Table 20

Risk Based Target Level Calculations for a Hypothetical Future Site Worker Exposure to Surface Soil

AkzoNobel Coatings Inc.

Birmingham, Alabama

Constituent	ABSd [a] (unitless)	RBF [b] (unitless)	VF or PEF [c] (m³/kg)	CANCER EFFECTS						NON-CANCER EFFECTS				Minimum RBTL [d] (mg/kg)	
				Route-Specific RBTL (mg/kg)			RBTL _C			Route-Specific RBTL (mg/kg)			RBTL _{NC}		
				Oral (RBTL _o) _C	Dermal (RBTL _d) _C	Inhalation (RBTL _i) _C	TCR = 1E-06	TCR = 1E-05	Oral (RBTL _o) _{NC}	Dermal (RBTL _d) _{NC}	Inhalation (RBTL _i) _{NC}	THQ = 0.1			
Volitale Organic Compounds															
1,2,4-Trimethylbenzene	0	1	8.28E+03	V	NA	—	NA	NA	NA	1.2E+03	—	2.2E+02	1.8E+02	1.8E+02	N
Ethylbenzene	0	1	5.86E+03	V	3.0E+02	—	2.9E+01	2.6E+01	2.6E+02	5.8E+03	—	2.5E+03	1.8E+03	2.6E+01	C
Total Xylenes	0	1	5.99E+03	V	NA	—	NA	NA	NA	2.3E+04	—	2.6E+02	2.6E+02	2.6E+02	N
Metals															
Arsenic	0.03	0.6	8.31E+12	P	3.6E+00	1.7E+01	2.4E+07	3.0E+00	3.0E+01	5.8E+01	2.8E+02	5.4E+07	4.8E+01	3.0E+01	C
Lead	0	1	8.31E+12	P	NA	—	NA	NA	NA	NA	—	NA	NA	NA	
Mercury	0	1	8.31E+12	P	NA	—	NA	NA	NA	3.5E+01	—	1.1E+09	3.5E+01	3.5E+01	N

[a] Dermal absorption efficiency (ABSd) for uptake of constituents from a soil matrix (unitless) (USEPA 2023a).

[b] Relative bioavailability factor (RBF) is constituent-specific; default of 100% (i.e., 1) unless otherwise indicated (unitless).

[c] Minimum of the volatilization factor ([VF] identified with [V]) and the particulate emission factor ([PEF] identified with [P]), derived on Table 14 and Table 13, respectively.

[d] Minimum of the RBTL_C (identified by "C") and RBTL_{NC} (identified by "N") for TCR = 10⁻⁶ and for THQ = 0.2 with the exception of Arsenic by which the minimum of the TCR = 10⁻⁵ and THQ = 0.2 was selected.

— Not applicable.

RBTL Risk based target level.

NA Not available; insufficient data.

m³/kg Cubic meters per kilogram.

mg/kg Milligrams per kilogram.

PEF Particulate emission factor.

TCR Target cancer risk.

THQ Target hazard quotient for non-cancer effects.

VF Volatilization factor.

Equations:

$$(RBTL_o)_c = (TCR \times 80 \times 25,550 \times 1,000,000) / (100 \times RBF \times 1 \times 250 \times 25 \times CSF_o)$$

$$(RBTL_d)_c = (TCR \times 80 \times 25,550 \times 1,000,000) / (3,527 \times 0.1 \times ABSd \times 250 \times 25 \times CSF_a)$$

$$(RBTL_i)_c = (TCR \times [VF \text{ or } PEF] \times 25,550) / (0.042 \times 8 \times 250 \times 25 \times IUR)$$

$$(RBTL_o)_{nc} = (THQ \times 80 \times 9,125 \times 1,000,000) / (100 \times RBF \times 1 \times 250 \times 25 \times [1/RfDo])$$

$$(RBTL_d)_{nc} = (THQ \times 80 \times 9,125 \times 1,000,000) / (3,527 \times 0.1 \times ABSd \times 250 \times 25 \times [1/RfDa])$$

$$(RBTL_i)_{nc} = (THQ \times [VF \text{ or } PEF] \times 9,125) / (0.042 \times 8 \times 250 \times 25 \times [1/RfCi])$$

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	AT _c	25,550	days	See Table 8
Averaging time, non -cancer	AT _{nc}	9,125	days	See Table 8
Body weight	BW	80	kg	See Table 8
Exposure time	ET	8	hours	See Table 8
Exposure frequency	EF	250	days/ year	See Table 8
Exposure duration	ED	25	years	See Table 8
Fraction ingested from site	FI	1	unitless	See Table 8
Ingestion rate of soil	IR _s	100	mg/day	See Table 8
Soil-to-skin adherence rate	SAR	0.12	mg/cm ² /day	See Table 8
Skin surface area for soil contact	SSAs	3,527	cm ²	See Table 8

Table 21
Risk Based Target Level Calculations for a Hypothetical Future Construction Worker Exposure to Combined Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	ABSd [a] (unitless)	RBF [b] (unitless)	VF or PEF [c] (m³/kg)	CANCER EFFECTS				NON-CANCER EFFECTS				Minimum RBTL [d] (mg/kg)		
				Route-Specific RBTL(mg/kg)			RBTL _c	Route-Specific RBTL(mg/kg)			RBTL _{NC}			
				Oral (RBTL _o) _c	Dermal (RBTL _d) _c	Inhalation (RBTL _i) _c	TCR = 1E-06	Oral (RBTL _o) _{NC}	Dermal (RBTL _d) _{NC}	Inhalation (RBTL _i) _{NC}	THQ = 0.1			
Volatile Organic Compounds														
1,1,2-Trichloroethane	0	1	9.96E+02	V	8.4E+02	—	7.3E+01	6.7E+01	1.4E+02	—	9.1E+00	8.5E+00	8.5E+00	N
1,2,4-Trimethylbenzene	0	1	9.01E+02	V	NA	—	NA	NA	1.4E+03	—	1.5E+02	1.4E+02	1.4E+02	N
1,3,5-Trimethylbenzene	0	1	7.55E+02	V	NA	—	NA	NA	1.4E+03	—	1.3E+02	1.2E+02	1.2E+02	N
Ethylbenzene	0	1	6.38E+02	V	4.3E+03	—	3.0E+02	2.8E+02	1.7E+03	—	4.8E+03	1.3E+03	2.8E+02	C
m,p-Xylenes	0	1	6.23E+02	V	NA	—	NA	NA	6.8E+03	—	5.2E+01	5.2E+01	5.2E+01	N
Naphthalene	0.13	1	5.22E+03	V	4.0E+02	9.5E+02	1.8E+02	1.1E+02	2.0E+04	4.9E+04	1.3E+01	1.3E+01	1.3E+01	N
o-Xylene	0	1	7.35E+02	V	NA	—	NA	NA	6.8E+03	—	6.1E+01	6.1E+01	6.1E+01	N
Tetrachloroethene	0	1	3.09E+02	V	2.3E+04	—	1.4E+03	1.3E+03	2.7E+02	—	1.0E+01	1.0E+01	1.0E+01	N
Total Xylenes	0	1	6.52E+02	V	NA	—	NA	NA	1.4E+04	—	2.2E+02	2.1E+02	2.1E+02	N
Trichloroethene	0	1	3.01E+02	V	1.0E+03	—	8.6E+01	7.9E+01	1.7E+01	—	5.4E-01	5.2E-01	5.2E-01	N
Semi-Volatile Organic Compounds														
Benzo(a)pyrene	0.13	1	1.07E+07	P	4.8E+01	1.1E+02	2.1E+04	3.4E+01	1.0E+01	2.4E+01	1.8E+01	5.1E+00	5.1E+00	N
Metals														
Arsenic	0.03	0.6	1.07E+07	P	5.3E+01	3.3E+02	2.9E+03	4.5E+01	1.7E+01	1.1E+02	1.3E+02	1.3E+01	1.3E+01	N
Lead	0	1	1.07E+07	P	NA	—	NA	NA	NA	—	NA	NA	NA	N
Mercury	0	1	1.07E+07	P	NA	—	NA	NA	1.0E+02	—	2.7E+03	9.8E+01	9.8E+01	N

- [a] Dermal absorption efficiency (ABSd) for uptake of constituents from a soil matrix (unitless) (USEPA 2023a).
[b] Relative bioavailability factor (RBF) is constituent-specific; default of 100% (i.e., 1) unless otherwise indicated (unitless).
[c] Minimum of the volatilization factor ([VF] identified with [V]) and the particulate emission factor ([PEF] identified with [P]), derived on Table 14 and Table 13, respectively.
[d] Minimum of the RBTLc (identified by "C") and RBTLNC (identified by "N") for TCR = 10-6 and for THQ = 0.1.
— Not applicable.
RBTL Risk based target level.
NA Not available; insufficient data.
m³/kg Cubic meters per kilogram.

mg/kg Milligrams per kilogram.
TCR Target cancer risk.
THQ Target hazard quotient for non-cancer effects.
VF Volatilization factor.

Equations:

$$\begin{aligned} \text{(RBTL}_o\text{)}_c &= (\text{TCR} \times 80 \times 25,550 \times 1,000,000) / (330 \times 1 \times 5 \times 26 \times \text{CSFo}) \\ \text{(RBTL}_d\text{)}_c &= (\text{TCR} \times 80 \times 25,550 \times 1,000,000) / (3,527 \times 0.3 \times \text{ABSd} \times 5 \times 26 \times \text{CSFa}) \\ \text{(RBTL}_i\text{)}_c &= (\text{TCR} \times [\text{VF or PEF}] \times 25,550) / (0.042 \times 4 \times 5 \times 26 \times \text{IUR}) \end{aligned}$$

$$\begin{aligned} \text{(RBTL}_o\text{)}_{nc} &= (\text{THQ} \times 80 \times 182 \times 1,000,000) / (330 \times 1 \times 5 \times 26 \times [1/\text{RfDo}]) \\ \text{(RBTL}_d\text{)}_{nc} &= (\text{THQ} \times 80 \times 182 \times 1,000,000) / (3,527 \times 0.3 \times \text{ABSd} \times 5 \times 26 \times [1/\text{RfDa}]) \\ \text{(RBTL}_i\text{)}_{nc} &= (\text{THQ} \times [\text{VF or PEF}] \times 182) / (0.042 \times 4 \times 5 \times 26 \times [1/\text{RfCi}]) \end{aligned}$$

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	ATc	25,550	days	See Table 8
Averaging time, non -cancer	ATnc	182	days	See Table 8
Body weight	BW	80	kg	See Table 8
Exposure time	ET	4	hours	See Table 8
Exposure frequency	EFsc	5	days/ year	See Table 8
Exposure duration	EDsc	26	years	See Table 8
Fraction ingested from site	FI	1	unitless	See Table 8
Ingestion rate of soil	IRs	330	mg/day	See Table 8
Soil-to-skin adherence rate	SAR	0.3	mg/cm²/day	See Table 8
Skin surface area for soil contact	SSAs	3,527	cm²	See Table 8

Table 22

Risk Based Target Level Calculations for a Hypothetical Current and Future Adolescent Trespasser Exposure to Surface Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	ABSd [a] (unitless)	RBF [b] (unitless)	VF or PEF [c] (m³/kg)	CANCER EFFECTS						NON-CANCER EFFECTS				Minimum RBTL [d] (mg/kg)	
				Route-Specific RBTL(mg/kg)			RBTL _c		Route-Specific RBTL (mg/kg)			RBTL _{NC}			
				Oral (RBTL _o) _c	Dermal (RBTL _d) _c	Inhalation (RBTL _i) _c	TCR = 1E-06	TCR = 1E-05	Oral (RBTL _o) _{NC}	Dermal (RBTL _d) _{NC}	Inhalation (RBTL _i) _{NC}	THQ = 0.1			
Volitale Organic Compounds															
1,2,4-Trimethylbenzene	0	1	8.28E+03	V	NA	—	NA	NA	—	6.3E+03	—	8.3E+03	3.6E+03	3.6E+03	N
Ethylbenzene	0	1	5.86E+03	V	4.0E+03	—	2.7E+03	1.6E+03	1.6E+04	3.2E+04	—	9.8E+04	2.4E+04	1.6E+03	C
Total Xylenes	0	1	5.99E+03	V	NA	—	NA	NA	—	1.3E+05	—	1.0E+04	9.3E+03	9.3E+03	N
Metals															
Arsenic	0.03	0.6	8.31E+12	P	4.9E+01	1.2E+02	2.3E+09	3.5E+01	3.5E+02	3.2E+02	7.9E+02	2.1E+09	2.3E+02	2.3E+02	N
Lead	0	1	8.31E+12	P	NA	—	NA	NA	—	NA	—	NA	NA	NA	
Mercury	0	1	8.31E+12	P	NA	—	NA	NA	—	1.9E+02	—	4.2E+10	1.9E+02	1.9E+02	N

[a] Dermal absorption efficiency (ABSd) for uptake of constituents from a soil matrix (unitless) (USEPA 2023a).

[b] Relative bioavailability factor (RBF) is constituent-specific; default of 100% (i.e., 1) unless otherwise indicated (unitless).

[c] Minimum of the volatilization factor ([VF] identified with [V]) and the particulate emission factor ([PEF] identified with [P]), derived on Table 14 and Table 13, respectively.

[d] Minimum of the RBTL_c (identified by "C") and RBTL_{NC} (identified by "N") for TCR = 10⁻⁶ and for THQ = 0.2 with the exception of Arsenic by which the minimum of the TCR = 10⁻⁵ and THQ = 0.2 was selected.

— Not applicable.

RBTL Risk based target level.

NA Not available; insufficient data.

m³/kg Cubic meters per kilogram.

mg/kg Milligrams per kilogram.

TCR Target cancer risk.

THQ Target hazard quotient for non-cancer effects.

VF Volatilization factor.

Equations:

$$(RBTL_o)_c = (TCR \times 45 \times 25,550 \times 1,000,000) / (50 \times 1 \times 52 \times 10 \times CSF_o)$$

$$(RBTL_d)_c = (TCR \times 45 \times 25,550 \times 1,000,000) / (5,700 \times 0.1 \times ABSd \times 52 \times 10 \times CSF_a)$$

$$(RBTL_i)_c = (TCR \times [VF \text{ or } PEF] \times 25,550) / (0.042 \times 1 \times 52 \times 10 \times IUR)$$

$$(RBTL_o)_{nc} = (THQ \times 45 \times 3,650 \times 1,000,000) / (50 \times 1 \times 52 \times 10 \times [1/RfDo])$$

$$(RBTL_d)_{nc} = (THQ \times 45 \times 3,650 \times 1,000,000) / (5,700 \times 0.1 \times ABSd \times 52 \times 10 \times [1/RfDa])$$

$$(RBTL_i)_{nc} = (THQ \times [VF \text{ or } PEF] \times 3,650) / (0.042 \times 1 \times 52 \times 10 \times [1/RfC])$$

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	AT _c	25,550	days	See Table 8
Averaging time, non -cancer	AT _{nc}	3,650	days	See Table 8
Body weight	BW	45	kg	See Table 8
Exposure time	ET	1	hours	See Table 8
Exposure frequency	EF	52	days/ year	See Table 8
Exposure duration	ED	10	years	See Table 8
Fraction ingested from site	FI	1	unitless	See Table 8
Ingestion rate of soil	IRs	50	mg/day	See Table 8
Soil-to-skin adherence rate	SAR	0.07	mg/cm²/day	See Table 8
Skin surface area for soil contact	SSAs	5,700	cm²	See Table 8

Table 23
Risk Based Target Level Calculations for a Hypothetical Future Construction Worker Exposure to Groundwater
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	DA [a] (L/cm²/day)	VF [b] (L/m³)	CANCER EFFECTS					NON-CANCER EFFECTS				Minimum RBTL [c] (mg/L)	
			Route-Specific RBTL (mg/L)			RBTL _C (mg/L) TCR = 1E-06	Route-Specific RBTL (mg/L)			RBTL _{NC} (mg/L) THQ = 0.1			
			Oral (RBTL _o) _C	Dermal (RBTL _d) _C	Inhalation (RBTL _i) _C		Oral (RBTL _o) _{NC}	Dermal (RBTL _d) _{NC}	Inhalation (RBTL _i) _{NC}				
Volitale Organic Compounds													
1,1-Dichloroethane	1.84E-05	[2]	1.62E+01	1.4E+03	4.3E+01	9.0E-02	9.0E-02	1.1E+04	3.5E+02	NA	3.4E+02	9.0E-02	C
1,1-Dichloroethene	3.14E-05	[2]	1.65E+01	NA	NA	NA	NA	5.0E+01	9.1E-01	4.0E-04	4.0E-04	4.0E-04	N
1,2,3-Trimethylbenzene	2.50E-04	[2]	1.46E+01	NA	NA	NA	NA	2.2E+02	5.1E-01	2.3E-02	2.2E-02	2.2E-02	N
1,2,4-Trimethylbenzene	2.39E-04	[2]	1.47E+01	NA	NA	NA	NA	2.2E+02	5.3E-01	2.3E-02	2.2E-02	2.2E-02	N
1,3,5-Trimethylbenzene	1.75E-04	[2]	1.47E+01	NA	NA	NA	NA	2.2E+02	7.2E-01	2.3E-02	2.2E-02	2.2E-02	N
2-Butanone (MEK)	2.43E-06	[2]	7.76E+00	NA	NA	NA	NA	1.1E+04	2.6E+03	2.1E-01	2.1E-01	2.1E-01	N
4-Methyl-2-Pentanone	8.77E-06	[2]	1.01E+01	NA	NA	NA	NA	4.5E+03	2.9E+02	1.3E-01	1.3E-01	1.3E-01	N
Acetone	1.25E-06	[2]	6.29E+00	NA	NA	NA	NA	3.4E+03	1.5E+03	NA	1.0E+03	1.0E+03	N
Benzene	3.74E-05	[2]	1.82E+01	1.4E+02	2.2E+00	1.6E-02	1.6E-02	5.6E+01	8.5E-01	7.3E-03	7.3E-03	7.3E-03	N
Chloroform	2.02E-05	[2]	1.46E+01	2.5E+02	7.1E+00	6.9E-03	6.9E-03	5.6E+02	1.6E+01	2.8E-02	2.8E-02	6.9E-03	C
cis-1,2-Dichloroethene	2.95E-05	[2]	1.63E+01	NA	NA	NA	NA	1.1E+02	2.2E+00	4.1E-02	4.0E-02	4.0E-02	N
Ethylbenzene	1.31E-04	[2]	1.57E+01	7.1E+02	3.1E+00	6.0E-02	5.9E-02	2.8E+02	1.2E+00	9.6E-01	5.3E-01	5.9E-02	C
Isopropylbenzene	2.50E-04	[2]	1.48E+01	NA	NA	NA	NA	2.2E+03	5.1E+00	1.0E-02	1.0E-02	1.0E-02	N
Naphthalene	1.39E-04	[2]	1.20E+01	6.6E+01	2.7E-01	5.8E-03	5.6E-03	3.4E+03	1.4E+01	4.2E-04	4.2E-04	4.2E-04	N
n-Propylbenzene	2.61E-04	[2]	1.48E+01	NA	NA	NA	NA	5.6E+02	1.2E+00	1.1E-01	1.0E-01	1.0E-01	N
Toluene	7.97E-05	[2]	1.68E+01	NA	NA	NA	NA	4.5E+03	3.2E+01	5.0E-01	4.9E-01	4.9E-01	N
Total Xylenes	1.33E-04	[2]	1.56E+01	NA	NA	NA	NA	2.2E+03	9.6E+00	4.3E-02	4.2E-02	4.2E-02	N
Vinyl chloride	2.04E-05	[2]	2.06E+01	1.1E+01	3.0E-01	2.6E-02	2.4E-02	1.7E+01	4.7E-01	8.1E-03	7.9E-03	7.9E-03	N
Semi-Volatile Organic Compound:													
2,4-Dimethylphenol	3.24E-05	[2]	NV	NA	NA	—	NA	2.8E+02	4.9E+00	—	4.8E+00	4.8E+00	N
Benz(a)anthracene	—		9.44E-01	7.9E+01	NA	4.1E-02	4.1E-02	NA	NA	NA	NA	4.1E-02	C
Dibenz(a,h)anthracene	—		NV	7.9E+00	NA	—	7.9E+00	NA	NA	—	NA	7.9E+00	C
Isophorone	1.15E-05	[2]	NV	8.3E+03	4.1E+02	—	3.9E+02	1.7E+04	8.3E+02	—	7.9E+02	3.9E+02	C
Metals													
Arsenic	2.00E-06	[0]	NV	5.2E+00	1.5E+00	—	1.2E+00	1.7E+00	4.8E-01	—	3.7E-01	3.7E-01	N
Lead	2.00E-07	[0]	NV	NA	NA	—	NA	NA	NA	—	NA	NA	

[a] The dermal absorption factor was calculated using Equation [0], [1], or [2], as indicated, from Table 15.

[b] The volatilization factor [VF] calculated in Table 14.

[c] Minimum of the RBTL_C (identified by "C") and RBTL_{NC} (identified by "N") for TCR = 10⁻⁶ and for THQ = 0.1.

—	Not applicable.	mg/L	Milligrams per liter.
RBTL	Risk based target level.	NA	Not available; insufficient data.
L/cm²/day	Liter per cubic centimer per day.	TCR	Target cancer risk.
L/m³	Liters per cubic meter.	THQ	Target hazard quotient for noncancer effects.

Equations:

$$(RBTL_o)_c = (TCR \times 80 \times 25,550) / (0.002 \times 5 \times 26 \times CSFo)$$
$$(RBTL_d)_c = (TCR \times 80 \times 25,550) / (3,527 \times DA \times 5 \times 26 \times CSFa)$$
$$(RBTL_i)_c = (TCR \times 25,550) / (VF \times 0.042 \times 2.00 \times 5 \times 26 \times IUR)$$

$$(RBTL_o)_{nc} = (THQ \times 80 \times 182) / (0.002 \times 5 \times 26 \times [1/RfDo])$$
$$(RBTL_d)_{nc} = (THQ \times 80 \times 182) / (3,527 \times DA \times 5 \times 26 \times [1/RfDa])$$
$$(RBTL_i)_{nc} = (THQ \times 182) / (VF \times 0.042 \times 2.00 \times 5 \times 26 \times [1/RfC])$$

Variable	Acronym	Value	Unit	Source
Averaging time, cancer	ATc	25,550	days	See Table 8
Averaging time, non -cancer	ATnc	182	days	See Table 8
Body weight	BW	80	kg	See Table 8
Exposure frequency	EFsc	5	days/wk	See Table 8
Exposure duration	EDsc	26	weeks	See Table 8
Exposure time for GW contact	ETgw	2	hours/day	See Table 8
Ingestion rate of GW	IRgw	0.002	L/day	See Table 8
Skin surface area for GW contact	SSAgw	3,527	cm²	See Table 8

Table 24
Risk Based Target Level Calculations for a Hypothetical Future Site Worker Exposure to Vapor Migration from Groundwater
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Site Worker RBTL [a] (mg/L)
Volitale Organic Compounds	
1,1-Dichloroethane	1.4E+01
Benzene	3.0E+00
cis-1,2-Dichloroethene	3.6E+02
Ethylbenzene	1.0E+01
Naphthalene	1.7E+00

[a] RBTL was generated using the USEPA Johnson and Ettinger Model (USEPA 2017).

— Not applicable.
 RBTL Risk based target level.
 TCR Target cancer risk.
 THQ Target hazard quotient for non-cancer effects.
 mg/l Milligrams/liter.

Table 25
Risk Based Target Level Summary for Direct Contact with Surface Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Maximum Concentration in Surface Soil	Site Worker Minimum RBTL [a] (mg/kg)		Trespasser Minimum RBTL [a] (mg/kg)	
Volitale Organic Compounds					
1,2,4-Trimethylbenzene	228	182	N	3,587	N
Ethylbenzene	36.7	26	C	1,630	C
Total Xylenes	434	257	N	9,274	N
Metals					
Arsenic	23	30	C	226	N
Lead	1,530	1,050	L	4,412	L
Mercury	181	35	N	190	N

[a] Minimum of the $RBTL_C$ (identified by "C") and $RBTL_{NC}$ (identified by "N") for $TCR = 10^{-6}$ and for $THQ = 0.2$.

The RBTL for lead (L) is derived based on a target blood lead level of 5 $\mu\text{g/dL}$ using the adult lead model (USEPA 2017a).

bold The maximum concentration in soil exceeds the RBTL.
 mg/kg Milligrams per kilogram.
 $\mu\text{g/dL}$ Micrograms per deciliter.
 PRG Preliminary remediation goal.
 RBTL Risk based target level.

Table 26
Risk Based Target Level Summary for Direct Contact with Combined Soil
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Maximum Concentration in Combined Soil (mg/kg)	Construction Worker Minimum RBTL [a] (mg/kg)	
Volatile Organic Compounds			
1,1,2-Trichloroethane	3.83	8.5	N
1,2,4-Trimethylbenzene	697	135	N
1,3,5-Trimethylbenzene	274	115	N
Ethylbenzene	1900	279	C
m,p-Xylenes	7300	52	N
Naphthalene	19.5	13	N
o-Xylene	1900	61	N
Tetrachloroethene	42.7	10	N
Total Xylenes	9200	214	N
Trichloroethene	20.1	0.52	N
Semi-Volatile Organic Compounds			
Benzo(a)pyrene	2.25	5.1	N
Metals			
Arsenic	23.2	13	N
Lead	1530	1,278	L
Mercury	181	98	N

[a] Minimum of the RBTL_C (identified by "C") and RBTL_{NC} (identified by "N") for TCR = 10⁻⁶ and for THQ = 0.1.

The RBTL for lead (L) is derived based on a target blood lead level of 5 µg/dL using the adult lead model (USEPA 2017a).

Ethylbenzene is the only constituent with an RBTL based on the cancer endpoint. If a TCR = 1×10⁻⁵, then the RBTL would be based on the non-cancer endpoint and would correspond to 1,300 mg/kg.

bold The maximum concentration in soil exceeds the RBTL.
mg/kg Milligrams per kilogram.
µg/dL Micrograms per deciliter.
PRG Preliminary remediation goal.
RBTL Risk based target level.

Table 27
Risk Based Target Level Summary for Direct Contact with Groundwater
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Maximum Concentration in Groundwater (mg/L)	MCL [a] (mg/L)	Construction Worker Minimum RBTL [b] (mg/L)	
Volatile Organic Compounds				
1,1-Dichloroethane	2.5E-01	--	9.0E-02	C
1,1-Dichloroethene	3.4E-02	7.0E-03	4.0E-04	N
1,2,3-Trimethylbenzene	4.3E-01	--	2.2E-02	N
1,2,4-Trimethylbenzene	1.9E+00	--	2.2E-02	N
1,3,5-Trimethylbenzene	6.8E-01	--	2.2E-02	N
2-Butanone (MEK)	1.5E+02	--	2.1E-01	N
4-Methyl-2-Pentanone	1.9E+01	--	1.3E-01	N
Acetone	1.6E+01	--	1.0E+03	N
Benzene	2.5E-01	5.0E-03	7.3E-03	N
Chloroform	1.3E-03	--	6.9E-03	C
cis-1,2-Dichloroethene	3.4E+00	7.0E-02	4.0E-02	N
Ethylbenzene	9.7E+00	7.0E-01	5.9E-02	C
Isopropylbenzene	3.9E-01	--	1.0E-02	N
Naphthalene	1.7E-01	--	4.2E-04	N
n-Propylbenzene	8.8E-01	--	1.0E-01	N
Toluene	9.8E+01	1.0E+00	4.9E-01	N
Total Xylenes	3.4E+01	1.0E+01	4.2E-02	N
Vinyl chloride	8.7E-02	2.0E-03	7.9E-03	N
Semi-Volatile Organic Compounds				
2,4-Dimethylphenol	1.4E-01	--	4.8E+00	N
Benz(a)anthracene	2.1E-04	--	4.1E-02	C
Dibenz(a,h)anthracene	7.0E-05	--	7.9E+00	C
Isophorone	1.8E+00	--	3.9E+02	C
Metals				
Arsenic	9.9E-02	1.0E-02	3.7E-01	N
Lead	2.2E-02	1.5E-02	1.5E-02	L

[a] The direct contact screening values reflect the United States Environmental Protection Agency (USEPA) maximum contaminant level (MCL), if available (USEPA 2023a).

[b] Minimum of the RBTL_C (identified by "C") and RBTL_N (identified by "N") for TCR = 10⁻⁶ and for THQ = 0.1. For lead, The RBTL for lead (L) is derived based on a target blood lead level of 5 µg/dL using the adult lead model (USEPA 2017a).

bold	The maximum concentration in soil exceeds the RBTL.
—	Not applicable.
RBTL	Risk based target level.
NA	Not available
mg/L	Milligrams per liter.

Table 28
Risk Based Target Level Summary for Groundwater Vapor Intrusion
AkzoNobel Coatings Inc.
Birmingham, Alabama

Constituent	Maximum Concentration in Groundwater (mg/L)	Site Worker Minimum RBTL [a] (mg/L)
Volitale Organic Compounds		
1,1-Dichloroethane	0.25	14
Benzene	0.25	3.0
cis-1,2-Dichloroethene	3.41	363
Ethylbenzene	9.67	10
Naphthalene	0.17	1.7

[a] RBTL was generated using the USEPA Johnson and Ettinger Model (USEPA 2017b).

bold The maximum concentration in soil exceeds the RBTL.
 — Not applicable.
 RBTL Risk based target level.
 mg/L Milligram per liter.

Table 29
Soil Data (0-1 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Surface Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Site Worker Minimum RBTL	Trespasser Minimum RBTL	MIP-24 MIP-24 (0-1) (101322) 10/13/2022 0-1	MIP-32 MIP-32 (0-1) (101322) 10/13/2022 0-1	MIP-33 MIP-33 (0-1) (101322) 10/13/2022 0-1	MIP-34 MIP-34 (0-1) (101222) 10/12/2022 0-1	MIP-44 MIP-44 (0-1) (101222) 10/12/2022 0-1	MIP-45 MIP-45 (0-1) (101322) 10/13/2022 0-1	MIP-49 MIP-49 (0-1) (101322) 10/13/2022 0-1	MIP-51 MIP-51 (0-1) (101322) 10/13/2022 0-1	MIP-52 MIP-52 (0-1) (101322) 10/13/2022 0-1	SB22-01 SB22-01 (0-1) (033122) 3/31/2022 0-1
Volatile Organic Compounds													
1,2,4-Trimethylbenzene	mg/kg	182	3,587	0.17	0.369	1.41	14.7	0.562	0.0952	0.319	228	0.0829	0.00641 J
Ethylbenzene	mg/kg	26	1,630	0.0344	0.0508	36.7	3.02	0.19	0.12	0.484	7.29	0.118	0.00354 J
Total Xylenes	mg/kg	257	9,274	0.398	0.62	16.3	70.9	2.2	0.373	1.98	434	0.599	0.0396
Metals													
Arsenic	mg/kg	30	226	12.9	16.1	2.26	3.23	0.773 J	1.01 J	1.43 J	< 2.10	7.3	12.2
Lead	mg/kg	1,050	4,412	754	195	1530 O1V	106	234	10	105	12.1	694	521
Mercury	mg/kg	35	190	181	0.549	3.32	1.01	6.75	0.789	0.182	< 0.0420	1.92	0.196

Notes are on the last page.

Table 29
Soil Data (0-1 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Surface Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Site Worker Minimum RBTL	Trespasser Minimum RBTL	SB22-02 SB22-02 (0-1) (033122) 3/31/2022 0-1	SB22-03 SB22-03 (0-1) (033122) 3/31/2022 0-1	SB22-04 SB22-04 (0-1) (033122) 3/31/2022 0-1	SB22-05 SB22-05 (0-1) (033122) 3/31/2022 0-1	SB22-06 SB22-06 (0-1) (033122) 3/31/2022 0-1	SB22-07 SB22-07 (0-1) (033122) 3/31/2022 0-1	SB22-08 SB22-08 (0-1) (033122) 3/31/2022 0-1	SB22-09 SB22-09 (0-1) (033122) 3/31/2022 0-1	SB22-10 SB22-10 (0-1) (033122) 3/31/2022 0-1
Volatile Organic Compounds												
1,2,4-Trimethylbenzene	mg/kg	182	3,587	0.00863	0.00822	0.0527	0.0375	0.02	< 0.00795	< 0.00777	0.00264 J	0.00600 J
Ethylbenzene	mg/kg	26	1,630	0.00154 J	< 0.00348	0.049	0.0296	< 0.00385	< 0.00397	< 0.00389	0.00146 J	0.00230 J
Total Xylenes	mg/kg	257	9,274	0.0196	0.0242	0.508	0.327	0.0728	0.0205	0.00552 J	0.0109	0.0517
Metals												
Arsenic	mg/kg	30	226	12.9	5.66	23	16.4	12.5	8.78	18.8	9.89	11.2
Lead	mg/kg	1,050	4,412	127	192	242	52.3	167	26.7	30.3	30.7	42.4
Mercury	mg/kg	35	190	0.0995	0.185	5.1	0.0267 J	0.357	0.0687	0.0502	0.0393 J	0.233

< - Result is less than reporting limit.

mg/kg - Milligrams per kilogram.

SVOCs - Semi-volatile organic compounds.

VOCs - Volatile organic compounds.

B - The same analyte is found in the associated blank.

C3 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.

C4 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.

C5 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.

J - The identification of the analyte is acceptable; the reported value is an estimate.

J2 - Surrogate recovery limits have been exceeded; values are outside lower control limits.

J3 - The associated batch QC was outside the established quality control range for precision.

J4 - The associated batch QC was outside the established quality control range for accuracy.

J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.

O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

RBTL - Risk based target level.

COC

Concentration exceeds the RBTL for the site worker.
Constituents of concern.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location:	Construction Worker	MIP-04	MIP-04	MIP-04	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-07	MIP-08
	Sample Name:	Minimum	MIP04-2_20211210	MIP04-5_20211210	MIP04-7.5_20211210	MIP07-2_20211210	MIP07-3_20211210	MIP07-4_20211210	MIP07-6_20211210	MIP07-7_20211210	MIP07-8_20211210	MIP08-2_20211210
	Sample Date:	RBTL	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021	12/10/2021
	Depth (ft bgs):		1.9-2.1	4.9-5.1	7.4-7.6	1.9-2.1	2.9-3.1	3.9-4.1	5.9-6.1	6.9-7.1	7.9-8.1	1.9-2.1
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8
1,2,4-Trimethylbenzene	mg/kg	135	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	115	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	279	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	0.40	< 0.17	< 0.19	840
m,p-Xylenes	mg/kg	52	< 0.0081	< 0.0074	< 0.0076	< 0.58	0.94	< 0.44	1.20	< 0.34	< 0.38	3300
Naphthalene	mg/kg	13	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]
o-Xylene	mg/kg	61	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	790
Tetrachloroethene	mg/kg	10	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8
Total Xylenes	mg/kg	214	< 0.0040	< 0.0037	< 0.0038	< 0.29	0.98	< 0.22	1.30	< 0.17	< 0.19	4100
Trichloroethene	mg/kg	0.52	< 0.0040	< 0.0037	< 0.0038	< 0.29	< 0.20	< 0.22	< 0.22	< 0.17	< 0.19	< 4.8
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	-	-	-	-	-	-	-	-	-	-
Metals												
Arsenic	mg/kg	13	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	1,278	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	98	-	-	-	-	-	-	-	-	-	-

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	MIP-08 MIP08-3_20211210 12/10/2021 2.9-3.1	MIP-08 MIP08-4_20211210 12/10/2021 3.9-4.1	MIP-08 MIP08-5_20211210 12/10/2021 4.9-5.1	MIP-08 MIP08-6_20211210 12/10/2021 5.9-6.1	MIP-08 MIP08-7_20211210 12/10/2021 6.9-7.1	MIP-09 MIP09-02_20211210 12/10/2021 1.9-2.1	MIP-09 MIP09-3_20211210 12/10/2021 2.9-3.1	MIP-09 MIP09-4_20211210 12/10/2021 3.9-4.1	MIP-09 MIP09-5_20211210 12/10/2021 4.9-5.1	MIP-09 MIP09-6_20211210 12/10/2021 5.9-6.1
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	< 27	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22
1,2,4-Trimethylbenzene	mg/kg	135	-	-	-	-	-	-	-	-	-	-
1,3,5-Trimethylbenzene	mg/kg	115	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	mg/kg	279	1900	1400	230	390	400	1.80	88	220	370	14
m,p-Xylenes	mg/kg	52	7300	5300	790	1500	1300	5.90	290	750	1200	26
Naphthalene	mg/kg	13	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]	- [-]
o-Xylene	mg/kg	61	1900	1300	18	260	170	1.80	78	190	280	3.6
Tetrachloroethene	mg/kg	10	< 27	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22
Total Xylenes	mg/kg	214	9200	6600	810	1700	1500	7.70	370	940	1500	30
Trichloroethene	mg/kg	0.52	< 27	< 21	< 2.6	< 5.0	< 3.4	< 0.21	< 2.3	< 3.2	< 4.2	< 0.22
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	-	-	-	-	-	-	-	-	-	-
Metals												
Arsenic	mg/kg	13	-	-	-	-	-	-	-	-	-	-
Lead	mg/kg	1,278	-	-	-	-	-	-	-	-	-	-
Mercury	mg/kg	98	-	-	-	-	-	-	-	-	-	-

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	MIP-09 MIP09-7_20211210 12/10/2021 6.9-7.1	MIP-09 MIP09-8_20211210 12/10/2021 7.9-8.1	MIP-09 MIP-9 (1-2) (101322) 10/13/2022 1-2	MIP-09 MIP-9 (2-3) (101322) 10/13/2022 2-3	MIP-09 MIP-9 (5-6) (101322) 10/13/2022 5-6	MIP-14 MIP14-2_20211210 12/10/2021 1.9-2.1	MIP-14 MIP14-3_20211210 12/10/2021 2.9-3.1	MIP-14 MIP14-6_20211210 12/10/2021 5.9-6.1	MIP-16B MIP-16B (1-2) (101322) 10/13/2022 1-2	MIP-16B MIP-16B (5-6) (101322) 10/13/2022 5-6
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	< 0.19	< 0.27	< 0.0699	< 0.0751	< 0.0305	< 0.0040	< 0.0048	< 0.0061	< 0.00321	< 0.00352
1,2,4-Trimethylbenzene	mg/kg	135	-	-	101.00	204	279	-	-	-	0.62	0.00508 J
1,3,5-Trimethylbenzene	mg/kg	115	-	-	55.40	122	114	-	-	-	0.60	0.00393 J
Ethylbenzene	mg/kg	279	< 0.19	< 0.27	238.00	372	445	< 0.0040	< 0.0048	< 0.0061	0.18	0.00217 BJ
m,p-Xylenes	mg/kg	52	< 0.38	< 0.54	-	-	-	< 0.0080	< 0.0096	< 0.012	-	-
Naphthalene	mg/kg	13	- [-]	- [-]	9.12 [0.332]	19.5 [5.2]	14.1 J [5.42]	- [-]	- [-]	- [-]	0.0329 [< 0.0373]	< 0.0176 [< 0.0393]
o-Xylene	mg/kg	61	< 0.19	< 0.27	-	-	-	< 0.0040	< 0.0048	< 0.0061	-	-
Tetrachloroethene	mg/kg	10	< 0.19	< 0.27	42.1	43	1	< 0.0040	< 0.0048	< 0.0061	0.04	< 0.00352
Total Xylenes	mg/kg	214	< 0.19	< 0.27	994	1550	1940	< 0.0040	< 0.0048	< 0.0061	3.74	0.00925 B
Trichloroethene	mg/kg	0.52	< 0.19	< 0.27	12.7	20	0.04	< 0.0040	< 0.0048	< 0.0061	0.01	< 0.00141
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	-	-	< 0.0393	0.04	0.04	-	-	-	< 0.0373	< 0.0393
Metals												
Arsenic	mg/kg	13	-	-	5.60	10.50	22.60	-	-	-	4.67	< 2.36
Lead	mg/kg	1,278	-	-	8.1	13.8	63.6	-	-	-	63.9	5.1
Mercury	mg/kg	98	-	-	0.06	0.05	0.20	-	-	-	0.05	0.06

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	MIP-20 MIP20-4_20211210 12/10/2021 3.9-4.1	MIP-20 MIP20-5_20211210 12/10/2021 4.9-5.1	MIP-20 MIP20-6_20211210 12/10/2021 5.9-6.1	MIP-20 MIP20-7_20211210 12/10/2021 6.9-7.1	MIP-24 MIP-24 (0-1) (101322) 10/13/2022 0-1	MIP-24 MIP-24 (6-7) (101322) 10/13/2022 6-7	MIP-32 MIP-32 (0-1) (101322) 10/13/2022 0-1	MIP-32 MIP-32 (5-6) (101322) 10/13/2022 5-6	MIP-33 MIP-33 (0-1) (101322) 10/13/2022 0-1	MIP-33 MIP-33 (2-3) (101322) 10/13/2022 2-3
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	< 0.0036	< 0.0041	< 0.0046	< 0.0046	< 0.00582	< 0.0279	< 0.00337	< 0.00356	< 0.00284	< 0.00374
1,2,4-Trimethylbenzene	mg/kg	135	-	-	-	-	0.17	19.10	0.37	0.18	1.41	4.84
1,3,5-Trimethylbenzene	mg/kg	115	-	-	-	-	0.15	7.75	0.20	0.06	0.97	2.18
Ethylbenzene	mg/kg	279	< 0.0036	< 0.0041	< 0.0046	< 0.0046	0.03	63.40	0.05	0.15	36.70	44.20
m,p-Xylenes	mg/kg	52	< 0.0073	< 0.0082	< 0.0092	< 0.0092	-	-	-	-	-	-
Naphthalene	mg/kg	13	- [-]	- [-]	- [-]	- [-]	0.0562 [< 0.439]	3.71 [0.571]	0.0661 [0.166]	0.0343 [0.0194 J]	0.306 [0.0728]	0.912 [0.108]
o-Xylene	mg/kg	61	< 0.0036	< 0.0041	< 0.0046	< 0.0046	-	-	-	-	-	-
Tetrachloroethene	mg/kg	10	< 0.0036	< 0.0041	< 0.0046	< 0.0046	0.00245 J	< 0.0279	0.12	< 0.00356	0.00128 J	< 0.00374
Total Xylenes	mg/kg	214	< 0.0036	< 0.0041	< 0.0046	< 0.0046	0.40	233	0.62	1.65	16.30	129.00
Trichloroethene	mg/kg	0.52	< 0.0036	< 0.0041	< 0.0046	< 0.0046	< 0.00233	< 0.0112	0.01	< 0.00142	< 0.00113	< 0.00149
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	-	-	-	-	0.51	0.07	0.31	0.00960 J	0.0334 J	0.0163 J
Metals												
Arsenic	mg/kg	13	-	-	-	-	12.90	3.22	16.10	1.77 J	2.26	5.55
Lead	mg/kg	1,278	-	-	-	-	754.0	13.2	195.0	15.3	1530 O1V	26.0
Mercury	mg/kg	98	-	-	-	-	181.00	0.0435 J	0.55	0.35	3.32	0.28

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	MIP-33 MIP-33 (7-8) (101322) 10/13/2022 7-8	MIP-34 MIP-34 (0-1) (101222) 10/12/2022 0-1	MIP-34 MIP-34 (5-6) (101222) 10/12/2022 5-6	MIP-36 MIP-36 (1-2) (101322) 10/13/2022 1-2	MIP-36 MIP-36 (4-5) (101322) 10/13/2022 4-5	MIP-38 MIP-38 (4-5) (101322) 10/13/2022 4-5	MIP-38 MIP-38 (6-7) (101322) 10/13/2022 6-7	MIP-40 MIP-40 (2-3) (101322) 10/13/2022 2-3	MIP-40 MIP-40 (4-5) (101322) 10/13/2022 4-5	MIP-40 MIP-40 (6-7) (101322) 10/13/2022 6-7
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	< 0.0279	< 0.00327	< 0.0368	0.02	< 0.0257	0.03	3.83	0.03	0.01	3.48
1,2,4-Trimethylbenzene	mg/kg	135	0.57	14.70	1.00	0.10	151	4.34	511	4.80	0.09	98.30
1,3,5-Trimethylbenzene	mg/kg	115	0.17	5.58	0.31	0.03	57	1.48	179	1.59	0.03	35.90
Ethylbenzene	mg/kg	279	1.55	3.02	1.12	0.12	181	0.45	97	8.63	0.06	40.90
m,p-Xylenes	mg/kg	52	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	13	0.561 [0.516]	0.415 [0.127]	0.715 [0.466]	1.46 C3 [0.0579]	6.07 C3 [2.98]	0.166 C3 [0.0354 J]	7.78 C3 [3.01]	0.312 C3 [0.0555]	0.0451 C3 [< 0.0371]	3.65 C3 [2.39]
o-Xylene	mg/kg	61	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	10	< 0.0279	0.00267 J	< 0.0368	< 0.00317	< 3.21	< 0.00337	0	< 0.00321	< 0.00317	< 1.36
Total Xylenes	mg/kg	214	3.75	70.90	1.52	0.28	732	1.41	402	34.90	0.20	116.00
Trichloroethene	mg/kg	0.52	< 0.0112	< 0.00130	< 0.0147	< 0.00127	< 0.0103	< 0.00135	< 0.0112	< 0.00128	< 0.00127	< 0.0109
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	0.00790 J	0.00844 J	0.08	< 0.0372	< 0.0375	< 0.0382	< 0.0387	< 0.0375	< 0.0371	< 0.0388
Metals												
Arsenic	mg/kg	13	1.71 J	3.23	10.20	1.51 J	23.20	< 2.29	2.51	3.80	9.42	14.80
Lead	mg/kg	1,278	9.3	106.0	69.0	12.1	38.4	5.9	9.5	29.7	11.2	22.3
Mercury	mg/kg	98	0.07	1.01	0.25	0.0259 J	0.07	0.05	0.14	0.0366 J	0.0410 J	0.12

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	MIP-44 MIP-44 (0-1) (101222) 10/12/2022 0-1	MIP-44 MIP-44 (5-6) (101222) 10/12/2022 5-6	MIP-45 MIP-45 (0-1) (101322) 10/13/2022 0-1	MIP-45 MIP-45 (4-5) (101322) 10/13/2022 4-5	MIP-47 MIP-47 (1-2) (101322) 10/13/2022 1-2	MIP-47 MIP-47 (5-6) (101322) 10/13/2022 5-6	MIP-49 MIP-49 (0-1) (101322) 10/13/2022 0-1	MIP-49 MIP-49 (5-6) (101322) 10/13/2022 5-6	MIP-51 MIP-51 (0-1) (101322) 10/13/2022 0-1	MIP-51 MIP-51 (4-5) (101322) 10/13/2022 4-5
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	< 0.00335	< 0.0262	< 0.00282	< 0.0775	< 0.00319	0.48	< 0.00274	< 0.0288	< 0.0245	3.77
1,2,4-Trimethylbenzene	mg/kg	135	0.56	697	0.10	81.60	0.16	18.50	0.32	40	228	325
1,3,5-Trimethylbenzene	mg/kg	115	0.25	274	0.03	55.30	0.03	7.04	0.11	19	84	125
Ethylbenzene	mg/kg	279	0.19	380	0.12	134.00	0.26	13.10	0.48	84	7	329
m,p-Xylenes	mg/kg	52	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	13	0.113 [0.328 J]	12.4 J [5.82]	0.0122 C3J [< 0.0698]	6.21 C3 [0.887]	0.0484 C3 [0.0777]	2.76 C3 [0.317]	0.138 C3 [< 0.348]	1.05 C3 [0.648]	8.00 C3 [4.2]	16.3 C3 [9.38]
o-Xylene	mg/kg	61	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	10	0.00	0	< 0.00282	30	< 0.00319	< 0.00377	< 0.00274	1	0	2
Total Xylenes	mg/kg	214	2.20	1730	0.37	564	0.09	52.60	1.98	354	434	1930
Trichloroethene	mg/kg	0.52	< 0.00134	0.01	< 0.00113	9.40 C5	< 0.00128	< 0.00151	< 0.00109	0.0585 C5	< 0.00980	0.0872 C5
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	< 0.375	< 0.0377	< 0.0698	< 0.0419	0.0106 J	< 0.0412	< 0.348	< 0.0396	< 0.0350	< 0.0382
Metals												
Arsenic	mg/kg	13	0.773 J	6.12	1.01 J	8.66	< 2.24	< 2.47	1.43 J	10.20	< 2.10	10.70
Lead	mg/kg	1,278	234.0	8.9	10.0	42.3	1120.0	9.0	105.0	11.3	12.1	49.8
Mercury	mg/kg	98	6.75	0.10	0.79	0.19	0.15	0.15	0.18	0.11	< 0.0420	0.12

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	MIP-51 MIP-51 (5-6) (101322) 10/13/2022 5-6	MIP-52 MIP-52 (0-1) (101322) 10/13/2022 0-1	MIP-52 MIP-52 (1-2) (101322) 10/13/2022 1-2	SB22-01 SB22-01 (0-1) (033122) 3/31/2022 0-1	SB22-01 SB22-01 (5-6) (033122) 3/31/2022 5-6	SB22-02 SB22-02 (0-1) (033122) 3/31/2022 0-1	SB22-02 SB22-02 (4-5) (033122) 3/31/2022 4-5	SB22-03 SB22-03 (0-1) (033122) 3/31/2022 0-1	SB22-03 SB22-03 (4-5) (033122) 3/31/2022 4-5	SB22-04 SB22-04 (0-1) (033122) 3/31/2022 0-1
Volatile Organic Compounds												
1,1,2-Trichloroethane	mg/kg	8.5	0.86	< 0.00336	< 0.00390	< 0.00378	< 0.00355	< 0.00405	< 0.00397	< 0.00348	< 0.00385	< 0.00378
1,2,4-Trimethylbenzene	mg/kg	135	149	0.08	3.96	0.00641 J	< 0.00709	0.01	< 0.00793	0.01	0.00611 J	0.05
1,3,5-Trimethylbenzene	mg/kg	115	60	0.06	1.50	0.00324 J	< 0.00709	0.00432 J	< 0.00793	< 0.00697	< 0.00770	0.06
Ethylbenzene	mg/kg	279	168	0.12	6.68	0.00354 J	< 0.00355	0.00154 J	< 0.00397	< 0.00348	< 0.00385	0.05
m,p-Xylenes	mg/kg	52	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	13	6.62 C3 [4.07]	0.0238 [0.0542 J]	0.456 [0.0479]	0.0374 C3 [0.0228 J]	< 0.0177 C3 [< 0.0393]	< 0.0202 C3 [< 0.0850]	< 0.0198 C3 [< 0.0422]	< 0.0174 [< 0.0395]	0.0171 J [0.0344 J]	0.0155 J [0.0600 J]
o-Xylene	mg/kg	61	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	10	1	0.00286 J	0.00	0.00169 JJ4	< 0.00355 J4	< 0.00405 J4	< 0.00397 J4	< 0.00348	< 0.00385	< 0.00378
Total Xylenes	mg/kg	214	971	0.60	24.80	0.04	< 0.00922	0.02	0.00211 J	0.02	0.03	0.51
Trichloroethene	mg/kg	0.52	0.0625 C5	0.00	0.00	< 0.00151	< 0.00142	< 0.00162	< 0.00159	< 0.00139	< 0.00154	< 0.00151
Semi-Volatile Organic Compounds												
Benzo(a)pyrene	mg/kg	5.1	< 0.0399	0.64	< 0.0426	1.31	< 0.0393	1.83	0.05	0.09	0.200 J3	0.48
Metals												
Arsenic	mg/kg	13	3.55	7.30	7.39	12.20	4.00	12.90	5.47	5.66	10.30	23.00
Lead	mg/kg	1,278	21.4	694.0	15.5	521.0	11.5	127.0	43.6	192.0	93.3	242.0
Mercury	mg/kg	98	0.0467 J	1.92	0.05	0.20	< 0.0472	0.10	0.73	0.19	0.62	5.10

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	SB22-04 SB22-04 (3-4) (033122) 3/31/2022 3-4	SB22-05 SB22-05 (0-1) (033122) 3/31/2022 0-1	SB22-05 SB22-05 (7-8) (033122) 3/31/2022 7-8	SB22-06 SB22-06 (0-1) (033122) 3/31/2022 0-1	SB22-06 SB22-06 (4-5) (033122) 3/31/2022 4-5	SB22-07 SB22-07 (0-1) (033122) 3/31/2022 0-1	SB22-07 SB22-07 (1-2) (033122) 3/31/2022 1-2	SB22-08 SB22-08 (0-1) (033122) 3/31/2022 0-1	SB22-08 SB22-08 (6-7) (033122) 3/31/2022 6-7
Volatile Organic Compounds											
1,1,2-Trichloroethane	mg/kg	8.5	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397	< 0.00336	< 0.00389	< 0.00373
1,2,4-Trimethylbenzene	mg/kg	135	0.02	0.04	0.00622 J	0.02	< 0.00739	< 0.00795	2.93	< 0.00777	< 0.00746
1,3,5-Trimethylbenzene	mg/kg	115	0.00706 J	0.01	< 0.00806	0.01	< 0.00739	< 0.00795	1.23	< 0.00777	< 0.00746
Ethylbenzene	mg/kg	279	< 0.00387	0.03	< 0.00403	< 0.00385	< 0.00369	< 0.00397	0.31	< 0.00389	< 0.00373
m,p-Xylenes	mg/kg	52	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	13	0.0162 J [0.0274 J]	0.0261 [0.0124 J]	< 0.0202 [0.0143 J]	0.356 [< 0.0417]	0.00820 J [< 0.0404]	< 0.0199 [< 0.0836]	0.0831 [< 0.387]	0.0151 J [0.0197 J]	< 0.0186 [< 0.0407]
o-Xylene	mg/kg	61	-	-	-	-	-	-	-	-	-
Tetrachloroethene	mg/kg	10	< 0.00387	< 0.00394	< 0.00403	< 0.00385	< 0.00369	< 0.00397	< 0.00336	< 0.00389	< 0.00373
Total Xylenes	mg/kg	214	0.18	0.33	0.02	0.07	< 0.00960	0.02	2.10	0.00552 J	0.00239 J
Trichloroethene	mg/kg	0.52	< 0.00155	< 0.00157	< 0.00161	< 0.00154	< 0.00148	< 0.00159	< 0.00134	< 0.00155	< 0.00149
Semi-Volatile Organic Compounds											
Benzo(a)pyrene	mg/kg	5.1	0.13	0.40	0.0253 J	0.29	< 0.0404	< 0.0836	< 0.387	0.0303 J	< 0.0407
Metals											
Arsenic	mg/kg	13	16.00	16.40	14.00	12.50	2.18 J	8.78	12.30	18.80	4.51
Lead	mg/kg	1,278	95.4	52.3	84.6	167.0	10.4	26.7	189.0	30.3	13.2
Mercury	mg/kg	98	0.21	0.0267 J	0.07	0.36	0.0449 J	0.07	< 0.0465	0.05	< 0.0489

Notes are on the last page.

Table 30
Combined Soil Data (0-8 ft bgs) Screened with Risk Based Target Levels
AkzoNoble Coatings Inc.
Birmingham, Alabama



COCs for Combined Soil	Location: Sample Name: Sample Date: Depth (ft bgs):	Construction Worker Minimum RBTL	SB22-09 SB22-09 (0-1) (033122) 3/31/2022 0-1	SB22-09 SB22-09 (4-5) (033122) 3/31/2022 4-5	SB22-10 SB22-10 (0-1) (033122) 3/31/2022 0-1	SB22-10 SB22-10 (5-6) (033122) 3/31/2022 5-6
Volatile Organic Compounds						
1,1,2-Trichloroethane	mg/kg	8.5	< 0.00375	< 0.00392	< 0.00432	< 0.00380
1,2,4-Trimethylbenzene	mg/kg	135	0.00264 J	< 0.00785	0.00600 J	< 0.00760
1,3,5-Trimethylbenzene	mg/kg	115	< 0.00750	< 0.00785	< 0.00864	< 0.00760
Ethylbenzene	mg/kg	279	0.00146 J	< 0.00392	0.00230 J	< 0.00380
m,p-Xylenes	mg/kg	52	-	-	-	-
Naphthalene	mg/kg	13	< 0.0188 C3 [< 0.0409]	< 0.0196 C3 [0.0145 J]	0.0114 C3J [< 0.0439]	< 0.0190 C3 [< 0.0409]
o-Xylene	mg/kg	61	-	-	-	-
Tetrachloroethene	mg/kg	10	< 0.00375 J4	< 0.00392 J4	< 0.00432 J4	0.00343 JJ4
Total Xylenes	mg/kg	214	0.01	0.00364 J	0.05	0.00404 J
Trichloroethene	mg/kg	0.52	< 0.00150	< 0.00157	< 0.00173	< 0.00152
Semi-Volatile Organic Compounds						
Benzo(a)pyrene	mg/kg	5.1	0.63	2.25	0.18	0.09
Metals						
Arsenic	mg/kg	13	9.89	14.00	11.20	8.25
Lead	mg/kg	1,278	30.7	33.1 O1	42.4	23.3
Mercury	mg/kg	98	0.0393 J	0.11	0.23	0.0420 J

< - Result is less than reporting limit.
mg/kg - Milligrams per kilogram.
SVOCs - Semi-volatile organic compounds.
VOCs - Volatile organic compounds.
B - The same analyte is found in the associated blank.
C3 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
J - The identification of the analyte is acceptable; the reported value is an estimate.
J2 - Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3 - The associated batch QC was outside the established quality control range for precision.
J4 - The associated batch QC was outside the established quality control range for accuracy.
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.
Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.
O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.
RBTL - Risk based target level.

Table 31
Groundwater Data Screened with Risk Based Target Levels
AkzoNobel Coatings Inc.
Birmingham, Alabama



COCs for Direct Contact with Groundwater	Location:	Construction Worker	MW-01	MW-02	MW-03	MW-04R	MW-05	MW-06	MW-07	MW-11R	MW-13	MW-14	MW-15	MW-16	PMW-09	PMW-12
	Sample Name:	Minimum	MW-1-101422	MW-2-101222	MW-3-101722	MW-4R-101822	MW-5-101222	MW-6-101422	MW-7-101222	MW-11R-101822	MW-13-101822	MW-14-101822	MW-15-101822	MW-16-101822	PMW-9-101322	PMW-12-101822
	Sample Date	RBTL (µg/l)	10/14/2022	10/12/2022	10/17/2022	10/18/2022	10/12/2022	10/14/2022	10/12/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/12/2022	10/18/2022
Volitale Organic Compounds																
1,1-Dichloroethane	µg/l	9.0E+01	251	< 1.00	< 1.00	164	0.242 J	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,1-Dichloroethene	µg/l	4.0E-01	26.1 J	< 1.00	< 1.00	33.6 J	< 1.00	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
1,2,3-Trimethylbenzene	µg/l	2.2E+01	418	< 1.00	6.73	433	< 1.00	0.446 J	< 1.00	< 1.00	297	0.815 J	< 1.00	< 1.00	< 1.00	< 1.00
1,2,4-Trimethylbenzene	µg/l	2.2E+01	1,470	< 1.00	27.1	1,870	1.49	< 1.00	< 1.00	< 1.00	558	1.61	< 1.00	< 1.00	< 1.00	< 1.00
1,3,5-Trimethylbenzene	µg/l	2.2E+01	559	< 1.00	6.66	678	0.340 J	< 1.00	< 1.00	< 1.00	189	0.712 J	< 1.00	< 1.00	< 1.00	< 1.00
2-Butanone (MEK)	µg/l	2.1E+02	152,000 C5	< 10.0	< 10.0	190 J	8.71 J	< 10.0	< 10.0	< 10.0	< 200	< 10.0	< 10.0	< 10.0	< 10.0	< 10.0
4-Methyl-2-Pentanone	µg/l	1.3E+02	19,000	< 10.0	< 10.0	201 J	< 10.0	< 10.0	< 10.0	< 10.0	< 200	0.880 J	< 10.0	< 10.0	< 10.0	< 10.0
Acetone	µg/l	1.0E+06	16,000 J	< 50.0	< 50.0	< 2,500	< 50.0	< 50.0	< 50.0	< 50.0	< 1,000	< 50.0	< 50.0	< 50.0	< 50.0	< 50.0
Benzene	µg/l	7.3E+00	250	< 1.00	0.109 J	70.1	6.39	3.04	< 1.00	0.123 J	9.73 J	0.278 J	0.132 J	< 1.00	< 1.00	< 1.00
Chloroform	µg/l	6.9E+00	< 250	< 5.00 J4	< 5.00	< 250	< 5.00 J4	< 5.00	< 5.00 J4	< 5.00	< 100	1.34 J	< 5.00	< 5.00	< 5.00 J4	< 5.00
cis-1,2-Dichloroethene	µg/l	4.0E+01	3,410	< 1.00	0.164 J	2,480	1.75	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Ethylbenzene	µg/l	5.9E+01	3,950	< 1.00	105	9,670	15.1	2.66	< 1.00	< 1.00	5,540	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Isopropylbenzene	µg/l	1.0E+01	121	< 1.00	23.3	278	389	175	0.623 J	< 1.00	189	6.76	8.63	< 1.00	< 1.00	< 1.00
Naphthalene	µg/l	4.2E-01	174 C3J [54.2]	< 5.00 C3J3 [< 1.00]	< 5.00 [0.332 J]	67.2 J [11.0 31.5 Q]	< 5.00 C3J3 [0.912 J]	< 5.00 C3 [0.451 J]	< 5.00 C3J3 [< 1.00]	< 5.00 [< 1.00]	96.6 J [39]	< 5.00 [< 1.00]	< 5.00 [< 1.00]	< 5.00 [< 1.00]	< 5.00 C3J3 [< 1.00]	< 5.00 [< 1.00]
n-Propylbenzene	µg/l	1.0E+02	252	< 1.00	24.6	373	884	464	< 1.00	< 1.00	218	3.32	2.1	< 1.00	< 1.00	< 1.00
Toluene	µg/l	4.9E+02	97,900	< 1.00	20.4	89,200	44.6	< 1.00	< 1.00	< 1.00	77.1 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Total Xylenes	µg/l	4.2E+01	25,000	< 3.00	439	33,500	42	0.266 J	< 3.00	< 3.00	17,800	2.61 J	0.646 J	< 3.00	< 3.00	< 3.00
Vinyl chloride	µg/l	7.9E+00	49.1 J	< 1.00	< 1.00	87.4	0.422 J	< 1.00	< 1.00	< 1.00	< 20.0	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Semi-Volatile Organic Compounds																
2,4-Dimethylphenol	µg/l	4.8E+03	144	< 10.0	0.663 J	49.4 J4 85.0 Q	3.38 J	< 10.0	< 10.0	< 10.0 J4	15.1 J4	< 10.0 J4	< 10.0 J4	< 10.0 J4	< 10.0	< 10.0 J4
Benz(a)anthracene	µg/l	4.1E+01	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.206 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Dibenz(a,h)anthracene	µg/l	7.9E+03	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	0.0703 J	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
Isophorone	µg/l	3.9E+05	1,830	< 10.0	< 10.0	< 10.0	1.28 J	0.272 J	< 10.0	< 10.0	< 10.0	0.242 J	< 10.0	< 10.0	< 10.0	< 10.0
Metals																
Arsenic	µg/l	3.7E+02	99.2	< 20.0	< 10.0	< 10.0	23.3	8.56 J	5.11 J	16.1	< 10.0	< 10.0	12	4.77 J	< 20.0	< 10.0
Lead	µg/l	1.5E+01	21.6	2.51 J	< 6.00	< 6.00	2.31 J	3.31 J	1.93 J	8.91	3.46 J	< 6.00	< 6.00	< 6.00	< 10.0	< 6.00

< - Result is less than reporting limit.

µg/l - Micrograms per liter.

B - The same analyte is found in the associated blank.

C3 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.

C4 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.

C5 - The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.

J - The identification of the analyte is acceptable; the reported value is an estimate.

J2 - Surrogate recovery limits have been exceeded; values are outside lower control limits.

J3 - The associated batch QC was outside the established quality control range for precision.

J4 - The associated batch QC was outside the established quality control range for accuracy.

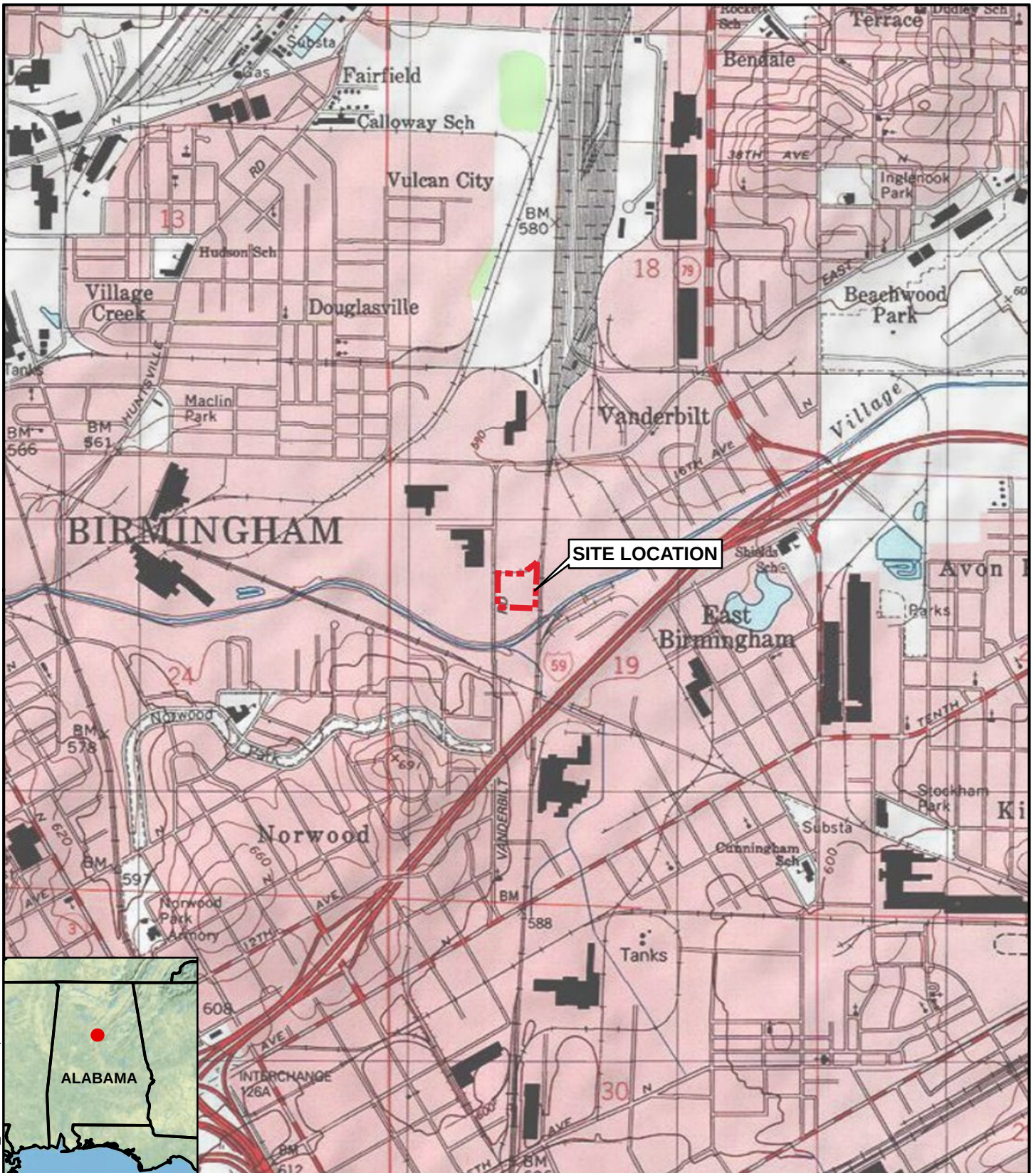
J6 - The sample matrix interfered with the ability to make any accurate determination; spike value is low.

Q - Sample was prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.

O1 - The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

RBTL - Risk based target level.

Figures



LEGEND

 SITE BOUNDARY

0 2,000 4,000
Feet



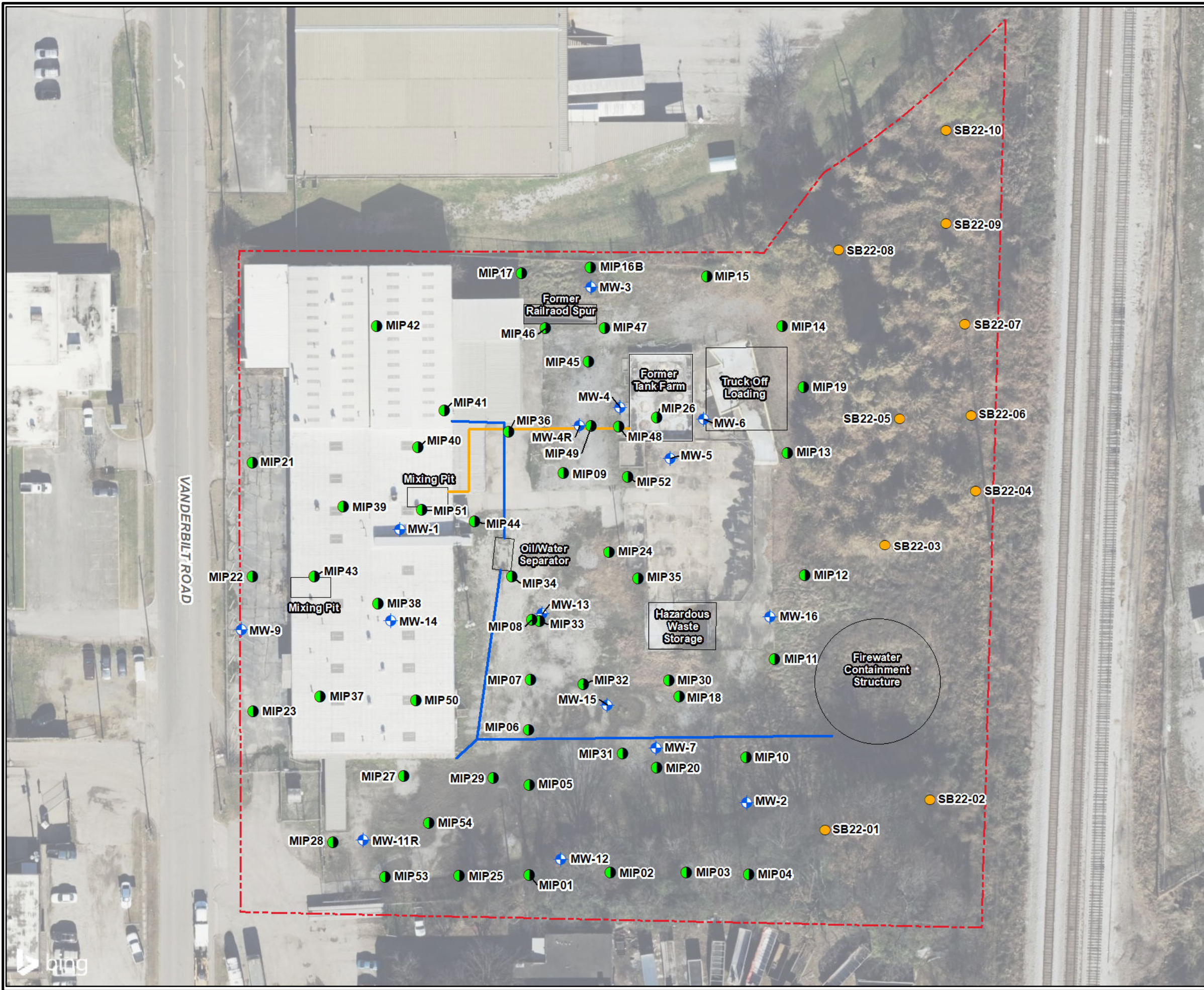
AKZONOBEL COATINGS INC
1629 AND 1661 VANDERBILT ROAD
BIRMINGHAM, ALABAMA 35234

SITE LOCATION MAP



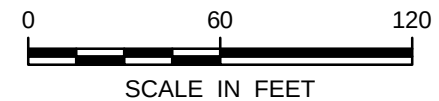
FIGURE

1



LEGEND

- () 2022 SOIL BORING
- ◀ MIP/HPT LOCATION
- A MONITORING WELL
- DRAIN LINE
- PRODUCT TRANSFER LINE
- ▭ SITE BOUNDARY
- ▭ FORMER SITE FEATURE



- NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
 2. MIP = MEMBRANE INTERFACE PROBE
 3. HPT = HYDRAULIC PROFILING TOOL

AKZONOBEL COATINGS INC
1629 AND 1661 VANDERBILT ROAD
BIRMINGHAM, ALABAMA 35234

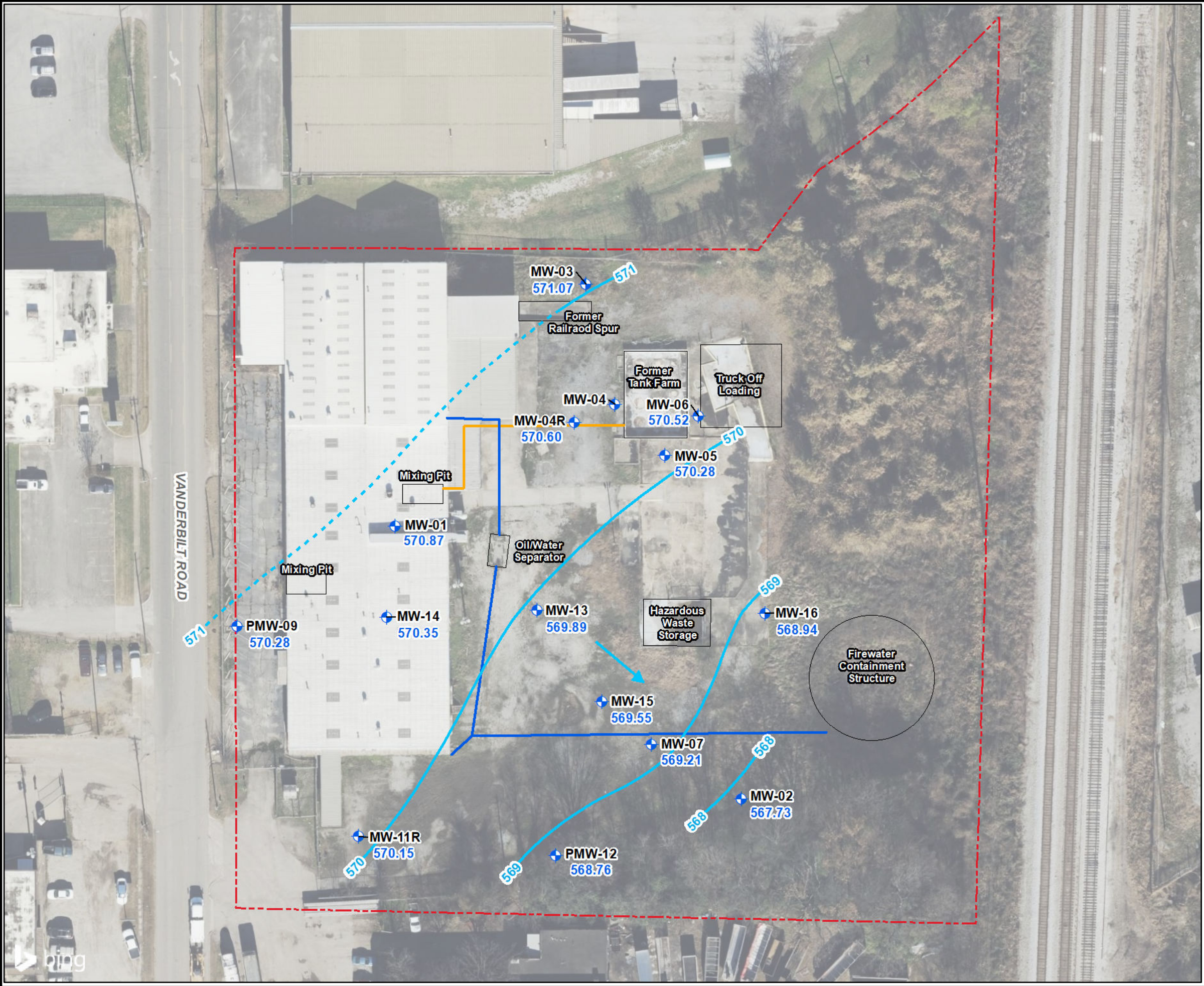
SITE MAP



FIGURE

2

CITY: (DEN-TECH) DIV: (GROUP) ENV: (GIS) DB: (DHOLMES LD:D.Holmes PIC: PM: TM: PROJECT: T:\ENVA\AkzoNobel\Birmingham\MXD\F3_GW_Potentiometric_102022.mxd



LEGEND

- MONITORING WELL
- DRAIN LINE
- PRODUCT TRANSFER LINE
- SITE BOUNDARY
- FORMER SITE FEATURE
- GROUNDWATER POTENTIOMETRIC CONTOUR (FEET ABOVE NAVD88) (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION
- 570.52 GROUNDWATER ELEVATION (FEET ABOVE NAVD88)

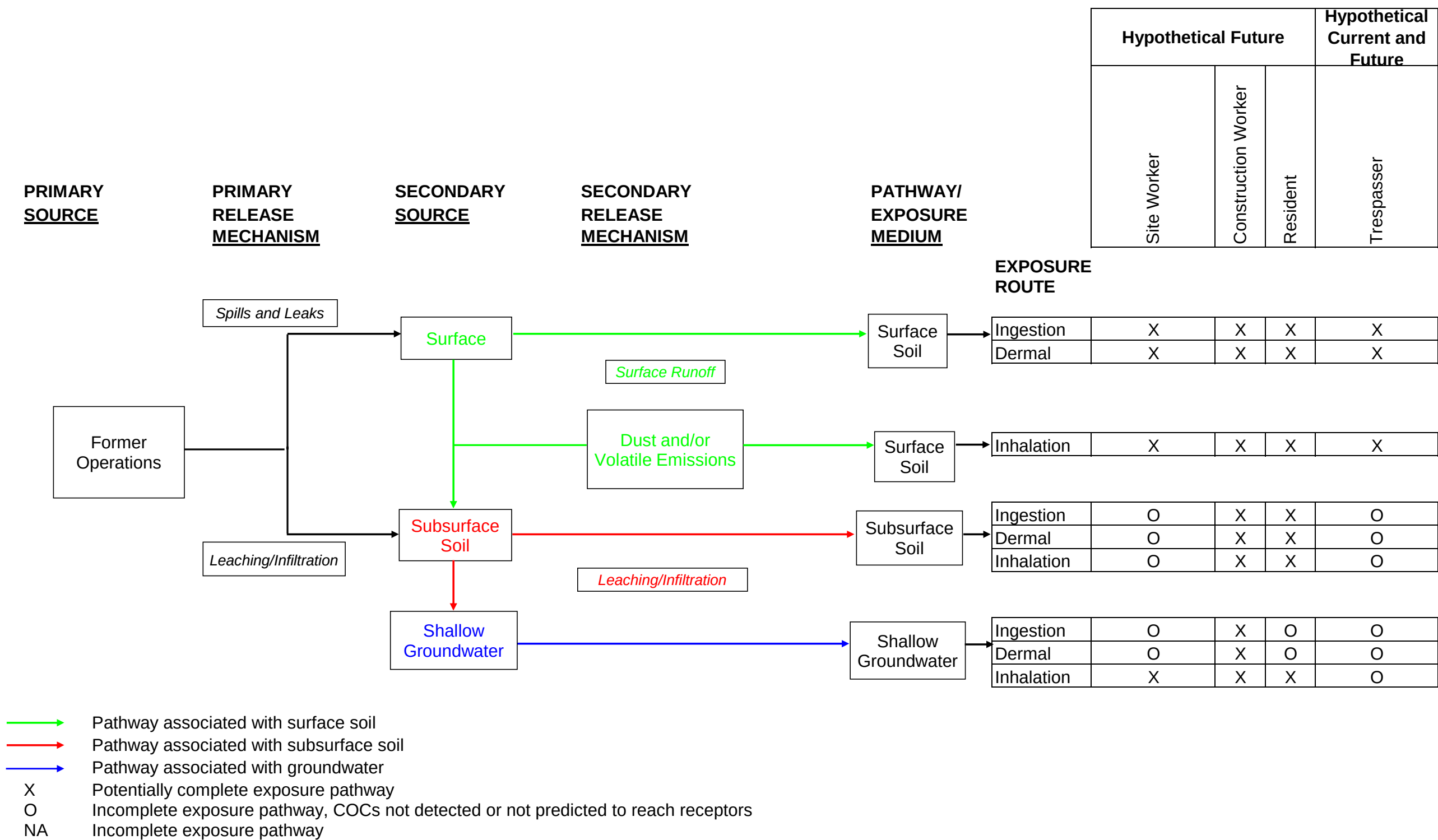
0 60 120
SCALE IN FEET

- NOTES:
1. ALL LOCATIONS ARE APPROXIMATE.
 2. NAVD88 = NORTH AMERICAN VERTICAL DATUM OF 1988
 3. MIP = MEMBRANE INTERFACE PROBE
 4. HPT = HYDRAULIC PROFILING TOOL

AKZONOBEL COATINGS INC
1629 AND 1661 VANDERBILT ROAD
BIRMINGHAM, ALABAMA 35234

GROUNDWATER ELEVATION MAP OCTOBER 2022





Conceptual Site Model for Potential Exposure Pathways
 AkzoNobel Coatings Inc.
 Birmingham, Alabama

Figure 4

Appendix A

Johnson and Ettinger Model

Table of Inputs and Outputs for Multiple Chemicals

Note: Parameters other than the chemical concentration must be entered in the MODEL sheet and must be the same for all chemicals. Warnings and errors are displayed in only on the MODEL sheet.

			Benzene	Dichloroethane, 1,1-	Dichloroethylene, 1,2-cis-	Ethylbenzene	Naphthalene
Source Characteristics:	Units	Symbol	Value	Value	Value	Value	Value
Source medium		Source	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Groundwater concentration	(ug/L)	Cmedium	250	251	3410	9670	174
Depth below grade to water table	(m)	Ls	1.22	1.22	1.22	1.22	1.22
Average groundwater temperature	(°C)	Ts	18.3	18.3	18.3	18.3	18.3
Calc: Source vapor concentration	(ug/m3)	Cs	42487	44345	433704	2157112	1947
Calc: % of pure component saturated vapor concentration	(%)	%Sat	0.011%	0.004%	0.042%	3.934%	0.332%
Chemical:	Units	Symbol	Value	Value	Value	Value	Value
Chemical Name		Chem	Benzene	Dichloroethane, 1,1-	Dichloroethylene, 1,2-cis-	Ethylbenzene	Naphthalene
CAS No.		CAS	71-43-2	75-34-3	156-59-2	100-41-4	91-20-3
Toxicity Factors							
Unit risk factor	(ug/m³) ⁻¹	IUR	7.80E-06	1.60E-06	Not Available	2.50E-06	3.40E-05
Mutagenic compound		Mut	No	No	No	No	No
Reference concentration	(ug/m³)	RfC	3.00E-02	Not Available	4.00E-02	1.00E+00	3.00E-03
Chemical Properties:	Units	Symbol	Value	Value	Value	Value	Value
Pure component water solubility	(mg/L)	S	1.79E+03	5.04E+03	6.41E+03	1.69E+02	3.10E+01
Henry's Law Constant @ 25°C	(atm-m³/mol)	Hc	5.55E-03	5.62E-03	4.08E-03	7.88E-03	4.40E-04
Calc: Henry's Law Constant @ 25°C	(dimensionless)	Hr	2.27E-01	2.30E-01	1.67E-01	3.22E-01	1.80E-02
Calc: Henry's Law Constant @ system temperature	(dimensionless)	Hs	1.70E-01	1.77E-01	1.27E-01	2.23E-01	1.12E-02
Diffusivity in air	(cm2/s)	Dair	8.95E-02	8.36E-02	8.84E-02	6.85E-02	6.05E-02
Diffusivity in water	(cm2/s)	Dwater	1.03E-05	1.06E-05	1.13E-05	8.46E-06	8.38E-06
Building Characteristics:	Units	Symbol	Value	Value	Value	Value	Value
Building setting		Bldg_Setting	Commercial	Commercial	Commercial	Commercial	Commercial
Foundation type		Found_Type	Slab-on-grade	Slab-on-grade	Slab-on-grade	Slab-on-grade	Slab-on-grade
Depth below grade to base of foundation	(m)	Lb	0.20	0.20	0.20	0.20	0.20
Foundation thickness	(m)	Lf	0.20	0.20	0.20	0.20	0.20
Fraction of foundation area with cracks	(-)	eta	0.001	0.001	0.001	0.001	0.001
Enclosed space floor area	(m2)	Ab	1500.00	1500.00	1500.00	1500.00	1500.00
Enclosed space mixing height	(m)	Hb	3.00	3.00	3.00	3.00	3.00
Indoor air exchange rate	(1/hr)	ach	1.50	1.50	1.50	1.50	1.50
Qsoil/Qbuilding	(-)	Qsoil_Qb	0.0030	0.0030	0.0030	0.0030	0.0030
Calc: Building ventilation rate	(m3/hr)	Qb	6750.00	6750.00	6750.00	6750.00	6750.00
Calc: Average vapor flow rate into building	(m3/hr)	Qsoil	20.25	20.25	20.25	20.25	20.25

Vadose zone characteristics:			Units	Symbol	Value	Value	Value	Value	Value
Stratum A (Top of soil profile):									
Stratum A SCS soil type				SCS_A	Clay	Clay	Clay	Clay	Clay
Stratum A thickness (from surface)				hSA	1.22	1.22	1.22	1.22	1.22
Stratum A total porosity				nSA	0.459	0.459	0.459	0.459	0.459
Stratum A water-filled porosity				nwSA	0.215	0.215	0.215	0.215	0.215
Stratum A bulk density				rhoSA	1.430	1.430	1.430	1.430	1.430
Stratum B (Soil layer below Stratum A):									
Stratum B SCS soil type				SCS_B	Not Present	Not Present	Not Present	Not Present	Not Present
Stratum B thickness				hSB	0.00	0.00	0.00	0.00	0.00
Stratum B total porosity				nSB					
Stratum B water-filled porosity				nwSB					
Stratum B bulk density				rhoSB					
Stratum C (Soil layer below Stratum B):									
Stratum C SCS soil type				SCS_C	Not Present	Not Present	Not Present	Not Present	Not Present
Stratum C thickness				hSC	0.00	0.00	0.00	0.00	0.00
Stratum C total porosity				nSC					
Stratum C water-filled porosity				nwSC					
Stratum C bulk density				rhoSC					
Stratum directly above the water table									
Stratum A, B, or C				src_soil	Stratum A	Stratum A	Stratum A	Stratum A	Stratum A
Height of capillary fringe				hcz	0.815	0.815	0.815	0.815	0.815
Capillary zone total porosity				ncz	0.459	0.459	0.459	0.459	0.459
Capillary zone water filled porosity				nwcz	0.412	0.412	0.412	0.412	0.412
Exposure Parameters:			Units	Symbol	Value	Value	Value	Value	Value
Target risk for carcinogens			(-)	Target_CR	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
Target hazard quotient for non-carcinogens			(-)	Target_HQ	1	1	1	1	1
Exposure Scenario				Scenario	Commercial	Commercial	Commercial	Commercial	Commercial
Averaging time for carcinogens			(yrs)	ATc	70	70	70	70	70
Averaging time for non-carcinogens			(yrs)	ATnc	25	25	25	25	25
Exposure duration			(yrs)	ED	25	25	25	25	25
Exposure frequency			(days/yr)	EF	250	250	250	250	250
Exposure time			(hrs/24 hrs)	ET	8	8	8	8	8
Mutagenic mode-of-action factor			(yrs)	MMOAF	72	72	72	72	72
Source to Indoor Air Attenuation Factor			Units	Symbol	Value	Value	Value	Value	Value
Groundwater to indoor air attenuation coefficient			(-)	alpha	3.1E-06	3.0E-06	3.8E-06	2.2E-06	1.9E-05
				Range	3.0E-06 - 3.1E-06	2.9E-06 - 3.0E-06	3.7E-06 - 3.8E-06	2.1E-06 - 2.2E-06	1.6E-05 - 1.9E-05
Predicted Indoor Air Concentration									
Indoor air concentration due to vapor intrusion			(ug/m3)	Cia	1.3E-01	1.3E-01	1.6E+00	4.7E+00	3.7E-02
				Range	1.3E-01 - 1.3E-01	1.3E-01 - 1.3E-01	1.6E+00 - 1.6E+00	4.6E+00 - 4.7E+00	3.1E-02 - 3.8E-02
			(ppbv)	Cia	4.2E-02	3.3E-02	4.2E-01	1.1E+00	7.1E-03
				Range	4.0E-02 - 4.2E-02	3.2E-02 - 3.3E-02	4.0E-01 - 4.2E-01	1.1E+00 - 1.1E+00	6.0E-03 - 7.2E-03
Predicted Vapor Concentration Beneath the Foundation									
Subslab vapor concentration			(ug/m3)	Css	4.4E+01	4.4E+01	5.5E+02	1.6E+03	1.2E+01
				Range	2.7E+00 - 1.3E+03	2.7E+00 - 1.3E+03	3.3E+01 - 1.6E+04	9.4E+01 - 4.6E+04	7.5E-01 - 3.1E+02
			(ppbv)	Css	1.4E+01	1.1E+01	1.4E+02	3.6E+02	2.4E+00
				Range	8.3E-01 - 4.0E+02	6.6E-01 - 3.2E+02	8.3E+00 - 4.0E+03	2.2E+01 - 1.1E+04	1.4E-01 - 6.0E+01
Diffusive Transport Upward Through Vadose Zone									
Effective diffusion coefficient through Stratum A			(cm2/sec)	DeffA	3.9E-03	3.6E-03	3.8E-03	3.0E-03	2.6E-03
Effective diffusion coefficient through Stratum B			(cm2/sec)	DeffB					
Effective diffusion coefficient through Stratum C			(cm2/sec)	DeffC					
Effective diffusion coefficient through capillary zone			(cm2/sec)	DeffCZ	3.1E-05	3.0E-05	3.8E-05	2.2E-05	2.0E-04
Effective diffusion coefficient through unsaturated zone			(cm2/sec)	DeffT	3.9E-05	3.7E-05	4.7E-05	2.7E-05	2.4E-04

Critical Parameters			Value	Value	Value	Value	Value
α for diffusive transport from source to building with	(-)	A_Param	3.1E-06	3.0E-06	3.8E-06	2.2E-06	1.9E-05
Pe (Peclet Number) for transport through the foundation	(-)	B_Param	1.9E+03	2.0E+03	1.9E+03	2.5E+03	2.8E+03
α for convective transport from subslab to building	(-)	C_Param	3.0E-03	3.0E-03	3.0E-03	3.0E-03	3.0E-03
			1.9E+03	2.0E+03	1.9E+03	2.5E+03	2.8E+03
Interpretation							
Advection is the dominant mechanism across the foundation. Diffusion through soil is the overall rate limiting process.							
Critical Parameters							
			Hb, Ls, Defft, ach	Hb, Ls, Defft, ach	Hb, Ls, Defft, ach	Hb, Ls, Defft, ach	Hb, Ls, Defft, ach
Non-Critical Parameters							
			Qsoil_Qb, Lf, DeffA, eta	Qsoil_Qb, Lf, DeffA, eta	Qsoil_Qb, Lf, DeffA, eta	Qsoil_Qb, Lf, DeffA, etc	Qsoil_Qb, Lf, DeffA, eta
Risk Calculations		Units	Symbol	Value	Value	Value	Value
Risk-Based Target Screening Levels							
Target risk for carcinogens	(-)		Target_CR	1E-06	1E-06	1E-06	1E-06
Target hazard quotient for noncarcinogens	(-)		Target_HQ	1	1	1	1
Target indoor air concentration	(ug/m3)		Target_IA	1.57E+00	7.67E+00	1.75E+02	4.91E+00
	(ppbv)		Target_IA	4.92E-01	1.89E+00	4.42E+01	1.13E+00
Target groundwater concentration	(ug/L)		Target_GW	2.97E+03	1.45E+04	3.63E+05	1.01E+04
Incremental Risk Estimates							
Incremental cancer risk from vapor intrusion	(-)		Cancer_Risk	8.43E-08	1.73E-08	No IUR	9.58E-07
			Range	8.2E-08 - 8.4E-08	1.7E-08 - 1.7E-08	-	9.4E-07 - 9.6E-07
							8.7E-08 - 1.0E-07
Hazard quotient from vapor intrusion	(-)		HQ	0.001008916	No RfC Available	0.009394372	0.001072941
			Range	9.8E-04 - 1.0E-03	No RfC Available	9.1E-03 - 9.4E-03	1.1E-03 - 1.1E-03
							2.4E-03 - 2.9E-03

Total Cancer Risk: 1.2E-06
Total HQ: 0.014

Appendix B

Adult Lead Model

Calculations of Preliminary Remediation Goals (PRGs) for Soil in Nonresidential Areas

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

Version date 06/14/2017

EDIT RED CELLS

Construction Worker Site Worker Trespasser

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014	GSDi and PbBo from Analysis of NHANES 2009-2014
$PbB_{fetal, 0.95}$	Target PbB in fetus	$\mu\text{g/dL}$	5	5	5
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9	0.9	0.9
BKSF	Biokinetic Slope Factor	$\mu\text{g/dL}$ per $\mu\text{g/day}$	0.4	0.4	0.4
GSD_i	Geometric standard deviation PbB	--	1.8	1.8	1.8
PbB_0	Baseline PbB	$\mu\text{g/dL}$	0.6	0.6	0.6
IR_s	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100	0.050	0.050
$AF_{s, D}$	Absorption fraction (same for soil and dust)	--	0.12	0.12	0.12
$EF_{s, D}$	Exposure frequency (same for soil and dust)	days/yr	90	219	1
$AT_{s, D}$	Averaging time (same for soil and dust)	days/yr	365	365	7
PRG in Soil for no more than 5% probability that fetal PbB exceeds target PbB		ppm	1,278	1,050	4,412

Calculations of Preliminary Remediation Goals (PRGs) for Water in Nonresidential Areas
U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee
Version date 06/14/2017

EDIT RED CELLS

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 2009-2014
$PbB_{fetal, 0.95}$	Target PbB in fetus	$\mu\text{g/dL}$	5
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9
BKSF	Biokinetic Slope Factor	$\mu\text{g/dL}$ per $\mu\text{g/day}$	0.4
GSD_i	Geometric standard deviation PbB	--	1.8
PbB_0	Baseline PbB	$\mu\text{g/dL}$	0.6
IR_w	Water ingestion rate	L/day	0.002
AF_w	Absorption fraction (from IEUBK model)	--	0.20
EF_w	Exposure frequency	days/yr	90
AT_w	Averaging time	days/yr	365
PRG in Soil for no more than 5% probability that fetal PbB exceeds target PbB		$\mu\text{g/L}$	38,339

Arcadis U.S., Inc.
Wade I, 5420 Wade Park Boulevard, Suite 350
Raleigh
North Carolina 27607
Phone: 919 854 1282
Fax: 919 233 1125
www.arcadis.com

Appendix B

USEPA Laboratory Services and Applied Science Division Waste Sampling Guidance

Region 4 U.S. Environmental Protection Agency Laboratory Services and Applied Science Division Athens, Georgia	
Operating Procedure	
Title: Waste Sampling	ID: LSASDPROC-302-R4
Issuing Authority: LSASD Field Branch Chief	
Effective Date: May 15, 2020	Review Date: May 15, 2024

Purpose

This document describes general and specific procedures, methods and considerations to be used and observed when collecting waste samples for field screening or laboratory analysis.

Scope/Application

The procedures contained in this document are to be used by field personnel when collecting and handling waste samples in the field. On the occasion that LSASD field investigators determine that any of the procedures described in this document are inappropriate, inadequate or impractical and that another procedure must be used to obtain a waste sample, the variant procedure will be documented in the field logbook, along with a description of the circumstances requiring its use. Mention of trade names or commercial products in this operating procedure does not constitute endorsement or recommendation for use.

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1 General Information

1.1 Documentation/Verification

This procedure was prepared by persons deemed technically competent by LSASD management, based on their knowledge, skills and abilities and have been tested in practice and reviewed in print by a subject matter expert. The official copy of this procedure resides on the Division's local area network (LAN). The Document Control coordinator is responsible for ensuring the most recent version of the procedure is placed on the LAN and for maintaining records of review conducted prior to its issuance.

1.2 General Precautions

1.2.1 Safety

Proper safety precautions must be observed when collecting waste samples. Refer to the LSASD Safety, Health and Environmental Management Program (SHEMP) Procedures and Policy Manual and any pertinent site-specific Health and Safety Plans (HASP) for guidelines on safety precautions. These guidelines, however, should only be used to complement the judgment of an experienced professional. Sampling of waste units should be assessed for potential hazards by both the project leader and the site safety officer (SSO). It is the SSO's responsibility to enforce the site safety plan, and to ensure that procedures used during waste sampling are in accordance with Branch safety procedures and protocols found in the SHEMP Procedures and Policy Manual and the HASP.

When using this procedure, minimize exposure to potential health hazards through the use of protective clothing, eye wear and gloves. Address chemicals that pose specific toxicity or safety concerns and follow any other relevant requirements, as appropriate. Specific levels of dress for waste sampling will be described in greater detail later in this operating procedure.

Sampling equipment contaminated during waste sampling investigations should be cleaned in accordance with the LSASD Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205). Contaminated sampling equipment that is to be discarded must be properly disposed according to the LSASD Operating Procedure for Management of Investigation Derived Waste (LSASDPROC-202). These procedures should be specified in the site-specific Sampling and Analysis Plan (SAP).

1.2.2 Procedural Precautions

The following precautions should be considered when collecting waste samples.

- Waste samples that have demonstrated hazardous properties through the screening process or have very strong odors should be managed as prescribed in Section 5 of this procedure.
- Special care must be taken not to contaminate samples. This includes storing samples in a secure location to preclude conditions which could alter the properties of the sample.
- Collected waste samples must remain in the custody of the sampler or sample custodian until the samples are relinquished to another party. Waste samples are most commonly

transported by the samplers, and will remain under their custody with the chain-of-custody documents.

- Shipped samples will conform to all U.S. Department of Transportation (DOT) rules of shipment found in Title 49 of the Code of Federal Regulations (49 CFR parts 171 to 179), and/or International Air Transportation Association (IATA) hazardous materials shipping requirements found in the current edition of IATA's Dangerous Goods Regulations. This shipment must be prepared by a person trained and authorized for shipping of hazardous materials.

1.3 Quality Control Procedures

In some instances, special decontamination procedures will be necessary and should be developed on a case-by-case basis according to the specific material encountered. Any cleaning procedures and equipment repairs conducted in the field, which deviate from those specified in the LSASD Operating Procedure for Field Equipment Cleaning and Decontamination (LSASDPROC-205) or the SAP, will be thoroughly documented in the logbooks. Equipment blanks will be collected in accordance with the LSASD Operating Procedure for Field Sampling Quality Control (LSASDSESDPROC-011) if equipment is field cleaned and re-used on-site or if necessary, to document that low-level contaminants were not introduced by any sampling equipment. All air monitoring and field analytical/screening equipment should be checked and calibrated before being issued for field studies, as specified in the LSASD Operating Procedure for Equipment Inventory and Management (LSASDPROC-108).

1.4 Auxiliary Information and Data Collection

The collection of auxiliary information and data is particularly important when collecting waste samples. Any field analyses or field screening results should be recorded in a logbook as outlined in the LSASD Operating Procedure for Logbooks (LSASDPROC-010). Sketches of waste units, sampling locations, containers, tanks and ancillary equipment, markings/labels, etc., should be fully documented in logbooks. Photographs are extremely useful for recording this information and may be used during waste sampling operations. A field log of the photographs taken will be maintained as outlined in the LSASD Operating Procedure for Logbooks (LSASDPROC-010).

1.5 Records

Information generated or obtained by LSASD personnel will be organized and accounted for in accordance with the Division's records management procedures found in the LSASD Operating Procedure for Control of Records (LSASDPROC-002). Field notes, recorded in a bound field logbook, will be generated, as well as chain-of-custody documentation in accordance with the LSASD Operating Procedure for Logbooks (LSASDPROC-010) and the LSASD Operating Procedure for Sample and Evidence Management (LSASDPROC-005).

1.6 Investigation Derived Waste

Sampling and decontamination can generate investigation derived waste (IDW), the disposition of which must be considered. See the LSASD Operating Procedure for Management of Investigation Derived Waste (LSASDPROC-202) for guidance on management or disposal of this waste.

2 Waste Sampling - Background General Information

2.1 General

Hazardous wastes are regulated by the USEPA under 40 CFR Parts 260-282. As a consequence, many of the methods that are used to manage, store, treat and dispose hazardous wastes and potential hazardous wastes are of concern to both the regulators and the regulated community.

Samples are often required of regulated or potentially regulated materials. While it is understood that each facility and waste stream may present its own unique sampling and analytical challenges, this operating procedure will list equipment and procedures that have been used to safely and successfully sample specific waste units.

2.2 Waste Unit Types

Waste management units can be generally categorized into two types: open and closed. In practice, open units are larger than closed units. Open units include waste piles and surface impoundments whereas closed units include containers and tanks as well as ancillary tank equipment. In addition to containers and tanks, sumps may also be considered closed units because they are designed to collect the spillage of liquid wastes and are sometimes configured as confined spaces.

Although both may pose hazards, units that are open to the environment are generally less hazardous than closed units. Sampling of closed units is considered a higher hazard risk because of the potential of exposure to toxic gases and flammable/explosive atmospheres. Because closed units prevent the dilution of the wastes by environmental influences, they are more likely to contain materials that have concentrated levels of hazardous constituents. While opening closed units for sampling purposes when the unit's contents are unknown, investigators will use Level B personal protective equipment (PPE) and air monitoring instruments to ensure that the working environment does not contain hazardous levels of flammable/explosive gases or toxic vapors, and follow the appropriate safety requirements stipulated in the site specific safety plan.

Buried waste materials should be located and excavated with extreme caution. Once the buried waste is uncovered, the appropriate safety and sampling procedures utilized will depend on the type of waste unit.

2.2.1 Open Units

While open units may contain many types of wastes and come in a variety of shapes and sizes, they can be generally regarded as either waste piles or surface impoundments. Definitions of these two types of open units from 40 CFR Part 260.10 are:

- (Waste) pile - any non-containerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage and that is not a containment building.
- Surface impoundment - "...a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold the accumulation of liquid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds, and lagoons."

One of the distinguishing features between waste piles and surface impoundments is the state of the waste. Waste piles typically contain solid or non-flowing materials whereas liquid wastes are usually contained in surface impoundments. The nature of the waste will also determine the mode of delivering the waste to the unit. Wastes are commonly pumped or gravity fed into impoundments while heavy equipment or trucks may be used to dump wastes in piles. Once the waste has been placed in an open unit, the state of the waste may be altered by environmental factors (e.g., temperature, precipitation, etc.).

Surface impoundments may contain several phases such as floating solids, liquid phase(s) and sludges. Waste piles are usually restricted to solids and semi-solids. All of the potential phases contained in a waste unit should be considered in developing the sample design to meet the study's objective.

During RCRA compliance investigations, it is common to collect waste samples from industrial process areas and from surface impoundments. Frequently these materials may be liquids or process waters conveying wastes from industrial processes or pollution control devices to open units. These industrial process water samples may be collected to determine the point of generation or compliance with the RCRA regulations.

2.2.2 Closed Units

There are a variety of designs, shapes, sizes and functions of closed units. In addition to the challenges of the various designs and the safety requirements for sampling them, closed units are difficult to sample because they may contain liquid, solid, semi-solid/sludge or any combination of phases. Based on the study's design, it may be necessary to obtain a cross-sectional profile of the closed unit in an attempt to characterize the unit. The following are definitions of types of closed waste units described in 40 CFR Part 260.10:

- Container - any portable device in which a material is stored, transported, treated, disposed, or otherwise handled. Examples of containers are drums, overpacks, pails, totes and roll-offs.
- Tank - a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of non-earthen materials which provide structural support.
- Portable tanks, tank trucks and tank cars vary in size and may range from simple to extremely complex designs. Depending on the unit's design, it may be convenient to consider some of these storage units as tanks for sampling purposes even though they meet the definition of a container.
- Ancillary equipment (tank) - any device including, but not limited to, such devices as piping, fittings, flanges, valves and pumps that is used to distribute, meter or control the flow of hazardous waste from its point of generation to a storage or treatment tank(s), between hazardous waste storage and treatment tanks to a point of disposal on-site, or to a point of shipment for disposal off-site.
- Sump - any pit or reservoir that meets the definition of a tank and those troughs/trenches connected to it that serve to collect hazardous wastes.

Note: some outdoor sumps may be considered open units/surface impoundments.

Although any of the closed units may not be completely sealed and may be partially open to the environment, the unit should be treated as a closed unit for sampling purposes until a true determination can be made. Once a closed unit is opened, a review of the proposed sampling procedures and level of protection can be performed to determine if the personal protective equipment is suitable for the site conditions.

Samples collected from different waste units should not be composited into one sample container without additional process knowledge, analytical and/or field screening data to determine if the materials are compatible and will not cause an inadvertent chemical reaction.

3 Waste Sampling Equipment

3.1 General

Selecting appropriate equipment to sample wastes is a challenging task due to the uncertainty of the physical characteristics and nature of the wastes. It may be difficult to separate, homogenize and/or containerize a waste due to its physical characteristics (viscosity, particle size, etc.). In addition, the physical characteristics of a waste may change with temperature, humidity or pressure. Waste streams may vary depending on how and when a waste was generated, how and where it was stored/disposed and the conditions under which it was stored/disposed. Also, the physical location of the wastes or the unit configuration may prevent the use of conventional sampling equipment.

Given the uncertainties that a waste may present, it is desirable to select sampling equipment that will facilitate the collection of samples that will meet the study's objective, and that will not unintentionally bias the sample by excluding some of the sample population that is under consideration. However, due to the nature of some waste matrices or the physical constraints of some waste units, it may be necessary to collect samples knowing that a portion of the desired population was omitted due to limitations of the equipment. Any deviations from the SAP or difficulties encountered in the field concerning sample collection that may have an effect on the study's objective should be documented in a logbook, reviewed with the analytical data and presented in the report.

3.1.1 Waste Sampling Equipment

Waste sampling equipment should be made of non-reactive materials that will neither add to nor alter the chemical or physical properties of the material that is being sampled. Table 1 lists some conventional equipment for sampling waste units, phases and some potential limitations of the equipment. Another reference for selecting sampling equipment is the ASTM, *Standard Guide for Selection of Sampling Equipment for Wastes and Contaminated Media Data Collection Activities*, D 6232, most recent version.

3.1.2 Ancillary Equipment for Waste Sampling

In addition to the equipment listed in Table 1 which provides the primary device used to collect various waste samples, ancillary equipment may be required during the sampling for safety and/or analytical reasons. Some examples of these types of equipment are glass mixing pans, particle size reducers, remote drum opening devices and spark resistant tools. Any influences that these types of ancillary equipment may have on the data should be evaluated and reported as necessary.

4. Waste Samples for Per- and Polyfluoroalkyl Substances (PFAS) Analysis

4.1 PFAS Waste Sampling Considerations

Guidance documents recommend sampling equipment be made of high-density polyethylene (HDPE), polypropylene, stainless steel and/or silicone (ITRC 2020). Because studies have shown the loss of PFAS due to adsorption to surfaces, samples should be minimally handled and directly placed into the sample container when possible. If compositing, mixing or homogenization of the sample is desired, it is preferably done at the laboratory. In cases where the homogenization is conducted in the field, extra grab samples should accompany the mixed or composited samples to determine the variability and impacts on PFAS concentrations of the mixed samples. Do not use glass for the mixing since studies have shown the loss of PFAS due to adsorbing to glass surfaces (US EPA 2019).

4.2 Trace Level Sampling Technique for PFAS

To prevent PFAS contamination, **extreme care** is required when handling containers, samples and equipment that will be used to collect samples for PFAS analyses. **New gloves** need to be worn when decontaminating and handling sample containers and equipment. When worn gloves become compromised by potential PFAS containing materials, they need to be changed for new gloves. Nitrile gloves are recommended for PFAS sampling investigations. Also, sample containers should be kept covered in original packaging or in Whirl-Paks® until ready for use.

This trace level sampling technique is used to minimize PFAS contamination of the samples. This process will require two field personnel for PFAS sample collection. When the field investigators are prepared to fill the sample container(s), a designated sampler will don new gloves while a second designee, with new gloves, will assist by opening sample container packaging/Whirl-Pak®. The designated sampler removes the sample container(s) from the packaging but keeps them closed. Only after the second designee, is ready to fill the sample container does the designated sampler remove the cap and hold it in their hand until the appropriate sample volume is obtained. After capping the sample container(s), return them to their Whirl-Pak®. The designated sampler who holds the sample container(s) should not touch anything else during the sample collection process. This is important because of the wide use of PFAS in commercial products such as clothing and personal hygiene products. Additionally, the designated sampler should avoid touching the sample media and the inside of the sample container. The second designee will operate sampling equipment and assist with sample container packaging and labeling. Sampling equipment known or suspected to contain PFASs should be avoided during sampling activities.

4.3 Quality Control Samples

For waste samples undergoing PFAS analyses, it is extremely important that quality control samples be collected as part of the investigation to demonstrate the PFAS contribution of the sample containers, decontamination solutions, gloves, decontaminated equipment and plastic used to store equipment. It is also important to take field quality control samples such as additional equipment blanks, material blanks, field blanks, duplicates, and trip blanks to evaluate the waste sampling and sample handling activities of the investigation.

4.4 Suspected High PFAS Concentration Samples

When collecting samples of potentially high concentrated PFAS materials, it is recommended that single-use sampling be utilized if possible. High concentration samples should be segregated from environmental media or suspected low-level PFAS samples during sample storage and transport to the laboratory. Samples that may contain high concentrations of PFAS should be clearly identified on the sample Chain of Custody that accompanies the samples to the laboratory.

5 Waste Sampling Procedures

5.1 Waste Piles

Waste piles vary in size, shape, composition and compactness, and may vary in distribution of hazardous constituents and characteristics (strata). These variables will affect safety and access considerations. The number of samples, the type of sample(s), the sample location(s) and interval(s) should be based on the study's objectives. Commonly used equipment to collect samples from waste piles are listed in Table 1. Specific procedures will vary depending on the equipment and objectives of the investigation. All equipment should be compatible with the waste and should be cleaned to prevent cross contamination of the sample.

5.2 Surface Impoundments

Surface impoundments vary in size, shape and waste content, and may vary in distribution of hazardous constituents and characteristics (strata). The number of samples, the type of sample(s) and the sample location(s) and interval(s) should be based on the study's objectives. Commonly used equipment to collect samples from surface impoundments are listed in Table 1. Specific procedures will vary depending on the equipment and objectives of the investigation. All equipment should be compatible with the waste and should be cleaned to prevent cross contamination of the sample.

Because of the potential danger of sampling waste units suspected of containing elevated levels of hazardous constituents, personnel should never attempt to sample surface impoundments used to manage potentially hazardous wastes from a boat. All sampling should be conducted from the banks or piers of surface impoundments. Any exception must be approved by the appropriate site safety officer and/or the Occupational Health and Safety Designee (OHSD).

5.3 Drums

Drums are the most frequent type of containers sampled by field investigators for chemical analyses and/or physical testing. Caution should be exercised by the field investigators when sampling drums because of the potential presence of explosive/flammable gases and/or toxic vapors. Therefore, the following procedures should be used when collecting samples from drums of unknown material:

5.3.1 Visually inspect all drums that are being considered for sampling for the following:

- pressurization (bulging/dimples);
- crystals formed around the drum opening;
- leaks, holes, stains;
- labels, markings;

- composition and type (steel/poly and open/bung);
- condition, age, rust; and
- sampling accessibility.

Drums showing evidence of pressurization and crystals should be furthered assessed to determine if remote drum opening is needed. If drums cannot be accessed for sampling, heavy equipment is usually necessary to stage drums for the sampling activities. Adequate time should be allowed for the drum contents to stabilize after a drum is handled.

5.3.2 Identify each drum that will be opened (e.g., paint sticks, spray paint, cones, etc).

NOTE: LEVEL "B" PROTECTION IS REQUIRED FOR THE FOLLOWING STEPS:

5.3.3 Before opening, ground each metal drum that is not in direct contact with the earth using grounding wires, alligator clips and a grounding rod or metal structure. If a metal drum is in an over-pack drum, the metal drum should be grounded.

5.3.4 Touch the drum opening equipment to the bung or lid and allow an electrical conductive path to form. Slowly remove the bung or drum ring and/or lid with spark resistant tools (brass/beryllium).

5.3.5 Screen drums for explosive gases and toxic vapor with air monitoring instruments as bung or drum lid is removed. Depending on site conditions, screen for one or more of the following:

- radioactivity;
- cyanide fumes;
- organic vapors;
- pH; and/or
- flash point (requires small volume of sample for testing).

Note the state, quantity, phases and color of the drum contents. Record all relevant results, observations and information in a logbook, Drum Data Form or Drum Data Table. Table 2 is an example of a Drum Data Table. Review the screening results with any pre-existing data to determine which drums will be sampled.

5.3.6 Select the appropriate sampling equipment based on the state of the material and the type of container. Sampling equipment should be made of non-reactive material.

5.3.7 Place oil wipe (as necessary), sampling equipment and sample containers near drum(s) to be sampled.

NOTE: AIR MONITORING FOR TOXIC VAPORS AND EXPLOSIVE GASES AND OXYGEN DEFICIENT ATMOSPHERES SHOULD BE CONDUCTED DURING DRUM SAMPLING

Liquids – COLIWASAs (COMposite LIquid WASTE Samplers) or drum thieves are used to collect liquid samples from drums. The COLIWASA or drum thief is slowly lowered to the bottom of

the container. Close the COLIWASA with the inner rod or create a vacuum with the sampler's gloved thumb on the end of the thief and slowly remove the sampling device from the drum. Release the full contents from the device into one sample container. Repeat the procedure until a sufficient sample volume is obtained.

Solids/Semi-Solids – Use a push tube, bucket auger or screw auger or if conditions permit a pneumatic hammer/drill to obtain the sample. Carefully use a clean stainless steel spoon to place the sample into container(s) for analyses.

- 5.3.8** Close the drums when sampling is complete. Segregate contaminated sampling equipment and investigative derived wastes (IDW) containing incompatible materials as determined by the drum screening procedure (Step #5). At a minimum, contaminated, non-disposable equipment should be cleaned with laboratory detergent and rinsed with tap water prior to returning it from the field. IDW should be managed according to the LSASD Operating Procedure for Management of Investigation Derived Waste (LSASDPROC-202) and Region 4's Contaminated Media Policy.

5.4 Tanks

Sampling tanks is considered hazardous due to the potential for them to contain large volumes of hazardous materials and therefore, appropriate safety protocols must be followed. Unlike drums, tanks may be compartmentalized or have complex designs. Preliminary information about the tank's contents and configuration should be reviewed prior to the sampling operation to ensure the safety of sampling personnel and that the study's objectives can be achieved.

In addition to having discharge valves near the bottom of tanks and bulk storage units, most tanks have hatches at the top. It is desirable to collect samples from the top hatch because of the potential for the tank's contents to be stratified. Because wastes often stratify due to different densities of phases or settling of solids, it may be important to obtain a vertical cross section of the entire unit, or it may be desirable to collect grab samples from each strata. Additionally, when sampling from the discharge valve, there is a possibility of a stuck or broken valve which could cause an uncontrolled release. Investigators should not utilize valves on tanks or bulk storage devices unless they are operated by the owner or operator of the facility, or a containment plan is in place should the valve stick or break. If the investigator must sample from a tank discharge valve, the valving arrangement of the particular tank must be clearly understood to ensure that the compartment(s) of interest is sampled.

Because of the many different types of designs and materials that may be encountered, only general sampling procedures that outline sampling a tank from the top hatch are listed below:

- 5.4.1** All relevant information concerning the tank such as the type of tank, the tank capacity, markings, condition and suspected contents should be documented in a logbook.
- 5.4.2** The samplers should inspect the ladder, stairs and catwalk that will be used to access the top hatch to ensure that they will support the samplers and their equipment.
- 5.4.3** Before opening, ground each metal tank using grounding wires, alligator clips and a grounding rod or metal structure.

**NOTE: LEVEL "B" PROTECTION IS REQUIRED
FOR THE FOLLOWING STEPS:**

- 5.4.4** Any hatches, vents or pressure release valves should be slowly opened to allow the unit to vent to atmospheric pressure. Air monitoring for explosive/flammable gases and toxic vapors should be conducted during the venting with the results recorded in a logbook. If dangerous concentrations of gases evolve from the vent or the pressure is too great, leave the area immediately.
- 5.4.5** Touch tank opening equipment to the bolts in the hatch lid and allow electrical conductive path to form. Slowly remove bolts and/or hatch with spark resistant tools (brass/beryllium). If a pressure build up is encountered or detected, cease opening activities and leave the area.
- 5.4.6** Screen tanks for explosive/flammable gases and toxic vapors with air monitoring instruments. Depending on the study objectives and site conditions, conduct characteristic screening (e.g., pH, organic vapors, etc.) as desired. Collect a small volume of sample for flash point testing, if warranted. Note the state, volume, number of phases and color of the tank contents. Record all relevant results, observations, and information in a logbook. Compare the screening results with any pre-existing data to determine if the tank should be sampled.
- 5.4.7** Select the appropriate sampling equipment based on the state of the material and the type of tank. Sampling equipment should be constructed of non-reactive materials.
- 5.4.8** Place oil wipe (as necessary), sampling equipment and sample containers near tanks(s) to be sampled.

**NOTE: AIR MONITORING FOR TOXIC VAPORS AND EXPLOSIVE GASES
AND OXYGEN DEFICIENT ATMOSPHERES SHOULD BE
CONDUCTED DURING TANK SAMPLING**

Liquids -- Slowly lower the bailer, bacon bomb, Dipstick™, COLIWASA, or Teflon® tubing to the desired sampling depth. *(NOTE: In work areas where explosive/flammable atmospheres could occur, peristaltic pumps powered by 12 V batteries should not be used.)* Close the sampling device or create a vacuum and slowly remove the sampling device from the tank. Release the sample from the device into the sample container. Repeat the procedure until a sufficient sample volume is obtained.

Solids/Semi-Solids - Use a push tube, bucket auger, screw auger, Mucksucker™, or if conditions permit a pneumatic hammer/drill to obtain the sample. Carefully extrude the sample from the sampling device or use a clean stainless steel spoon to place the sample into containers for analyses.

- 5.4.9** Close the tank when sampling is complete. Segregate contaminated sampling equipment and investigative derived wastes (IDW) containing incompatible materials as determined by the screening procedure (Step #6). At a minimum, contaminated, non-disposable equipment should be cleaned with laboratory detergent and rinsed with tap water prior to returning it from the field. IDW should be managed according to the LSASD Operating Procedure for

Management of Investigation Derived Waste (LSASDPROC-202) and Region 4's
Contaminated Media Policy.

5.5 Miscellaneous Contaminated Materials

Sampling may be required of materials or equipment (e.g., documents, building materials, equipment, etc.) to determine whether or not various surfaces are contaminated by hazardous constituents, or to evaluate the effectiveness of decontamination procedures.

Wipe or swab samples may be taken on non-absorbent, smooth surfaces such as metal, glass, plastic, etc. The methodology for wipe sampling should be based on the site-specific Data Quality Objectives. All surfaces and areas selected for sampling should be based on the study's objectives.

For items with porous surfaces such as documents (usually business records), insulation, wood, etc., actual samples of the materials are required. It is therefore important that during the collection and/or analyses of the sample that evidentiary material is not destroyed. Use scissors or other particle reduction devices that have been cleaned as specified in the LSASD Operating Procedures for Field Equipment Cleaning and Decontamination (LSASDPROC-205) to cut/shred the sample. Mix in a glass pan as specified in the LSASD Operating Procedure for Soil Sampling (LSASDPROC-300). The shredded, homogenized material is then placed in sample containers.

6 Waste Sample Handling Procedures

6.1 General

When collecting samples of concentrated wastes for laboratory analyses, field personnel are required to screen the waste materials to ensure safe handling and transportation of the samples. Safety procedures, sampling and screening methods used to collect the samples must comply with those procedures/methods described in this protocol. It should be noted that waste samples should not be preserved because of the potential for an inadvertent chemical reaction with the preservative. Additionally, with the exception of aliquots collected for volatile organic analysis, concentrated waste samples are not required to be cooled to 4°C.

After samples have been collected and containerized, the outside of the sample containers should be cleaned with water, paper towels and/or oil wipes to remove any spilled material from the exterior of the container. It should be noted that each sample container should be labeled in accordance with LSASD Operating Procedure for Sample and Evidence Management, LSASDPROC-005 (Most Recent Version) and placed in a plastic bag. The bag should be securely closed. Samples collected from materials that did not demonstrate any hazardous properties during the screening process nor have strong chemical odors may be placed in coolers and handled as non-hazardous samples in accordance with the LSASD Operating Procedure for Packaging, Marking, Labeling and Shipping of Environmental and Waste Samples, LSASDPROC-209 (Most Recent Version).

Field investigators will use knowledge gained of site practices and processes, labels and marking on waste containers, field screening results and personal observations made during their investigation to determine the hazard potential of a sample. Samples considered to be hazardous by the field investigators or detected to have strong chemical odors will be placed in secondary containment for transport to the laboratory and for subsequent handling upon arrival. The bagged samples will be placed in a plastic pail and sealed with

a tight fitting lid. The project number for the sampling investigation and the specific sample station number will be marked on the secondary container in indelible ink. A standard LSASD Hazard

Communication Label will be affixed to the side of the secondary container. The appropriate hazard(s) for the sample (Health, Flammability, and/or Reactivity) will be indicated with an "X." Additionally, an "X" will be placed in the "Protective Equipment" section of the label if protective equipment was required for collection of the sample.

All secondary containing pails will be secured in the vehicles while transporting the samples from the field to the laboratory for analyses. In addition, each pail should indicate when protective equipment is recommended to handle the actual waste sample material.

7 Particle Size Reduction

7.1 General

Particle size reduction of waste samples is periodically required in order to complete an analytical scan or the Toxicity Characteristic Leaching Procedure (TCLP) test. Samples that may require particle size reduction include slag, bricks, glass/mirror cullet, wire, etc. EPA Method 1311 (TCLP) states "Particle size reduction is required, unless the solid has a surface area per gram of material equal to or greater than 3.1 cm², or is smaller than 1 cm in its narrowest dimension (i.e., capable of passing through a 9.5 mm (0.375 inch) standard sieve). If the surface area is smaller or the particle size larger than described above, prepare the solid portion of the waste for extraction by crushing, cutting or grinding the waste to a surface area or particle size as described above" (55 FR 26990). The method also states that the surface criteria are meant for filamentous (paper, cloth, etc.) waste materials, and that "Actual measurement of the surface area is not required, nor is it recommended." Also, the loss of volatile organic compounds could be significant during particle size reduction.

Waste samples that require particle size reduction are often too large for standard sample containers. If this is the case, the sample should be secured in a clean plastic bag and processed using normal chain-of-custody procedures (LSASD Operating Procedure for Sample and Evidence Management, LSASDPROC-005 (Most Recent Version)). Note that the sample labels or tags that will be required for the various containers should be prepared in the field and either inserted into or attached to the sample bag.

Because of the difficulty in conducting particle size reduction, it may be completed at the Division's Field Equipment Center (FEC). The following procedure may be used for crushing and/or grinding a solid sample:

- Remove the entire sample, including any fines that are contained in the plastic bag and place them on the standard cleaned stainless steel pan or cover the sample material with clean plastic.
- Using a clean hammer, carefully crush or grind the solid material (safety glasses are required), attempting to minimize the loss of any material from the pan. Some materials may require vigorous striking by the hammer, followed by crushing or grinding. The material may be subject to crushing/grinding rather than striking.
- Continue crushing/grinding the solid material until the sample size approximates 0.375 inch. Attempt to minimize the creation of fines that are significantly smaller than 0.375 inch in diameter.

- Pass the material through a clean 0.375-inch sieve into a glass pan.
- Continue this process until sufficient sample is obtained. Thoroughly mix the sample as described in the LSASD Operating Procedure for Soil Sampling (LSASDPROC-300). Transfer the contents of the glass pan into the appropriate containers.
- Attach the previously prepared labels/tags and submit for analyses.

Table 1

SAMPLING EQUIPMENT FOR VARIOUS WASTE UNITS

Equipment	Waste Units/Phases	Limitations
Scoop with bracket/conduit	Impoundments, piles, containers, tanks/liquids, solids, sludges	Can be difficult to collect deeper phases in multiphase wastes. Depth constraints.
Spoon	Impoundments, piles, containers/solids, sludges	Similar limitations as the scoop. Generally not effective in sampling liquids.
Push tube	Piles, containers/cohesive solids, sludges	Should not be used to sample solids with dimensions $> \frac{1}{2}$ the diameter of the tube. Depth constraints.
Auger	Impoundments, piles, containers/solids	Can be difficult to use in an impoundment or a container, or for solidified wastes.
Sediment sampler	impoundments, piles/solids, sludges	Should not be used to sample solids with dimensions $> \frac{1}{2}$ the diameter of the tube.
Ponar dredge	Impoundments/solids, sludges	Must have means to position equipment to desired sampling location. Difficult to decon.
COLIWASA or drum thief	Impoundments, containers, tanks/liquids	Not good with viscous wastes. Devices $\geq 7'$ require 2 samplers to use effectively.
Dipstick™ / Mucksucker™	Impoundments, containers, tanks/liquids, sludges	Not recommended for tanks > 11 feet deep. Devices $\geq 7'$ require 2 samplers to use effectively.
Bacon bomb	Impoundments, tanks/liquids	Not good with viscous wastes.
Bailer	Impoundments, tanks/liquids	Only if waste is homogeneous. Not good with viscous wastes.
Peristaltic pump with vacuum jug assembly	Impoundments, tanks/liquids	Cannot be used in flammable atmospheres. Not good with viscous wastes.
Back-hoe bucket	Piles/solids, sludges	May be difficult to access desired sampling location. Difficult to decon. Can lose volatiles.
Split-spoon	Piles/solids	Requires drill rig or direct push equipment.
Roto-hammer	Piles, containers/solids	Physically breaks up sample. May release volatiles. Not for flammable atmospheres.

Table 2

DRUM DATA TABLE

DATES: _____ SITE NAME: _____
PROJECT ID NO. _____
CITY: _____ STATE: _____

PAGE _____ of _____

Drum No.	Markings	Drum Size	Drum Type	Drum Condition	Drum Opening Team	Volume	Drum Contents Description Phase Color	Air Monitoring FID-PID / CGI / pH	Fl. Point / Hal.	Sample Collected	Sampler / Time
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				
		55 /	S / P / ____	G / F / P		F / ½ / E	L / S				

Revision History

This table shows changes to this controlled document over time. The most recent version is presented in the top row of the table. Previous versions of the document are maintained by the Division's Document Control Coordinator.

History	Effective Date
LSASDPROC-302-R4, <i>Waste Sampling</i> , replaces SESDPROC-302-R2 General: Corrected any typographical, grammatical, and/or editorial errors. Updated document template and naming conventions. Updated SESD to LSASD and FSB to ASB. Added Section 4: Waste Samples for Per- and Polyfluoroalkyl Substances (PFAS) Analysis	May 15, 2020
SESDPROC-302-R3, <i>Waste Sampling</i> , replaces SESDPROC-302-R2. General: Corrected any typographical, grammatical, and/or editorial errors. Title Page: Changed the Field Quality Manager from Bobby Lewis to Hunter Johnson. Updated cover page to represent SESD reorganization. John Deatruck was not listed as the Chief of the Field Services Branch References: Outdate references were omitted and replaced with the appropriate citation or language.	December 16, 2016
SESDPROC-302-R2, <i>Waste Sampling</i> , replaces SESDPROC-302-R1.	January 29, 2013
SESDPROC-302-R1, <i>Waste Sampling</i> , replaces SESDPROC-302-R0.	November 1, 2007
SESDPROC-302-R0, <i>Waste Sampling</i> , Original Issue	February 05, 2007

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Arcadis U.S., Inc.
1143 1st Avenue South, Suite 109
Birmingham
Alabama 35233
Phone: 205 930 5700
Fax: 205 930 5707
www.arcadis.com