ATTACHMENT 1

USFWS IPaC

IPaC

U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Virginia

Local office

Virginia Ecological Services Field Office

(804) 693-6694
(804) 693-9032

6669 Short Lane
Gloucester, VA 23061-4410

http://www.fws.gov/northeast/virginiafield/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Indiana Bat Myotis sodalis — Endangered
There is **final** critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/5949

Northern Long-eared Bat Myotis septentrionalis — Threatened
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9045

Fishes

NAME	STATUS
Roanoke Logperch Percina rex No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1134	Endangered

Flowering Plants

NAME	STATUS
Northeastern Bulrush Scirpus ancistrochaetus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6715	Endangered
Smooth Coneflower Echinacea laevigata No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3473	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.

2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31

Black-billed Cuckoo Coccyzus erythropthalmus — Breeds May 15 to Oct 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9399

Black-capped Chickadee Poecile atricapillus practicus — Breeds Apr 10 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Blue-winged Warbler Vermivora pinus — Breeds May 1 to Jun 30
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Bobolink Dolichonyx oryzivorus — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Canada Warbler Cardellina canadensis — Breeds May 20 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Cerulean Warbler Dendroica cerulea — Breeds Apr 27 to Jul 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/2974

Eastern Whip-poor-will Antrostomus vociferus — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds elsewhere
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Golden-winged Warbler Vermivora chrysoptera — Breeds May 1 to Jul 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8745

Kentucky Warbler Oporornis formosus — Breeds Apr 20 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31
Yellow-bellied Sapsucker sphyrapicus varius This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8792	Breeds May 10 to Jul 15

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence

across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

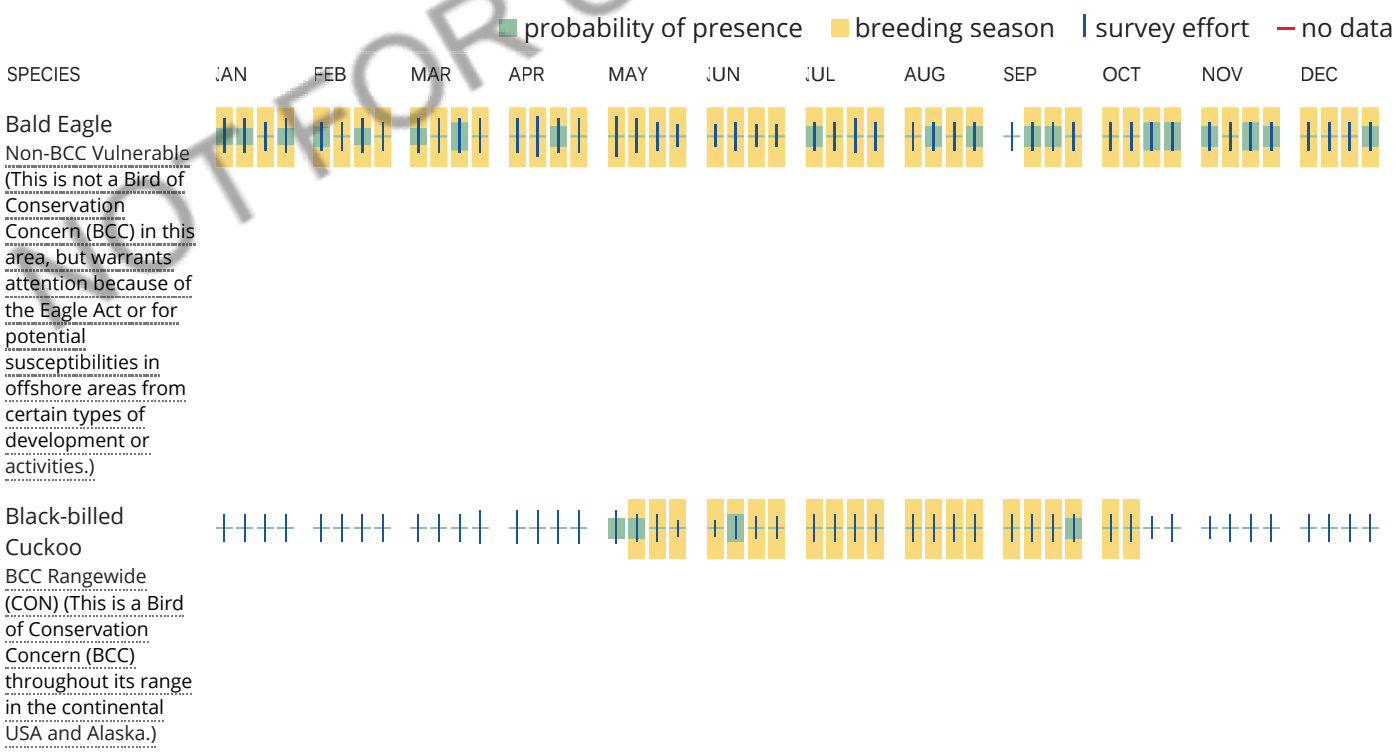
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

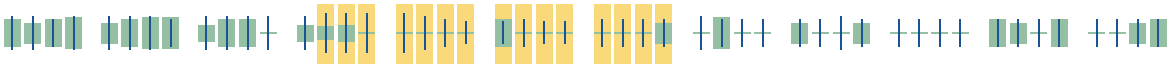
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Black-capped Chickadee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

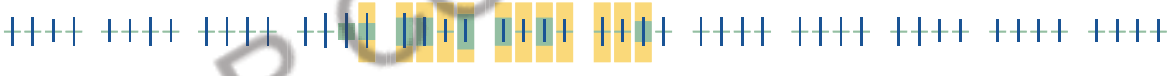


Blue-winged Warbler
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

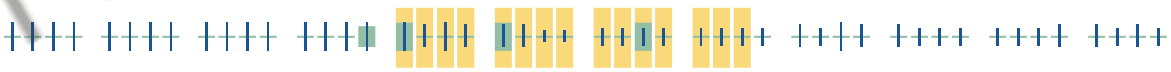
Bobolink
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Canada Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Cerulean Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Eastern Whip-poor-will
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Golden Eagle
Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)

Golden-winged Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Kentucky Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Prairie Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

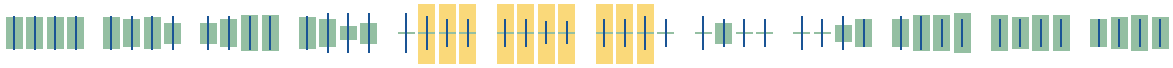
Prothonotary Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Red-headed Woodpecker
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Rusty Blackbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wood Thrush
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow-bellied Sapsucker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters.

Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
Phone: (804) 693-6694 Fax: (804) 693-9032
http://www.fws.gov/northeast/virginiafield/

In Reply Refer To: November 06, 2020
Consultation Code: 05E2VA00-2021-SLI-0566
Event Code: 05E2VA00-2021-E-01623
Project Name: ROA - Nordt

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Virginia Ecological Services Field Office
6669 Short Lane
Gloucester, VA 23061-4410
(804) 693-6694

Project Summary

Consultation Code: 05E2VA00-2021-SLI-0566

Event Code: 05E2VA00-2021-E-01623

Project Name: ROA - Nordt

Project Type: TRANSPORTATION

Project Description: Nordt Property Acquisition and Future Development

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.32853154525492N79.96874466676425W

Counties: Roanoke, VA

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

ATTACHMENT 2

VaFWIS Search Report

VaFWIS Search Report Compiled on 11/10/2020, 5:11:19 PM

Help

Known or likely to occur within a **3 mile radius around point 37,19,44.5 -79,58,08.7** in **023 Botetourt County, 161 Roanoke County, 770 Roanoke City, VA**

View Map of Site Location

573 Known or Likely Species ordered by Status Concern for Conservation
(displaying first 31) (31 species with Status* or Tier I** or Tier II**)

BOVA Code	Status*	Tier**	Common Name	Scientific Name
060017	FESE	Ia	Spinymussel, James	Parvaspina collina
010214	FESE	IIa	Logperch, Roanoke	Percina rex
030061	FTSE	Ia	Turtle, bog (= Muhlenberg)	Clemmys muhlenbergii
050022	FTST	Ia	Bat, northern long-eared	Myotis septentrionalis
060029	FTST	IIa	Lance, yellow	Elliptio lanceolata
050020	SE	Ia	Bat, little brown	Myotis lucifugus
050027	SE	Ia	Bat, tri-colored	Perimyotis subflavus
040096	ST	Ia	Falcon, peregrine	Falco peregrinus
040293	ST	Ia	Shrike, loggerhead	Lanius ludovicianus
060173	FPST	Ia	Pigtoe, Atlantic	Fusconaia masoni
100155	ST	Ia	Skipper, Appalachian grizzled	Pyrgus wyandot
010127	ST	IIb	Madtom, orangefin	Noturus gilberti
040292	ST		Shrike, migrant loggerhead	Lanius ludovicianus migrans
030012	CC	IVa	Rattlesnake, timber	Crotalus horridus
010174		Ia	Bass, Roanoke	Ambloplites cavifrons
030040		Ia	Pinesnake, northern	Pituophis melanoleucus melanoleucus
040092		Ia	Eagle, golden	Aquila chrysaetos
040306		Ia	Warbler, golden-winged	Vermivora chrysoptera
050024		Ia	Myotis, eastern small-footed	Myotis leibii
100248		Ia	Fritillary, regal	Speyeria idalia idalia
010346		Ib	Shiner, roughhead	Notropis semperasper
020039		Ic	Salamander, Peaks of Otter	Plethodon hubrichti
040213		Ic	Owl, northern saw-whet	Aegolius acadicus
040052		IIa	Duck, American black	Anas rubripes
040036		IIa	Night-heron, yellow-crowned	Nyctanassa violacea violacea
040181		IIa	Tern, common	Sterna hirundo
040320		IIa	Warbler, cerulean	Setophaga cerulea
040140		IIa	Woodcock, American	Scolopax minor
040203		IIb	Cuckoo, black-billed	Coccyzus erythropthalmus
040304		IIc	Warbler, Swainson's	Limnothlypis swainsonii
100154		IIc	Butterfly, Persius duskywing	Erynnis persius persius

To view **All 573 species** View 573

*FE=Federal Endangered; FT=Federal Threatened; SE=State Endangered; ST=State Threatened; FP=Federal Proposed; FC=Federal Candidate; CC=Collection Concern

**I=VA Wildlife Action Plan - Tier I - Critical Conservation Need; II=VA Wildlife Action Plan - Tier II - Very High Conservation Need; III=VA Wildlife Action Plan - Tier III - High Conservation Need; IV=VA Wildlife Action Plan - Tier IV - Moderate Conservation Need
Virginia Widlife Action Plan Conservation Opportunity Ranking:
a - On the ground management strategies/actions exist and can be feasibly implemented.;
b - On the ground actions or research needs have been identified but cannot feasibly be implemented at this time.;
c - No on the ground actions or research needs have been identified or all identified conservation opportunities have been exhausted.

Anadromous Fish Use Streams

N/A

Impediments to Fish Passage

N/A

Threatened and Endangered Waters (7 Reaches)

View Map of All Threatened and Endangered Waters

Stream Name	T&E Waters Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
(0194515)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Tinker Creek (0185673)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Tinker Creek (0189851)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Tinker Creek (0190423)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Tinker Creek (0195958)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Tinker Creek (0196006)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Tinker Creek (0198362)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes

Managed Trout Streams (1 records)

View Map of All Trout Stream Surveys

Reach ID	Stream Name	Class	Brook Trout	Brown Trout	Rainbow Trout	View Map
05TKR-01	Tinker Creek	Stockable				Yes

Bald Eagle Concentration Areas and Roosts

N/A

Bald Eagle Nests

N/A

Habitat Predicted for Aquatic WAP Tier I & II Species (8 Reaches)

View Map Combined Reaches from Below of Habitat Predicted for WAP Tier I & II Aquatic Species

Stream Name	Tier Species						View Map
	Highest TE*	BOVA Code, Status*, Tier**, Common & Scientific Name					
Carvin Creek (30101011)	FESE	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		010214	FESE	IIa	Logperch, Roanoke	Percina rex	
Carvin Creek (30101012)	FESE	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		010214	FESE	IIa	Logperch, Roanoke	Percina rex	
Carvin Creek (30101012)	FESE	010214	FESE	IIa	Logperch, Roanoke	Percina rex	Yes
Peters Creek (30101011)	FESE	010127	ST	IIb	Madtom, orangefin	Noturus gilberti	Yes
		010214	FESE	IIa	Logperch, Roanoke	Percina rex	
Tinker Creek (30101011)	FESE	010127	ST	IIb	Madtom, orangefin	Noturus gilberti	Yes
		010174		Ia	Bass, Roanoke	Ambloplites cavifrons	
		010214	FESE	IIa	Logperch, Roanoke	Percina rex	
Tinker Creek (30101011)	FESE	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes

		010214	FESE	IIa	Logperch, Roanoke	Percina rex	
Tinker Creek (30101012)	FESE	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		010214	FESE	IIa	Logperch, Roanoke	Percina rex	
tributary (30101011)	FESE	010174		Ia	Bass, Roanoke	Ambloplites cavifrons	Yes
		010214	FESE	IIa	Logperch, Roanoke	Percina rex	

Habitat Predicted for Terrestrial WAP Tier I & II Species

N/A

Virginia Breeding Bird Atlas Blocks (5 records)

View Map of All Query Results
Virginia Breeding Bird Atlas Blocks

BBA ID	Atlas Quadrangle Block Name	Breeding Bird Atlas Species			View Map
		Different Species	Highest TE*	Highest Tier**	
31074	Roanoke, CE	1		II	Yes
31072	Roanoke, NE	1		III	Yes
31071	Roanoke, NW	1		III	Yes
30074	Salem, CE	11		IV	Yes
30072	Salem, NE	21		III	Yes

Public Holdings:

N/A

Summary of BOVA Species Associated with Cities and Counties of the Commonwealth of Virginia:

FIPS Code	City and County Name	Different Species	Highest TE	Highest Tier
023	Botetourt	443	FESE	I
161	Roanoke	451	FESE	I
770	Roanoke City	433	FESE	I

USGS 7.5' Quadrangles:
Salem
Roanoke

USGS NRCS Watersheds in Virginia:

N/A

USGS National 6th Order Watersheds Summary of Wildlife Action Plan Tier I, II, III, and IV Species:

HU6 Code	USGS 6th Order Hydrologic Unit	Different Species	Highest TE	Highest Tier
RU11	Tinker Creek-Buffalo Creek	68	FESE	I
RU12	Carvin Creek	69	FESE	I
RU13	Tinker Creek-Glade Creek	72	FESE	I
RU14	Roanoke River-Peters Creek	66	FESE	I

Compiled on 11/10/2020, 5:11:20 PM V1061418.0 report=V searchType= R dist= 4828.032 poi= 37,19,44.5 -79,58,08.7

Site Location

37,19,43.0 -79,58,07.6
is **the Search Point**

Show Position Rings
(•) Yes ( ) No
1/8 mile and 1/32 mile at the **Search Point**

Show Search Area
(•) Yes ( ) No
3 Search distance miles radius

Search Point is at map center

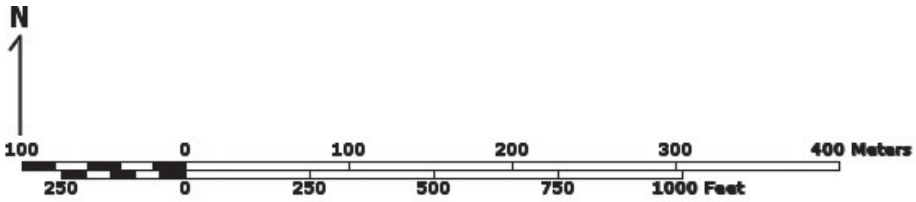
Base Map Choices
Color Aerial Photography

Map Overlay Choices
Current List: Position, Search, BECAR, BAEANests, TEWaters, TierII, Habitat, Trout, Anadromous

Map Overlay Legend

back | Refresh Browser Page

Map Click: Pan | Id | M
Map Scale: Zoom | Out
Screen Size: Small | Size | Big
Help



Point of Search 37,19,43.0 -79,58,07.6
Map Location 37,19,43.0 -79,58,07.6

Select **Coordinate System:**
(•) Degrees,Minutes,Seconds Latitude - Longitude
( ) Decimal Degrees Latitude - Longitude
( ) Meters UTM NAD83 East North Zone
( ) Meters UTM NAD27 East North Zone

Base Map source: Color Aerial Photography 2002 - Virginia Base Mapping Program, Virginia Geographic Information Network

Map projection is UTM Zone 17 NAD 1983 with left 591059 and top 4132126. Pixel size is 1 meter . Coordinates displayed are Degrees, Minutes, Seconds North and West. Map is currently displayed as 600 columns by 600 rows for a total of 360000 pixles. The map display represents 600 meters east to west by 600 meters north to south for a total of 0.3 square kilometers. The map

T & E Waters

Federal

State

Predicted Habitat WAP Tier I & II

Aquatic

Terrestrial

Trout Waters

Class I - IV

Class V - VI

Anadromous Fish Reach

Confirmed

Potential

Impediment

Position Rings 1/8 mile and 1/32 mile at the Search Point

3 mile radius Search Area

Bald Eagle Concentration Areas and Roosts

display represents 1968 feet east to west by 1968 feet north to south for a total of 0.1 square miles.

Topographic maps and Black and white aerial photography for year 1990+-
are from the United States Department of the Interior, United States Geological Survey.
Color aerial photography aquired 2002 is from Virginia Base Mapping Program, Virginia Geographic Information Network.
Shaded topographic maps are from TOPO! ©2006 National Geographic
http://www.national.geographic.com/topo
All other map products are from the Commonwealth of Virginia Department of Game and Inland Fisheries.

map assembled 2020-11-11 14:53:52 (qa/qc March 21, 2016 12:20 - tn=1061603.0 dist=4828.032 Visitor)
$poi=37.3286111 -79.9687778

ATTACHMENT 3

Phase I ESA

(Select Appendices)

Recommendations, and Subsurface Assessment

ECS Mid-Atlantic, LLC *"Setting the Standard for Service"*
Geotechnical • Construction Materials • Environmental • Facilities

July 21, 2021

Danielle Poe
Roanoke Regional Airport Commission
5202 Aviation Drive
Roanoke, Virginia 24012

ECS Project No. 47: 12509

Reference: Phase I Environmental Site Assessment Report, John C Nordt Property, 1420 Coulter Drive NW, Roanoke, Virginia 24012

Dear Ms. Poe:

ECS Mid-Atlantic, LLC (ECS) was contracted by Roanoke Regional Airport Commission to conduct a Phase I ESA in general accordance with ASTM E1527-13, Standard Practice for Environmental Site Assessments, July 21, 2021. Any exceptions, deletions, Historical Data Failures and Other Data Gaps from this practice are described in the Executive Summary and Section 2.3 of the Phase I ESA report.

The findings of the Phase I ESA included the following Recognized Environmental Conditions (RECs):

- The subject property has been utilized as a jewelry manufacturing facility since the 1980's, which has included the use of hazardous chemicals and heavy metals.
- The subject property contains a 4,000 gallon diesel UST that was reportedly installed in 1984 and then updated with new lines and ancillary equipment in 1998 to bring the system up to code. This UST is utilized to store fuel for the facility's back-up generator. More recently, ECS understands that the UST was equipped with a new tank gauge and leak detection system, making it current with new regulations.
    - While no releases have been reported at the subject property, the long term use as a jewelry manufacturer and the long term use of an UST leads to the potential for undocumented or incidental releases, which is considered to be a REC.

Recommendations

Based on the RECs identified by the Phase I ESA of the subject property, ECS offers the following recommendations for additional assessment:

1. ECS recommends completing a Limited Subsurface Sampling Assessment. The subsurface assessment will involve the installation of a minimum of six soil borings using a Geoprobe® direct push sampler and dedicated sampling equipment. Soil borings will be completed in topographically down-gradient locations and around the current UST. If groundwater is encountered, temporary one-inch wells will be installed for the collection of groundwater

samples via a peristaltic pump or dedicated bailers. Borings will be placed in locations biased to where contamination would most likely be found based on the information available at the time. Further, ECS recommends the collection of sub-slab and deep soil gas samples at locations including both the interior and exterior of the facility for a vapor intrusion assessment.

- The estimated cost to complete the services is approximately [redacted] Based on our present schedule we can begin our fieldwork within approximately 2 weeks of receiving written authorization subject to driller availability. ECS anticipates that the field work will take 2 days to complete.

2. ECS recommends that prior to any demolition/renovation activities that an asbestos survey be performed as well as the collection of one Lead Toxicity Characteristic Leaching Procedure (TCLP) sample from the building for lead analysis of the waste stream associated with proposed demolition activities to evaluate if special disposal requirements are needed under US EPA RCRA regulations concerning lead. Further, ECS recommends an Abatement Specification be completed in order to delineate and quantify known and suspect asbestos containing materials in the building and to outline property procedures for the abatement work for the project and outline the contractors' roles and responsibilities in the abatement process.
   - The estimated cost to complete this additional service is approximately [redacted] ECS anticipates that the fieldwork and reporting could be completed within two weeks of signed authorization.
3. ECS recommends that prior to any demolition or change of use activities, the AST, UST, specialized equipment including the incinerator/furnace, 55-gallon drums, and any other containers located on the subject property be disposed of and handled properly.

ECS has appreciated the opportunity to assist you with this project. If you have any questions regarding the Phase I ESA report or the information contained in this letter, please contact us at 540-362-2000.

Respectfully submitted,

ECS Mid-Atlantic, LLC

Steven Hay
Project Manager
shay@ecslimited.com
540-362-2000

Michael L. Maloy, CPG
Principal Geologist
mmaloy@ecslimited.com
540-785-6608

PHASE I ENVIRONMENTAL SITE ASSESSMENT

JOHN C NORDT PROPERTY

1420 COULTER DRIVE NW
ROANOKE, VIRGINIA 24012

ECS PROJECT NO. 47:12509

FOR: ROANOKE REGIONAL AIRPORT COMMISSION

JULY 21, 2021

July 21, 2021

Danielle Poe
Roanoke Regional Airport Commission
5202 Aviation Drive
Roanoke, Virginia 24012

ECS Project No. 47: 12509

Reference: Phase I Environmental Site Assessment Report, John C Nordt Property, 1420 Coulter Drive NW, Roanoke, Virginia 24012

Dear Ms. Poe:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide you with the results of our Phase I Environmental Site Assessment (ESA) for the referenced site. ECS services were provided in general accordance with ECS Proposal No. 47:17126-P authorized on June 23, 2021 and generally meet the requirements of ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and EPA Standards and Practices for All Appropriate Inquiries contained in 40 CFR Part 312.

If there are questions regarding this report, or a need for further information, please contact the undersigned.

Sincerely,

ECS Mid-Atlantic, LLC

Steven Hay
Project Manager
shay@ecslimited.com
540-362-2000

Michael L. Maloy, CPG
Principal Geologist
mmaloy@ecslimited.com
540-785-6608

Project Summary

John C Nordt Property
1420 Coulter Drive NW
Roanoke, Virginia 24012

Report Section		No Further Action	REC	CREC	HREC	BER	Comment
4.0	User Provided Information	✔					
5.1	Federal ASTM Databases		✔				Manufacturing use of the subject property, since the 1980's is considered to be a REC
5.2	State ASTM Databases		✔				The current onsite UST system is considered to be a REC
5.3	Additional Environmental Record Sources	✔					
6.0	Historical Use Information	✔					
7.0	Site and Area Reconnaissance		✔				Manufacturing use of the subject property, since the 1980's is considered to be a REC
8.0	Additional Services	✔					
9.0	Interviews	✔					

ENVIRONMENTAL PROFESSIONAL STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Steven Hay
Project Manager
July 21, 2021

Michael L. Maloy, CPG
Principal Geologist
July 21, 2021

TABLE OF CONTENTS

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TABLE OF APPENDICES

1.0 EXECUTIVE SUMMARY

ECS Mid-Atlantic, LLC (ECS) was contracted by Roanoke Regional Airport Commission to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the John C Nordt Property located at 1420 Coulter Drive NW in Roanoke, Virginia (i.e. subject property). This Executive Summary is an integral part of the Phase I ESA report. ECS recommends that the report be read in its entirety.

The subject property is identified by the City of Roanoke by parcel identification number as 6630107 and owned by Nordt Properties LLC. The approximate eight-acre subject property is improved with 40,419 square-foot office and manufacturing building and an approximate 5,000 square foot hangar. The subject property is serviced by municipal water and sanitary sewer. The building is heated and cooled with a combination of natural gas and electricity.

Draper Aden Associates previously conducted a Phase I Environmental Site Assessment for the subject property in 2016. The report indicated that the subject property was a jewelry manufacturer, and found several RECs, which are further discussed herein.

The subject property is located in a commercial area of Roanoke, Virginia. The subject property is bound on the north by the Roanoke-Blacksburg Regional Airport, on the east by a Fedex Hanger and Airport Road, on the south by Coulter Drive, followed by an office building, and on the west by commercial properties. ECS did not identify environmental issues at adjoining or nearby properties that are believed to present a recognized environmental condition (REC) at the subject property.

Based on the records search, site reconnaissance and interviews, it appears that the subject property was part of an agricultural tract, with what appears to be a small structure, prior to construction of the current onsite facility, in 1983. Our review of historical information for adjoining or nearby properties identified the area as originally relatively rural and agricultural, that transitioned to a commercial area of Roanoke. Historical records prior to 1890 were not reasonably ascertainable for the subject property.

A regulatory database search report was provided by Environmental Data Resources Inc. (EDR). The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report identified the the subject property on several of the researched databases. The EDR report identified several off-site properties within the minimum ASTM search distances. Based on our review of available public records, none of the listings are believed to represent a REC for the subject property, with the exception of those further discussed below.

ASTM E1527-13 defines a “data gap” as: “a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.” Data gaps which would be expected to impact our ability to render a professional opinion concerning the subject property were not identified.

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the John C Nordt Property located at 1420 Coulter Drive NW, in Roanoke, Virginia. Exceptions to, or deletions from, this practice are described in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- The subject property has been utilized as a jewelry manufacturing facility since the 1980's, which has included the use of hazardous chemicals and heavy metals.
- The subject property contains a 4,000 gallon diesel UST that was reportedly installed in 1984 and then updated with new lines and ancillary equipment in 1998 to bring the system up to code. This UST is utilized to store fuel for the facility's back-up generator. More recently, ECS understands that the UST was equipped with a new tank gauge and leak detection system, making it current with new regulations.
    - While no releases have been reported at the subject property, the long term use as a jewelry manufacturer and the long term use of an UST leads to the potential for undocumented or incidental releases, which is considered to be a REC.

2.0 INTRODUCTION

2.1 Purpose and Reason for Performing Phase I ESA

The purpose of the ESA was to:

- evaluate the probability of impact to the surface water, groundwater and/or soils within the property boundaries through a review of regulatory information and a reconnaissance of the subject property and vicinity;
- evaluate historical land usage to identify previous conditions that could potentially impact the environmental condition of the subject property;
- conduct all appropriate inquiry as defined by ASTM E1527-13 and 40 CFR Part 312;
- evaluate the potential for on-site and off-site contamination; and,
- provide a professional opinion regarding the potential for environmental impact at the site and a list of Recognized Environmental Conditions (RECs).

The ESA should allow the Users the opportunity to qualify for landowner liability protection under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) provided certain stipulations are met. The landowner liability protections are: an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser. The User must meet the protection stipulations detailed in CERCLA to qualify as well as meet the User Obligations contained within the ASTM E1527- 13 standard.

The reason for conducting this ESA is to perform all appropriate inquiries into the uses and prior ownership of the subject property for a pending real estate transaction.

2.2 Scope of Services

The environmental assessment was conducted in general accordance with ASTM E1527-13 and EPA Standards and Practices for All Appropriate Inquiry (40 CFR §312.10). The environmental assessment was conducted under the supervision or responsible charge of an individual that qualifies as an environmental professional, as defined in 40 CFR §312.10.

ECS was contracted by Roanoke Regional Airport Commission to perform an ASTM E1527-13, Phase I Environmental Site Assessment (ESA) of the John C Nordt Property located at 1420 Coulter Drive NW in Roanoke, Virginia. ECS was not contracted to address non-scope considerations.

2.3 Definitions

ASTM E1527-13 defines a "recognized environmental condition (REC)" as "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: 1) due to release to the environment, 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment." For the purposes of this practice, "migrate" and "migration" refer to the movement of hazardous substances or petroleum products in any form including solid and liquid at the surface or subsurface and vapor in the subsurface.

ASTM E1527-13 defines a “business environmental risk” (BER) as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice". ECS also uses the term "Other Environmental Considerations" to discuss BERs and environmental concerns outside of the ASTM E1527-13 requirements (radon, asbestos, lead, wetlands, etc.). Client-imposed limitations and site condition limitations, if encountered, are detailed in Section 2.6 Limiting Conditions/Deviations.

ASTM E1527-13 defines a “*de minimis* condition” as a condition that generally does not represent a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. De minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

ASTM E1527-13 defines a "controlled recognized environmental condition (CREC)" as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition identified as a controlled recognized environmental condition does not imply that the Environmental Professional has evaluated or confirmed the adequacy, implementation or continued effectiveness of the required control that has been, or is intended to be, implemented.

ASTM E1527-13 defines a "historical recognized environmental condition (HREC)" as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the Environmental Professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria).

2.4 Limitations

The ESA involved a reconnaissance of the subject property and contiguous properties and a review of regulatory and historical information in general accordance with the ASTM standard and EPA regulation referenced herein. No non-scope considerations or additional issues such as asbestos, radon, wetlands or mold were investigated, unless otherwise described in Section 8.0 of this report.

Note: vapor migration in the subsurface is described in Guide E2600 published by ASTM. ECS has not conducted a Vapor Encroachment Screen in accordance with the E2600 guide.

The conclusions and/or recommendations presented within this report are based upon a level of investigation consistent with the standard of care and skill exercised by members of the same profession currently practicing in the same locality under similar conditions. The intent of this assessment is to identify the potential for recognized environmental conditions in connection with the subject property; however, no environmental site assessment can completely eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the subject property. The findings of this ESA are not intended to serve as an audit for health and safety compliance issues pertaining to improvements or activities at the subject property. ECS is not liable for the discovery or elimination of hazards that may potentially cause damage, accidents or injury.

Observations, conclusions and/or recommendations pertaining to environmental conditions at the subject property are necessarily limited to conditions observed, and or materials reviewed at the time this study was undertaken. It was not the purpose of this study to determine the actual presence, degree or extent of contamination, if any, at this subject property. This could require additional exploratory work, including sampling and laboratory analysis. No warranty, expressed or implied, is made with regard to the conclusions and/or recommendations presented within this report.

This report is provided for the exclusive use of Roanoke Regional Airport Commission. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third party use or reliance. The use of this report is subject to the same terms, conditions and scope of work reflected in this report and the associated proposal.

2.5 Data Gaps

Data failures (historical data gaps) were identified during the historical research of this subject property. Use of the subject property was generally documented back to 1890. Historical information was missing for various periods. However, due to the apparent historical use, the present use, and the other information that was obtained about the subject property the historical data gaps are not expected to impact our ability to render a professional opinion regarding the subject property.

2.6 Limiting Conditions/Deviations

ASTM E1527-13 requires that the Environmental Professional identify limiting conditions, deletions, and deviations from the ASTM E1527-13 standard, if any, including client-imposed constraints. The following limiting conditions and/or deviations were encountered during the performance of this Phase I ESA:

> Areas of dense vegetation covered northern portions of the subject property and may have obscured environmentally significant features and direct observation of the ground surface. In addition, ECS did not view all office spaces or the vault within the subject building; however, this limiting condition is not expected to impact our ability to provide a professional opinion concerning the subject property.

3.0 SUBJECT PROPERTY DESCRIPTION

3.1 Subject Property Location and Legal Description

Site Name	John C Nordt Property
Property Address	1420 Coulter Drive NW
Property City, State	Roanoke, Virginia
Property County	City of Roanoke
Number of Parcels	One
Property ID Number(s)	6630107
Property Size	eight Acres
Property Owner of Record	Nordt Properties LLC
Property Legal Description	According to the City of Roanoke Property: TRACT III BARRENS

3.2 Physical Setting and Hydrogeology

USGS Topographic Map	
Quad Designation	Roanoke, Virginia
Date	2013
Subject Property Settings	
Average Subject Property Elevation (in feet or meters)	Approximately 1,160 feet above mean sea level
General Sloping Direction	Relatively flat
Bodies of Water	None
General Directions of Surface Flow	Curb and gutter to underground conveyances
Presumed Direction of Groundwater Flow	North, Northeast
Geologic Province	Valley and Ridge
Up-gradient Property Direction	South, Southwest

Nearby Properties' Setting	
General Sloping Direction	Relatively flat
Bodies of Water	No notable surface water features mapped or observed within 500 feet of the subject property.
General Directions of Surface Flow	Curb and gutter to underground conveyances
Presumed Direction of Groundwater Flow	Northeast

Regional influences such as changes in soil and geologic conditions, and local topography, may have an impact on groundwater flow. The actual groundwater flow direction cannot be determined without site-specific information obtained through the gauging of groundwater monitoring wells.

3.3 Current Use and Description of the Site

The subject property consists of an approximately eight-acre parcel of land that is currently occupied by John C Nordt, a jewelry manufacturer. Specifically, the facility is a fabricator of specialty metal products with operations that include melting, machining, extruding, drawing, cutting, shaping, mechanical finishing, and electroplating of precious metals. The subject property is improved with a 40,419 square foot office and manufacturing facility, and an approximate 5,000 square foot former hangar, that is primarily utilized for storage. The subject property is located in an area that can generally be described as commercial.

4.0 USER PROVIDED INFORMATION

The ASTM standard includes disclosure and obligations of the User to help the Environmental Professional identify the potential for Recognized Environmental Conditions associated with the subject property. The ASTM E1527-13 User Questionnaire was submitted to and completed by Danielle Poe, representing Roanoke Regional Airport Commission (User of the report). Section 4.0 is based on the completed User Questionnaire. A copy of the completed User Questionnaire is included in Appendix II.

4.1 Title Information

ECS was not provided with title information by the User. If this information is provided following the issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report.

4.2 Environmental Liens or Activity and Use Limitations

ECS was neither contracted to obtain information on environmental liens or activity and use limitations, nor have we been provided with information on environmental liens or activity and use limitations for our review. It should be noted by the User of this report that if the User does not obtain activity and use limitation information, the User that is seeking to qualify for an innocent landowner, a contiguous property owner, or a bona fide prospective purchaser liability defense may lose these rights to qualify under CERCLA. If the activity use information is provided following issuance of this report and information contained therein materially changes the outcome of this report, ECS will issue an addendum to this report.

4.3 Specialized Knowledge

The User indicated that adjoining properties have been used for airport operations.

4.4 Commonly Known or Reasonably Ascertainable Information

The User indicated that the tenant has been involved in the metals business.

4.5 Valuation Reduction for Environmental Issues

According to the User, the purchase price being paid for the subject property reasonably reflects its fair market value, according to a 2021 appraisal.

4.6 Owner, Property Manager, and Occupant Information

The User indicated that the property is owned by Nordt Properties LLC, and that property is managed by Poe and Cronk real estate.

4.7 Degree of Obviousness

The User stated that they were not aware of obvious indicators that point to the presence or likely presence of contamination at the subject property; however, they have not been able to access the subject property.

5.0 RECORDS REVIEW

A regulatory records search of ASTM standard and supplemental databases was conducted for the subject property and is included in Appendix III. The regulatory search report in the appendix includes additional details about the regulatory databases that were reviewed. The regulatory records search involves searching a series of databases for facilities that are located within a specified distance from the subject property. The ASTM standard specifies an approximate minimum search distance from the subject property for each database. Pursuant to ASTM, the approximate minimum search distance may be reduced for each standard environmental record except for Federal NPL site list, and Federal RCRA TSD list. According to ASTM, government information obtained from nongovernmental sources may be considered current if the source updates the information at least every 90 days or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public. The following table indicates the standard environmental record sources and the approximate minimum search distances for each record.

Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
Federal NPL	1.0	No	0
Federal Delisted NPL	0.5	No	0
Federal CERCLIS	0.5	No	0
Federal CERCLIS NFRAP	0.5	No	0
Federal RCRA CORRACTS	1.0	No	0
Federal RCRA non-CORRACTS TSD	0.5	No	0
Federal RCRA Generators	Subject Site and Adjoining Properties	Yes	3
Federal IC/EC	Subject Site Only	No	N/A
Federal ERNS	Subject Site Only	No	N/A
State and Tribal Hazardous Waste Sites (NPL Equivalent)	1.0	No	0
State and Tribal Hazardous Waste Sites (CERCLIS Equivalent)	0.5	No	0
State and Tribal Landfill and/or solid waste disposal sites	0.5	Yes	1

Standard Environmental Record Sources	Approximate Minimum Search Distance Per ASTM (miles)	Subject Property	Off-Site Properties
State and Tribal Leaking Tanks	0.5	No	7
State and Tribal Registered UST and AST	Subject Site and Adjoining Properties	Yes	2
State and Tribal IC/EC	Subject Site Only	No	N/A
State and Tribal Voluntary Cleanup (VCP)	0.5	No	0
State and Tribal Brownfield Sites	0.5	No	0

Based on our knowledge of the subject property and the surrounding area, ECS attempts to verify and interpret this data. While this attempt at verification is made with due diligence, ECS cannot guarantee the accuracy of the record(s) search beyond that of information provided by the regulatory report(s). ECS makes no warranty regarding the accuracy of the database report information included within the regulatory report(s).

The regulatory database search was performed by EDR and is dated June 24, 2021. ECS did not reduce the minimum ASTM search distances stipulated in the standard. The regulatory databases reviewed by ECS included supplemental databases researched by EDR.

5.1 Federal ASTM Databases

5.1.1 Federal RCRIS - Generators

RCRIS identifies facilities that generate hazardous wastes as defined by the RCRA. Very small quantity generators (VSQG) (previously identified as conditionally exempt small quantity generators or CESQGs) generate less than 100 kilograms of hazardous waste, or less than 1 kilogram of acutely hazardous waste, per month. Small quantity generators (SQGs) generate between 100 and 1,000 kilograms of hazardous waste per month. Large quantity generators (LQGs) generate more than 1,000 kilograms of hazardous waste or more than 1 kilogram of acutely hazardous waste per month.

> **John C. Nordt Co (EPA ID:VAD988202073) -** This facility is located at the subject property. The EDR denotes this facility as a Small Quantity Generator (SQG), indicating that the facility generates more than 100 kilograms, but less than 1,000 kilograms of hazardous waste per month, and does no exceed 6,000 kilograms of storage. This facility appears to have received violations related to record keeping, according to the DEQ files reviewed as part of a FOIA request. It appears that the violations had been resolved based on the documents reviewed. Furthermore, this listing denotes that this facility utilized tetrachloroethylene as a degreaser, along with other glycols and oils, which often poses an environmental concern if released into

the environment. Given the long-term historical usage of this facility, there is a potential for undocumented releases to have impacted the subject property, which is considered to be a REC.

BB&T (EPA ID:VAD982701864) - This facility is located at 1410 Coulter Drive NW, an adjoining property to the west. The EDR denotes this facility as a non-generator, indicating the facility no longer stores or generates hazardous waste. No violations are listed in the EDR report. ECS requested files from the DEQ for this facility; however, no files were received prior to issuance of this report. Nonetheless, considering the non-generator status and lack of reported violations, this listing by itself, it not considered to be a REC.

UPS-VARDE (EPA ID:VA0000385211) - This facility is located at 5820 Airport Road NW, and adjoining property to the east. The EDR denotes this facility as a Very Small Quantity Generator (VSQG) indicating that the facility does not store more than 1,000 kg (2,200 lbs) of hazardous waste or 1 kg (2.2 lbs) of acute hazardous waste on site at any time. No violations were indicated with this listing in the EDR report. Furthermore, this facility appeared to have been in compliance during the most recent DEQ inspection in 2018, according to the DEQ files reviewed as part of a FOIA request. Based on the regulated nature of this facility, and the lack of violations, this listing by itself it not considered to be a REC.

Several additional RCRA facilities are identified on the EDR database but were verified to be outside the ASTM search distance of the subject site and adjoining properties. Based on distance and/or topographic position relative to the site, as well as the use of the public water supply, these facilities are not expected to impact the subject property. Additional information pertaining to these listings can be viewed in the regulatory report included in Appendix III.

5.2 State ASTM Databases

5.2.1 Solid Waste Facilities/ Landfill (SWL) List

The SWL is a list of state-permitted solid waste facilities. These facilities may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

John C. Nordt Company Inc. (Permit Number: PBR503) - This facility is located at the subject property. This listing relates to the use of an onsite incinerator, which is designed to burn filters which are utilized during waste water and oil recycling/filtration. Any precious metals are then extracted from the ash from the incinerator. This facility is further discussed in section 5.1.1.

5.2.2 State Leaking Tanks (LTANKS)

The LTANKS database is a list of all reported leaking underground and above ground tanks recorded by the state. Duplicate entries pertaining to LTANKS incidents are discussed in the following LUST section.

5.2.3 Leaking Underground Storage Tank (LUST) List

The LUST list is a record of reported leaking underground storage tank incidents. The LUST list may also identify properties that have had soil and/or groundwater contamination associated with documented releases from aboveground storage tanks, surface spills, and other sources.

The EDR report lists seven LUST facilities within the search radius for the database. These facilities are located greater than 1,000 feet from the subject property. Based on the distance from the subject property, ECS does not consider these listings to be RECs for the subject property. Additional information pertaining to these listings can be viewed in the regulatory report included in Appendix III.

5.2.4 Registered Underground Storage Tank (UST) List

The Registered UST List inventories underground storage tanks registered with the state. This list does not identify USTs that have not been registered or are exempt, such as home heating oil tanks and other unregulated tanks**.**

John C. Nordt Company (Facility ID: 2003085) - This facility is located at the subject property. The EDR indicates that this facility contains two inactive USTs which were two 10,000-gallon gasoline tanks that have been removed from the ground, and one active 4,000 gallon diesel tank.

According to the DEQ files reviewed the two 10,000 gallon USTs were removed from the ground in November 1998. The tanks were reportedly in good condition during the removal, and two soil samples were collected beneath each tank, which yielded results of total petroleum hydrocarbons gasoline range organics (TPH-GRO) below laboratory detection limits, as documented in a Closure Report in December 1998 by C.B Huggins & Associates, Inc.

The 4,000 gallon diesel UST was reported installed in 1984, and was updated with new lines and ancillary equipment in 1998 to bring the system up to code. This UST is utilized to store fuel for the facility's back-up generator. More recently, ECS understands that the UST was equipped with a new tank gauge and leak detection system, making it current with new regulations. While no releases have been reported, the long term use of the UST leads to the potential for undocumented or incidental releases and is considered to be a REC.

The EDR report lists one additional UST facility within the search radius for the database. This facility is reportedly located greater than 1,000 feet from the subject property. Based on the distance from the subject property, ECS does not consider this listing to be a REC for the subject property. Additional information pertaining to this listing can be viewed in the regulatory report included in Appendix III.

5.2.5 Aboveground Storage Tank (AST) Database

The AST Database is a list of facilities that have registered ASTs with the state regulator.

National Car Rental (Facility ID: 2041747) - This facility is located at 1411 Coulter Drive NW, an adjoining property to the south, and topographically cross-gradient relative to the subject property. According to the EDR, this facility has one active 5,000 gallon gasoline AST, with no reported violations. The AST appears to be approximately 270 feet from the subject property boundary. Considering the distance of the tank relative to the subject property, it is not expected that a release would likely impact the subject property; therefore, this facility is not considered to be a REC.

The EDR report lists one additional AST facility within the search radius for the database. This facility is reportedly located greater than 1,000 feet from the subject property. Based on the distance from the subject property, ECS does not consider this listing to be a REC for the subject property. Additional information pertaining to this listing can be viewed in the regulatory report included in Appendix III.

5.3 Additional Environmental Record Sources

5.3.1 Additional Non-ASTM Federal Databases

5.3.1.1 Superfund Enterprise Management System (SEMS)

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

The EDR report lists one SEMS facility within the search radius for the database. This facility is reportedly located greater than 1,000 feet from the subject property. Based on the distance from the subject property, ECS does not consider this listing to be a REC for the subject property. Additional information pertaining to this listing can be viewed in the regulatory report included in Appendix III.

5.3.1.2 Formerly Used Defense Sites (FUDS)

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

The EDR report lists one FUDS facility within the search radius for the database. This facility is reportedly located greater than 1,000 feet from the subject property. Based on the distance from the subject property, ECS does not consider this listing to be a REC for the subject property. Additional information pertaining to this listing can be viewed in the regulatory report included in Appendix III.

5.3.1.3 Facility Index System (FINDS)

Facility Index System (FINDS) contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), Integrated Compliance Information System (ICIS), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

The subject property was listed as John C. Nordt Company on the FINDS database. Refer to the RCRA section above for additional information.

5.3.1.4 ECHO

ECHO provides fast, integrated searches of EPA and state data for more than 800,000 regulated facilities. ECHO focuses on inspection, violation, and enforcement data for the Clean Air Act (CAA), Clean Water Act (CWA) and Resource Conservation and Recovery Act (RCRA) and also includes Safe Drinking Water Act (SDWA) and Toxics Release Inventory (TRI) data.

The subject property was listed as John C. Nordt Company on the ECHO database. Refer to the RCRA section above for additional information.

5.3.2 Additional Non-ASTM State Databases

5.3.2.1 Manifest Information (MANIFEST)

The Manifest database contains information pertaining to hazardous waste manifest listings.

ETS Analytical (EPA ID:VAD988200333) - This facility is located at 1401 Municipal Road, approximately 800 feet south of the subject property. This listing is typically related to waste handling and transportation. Considering the distance relative to the subject property, this listing by itself is not considered to be a REC for the subject property.

5.3.3 Other Proprietary Databases

5.3.4 Unmapped (Orphan) Facilities and Sites

One property was identified on the Orphan Summary List. These facilities are considered as unmappable because the facility information in the database is insufficient and does not report accurate facility location. Based on available address and location information, ECS did not identify these facilities within the vicinity of the subject property.

5.4 Regulatory Review Summary

A regulatory database search report was provided by EDR. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report identified the subject property on several of the researched databases. The EDR report identified several off-site properties within the minimum ASTM search distances. Based on our review of available public records, ECS does not consider the off-site listings to be potential sources of soil, groundwater, or vapor impact to the subject property. However, ECS does consider the current and historical use of the subject property as a jewelry manufacturer, and a current onsite UST system to be RECs.

6.0 HISTORICAL USE INFORMATION

6.1 Aerial Photograph Review

ECS reviewed aerial photographs of the subject property and immediately surrounding properties for evidence of former usage which may indicate potential environmental issues. The aerial photographs were obtained from EDR. The aerial photographs reviewed were dated 1956, 1960, 1968, 1972, 1977, 1982, 1988, 1995, 2000, 2006, 2009, 2012, and 2016. Aerial photographs dated prior to 1956 were not available for review from EDR. The ECS review is dependent on the quality and scale of the photographs. The following is a description of relevant information from the aerial photographs:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1956	A small residential structure may be present on the eastern portion of the subject property, although given the scale and quality of the imagery, specific details cannot be discerned. The remainder of the property appears to be undeveloped agricultural and/or pastoral land.	North - Undeveloped agricultural and/or pastoral land East - Road followed by undeveloped agricultural and/or pastoral land South - Residential-type improvement followed by Undeveloped agricultural and/or pastoral land West - Undeveloped land followed by the airport	No
1960-1977	The subject property appears relatively similar to the previous imagery. The presence of an onsite structure can not yet be discerned, given the quality and scale of the imagery.	North - Airport landing strip East - Road followed by undeveloped agricultural and/or pastoral land South - Residential-type improvement followed by Undeveloped agricultural and/or pastoral land West - Undeveloped land followed by the airport	No
1982	The subject property is improved with a small residential-type structure on the eastern portion of the site, while the remainder of the property is predominantly open grass land.	North - Airport runway East - Forested tract followed by a road (current Airport Road) and open undeveloped land South - Road (current Coulter Drive NW) followed by a commercial-type structure West - Commercial type structure	No

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1988	The subject property now appears to be improved with a large commercial/industrial type structure with an associated asphalt parking lot, and a small outbuilding on the southern half of the site. The northern portion of the site appears to be forested.	Adjoining properties appear relatively similar to the previous imagery.	No
1995	The subject property appears similar to the previous imagery.	North - Airport runway East - Cleared tract followed by Airport Road and commercial developments South - Coulter Drive NW followed by a commercial-type structure West - Commercial type structure	No
2000-2016	The subject property appears similar to the previous imagery and current site conditions.	North - Airport runway East - Commercial-type structures followed by Airport Road and commercial developments South - Coulter Drive NW followed by a commercial-type structure West - Commercial type structure	No

6.2 Sanborn Fire Insurance Map Review

In an effort to identify past uses, ECS utilized EDR to search for historical Sanborn Fire Insurance Maps (Sanborn) for the subject property and surrounding area. Sanborn maps were not available for this area. The absence of such maps generally indicates that the subject property is located in an area where Sanborn maps were not produced because the area was rural or it was not economically feasible. ECS does not expect the lack of Sanborn maps to impact our ability to render a professional opinion concerning the subject property given the amount of historical information obtained from our research, the USGS topographic map, aerial photographs, city directories, and other historical records obtained. A copy of the Unmapped Property report is included within Appendix IV.

6.3 Property Tax Files

Property tax files may include records of past ownership, appraisals, maps, sketches, photos, or other information kept by the local jurisdiction for property tax assessment purposes. According to the City of Roanoke tax assessor online information, the subject property is owned by Nordt Properties LLC. The subject property is listed as an eight-acre parcel with an identification number of 6630107. Additionally, the on-site building is reported as being constructed in 1983 and contains 40,419 square feet of space.

6.4 Recorded Land Title Records

Recorded land title records may include leases, land contracts, and AULs recorded by the local jurisdiction. Land title records may provide only a list of the names of previous owners and may be of limited use; however, they may provide useful information about uses or occupancy of the property when employed in combination with other sources.

ECS was not provided with Land Title Records.

6.5 Historical USGS Topographic Maps

Topographic maps are produced by the United States Geological Survey (USGS) for various time periods. ECS reviewed topographic maps of the subject property and immediately surrounding properties for evidence of former usage which may indicate potential environmental issues. The topographic maps were obtained from EDR and were dated 1890, 1891, 1929, 1933, 1962, 1963, 1968, 1978, 1984, and 2013. Topographic maps dated prior to 1890 were not available for review from EDR. The following is a description of relevant information from the topographic maps:

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1890-1891	The subject property appears to be undeveloped.	Adjoining and nearby properties appear to be undeveloped.	No
1929-1933	A small structure is depicted on the eastern portion of the subject property.	North - Undeveloped land East - Road (current Airport Road) followed by undeveloped land South - Road (Coulter Drive) followed by a small structure West - Undeveloped land	No

Year(s)	Subject Property	Adjoining Properties	REC? (yes or no)
1962-1978	The subject property appears relatively similar to the previous map.	North - Roanoke Municipal Airport East - Airport Road followed by undeveloped land South - Coulter Drive followed by a small structure West - Roanoke Municipal Airport	No
1984	The subject property appears similar to the previous maps; being improved with a small structure along the eastern portion of the site	North - Roanoke Municipal Airport East - Airport Road followed by undeveloped land South - Coulter Drive followed by what appears to be some small (residential-type) and larger (commercial-type) structures West - Several buildings, which appear to be associated with the Roanoke Municipal Airport	No
2013	Generally, structures are not depicted on this topographic map, only roads and other cultural features and landmarks.	Generally, structures are not depicted on this year topographic map, only roads and other cultural features and landmarks.	No

6.6 City Directory Review

One of the ASTM standard historical sources to be reviewed for previous subject property uses is local street directories, commonly known as City Directories. The purpose of the directory review is to identify past occupants of the subject property, adjoining properties, or nearby properties. In some rural areas, street directories information is limited.

ECS reviewed city directories obtained from EDR. The subject property address utilized for the research was 1420 Coulter Drive NW. The directories reviewed were dated 1964, 1969, 1974, 1979, 1984, 1989, 1992, 1995, 2000, 2005, 2010, 2014, and 2017. Directories dated prior to 1964 were not available for review from EDR. A copy of the city directory report is included in Appendix IV. The following is a description of relevant information from the city directories:

Year(s)	Listed Occupants	REC? (yes or no)
Subject Property		
1989-2017	John C Nordt Company, Jewelry Manufacturer	No
Northern Adjoining Properties		
Roanoke-Blacksburg Regional Airport Property		
Eastern Adjoining Properties		
1979-2017	New Life Pentecostal Church (with some other names over the years)	No
Southern Adjoining Properties		
1979-1995	La Maison Du Gourmet	No
2000	Lone Wolf Catering	No
2005	Aircraft Inventory Corp.	No
2014-2017	Branch and Associates	No
Western Adjoining Properties		
1989	First Virginia Bank (Operations Center)	No
2005	First Virginia Bank	No

6.7 Building Department Records

The term building department records means those records of the local government indicating permissions of the local government to construct, alter or demolish improvements on the property.

ECS reviewed the Building Department Records provided by EDR. Permits appear to have consisted of a roof replacement and other general remodeling activities. The other permits for the surrounding area were reported as general construction including; plumbing upgrades and repairs, electrical system upgrades, structure demolitions, and roof replacements. Environmental concerns were not identified in the permits reviewed.

6.8 Zoning/Land Use Records

The term zoning/land use records refers to records of the local government indicating the uses permitted by the government in particular zones within its jurisdictions. ECS reviewed zoning/land use records obtained from the City of Roanoke. The subject property is currently zoned AD; airport development.

6.9 Other Historical Sources

Other credible historical sources may be reviewed to identify past uses of the subject property. These sources may include websites, county or state road maps, historical society documents, or local library information.

FOIA requests were not submitted to the Fire Department or the Health Department due to the additional fees charged by each department and are therefore not considered reasonably ascertainable at the time of this assessment. Given historical information gained from other sources reviewed in this section, this is not considered to be a significant data gap that would affect our ability to render a professional opinion concerning the property's environmental quality.

6.10 Previous Reports

Draper Aden Associates previously conducted a Phase I Environmental Site Assessment for the subject property in 2016. The report indicated that the subject property was a jewelry manufacturer. ECS cannot attest to the accuracy of the information reviewed. The RECs including the following:

- The historical use of the subject property, with continuous storage, use and handling, and disposal of hazardous materials and petroleum products related to manufacturing operations since approximately 1983 as well as former aircraft operations.
- An AEP-owned unused pad-mounted transformer remains on site.
- Current and former commercial/industrial uses of off-site properties, some with LUST cases, located in close proximity and topographically cross-gradient or upgradient with respect to the subject property or potentially cross-gradient or upgradient with respect to groundwater flow.

6.11 Historical Use Summary

According to historical research, the subject property was part of an agricultural tract, with what appears to be a small structure, prior to construction of the current onsite facility, in 1983. Generally, the area has transitioned from a relatively rural and agricultural area to a commercial and industrial area of Roanoke.

No obvious indications of RECs were identified in the historical data review.

7.0 SITE AND AREA RECONNAISSANCE

7.1 Methodology

Steven Hay of ECS conducted the field reconnaissance on July 15, 2021. The weather at the time of the reconnaissance was 90 degrees Fahrenheit and clear. Observations were made from a walking reconnaissance around the perimeter, around the buildings, through the buildings and along several transects across the subject property. Access or visibility limitations, if any, are discussed in Section 2.6. Subject property photographs are included in Appendix V.

7.2 On-Site Features

The subject property is occupied by John C. Nordt, a fabricator of specialty metal products with operations that include melting, machining, extruding, drawing, cutting, shaping, mechanical finishing, and electroplating of precious metals (e.g., gold, silver, and platinum) and may be alloyed with base metals (e.g., copper, nickel, zinc, and ruthenium). The facility operates an incinerator, evaporator, and centrifuge in order to recover precious metals from factory-generated waste. Operations include the use, storage and disposal of hazardous chemicals and petroleum products.

The property includes an approximately 40,419 square foot industrial building and an approximately 5,000 square foot hangar building. The original manufacturing building (constructed in 1983) included approximately 31,250 square feet and an approximate 9,150 square foot addition was added around 1999. The one-story hanger building was constructed in approximately 1983. The building includes office space on the upper level and manufacturing spaces on the lower level. A partial basement exists beneath the factory floor that houses the equipment base supports and other operational equipment. The hangar building is currently used for manufacturing and storage; no aircraft are currently housed or maintained on the property.

The manufacturing area appeared clean and clear of miscellaneous debris. De Minims staining was observed throughout typical of manufacturing operations. Equipment and machinery appeared in good working order with no obvious leakage, damage, or corrosion observed (based on limited observation of overall operations and not a specific observation of all equipment on site).

The remainder of the property consisted of an asphalt parking lot and landscaped areas around the buildings, while a forested area and stormwater detention pond are located on the northern portion of the site.

The table below lists pertinent features of interest that were assessed for the subject property. Relevant information regarding pertinent features is discussed further in this section.

Feature	Yes	No
Underground or aboveground storage tanks	✔	
Strong, pungent or noxious odors		✔
Surface waters		✔
Standing pools of liquid likely containing petroleum or hazardous substances		✔
Drums or containers of petroleum or hazardous substances greater than five-gallons	✔	
Drums or containers of petroleum or hazardous substances less than or equal to five-gallons	✔	
Unidentified opened or damaged containers of hazardous substances or petroleum products		✔
Known or suspect PCB-containing equipment (excluding light ballasts)	✔	
Stains or corrosion to floors, walls or ceilings	✔	
Floor drains and sump pumps	✔	
Pits, ponds or lagoons		✔
Stained soil or pavement		✔
Stressed vegetation		✔
Solid waste mounds or non-natural fill materials		✔
Wastewater discharges into drains, ditches or streams		✔
Groundwater wells including potable, monitoring, dry, irrigation, injections and/or abandoned		✔
Septic systems or cesspools		✔
Elevators		✔
Dry cleaning		✔
Onsite emergency electrical generators	✔	
Specialized industrial equipment (paint booths, bag houses, etc.,) on-site		✔
Hydraulic lifts		✔
Oil-water separators		✔
Compressors on-site	✔	
Grease traps		✔

Underground or aboveground storage tanks

A vent pipe and man-hole cover were observed along the western side of the subject building, which is associated with a 4,000 gallon fiberglass UST utilized for storing diesel fuel for a back-up generator, located within the building.

Vent pipes and terminated lines were observed on either side of the hangar building, in the areas of the removed gasoline tanks.

All three tanks are discussed in greater detail in section 5.2.4. No evidence of a release or overfilling was observed.

In addition, the site contains an ammonia AST.

Drums or containers of petroleum or hazardous substances greater than five-gallons

Several 55-gallon drums are located within the building, located on spill containment pallets. The drums appear to contain used oil, glycols and other chemicals essential to the manufacturing processes. Environmental Options regularly collects waste from the site. Staining was not observed on the drums or the floor surfaces in the vicinity of the drums.

Drums or containers of petroleum or hazardous substances less than or equal to five-gallons

Several containers of chemicals were observed in the subject building. Staining was not observed on the containers or the floor surfaces in the vicinity of the containers.

Known or suspect PCB-containing equipment (excluding light ballasts)

A pad-mounted transformer is located along the western side of the subject building. The transformer is owned and maintained by AEP. Staining, which could be indicative of leakage, was not observed on the transformer or surfaces in the vicinity of the transformer.

Stains or corrosion to floors, walls or ceilings

De Minims staining was observed throughout typical of manufacturing operations

Floor drains and sump pumps

A few floor drains were observed that reportedly lead to a wet recovery system along with drains from sinks, rinse areas, and a floor sump located in the basement. The remaining drains and sinks primarily associated with restrooms and employee areas discharge into the sanitary sewer.

Onsite Emergency Electrical Generators

A diesel powered emergency generator was observed in the basement of the subject building. The diesel fuel is stored in a 4,000-gallon UST referenced above. Staining or petroleum odors were not detected in the vicinity of the diesel generator.

Compressors on-site

Several compressors were associated with the facility. The compressors are located within the subject building. No significant staining was observed in the vicinity of the compressors.

7.3 Adjoining and Nearby Properties

Contiguous and nearby properties were observed during a walking and vehicular reconnaissance of the subject property boundary and public places. The subject property is located in a commercial area of Roanoke, Virginia.

Direction	Description	Relative Gradient	REC
North	The subject property is bound to the north by Roanoke-Blacksburg Regional Airport.	Down-gradient	No
East	The subject property is bound to the east by a Fedex Hangar and Airport Road followed by undeveloped land.	Cross-gradient	No
South	The subject property is bound to the south by Coulter Drive followed by an office building (Branch Builds) and National Rental Car.	Up-gradient	No
West	The subject property is bound to the west by a commercial property	Cross-gradient	No

7.4 Site and Area Reconnaissance Summary

According to our observations of the subject and surrounding properties, the subject property is utilized for jewelry manufacturing. Details pertaining to our on-site and off-site observations are referenced previously. The following RECs were identified during our on-site and off-site reconnaissance:

- The long term historical use of the subject property for jewelry manufacturing leads to the potential for undocumented releases to the environment, which is considered to be a REC.

8.0 ADDITIONAL SERVICES

ASTM guidelines identify non-scope issues, which are beyond the scope of this practice. Non-scope issues have the potential to be business environmental risks. Some of these non-scope issues include; asbestos-containing building materials, radon, lead-based paint, lead in drinking water, wetlands, and mold.

The following non-ASTM considerations were assessed in conjunction with this Phase I ESA:

Asbestos

Based on the age of the building on the property (circa 1983), asbestos-containing materials (ACM) were likely to have been utilized in its construction. ECS conducted a brief visual survey of the property and observed the following potentially suspect ACM: flooring and associated mastics, joint compound, window glazing/caulks, and roofing materials.

This cursory visual survey is not considered to be a complete inspection for ACM. ECS recommends that an asbestos survey be performed by a licensed asbestos inspector prior to conducting demolition or renovation activities that could disturb suspect ACM.

Lead Based Paint

Lead-based paint was banned for residential use in 1978, and many commercial uses were phased out after that year. Based on the age of the building(s) on the property (circa 1983), lead-based paint finishes are not likely to have been utilized in its construction or prior renovation. ECS conducted a brief visual survey of the property did not observe any cracked paint finishes, indicative of lead-based paint.

This cursory visual survey is not considered to be a complete inspection for lead-based paint. ECS recommends that a lead paint survey be performed by a licensed lead inspector prior to conduction demolition or renovation activities that could disturb suspect lead painted surfaces.

Lead in Drinking Water

The subject property is serviced by public water supply.

Buildings constructed prior to the 1980s may have lead pipes and/or lead pipe fittings. Based on the date of construction of the building (1983), it is considered unlikely that the subject property has lead-soldered pipe fittings.

ECS has reviewed the most recent available water quality report produced by Western Virginia Water Authority. According to that report, the site is serviced by the Carvins Cove Reservoir & Treatment Facility. Elevated lead levels were not reported in the samples collected.

Consequently, lead in drinking water is not considered to be a BER for the subject site. Additional site-specific testing would be required to ascertain actual lead in drinking water concentrations.

Visual Mold Inspection

ECS personnel conducted a visual assessment in reasonably accessible areas for visual indications of apparent fungal/mold colonization. Our visual assessment does not imply a guarantee that all possible growth reservoirs of fungal growth/mold were identified since destructive testing was not conducted by ECS. Visual indications of apparent fungal growth (mold) and moisture intrusion were not observed during our assessment.

FEMA Flood Map

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Panels 51161C0153G and 51161C0154G, dated September 28, 2007, the subject property is located in Flood Hazard Zone X, which is an area of minimal flood hazard. A copy of the FEMA Flood Map is included in Appendix I.

Radon

Radon is a naturally occurring gaseous substance resulting from the radioactive decay of uranium to radium and then to radon. Uranium is a common element found in many geologic formations and substrates, particularly igneous and metamorphic rocks. Radon has a half-life of only 3.8 days and decays to its daughter elements which represent the health hazard commonly associated with radon.

The EPA has established a list that identifies areas of the U.S. with the potential for elevated indoor radon levels. The EPA Map of Radon Zones assigns each county in the U.S. to one of three zones based on radon potential. The EPA Action level for radon is greater than 4 picoCuries per liter (pCi/L). According to information provided on the EPA Map of Radon Zones, City of Roanoke is located in Zone 1, which is predicted to have average screening levels of greater than 4 pCi/L.

Site-specific testing would be needed to assess indoor radon concentrations. No radon testing was conducted during this assessment.

Wetlands and Streams

ECS conducted a review of the U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) Online Map and the USGS Topographic Map (Roanoke, Virginia 2013) to obtain information regarding the subject property.

- The U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) Online Map did not indicate surface waters or wetlands are located on or near the site.
- The USGS Topographic Map did not indicate that surface waters, streams, swamps or ponds are noted on the site.

The subject property consists of eight acres of land developed with a 40,419 square foot building with associated asphalt parking. During our reconnaissance, we observed the subject property for evidence of wetlands, streams, open water/ponds, swamps, etc. During our site visit, ECS did not observe potential wetland/stream features.

Threatened and Endangered Species

Virginia Department of Wildlife Resources:

ECS conducted a search of the VDWR Fish and Wildlife Information Service (FWIS) threatened and endangered species database to evaluate documented occurrences of federally and/or state listed species within a two-mile radius of the project site (see Appendix I). According to FWIS, four species are listed as having been documented within this radius:

- Federal and State-endangered Roanoke Logperch *(Percina rex)* - Confirmed sightings within 2 miles of the site. The Roanoke Logperch inhabits medium-to-large sized warm, clear streams and small rivers of moderate to low gradient. Adults usually occupy riffles, runs, and pools containing sand, gravel, or boulders that are free of silt. Young-of-year congregate in mixed-species schools in shallow habitat underlain by sand and gravel along stream margins.

Based on current site conditions, suitable habitats for this species is not present on the site; therefore, no adverse impacts are expected.

U.S. Fish and Wildlife Service (USFWS):

ECS conducted a review of the USFWS Information for Planning and Consultation (IPaC) database to evaluate the documented occurrences or potential habitat for federally-listed species within the project boundaries. According to the IPaC database, no species are listed as having potential to occur at the project site. Additionally, no critical habitats are listed.

9.0 INTERVIEWS

During the site reconnaissance, Steven Hay interviewed Paul Nordt. Mr. Nordt explained that he has been familiar with the property since 1979, that the manufacturing facility was constructed in 1983, and prior to 1979 the property was part of the Coulter Farm. Mr. Nordt also explained that there have been three USTs onsite, two of which have been removed, while the third tank stores diesel for the back-up generator. Mr. Nordt also stated that there was a Phase I ESA conducted on the subject site in 2016, which has been discussed previously. Finally, Mr. Nordt indicated that he is not aware of 1) environmental concerns associated with the subject property; 2) any pending, past, or threatened administrative litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or 3) any government notices regarding any possible violation of environmental laws or possible liability related to hazardous substances or petroleum products.

10.0 FINDINGS AND CONCLUSIONS

The subject property is identified by the City of Roanoke by parcel identification number as 6630107 and owned by Nordt Properties LLC. The approximate eight-acre subject property is improved with 40,419 square-foot office and manufacturing building and an approximate 5,000 square foot hangar. The subject property is serviced by municipal water and sanitary sewer. The building is heated and cooled with a combination of natural gas and electricity.

Draper Aden Associates previously conducted a Phase I Environmental Site Assessment for the subject property in 2016. The report indicated that the subject property was a jewelry manufacturer, and found several RECs, which are further discussed herein.

The subject property is located in a commercial area of Roanoke, Virginia. The subject property is bound on the north by the Roanoke-Blacksburg Regional Airport, on the east by a Fedex Hanger and Airport Road, on the south by Coulter Drive, followed by an office building, and on the west by commercial properties. ECS did not identify environmental issues at adjoining or nearby properties that are believed to present a recognized environmental condition (REC) at the subject property.

Based on the records search, site reconnaissance and interviews, it appears that the subject property was part of an agricultural tract, with what appears to be a small structure, prior to construction of the current onsite facility, in 1983. Our review of historical information for adjoining or nearby properties identified the area as originally relatively rural and agricultural, that transitioned to a commercial area of Roanoke. Historical records prior to 1890 were not reasonably ascertainable for the subject property.

A regulatory database search report was provided by EDR. The database search involves researching a series of Federal, State, Local, and other databases for facilities and properties that are located within specified minimum search distances from the subject property. The report identified the the subject property on several of the researched databases. The EDR report identified several off-site properties within the minimum ASTM search distances. Based on our review of available public records, none of the listings are believed to represent a REC for the subject property, with the exception of those further discussed below.

ASTM E1527-13 defines a “data gap” as: “a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.” Data gaps which would be expected to impact our ability to render a professional opinion concerning the subject property were not identified.

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM E1527-13 of the John C Nordt Property located at 1420 Coulter Drive NW, in Roanoke, Virginia. Exceptions to, or deletions from, this practice are described in Section 2.6 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- The subject property has been utilized as a jewelry manufacturing facility since the 1980's, which has included the use of hazardous chemicals and heavy metals.

- The subject property contains a 4,000 gallon diesel UST that was reportedly installed in 1984 and then updated with new lines and ancillary equipment in 1998 to bring the system up to code. This UST is utilized to store fuel for the facility's back-up generator. More recently, ECS understands that the UST was equipped with a new tank gauge and leak detection system, making it current with new regulations.
    - While no releases have been reported at the subject property, the long term use as a jewelry manufacturer and the long term use of an UST leads to the potential for undocumented or incidental releases, which is considered to be a REC.

11.0 REFERENCES

ASTM E1527-13. Standard Practice for Environmental Site Assessment, Phase I Environmental Site Assessment Process.

Environmental Data Resources, Inc., The EDR Aerial Photo Decade Package (years 1956, 1960, 1968, 1972, 1977, 1982, 1988, 1995, 2000, 2006, 2009, 2012, and 2016), dated June 25, 2021.

Environmental Data Resources, Inc., The EDR Radius Map Report, dated June 24, 2021.

Environmental Data Resources, Inc., Certified Sanborn Map Report (unmapped), dated June 24, 2021.

City of Roanoke County GIS website, accessed on June 24, 2021.

USGS Topographic Map, Roanoke, Virginia, dated 2013.

Environmental Data Resources, Inc., EDR City Directory Image Report, dated June 29, 2021.

Environmental Data Resources, Inc., Historical Topo Map Report, dated June 24, 2021.

SUBSURFACE ASSESSMENT

JOHN C NORDT PROPERTY

1420 COULTER DRIVE NW
ROANOKE, VIRGINIA 24012

ECS PROJECT NO. 47:12509-A

FOR: ROANOKE REGIONAL AIRPORT COMMISSION

OCTOBER 15, 2021

October 15, 2021

Ms. Danielle Poe
Roanoke Regional Airport Commission
5202 Aviation Drive
Roanoke, Virginia 24012

ECS Project No.: 47:12509-A

Reference: Subsurface Assessment
John C Nordt Property
1420 Coulter Drive NW, Roanoke, Virginia 24012

Dear Ms. Poe:

ECS Mid-Atlantic LLC (ECS) is pleased to submit this report discussing a Subsurface Assessment for the referenced site as authorized by your acceptance of our Proposal No. 47:19729-P, dated July 27, 2021. The purpose of our services was to evaluate the site for potential contamination associated with recognized environmental conditions that were identified during a recent Phase I Environmental Site Assessment.

This report is provided for the exclusive use of the Roanoke Regional Airport Commission. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties. The use of this report by any undesignated third party or parties will be at such party's sole risk and ECS disclaims liability for any such third-party use or reliance.

We appreciate the opportunity to provide our professional environmental services for this project. If you have questions regarding this report, or if we can be of further service, please contact us.

Respectfully submitted,

ECS MID-ATLANTIC, LLC

Steven Hay
Environmental Project Manager

Garnett B. Williams, CPG
Principal Geologist

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

The purpose of this Subsurface Assessment is to evaluate the site for potential petroleum contamination associated with an underground storage tank (UST), and the current and historical use of the property as a jewelry manufacturer, which were identified as recognized environmental conditions (RECs) during a recent Phase I Environmental Site Assessment (ESA). These RECs are briefly described below:

- The subject property has been utilized as a jewelry manufacturing facility since the 1980's, which has included the use of hazardous chemicals and heavy metals.
- The subject property contains a 4,000-gallon diesel UST that was reportedly installed in 1984 and then updated with new lines and ancillary equipment in 1998 to bring the system up to code.

Based on the foregoing, ECS proposed to collect soil and groundwater samples to evaluate the potential for contamination from the RECs identified during the Phase I ESA and provide an opinion concerning the potential impact any identified contamination may have on the future use of the subject property.

1.2 Site Description

The subject property is identified by the City of Roanoke as parcel identification number 6630107 and owned by Nordt Properties, LLC (Figure #1). The approximate eight-acre subject property is improved with 40,419 square-foot office and manufacturing building and an approximate 5,000 square foot hangar.

The subject property is serviced by municipal water and sanitary sewer. The building is heated and cooled with a combination of natural gas and electricity.

1.3 Scope of Services

ECS contacted Miss Utility to mark public subsurface utilities at the site prior to drilling. The boring locations were coordinated to avoid underground utilities identified by the line locators.

ECS and JETCO, Inc. then mobilized to the subject site on September 7, 2021 to conduct subsurface exploration. This work involved the advancement of six Geoprobe borings (designated SB-01 through SB-06) to depths ranging from 17 to 25 feet (Figure #2).

The borings were advanced in areas of the subject site where contamination would be expected to be greatest based on the information known to ECS at the time of the assessment. Borings SB-01 and SB-02 were placed around the UST while the remaining borings were placed in relative down-gradient topographic positions. ECS screened soil collected during the completion of the borings for indications of petroleum staining and petroleum/chemical odors and utilized a photoionization detector (PID) to field screen collected soil samples for volatile organic compounds (VOCs) during sample collection. Upon completion of sampling activities, all borings were backfilled to grade soil and bentonite.

In addition, ECS installed four sub-slab soil vapor collection points (designated SVP-01 through SVP-04) in the subject building on August 10, 2021 (Figure #3). The vapor points were installed utilizing hand operated equipment by drilling an approximate ½" diameter hole through the building slab. Teflon tubing was inserted into the space below the slab and sealed at the surface with nontoxic modeling clay to prevent entrainment of air from the building interior. The sampling points were purged with a hand operated pump to remove ambient air within the line. The soil vapor samples were then drawn into 1L Summa canisters by pressure equilibration using regulators calibrated by the laboratory for an approximate 30-minute sampling duration (~50 mL/min. flow rate).

2.0 SITE CONDITIONS

2.1 Geologic and Hydrogeologic Site Information

As determined from the USGS topographical map for the Roanoke, Virginia Quadrangle, the subject site is situated approximately 1,160 feet above mean sea level with topography sloping towards the northeast. Based on a review of the topographic map and observations of the general area and site topography, surface run-off would be expected to flow to the northeast.

The subject site is located within the Valley and Ridge Physiographic Province. The soils encountered in this area are the residual product of in-place chemical weathering of rock presently underlying the site and/or historical depositional events. In general, shallow unconfined groundwater movement within the overlying soils is controlled largely by topographic gradients. However, as the groundwater percolates downward, it becomes controlled by the subsurface geologic conditions. Thus, the direction of groundwater movement in the deeper aquifers may not be consistent with the reflecting topography.

Surface waters primarily recharge shallow aquifers by infiltration along higher elevations. Once in the shallow aquifer, the groundwater typically discharges into streams or other surface water bodies at lower elevations. The depth of the shallow water table is transient and can vary greatly with seasonal fluctuations in precipitation. Groundwater movement in the shallow aquifer is generally from higher to lower elevations. As such, shallow groundwater is expected to flow generally northeast. Based on the presumed groundwater flow direction, properties located to the north appear to be upgradient relative to the site. However, regional influences such as karst conditions, impermeable soils, etc. may have an impact on groundwater flow. The actual groundwater flow direction cannot be determined without site-specific information obtained through the installation and gauging of groundwater monitoring wells.

2.2 Subsurface Conditions

Based on our observation of materials recovered from the borings, soils beneath the site generally consist of a brown to red clay. Geoprobe refusal was encountered on weathered limestone at borings SB-01, SB-03, SB-05 and SB-06. No petroleum staining, odors, elevated PID readings above 0 parts per million (ppm), or free phase product were observed or recorded in the subsurface soils. No groundwater, or evidence of groundwater, was observed in any of the borings.

3.0 LABORATORY RESULTS

3.1 Analytical Methods

Soil and groundwater samples were collected for laboratory analyses, labeled, preserved, and delivered to Pace Analytical Services using standard field and sample collection methodologies. The soil samples from the borings were analyzed for a combination of total petroleum hydrocarbons (TPH) diesel range organics (DRO), Resource Conservation and Recovery Act (RCRA) 8 Metals, and volatile organic compounds (VOCs) via EPA Methods 8015B, 6010 and 8260, respectively. Chain of custody and analyses request forms were submitted with the samples. The soil vapor samples were submitted to Maryland Spectral Laboratories for analyses of VOCs via EPA Method TO-15. Chain of custody and analyses request forms were submitted with the samples.

3.2 Laboratory Analytical Results and Discussion

The analytical results of the soil samples collected from the borings are summarized in Table 1 below. All results were compared to the Virginia Department of Environmental Quality (DEQ) reporting threshold for TPH in soil used in connection with closure of petroleum tanks. This reporting level (100 milligrams per kilogram (mg/kg)) is considered to be a trigger point at which notification is required for UST releases. The laboratory data reports are included in Appendix II.

Table 1. TPH Soil Sample Results

Analysis	VDEQ Screening Level[1]	Sample Name					
		SB-01	SB-02	SB-03	SB-04	SB-05	SB-06
	Sample Depth	10-12 ft	10-12 ft				
TPH-DRO	100	BDL	BDL	NA	NA	NA	NA

Notes:

[1]VDEQ reporting threshold for TPH in soil encountered in connection with the closure of USTs

All sample results in milligrams per kilogram (mg/kg)

BDL - Below Laboratory Detection Limits; NA - Not analyzed

The results of the soil analysis performed for TPH indicate that concentrations of TPH-DRO are below laboratory detection limits for the two samples, SB-01 and SB-02, which were placed around the UST.

Table 2 summarizes soil data for detections of RCRA-8 Metals above laboratory reporting limits. These data are compared to the DEQ Voluntary Remediation Program (VRP) Tier II and Tier III Screening Levels for residential and industrial properties.

Table 2. Metal Soil Sample Results

Analyte	Tier II Residential Soil Screening Level (mg/kg)	Tier III Industrial Screening Level (mg/kg)	Sample Name					
			SB-01	SB-02	SB-03	SB-04	SB-05	SB-06
RCRA Metals		Sample Depth			5 ft	5 ft	5 ft	5 ft
Arsenic	3.50E+00	3.00E+01	NA	NA	**15.9**	**8.7**	BDL	**35.5**
Barium	1.50E+03	2.20E+04	NA	NA	51.8	69.2	49.8	18.4
Cadmium	7.10E+00	9.80E+01	NA	NA	0.32	0.24	BDL	0.39
Chromium	3.60E+06	NSL	NA	NA	52.0	42.1	39.7	30.1
Lead	2.70E+02	8.00E+02	NA	NA	43.2	26.3	26.0	17.0
Selenium	5.20E+00	5.80E+02	NA	NA	2.5	1.4	BDL	2.3
Mercury	1.10E+00	4.60E+00	NA	NA	0.082	0.098	0.093	0.17

Notes:

All sample results in micrograms per kilogram (mg/kg); BDL - Below Laboratory Detection Limits; NSL - No Screening Level
Bold and Underlined values indicate an exceedance of residential screening levels. Highlighted value indicates an exceedance of industrial value

Seven of the eight RCRA-8 metals are reported above quantitation limits. Arsenic exceeds the residential screening value in two locations (SB-03 and SB-04) and industrial screening value in one location (SB-06). None of the remaining metals concentrations exceeded screening levels. Silver was not detected in any of the samples.

Table 3 summarizes soil data for detections of VOCs above laboratory reporting limits, compared to the DEQ Voluntary Remediation Program (VRP) Tier II and Tier III Screening Levels for residential and industrial properties.

Table 3. VOC Soil Sample Results

Analyte	Tier II Residential Soil Screening Level (mg/kg)	Tier III Industrial Screening Level (mg/kg)	Sample Name					
			SB-01	SB-02	SB-03	SB-04	SB-05	SB-06
		Sample Depth			18 ft	25 ft	15 ft	12 ft
Methyl-tert-butyl ether	0.63	2100	NA	NA	0.0176	0.0102	BDL	BDL

Notes:

All sample results in milligrams per kilogram (mg/kg); BDL - Below Laboratory Detection Limits; NA - Not analyzed

Based on the data, only one VOC compound was detected; however, the concentration is well below the applicable screening level for both residential and industrial properties.

Lastly, the soil vapor results were compared to VDEQ Tier III screening levels for both residential and commercial/industrial users. Only those VOC compounds reported above detection limits summarized in Table 4 below.

Table 4. Sub-Slab Soil Vapor Results

Analyte	VDEQ Tier III Residential Subslab Vapor Screening Level	VDEQ Tier III Industrial Subslab Vapor Screening Level	Sample Name			
			SVP-1	SVP-2	SVP-3	SVP-4
Acetone	1.07E+05	4.67E+05	BDL	77.4	26.0	BDL
Benzene	1.03E+02	4.33E+02	BDL	0.89 J	1.41 J	28.1
Carbon disulfide	2.43E+03	1.03E+04	8.59	9.84	10.1	12.7
Chloromethane	3.13E+02	1.30E+03	BDL	1.24 J	BDL	BDL
Cyclohexane	2.10E+04	8.67E+04	BDL	0.83 J	1.24 J	1.24 J
Dichlorodifluoromethane	3.33E+02	1.47E+03	19.6	BDL	5.14	BDL
trans-1,2-Dichloroethene	NSL	NSL	11.3	177	45.8	142
1,4-Dioxane	1.03E+02	4.33E+02	BDL	BDL	2.16 J	2.59 J
Ethylbenzene	3.67E+02	1.63E+03	2.26 J	1.56 J	1.74 J	5.73
n-Heptane	1.40E+03	6.00E+03	3.11 J	3.77	12.0	7.87
Methyl tert-butyl ether (MTBE)	3.67E+03	1.57E+04	BDL	BDL	BDL	3.32
Methyl ethyl ketone	1.73E+04	7.33E+04	BDL	3.66	1.65 J	1.89 J
Styrene	3.33E+03	1.47E+04	0.85 J	BDL	BDL	3.58
Toluene	1.73E+04	7.33E+04	34.4	14.9	40.2	51.0
Trichloroethene	7.00E+00	2.93E+01	BDL	BDL	BDL	2.58 J
Trichlorofluoromethane	NSL	NSL	4.49	1.80 J	2.02 J	3.60 J
1,2,4-Trimethylbenzene	2.10E+02	8.67E+02	BDL	0.98 J	1.18 J	1.18 J
o-Xylene	3.33E+02	1.47E+03	1.91 J	2.43 J	1.74 J	1.91 J
m&p-Xylene	3.33E+02	1.47E+03	8.51	6.78 J	6.43 J	7.47

Notes:
All sample results in micrograms per cubic meter ($\mu g/m^3$)
NSL - No Screening Level; BDL - indicates result was below laboratory detection limit
'J' - Indicates an estimated concentration below reporting limits

Based on the foregoing analytical data, combinations of nineteen different VOCs were detected above the laboratory detection limits in the four soil vapor samples collected. The types of compounds detected included common petroleum substances (e.g., benzene, xylenes, toluene, etc.) and chlorinated solvents (Trichloroethene-TCE). The concentrations of the VOCs reported above quantitation limits are below the applicable residential and commercial/industrial screening levels for vapor intrusion for both residential and industrial screening levels.

4.0 CONCLUSIONS AND RECOMMENDATIONS

ECS has conducted a Subsurface Assessment for the John C Nordt Property located at 1420 Coulter Drive NW in Roanoke, Virginia. The purpose of the study was to evaluate the site for the potential presence of contamination associated with the historical and current use of the property which has operated as a jewelry manufacturing facility with a UST. These conditions were identified as RECs during a recent Phase I ESA.

ECS advanced six soil borings utilizing a Geoprobe drill rig in areas of the site presumed to be closest to the potential sources of contamination identified with the information provided by the client, and as documented during the previous Phase I ESA. Soil and soil gas samples were collected and analyzed for TPH-DRO, TPH-GRO, RCRA-8 Metals and VOCs.

No petroleum staining, odors, elevated PID readings or free phase product were recorded or observed in the subsurface soils. No groundwater, or evidence of groundwater, was observed in any of the borings.

The analytical results from the borings indicate that TPH-DRO was not detected in the borings surrounding the diesel fuel UST, while only one VOC (Methyl-tert-butyl ether-MTBE) was identified in the soil samples but at a concentration below risk-based screening levels for both residential and industrial properties.

Seven of the eight RCRA-8 metals are reported above quantitation limits. Arsenic exceeds the residential screening value in two locations (SB-03 and SB-04) and industrial screening value in one location (SB-06). The samples were collected at a depth of 4-5 feet in an undisturbed open area of the property and beneath the pavement at SB-03. No fill was apparent at these borings so it is possible that this may be naturally occurring, and no source was identified. Based on preliminary data provided by the DEQ and used for risk-assessment purposes, background concentrations of Arsenic in this geomorphic province can be as high as 22.6 mg/kg. Although the samples exceed risk screening the potential for exposure at this depth is low, so no further action is recommended at this time. None of the remaining metals concentrations exceeded screening levels. Silver was not detected in any of the samples.

A total of nineteen compounds were detected in the sub-slab soil gas samples collected. VOCs were reported at relatively low concentrations and below applicable DEQ screening levels for residential receptors.

Based on the low concentrations of metals and VOCs reported in soil and soil vapor impacts related to the UST and historical/current use of the property do not appear to have significantly impacted the subject site. Moreover, given the commercial use of the site and availability of public water, the risk to human health and the environment is considered to be acceptably low so no further investigation or corrective action is recommended.

5.0 QUALIFICATIONS

The activities and evaluative approaches used in this assessment are consistent with those normally employed in environmental projects of this type. Our evaluation of site conditions has been based on our understanding of the site and project information, and the data obtained in our assessment. The constituents detected during this assessment and the concentrations at which they were detected are for the samples obtained and may not represent all constituents at the site or the maximum concentrations. The primary objective was to perform sufficient work to generally assess the potential for impacted subsurface soils, and groundwater with respect to the identified recognized environmental conditions. Due to the limited scope of services accepted with our proposal, it is not the intent of this report to define the full horizontal and lateral extent of impacted soil or groundwater, if any.

Appendix I: Figures

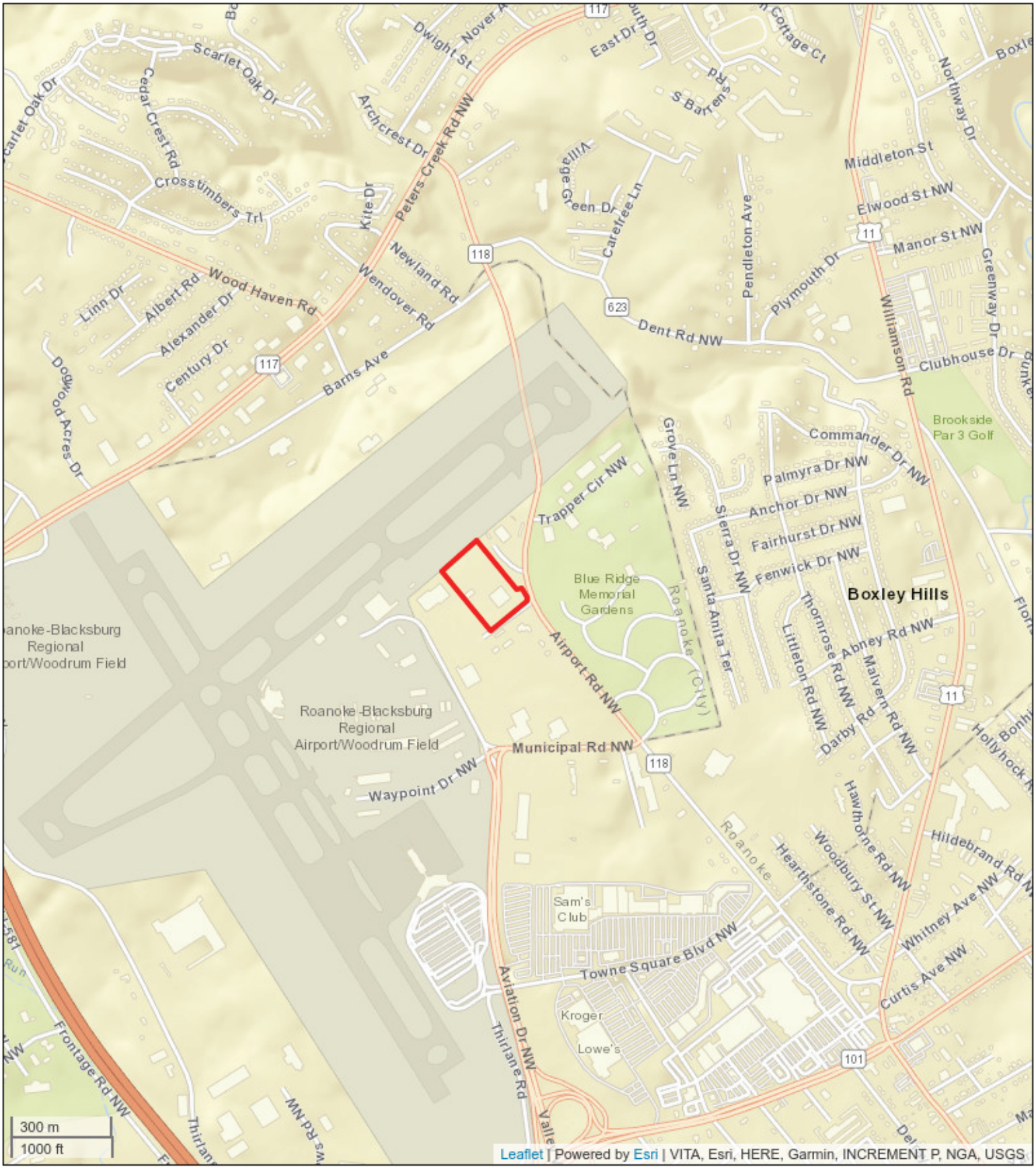

Figure 1. Site Location Map

John C Nordt Property
1420 Coulter Drive NW
Roanoke, Virginia 24012
ECS Project No.: 47:12509-A

Figure 2. Boring Location Map

John C Nordt Property
1420 Coulter Drive NW
Roanoke, Virginia 24012
ECS Project No.: 47:12509-A

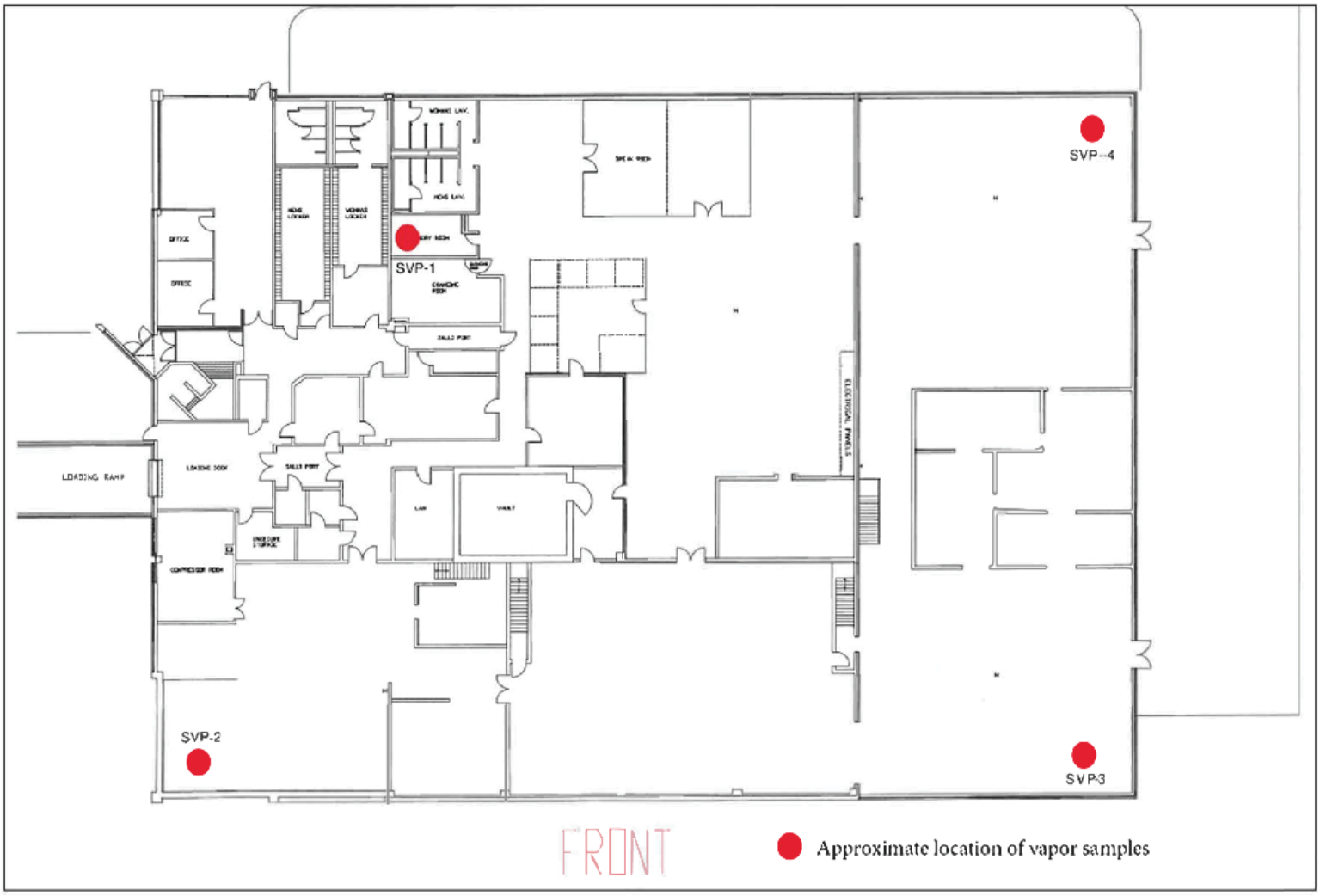

Figure 3. Vapor Sample Location Map

John C Nordt Property
1420 Coulter Drive NW
Roanoke. Virginia 24012
ECS Project No.: 47:12509-A

Appendix II: Laboratory Data Sheets

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

September 27, 2021

Steven Hay
ECS Mid-Atlantic, LLC
7670 Enon Drive
Suite 101
Roanoke, VA 24019

RE: Project: Nordt Property
Pace Project No.: 92560200

Dear Steven Hay:

Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte

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

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

CERTIFICATIONS

Project: Nordt Property
Pace Project No.: 92560200

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE ANALYTE COUNT

Project: Nordt Property
Pace Project No.: 92560200

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92560200001	**SB-01**	EPA 8015C Modified	BAJ	2	PASI-C
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
92560200002	**SB-02**	EPA 8015C Modified	BAJ	2	PASI-C
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
92560200003	**SB-03**	EPA 6010D	CBV, RDT	7	PASI-A
		EPA 7471B	DBB1	1	PASI-A
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
92560200004	**SB-04**	EPA 6010D	CBV, RDT	7	PASI-A
		EPA 7471B	DBB1	1	PASI-A
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
92560200005	**SB-05**	EPA 6010D	RDT	7	PASI-A
		EPA 7471B	NMP	1	PASI-A
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C
92560200006	**SB-06**	EPA 6010D	RDT	7	PASI-A
		EPA 7471B	NMP	1	PASI-A
		EPA 8260D	CL	70	PASI-C
		SW-846	KDF	1	PASI-C

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SUMMARY OF DETECTION

Project: Nordt Property
Pace Project No.: 92560200

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92560200001	**SB-01**					
SW-846	Percent Moisture	16.0	%	0.10	09/09/21 13:17	N2
92560200002	**SB-02**					
SW-846	Percent Moisture	28.3	%	0.10	09/09/21 13:17	N2
92560200003	**SB-03**					
EPA 6010D	Arsenic	15.9	mg/kg	3.0	09/15/21 17:24	
EPA 6010D	Barium	51.8	mg/kg	1.2	09/15/21 17:24	
EPA 6010D	Cadmium	0.32	mg/kg	0.12	09/15/21 17:24	
EPA 6010D	Chromium	52.0	mg/kg	0.61	09/15/21 17:24	
EPA 6010D	Lead	43.2	mg/kg	1.2	09/15/21 17:24	
EPA 6010D	Selenium	2.5	mg/kg	1.2	09/15/21 17:24	
EPA 7471B	Mercury	0.082	mg/kg	0.066	09/23/21 13:13	
EPA 8260D	Methyl-tert-butyl ether	17.6	ug/kg	9.5	09/10/21 23:39	C7
SW-846	Percent Moisture	30.0	%	0.10	09/09/21 13:17	N2
92560200004	**SB-04**					
EPA 6010D	Arsenic	8.7	mg/kg	2.0	09/15/21 17:27	
EPA 6010D	Barium	69.2	mg/kg	0.81	09/15/21 17:27	
EPA 6010D	Cadmium	0.24	mg/kg	0.081	09/15/21 17:27	
EPA 6010D	Chromium	42.1	mg/kg	0.40	09/15/21 17:27	
EPA 6010D	Lead	26.3	mg/kg	0.81	09/15/21 17:27	
EPA 6010D	Selenium	1.4	mg/kg	0.81	09/15/21 17:27	
EPA 7471B	Mercury	0.098	mg/kg	0.072	09/23/21 13:15	
EPA 8260D	Methyl-tert-butyl ether	10.2	ug/kg	7.6	09/10/21 23:57	C7
SW-846	Percent Moisture	26.1	%	0.10	09/09/21 13:17	N2
92560200005	**SB-05**					
EPA 6010D	Barium	49.8	mg/kg	12.6	09/16/21 11:09	
EPA 6010D	Chromium	39.7	mg/kg	6.3	09/16/21 11:09	
EPA 6010D	Lead	26.0	mg/kg	12.6	09/16/21 11:09	
EPA 7471B	Mercury	0.093	mg/kg	0.0076	09/25/21 16:45	
SW-846	Percent Moisture	23.9	%	0.10	09/09/21 13:18	N2
92560200006	**SB-06**					
EPA 6010D	Arsenic	35.5	mg/kg	2.8	09/15/21 17:40	
EPA 6010D	Barium	18.4	mg/kg	1.1	09/15/21 17:40	
EPA 6010D	Cadmium	0.39	mg/kg	0.11	09/15/21 17:40	
EPA 6010D	Chromium	30.1	mg/kg	0.56	09/15/21 17:40	
EPA 6010D	Lead	17.0	mg/kg	1.1	09/15/21 17:40	
EPA 6010D	Selenium	2.3	mg/kg	1.1	09/15/21 17:40	
EPA 7471B	Mercury	0.17	mg/kg	0.0078	09/25/21 16:47	
SW-846	Percent Moisture	27.5	%	0.10	09/09/21 13:40	N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-01 **Lab ID: 92560200001** Collected: 09/07/21 10:45 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015C Modified Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
Diesel Range Organics(C10-C28)	ND	mg/kg	6.0	1	09/13/21 11:35	09/13/21 21:49		
Surrogates								
n-Pentacosane (S)	44	%	32-130	1	09/13/21 11:35	09/13/21 21:49	629-99-2	
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Acetone	ND	ug/kg	143	1	09/10/21 12:25	09/10/21 23:02	67-64-1	
Benzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	71-43-2	
Bromobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	108-86-1	
Bromochloromethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	74-97-5	
Bromodichloromethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	75-27-4	
Bromoform	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	75-25-2	
Bromomethane	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	74-83-9	
2-Butanone (MEK)	ND	ug/kg	143	1	09/10/21 12:25	09/10/21 23:02	78-93-3	
n-Butylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	56-23-5	
Chlorobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	108-90-7	
Chloroethane	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	75-00-3	
Chloroform	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	67-66-3	
Chloromethane	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	96-12-8	
Dibromochloromethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	106-93-4	
Dibromomethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	75-71-8	v2
1,1-Dichloroethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	156-60-5	
1,2-Dichloropropane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	108-20-3	
Ethylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-01 **Lab ID: 92560200001** Collected: 09/07/21 10:45 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Hexachloro-1,3-butadiene	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	87-68-3	
2-Hexanone	ND	ug/kg	71.5	1	09/10/21 12:25	09/10/21 23:02	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	99-87-6	
Methylene Chloride	ND	ug/kg	28.6	1	09/10/21 12:25	09/10/21 23:02	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	71.5	1	09/10/21 12:25	09/10/21 23:02	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	1634-04-4	
Naphthalene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	91-20-3	
n-Propylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	103-65-1	
Styrene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	79-34-5	
Tetrachloroethene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	127-18-4	
Toluene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	79-00-5	
Trichloroethene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	108-67-8	
Vinyl acetate	ND	ug/kg	71.5	1	09/10/21 12:25	09/10/21 23:02	108-05-4	
Vinyl chloride	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	75-01-4	
Xylene (Total)	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	1330-20-7	
m&p-Xylene	ND	ug/kg	14.3	1	09/10/21 12:25	09/10/21 23:02	179601-23-1	
o-Xylene	ND	ug/kg	7.1	1	09/10/21 12:25	09/10/21 23:02	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%	70-130	1	09/10/21 12:25	09/10/21 23:02	2037-26-5	
4-Bromofluorobenzene (S)	95	%	69-134	1	09/10/21 12:25	09/10/21 23:02	460-00-4	
1,2-Dichloroethane-d4 (S)	93	%	70-130	1	09/10/21 12:25	09/10/21 23:02	17060-07-0	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**16.0**	%	0.10	1		09/09/21 13:17		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-02 **Lab ID: 92560200002** Collected: 09/07/21 11:30 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 GCS THC-Diesel	Analytical Method: EPA 8015C Modified Preparation Method: EPA 3546 Pace Analytical Services - Charlotte							
Diesel Range Organics(C10-C28)	ND	mg/kg	7.0	1	09/13/21 11:35	09/13/21 21:49		
Surrogates								
n-Pentacosane (S)	55	%	32-130	1	09/13/21 11:35	09/13/21 21:49	629-99-2	
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Acetone	ND	ug/kg	183	1	09/10/21 12:25	09/10/21 23:20	67-64-1	
Benzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	71-43-2	
Bromobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	108-86-1	
Bromochloromethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	74-97-5	
Bromodichloromethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	75-27-4	
Bromoform	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	75-25-2	
Bromomethane	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	74-83-9	
2-Butanone (MEK)	ND	ug/kg	183	1	09/10/21 12:25	09/10/21 23:20	78-93-3	
n-Butylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	104-51-8	
sec-Butylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	135-98-8	
tert-Butylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	98-06-6	
Carbon tetrachloride	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	56-23-5	
Chlorobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	108-90-7	
Chloroethane	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	75-00-3	
Chloroform	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	67-66-3	
Chloromethane	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	74-87-3	
2-Chlorotoluene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	95-49-8	
4-Chlorotoluene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	96-12-8	
Dibromochloromethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	106-93-4	
Dibromomethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	75-71-8	v2
1,1-Dichloroethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	75-34-3	
1,2-Dichloroethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	107-06-2	
1,1-Dichloroethene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	156-60-5	
1,2-Dichloropropane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	78-87-5	
1,3-Dichloropropane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	142-28-9	
2,2-Dichloropropane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	594-20-7	
1,1-Dichloropropene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	10061-02-6	
Diisopropyl ether	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	108-20-3	
Ethylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	100-41-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-02 **Lab ID: 92560200002** Collected: 09/07/21 11:30 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Hexachloro-1,3-butadiene	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	87-68-3	
2-Hexanone	ND	ug/kg	91.3	1	09/10/21 12:25	09/10/21 23:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	98-82-8	
p-Isopropyltoluene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	99-87-6	
Methylene Chloride	ND	ug/kg	36.5	1	09/10/21 12:25	09/10/21 23:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	91.3	1	09/10/21 12:25	09/10/21 23:20	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	1634-04-4	
Naphthalene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	91-20-3	
n-Propylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	103-65-1	
Styrene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	79-34-5	
Tetrachloroethene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	127-18-4	
Toluene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	79-00-5	
Trichloroethene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	79-01-6	
Trichlorofluoromethane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	108-67-8	
Vinyl acetate	ND	ug/kg	91.3	1	09/10/21 12:25	09/10/21 23:20	108-05-4	
Vinyl chloride	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	75-01-4	
Xylene (Total)	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	1330-20-7	
m&p-Xylene	ND	ug/kg	18.3	1	09/10/21 12:25	09/10/21 23:20	179601-23-1	
o-Xylene	ND	ug/kg	9.1	1	09/10/21 12:25	09/10/21 23:20	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%	70-130	1	09/10/21 12:25	09/10/21 23:20	2037-26-5	
4-Bromofluorobenzene (S)	98	%	69-134	1	09/10/21 12:25	09/10/21 23:20	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	70-130	1	09/10/21 12:25	09/10/21 23:20	17060-07-0	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**28.3**	%	0.10	1		09/09/21 13:17		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-03 **Lab ID: 92560200003** Collected: 09/07/21 12:00 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Asheville							
Arsenic	**15.9**	mg/kg	3.0	1	09/10/21 10:18	09/15/21 17:24	7440-38-2	
Barium	**51.8**	mg/kg	1.2	1	09/10/21 10:18	09/15/21 17:24	7440-39-3	
Cadmium	**0.32**	mg/kg	0.12	1	09/10/21 10:18	09/15/21 17:24	7440-43-9	
Chromium	**52.0**	mg/kg	0.61	1	09/10/21 10:18	09/15/21 17:24	7440-47-3	
Lead	**43.2**	mg/kg	1.2	1	09/10/21 10:18	09/15/21 17:24	7439-92-1	
Selenium	**2.5**	mg/kg	1.2	1	09/10/21 10:18	09/15/21 17:24	7782-49-2	
Silver	ND	mg/kg	0.61	1	09/10/21 10:18	09/15/21 14:52	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Asheville							
Mercury	**0.082**	mg/kg	0.066	10	09/22/21 15:18	09/23/21 13:13	7439-97-6	
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Acetone	ND	ug/kg	190	1	09/10/21 12:25	09/10/21 23:39	67-64-1	
Benzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	71-43-2	
Bromobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	108-86-1	
Bromochloromethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	74-97-5	
Bromodichloromethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	75-27-4	
Bromoform	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	75-25-2	
Bromomethane	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	74-83-9	
2-Butanone (MEK)	ND	ug/kg	190	1	09/10/21 12:25	09/10/21 23:39	78-93-3	
n-Butylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	104-51-8	
sec-Butylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	135-98-8	
tert-Butylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	98-06-6	
Carbon tetrachloride	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	56-23-5	
Chlorobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	108-90-7	
Chloroethane	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	75-00-3	
Chloroform	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	67-66-3	
Chloromethane	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	74-87-3	
2-Chlorotoluene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	95-49-8	
4-Chlorotoluene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	96-12-8	
Dibromochloromethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	106-93-4	
Dibromomethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	75-71-8	v2
1,1-Dichloroethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	75-34-3	
1,2-Dichloroethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	107-06-2	
1,1-Dichloroethene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-03 **Lab ID: 92560200003** Collected: 09/07/21 12:00 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
1,2-Dichloropropane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	78-87-5	
1,3-Dichloropropane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	142-28-9	
2,2-Dichloropropane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	594-20-7	
1,1-Dichloropropene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	10061-02-6	
Diisopropyl ether	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	108-20-3	
Ethylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	87-68-3	
2-Hexanone	ND	ug/kg	95.1	1	09/10/21 12:25	09/10/21 23:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	98-82-8	
p-Isopropyltoluene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	99-87-6	
Methylene Chloride	ND	ug/kg	38.0	1	09/10/21 12:25	09/10/21 23:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	95.1	1	09/10/21 12:25	09/10/21 23:39	108-10-1	
Methyl-tert-butyl ether	**17.6**	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	1634-04-4	C7
Naphthalene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	91-20-3	
n-Propylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	103-65-1	
Styrene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	79-34-5	
Tetrachloroethene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	127-18-4	
Toluene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	79-00-5	
Trichloroethene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	79-01-6	
Trichlorofluoromethane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	108-67-8	
Vinyl acetate	ND	ug/kg	95.1	1	09/10/21 12:25	09/10/21 23:39	108-05-4	
Vinyl chloride	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	75-01-4	
Xylene (Total)	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	1330-20-7	
m&p-Xylene	ND	ug/kg	19.0	1	09/10/21 12:25	09/10/21 23:39	179601-23-1	
o-Xylene	ND	ug/kg	9.5	1	09/10/21 12:25	09/10/21 23:39	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%	70-130	1	09/10/21 12:25	09/10/21 23:39	2037-26-5	
4-Bromofluorobenzene (S)	97	%	69-134	1	09/10/21 12:25	09/10/21 23:39	460-00-4	
1,2-Dichloroethane-d4 (S)	88	%	70-130	1	09/10/21 12:25	09/10/21 23:39	17060-07-0	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**30.0**	%	0.10	1		09/09/21 13:17		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-04 **Lab ID: 92560200004** Collected: 09/08/21 09:00 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Asheville							
Arsenic	**8.7**	mg/kg	2.0	1	09/10/21 10:18	09/15/21 17:27	7440-38-2	
Barium	**69.2**	mg/kg	0.81	1	09/10/21 10:18	09/15/21 17:27	7440-39-3	
Cadmium	**0.24**	mg/kg	0.081	1	09/10/21 10:18	09/15/21 17:27	7440-43-9	
Chromium	**42.1**	mg/kg	0.40	1	09/10/21 10:18	09/15/21 17:27	7440-47-3	
Lead	**26.3**	mg/kg	0.81	1	09/10/21 10:18	09/15/21 17:27	7439-92-1	
Selenium	**1.4**	mg/kg	0.81	1	09/10/21 10:18	09/15/21 17:27	7782-49-2	
Silver	ND	mg/kg	0.40	1	09/10/21 10:18	09/15/21 14:55	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Asheville							
Mercury	**0.098**	mg/kg	0.072	10	09/22/21 15:18	09/23/21 13:15	7439-97-6	
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Acetone	ND	ug/kg	152	1	09/10/21 12:25	09/10/21 23:57	67-64-1	
Benzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	71-43-2	
Bromobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	108-86-1	
Bromochloromethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	74-97-5	
Bromodichloromethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	75-27-4	
Bromoform	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	75-25-2	
Bromomethane	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	74-83-9	
2-Butanone (MEK)	ND	ug/kg	152	1	09/10/21 12:25	09/10/21 23:57	78-93-3	
n-Butylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	56-23-5	
Chlorobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	108-90-7	
Chloroethane	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	75-00-3	
Chloroform	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	67-66-3	
Chloromethane	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	96-12-8	
Dibromochloromethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	106-93-4	
Dibromomethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	75-71-8	v2
1,1-Dichloroethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-04 **Lab ID: 92560200004** Collected: 09/08/21 09:00 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
1,2-Dichloropropane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	108-20-3	
Ethylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	87-68-3	
2-Hexanone	ND	ug/kg	76.2	1	09/10/21 12:25	09/10/21 23:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	99-87-6	
Methylene Chloride	ND	ug/kg	30.5	1	09/10/21 12:25	09/10/21 23:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	76.2	1	09/10/21 12:25	09/10/21 23:57	108-10-1	
Methyl-tert-butyl ether	**10.2**	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	1634-04-4	C7
Naphthalene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	91-20-3	
n-Propylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	103-65-1	
Styrene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	79-34-5	
Tetrachloroethene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	127-18-4	
Toluene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	79-00-5	
Trichloroethene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	108-67-8	
Vinyl acetate	ND	ug/kg	76.2	1	09/10/21 12:25	09/10/21 23:57	108-05-4	
Vinyl chloride	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	75-01-4	
Xylene (Total)	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	1330-20-7	
m&p-Xylene	ND	ug/kg	15.2	1	09/10/21 12:25	09/10/21 23:57	179601-23-1	
o-Xylene	ND	ug/kg	7.6	1	09/10/21 12:25	09/10/21 23:57	95-47-6	
Surrogates								
Toluene-d8 (S)	98	%	70-130	1	09/10/21 12:25	09/10/21 23:57	2037-26-5	
4-Bromofluorobenzene (S)	96	%	69-134	1	09/10/21 12:25	09/10/21 23:57	460-00-4	
1,2-Dichloroethane-d4 (S)	87	%	70-130	1	09/10/21 12:25	09/10/21 23:57	17060-07-0	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**26.1**	%	0.10	1		09/09/21 13:17		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-05 **Lab ID: 92560200005** Collected: 09/08/21 10:00 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Asheville							
Arsenic	ND	mg/kg	31.6	10	09/10/21 10:18	09/16/21 11:09	7440-38-2	
Barium	**49.8**	mg/kg	12.6	10	09/10/21 10:18	09/16/21 11:09	7440-39-3	
Cadmium	ND	mg/kg	1.3	10	09/10/21 10:18	09/16/21 11:09	7440-43-9	
Chromium	**39.7**	mg/kg	6.3	10	09/10/21 10:18	09/16/21 11:09	7440-47-3	
Lead	**26.0**	mg/kg	12.6	10	09/10/21 10:18	09/16/21 11:09	7439-92-1	
Selenium	ND	mg/kg	12.6	10	09/10/21 10:18	09/16/21 11:09	7782-49-2	
Silver	ND	mg/kg	6.3	10	09/10/21 10:18	09/16/21 11:09	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Asheville							
Mercury	**0.093**	mg/kg	0.0076	1	09/25/21 14:32	09/25/21 16:45	7439-97-6	
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Acetone	ND	ug/kg	144	1	09/10/21 12:25	09/11/21 00:16	67-64-1	
Benzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	71-43-2	
Bromobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	108-86-1	
Bromochloromethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	74-97-5	
Bromodichloromethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	75-27-4	
Bromoform	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	75-25-2	
Bromomethane	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	74-83-9	
2-Butanone (MEK)	ND	ug/kg	144	1	09/10/21 12:25	09/11/21 00:16	78-93-3	
n-Butylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	56-23-5	
Chlorobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	108-90-7	
Chloroethane	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	75-00-3	
Chloroform	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	67-66-3	
Chloromethane	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	96-12-8	
Dibromochloromethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	106-93-4	
Dibromomethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	75-71-8	v2
1,1-Dichloroethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-05 **Lab ID: 92560200005** Collected: 09/08/21 10:00 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
1,2-Dichloropropane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	108-20-3	
Ethylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	87-68-3	
2-Hexanone	ND	ug/kg	72.2	1	09/10/21 12:25	09/11/21 00:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	99-87-6	
Methylene Chloride	ND	ug/kg	28.9	1	09/10/21 12:25	09/11/21 00:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	72.2	1	09/10/21 12:25	09/11/21 00:16	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	1634-04-4	
Naphthalene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	91-20-3	
n-Propylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	103-65-1	
Styrene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	79-34-5	
Tetrachloroethene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	127-18-4	
Toluene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	79-00-5	
Trichloroethene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	108-67-8	
Vinyl acetate	ND	ug/kg	72.2	1	09/10/21 12:25	09/11/21 00:16	108-05-4	
Vinyl chloride	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	75-01-4	
Xylene (Total)	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	1330-20-7	
m&p-Xylene	ND	ug/kg	14.4	1	09/10/21 12:25	09/11/21 00:16	179601-23-1	
o-Xylene	ND	ug/kg	7.2	1	09/10/21 12:25	09/11/21 00:16	95-47-6	
Surrogates								
Toluene-d8 (S)	97	%	70-130	1	09/10/21 12:25	09/11/21 00:16	2037-26-5	
4-Bromofluorobenzene (S)	95	%	69-134	1	09/10/21 12:25	09/11/21 00:16	460-00-4	
1,2-Dichloroethane-d4 (S)	90	%	70-130	1	09/10/21 12:25	09/11/21 00:16	17060-07-0	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**23.9**	%	0.10	1		09/09/21 13:18		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-06 **Lab ID: 92560200006** Collected: 09/08/21 11:30 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Asheville							
Arsenic	**35.5**	mg/kg	2.8	1	09/10/21 10:18	09/15/21 17:40	7440-38-2	
Barium	**18.4**	mg/kg	1.1	1	09/10/21 10:18	09/15/21 17:40	7440-39-3	
Cadmium	**0.39**	mg/kg	0.11	1	09/10/21 10:18	09/15/21 17:40	7440-43-9	
Chromium	**30.1**	mg/kg	0.56	1	09/10/21 10:18	09/15/21 17:40	7440-47-3	
Lead	**17.0**	mg/kg	1.1	1	09/10/21 10:18	09/15/21 17:40	7439-92-1	
Selenium	**2.3**	mg/kg	1.1	1	09/10/21 10:18	09/15/21 17:40	7782-49-2	
Silver	ND	mg/kg	2.8	5	09/10/21 10:18	09/16/21 11:12	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471B Preparation Method: EPA 7471B Pace Analytical Services - Asheville							
Mercury	**0.17**	mg/kg	0.0078	1	09/25/21 14:32	09/25/21 16:47	7439-97-6	
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
Acetone	ND	ug/kg	154	1	09/10/21 12:25	09/11/21 00:34	67-64-1	
Benzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	71-43-2	
Bromobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	108-86-1	
Bromochloromethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	74-97-5	
Bromodichloromethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	75-27-4	
Bromoform	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	75-25-2	
Bromomethane	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	74-83-9	
2-Butanone (MEK)	ND	ug/kg	154	1	09/10/21 12:25	09/11/21 00:34	78-93-3	
n-Butylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	104-51-8	
sec-Butylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	135-98-8	
tert-Butylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	98-06-6	
Carbon tetrachloride	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	56-23-5	
Chlorobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	108-90-7	
Chloroethane	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	75-00-3	
Chloroform	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	67-66-3	
Chloromethane	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	74-87-3	
2-Chlorotoluene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	95-49-8	
4-Chlorotoluene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	96-12-8	
Dibromochloromethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	106-93-4	
Dibromomethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	74-95-3	
1,2-Dichlorobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	106-46-7	
Dichlorodifluoromethane	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	75-71-8	v2
1,1-Dichloroethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	75-34-3	
1,2-Dichloroethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	107-06-2	
1,1-Dichloroethene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	75-35-4	
cis-1,2-Dichloroethene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	156-60-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

ANALYTICAL RESULTS

Project: Nordt Property
Pace Project No.: 92560200

Sample: SB-06 **Lab ID: 92560200006** Collected: 09/08/21 11:30 Received: 09/09/21 10:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260D/5035A/5030B Volatiles	Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte							
1,2-Dichloropropane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	78-87-5	
1,3-Dichloropropane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	142-28-9	
2,2-Dichloropropane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	594-20-7	
1,1-Dichloropropene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	563-58-6	
cis-1,3-Dichloropropene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	10061-02-6	
Diisopropyl ether	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	108-20-3	
Ethylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	87-68-3	
2-Hexanone	ND	ug/kg	77.1	1	09/10/21 12:25	09/11/21 00:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	98-82-8	
p-Isopropyltoluene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	99-87-6	
Methylene Chloride	ND	ug/kg	30.8	1	09/10/21 12:25	09/11/21 00:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/kg	77.1	1	09/10/21 12:25	09/11/21 00:34	108-10-1	
Methyl-tert-butyl ether	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	1634-04-4	
Naphthalene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	91-20-3	
n-Propylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	103-65-1	
Styrene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	79-34-5	
Tetrachloroethene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	127-18-4	
Toluene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	120-82-1	
1,1,1-Trichloroethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	79-00-5	
Trichloroethene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	79-01-6	
Trichlorofluoromethane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	75-69-4	
1,2,3-Trichloropropane	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	96-18-4	
1,2,4-Trimethylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	108-67-8	
Vinyl acetate	ND	ug/kg	77.1	1	09/10/21 12:25	09/11/21 00:34	108-05-4	
Vinyl chloride	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	75-01-4	
Xylene (Total)	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	1330-20-7	
m&p-Xylene	ND	ug/kg	15.4	1	09/10/21 12:25	09/11/21 00:34	179601-23-1	
o-Xylene	ND	ug/kg	7.7	1	09/10/21 12:25	09/11/21 00:34	95-47-6	
Surrogates								
Toluene-d8 (S)	97	%	70-130	1	09/10/21 12:25	09/11/21 00:34	2037-26-5	
4-Bromofluorobenzene (S)	97	%	69-134	1	09/10/21 12:25	09/11/21 00:34	460-00-4	
1,2-Dichloroethane-d4 (S)	89	%	70-130	1	09/10/21 12:25	09/11/21 00:34	17060-07-0	
Percent Moisture	Analytical Method: SW-846 Pace Analytical Services - Charlotte							
Percent Moisture	**27.5**	%	0.10	1		09/09/21 13:40		N2

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 648560
QC Batch Method: EPA 7471B
Analysis Method: EPA 7471B
Analysis Description: 7471 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92560200003, 92560200004

METHOD BLANK: 3401569 Matrix: Solid
Associated Lab Samples: 92560200003, 92560200004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.060	09/23/21 12:54	

LABORATORY CONTROL SAMPLE: 3401570

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.083	0.92	1110	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3401571 3401572

Parameter	Units	92559778001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	mg/kg	ND	0.085	0.081	0.078	0.091	92	112	75-125	15	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 649265
QC Batch Method: EPA 7471B
Analysis Method: EPA 7471B
Analysis Description: 7471 Mercury
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92560200005, 92560200006

METHOD BLANK: 3405549 Matrix: Solid
Associated Lab Samples: 92560200005, 92560200006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.0060	09/25/21 16:33	

LABORATORY CONTROL SAMPLE: 3405550

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.083	0.083	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3405551 3405552

Parameter	Units	92558373001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	mg/kg	0.027	0.08	0.087	0.10	0.10	92	89	75-125	3	H1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 646330
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92560200003, 92560200004, 92560200005, 92560200006

METHOD BLANK: 3390221 Matrix: Solid
Associated Lab Samples: 92560200003, 92560200004, 92560200005, 92560200006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	2.5	09/15/21 14:10	
Barium	mg/kg	ND	1.0	09/15/21 14:10	
Cadmium	mg/kg	ND	0.10	09/15/21 16:40	
Chromium	mg/kg	ND	0.50	09/15/21 14:10	
Lead	mg/kg	ND	1.0	09/15/21 14:10	
Selenium	mg/kg	ND	1.0	09/15/21 14:10	
Silver	mg/kg	ND	0.50	09/15/21 14:10	

LABORATORY CONTROL SAMPLE: 3390222

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	5	4.6	92	80-120	
Barium	mg/kg	5	4.9	98	80-120	
Cadmium	mg/kg	5	4.7	94	80-120	
Chromium	mg/kg	5	4.8	96	80-120	
Lead	mg/kg	5	4.8	96	80-120	
Selenium	mg/kg	5	4.2	84	80-120	
Silver	mg/kg	2.5	2.3	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3390223 3390224

Parameter	Units	92559902001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Arsenic	mg/kg	11.7	0.48	0.49	ND	ND	-2430	-2380	75-125		M1
Barium	mg/kg	819	0.48	0.49	1.8	2.8	-170000	-166000	75-125	46	M1,R1
Cadmium	mg/kg	25.6	0.48	0.49	0.45	0.53	-5220	-5110	75-125	15	M1
Chromium	mg/kg	32900	0.48	0.49	124	91.2	-6810000	-6690000	75-125	31	E,R1
Lead	mg/kg	1700	0.48	0.49	2.3	6.2	-352000	-345000	75-125	90	M1,R1
Selenium	mg/kg	5.7	0.48	0.49	0.26	0.29	-1140	-1110	75-125	11	M1
Silver	mg/kg	3.1	0.24	0.25	0.26	0.26	-1180	-1150	75-125	3	M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 646431 | Analysis Method: EPA 8260D
QC Batch Method: EPA 5035A/5030B | Analysis Description: 8260D 5035A 5030B
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92560200001, 92560200002, 92560200003, 92560200004, 92560200005, 92560200006

METHOD BLANK: 3390894 Matrix: Solid
Associated Lab Samples: 92560200001, 92560200002, 92560200003, 92560200004, 92560200005, 92560200006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	09/10/21 16:16	
1,1,1-Trichloroethane	ug/kg	ND	5.0	09/10/21 16:16	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	09/10/21 16:16	
1,1,2-Trichloroethane	ug/kg	ND	5.0	09/10/21 16:16	
1,1-Dichloroethane	ug/kg	ND	5.0	09/10/21 16:16	
1,1-Dichloroethene	ug/kg	ND	5.0	09/10/21 16:16	
1,1-Dichloropropene	ug/kg	ND	5.0	09/10/21 16:16	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	09/10/21 16:16	
1,2,3-Trichloropropane	ug/kg	ND	5.0	09/10/21 16:16	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	09/10/21 16:16	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	09/10/21 16:16	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	09/10/21 16:16	
1,2-Dichlorobenzene	ug/kg	ND	5.0	09/10/21 16:16	
1,2-Dichloroethane	ug/kg	ND	5.0	09/10/21 16:16	
1,2-Dichloropropane	ug/kg	ND	5.0	09/10/21 16:16	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
1,3-Dichlorobenzene	ug/kg	ND	5.0	09/10/21 16:16	
1,3-Dichloropropane	ug/kg	ND	5.0	09/10/21 16:16	
1,4-Dichlorobenzene	ug/kg	ND	5.0	09/10/21 16:16	
2,2-Dichloropropane	ug/kg	ND	5.0	09/10/21 16:16	
2-Butanone (MEK)	ug/kg	ND	100	09/10/21 16:16	
2-Chlorotoluene	ug/kg	ND	5.0	09/10/21 16:16	
2-Hexanone	ug/kg	ND	50.0	09/10/21 16:16	
4-Chlorotoluene	ug/kg	ND	5.0	09/10/21 16:16	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.0	09/10/21 16:16	
Acetone	ug/kg	ND	100	09/10/21 16:16	
Benzene	ug/kg	ND	5.0	09/10/21 16:16	
Bromobenzene	ug/kg	ND	5.0	09/10/21 16:16	
Bromochloromethane	ug/kg	ND	5.0	09/10/21 16:16	
Bromodichloromethane	ug/kg	ND	5.0	09/10/21 16:16	
Bromoform	ug/kg	ND	5.0	09/10/21 16:16	
Bromomethane	ug/kg	ND	10.0	09/10/21 16:16	
Carbon tetrachloride	ug/kg	ND	5.0	09/10/21 16:16	
Chlorobenzene	ug/kg	ND	5.0	09/10/21 16:16	
Chloroethane	ug/kg	ND	10.0	09/10/21 16:16	
Chloroform	ug/kg	ND	5.0	09/10/21 16:16	
Chloromethane	ug/kg	ND	10.0	09/10/21 16:16	
cis-1,2-Dichloroethene	ug/kg	ND	5.0	09/10/21 16:16	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	09/10/21 16:16	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

METHOD BLANK: 3390894 Matrix: Solid
Associated Lab Samples: 92560200001, 92560200002, 92560200003, 92560200004, 92560200005, 92560200006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.0	09/10/21 16:16	
Dibromomethane	ug/kg	ND	5.0	09/10/21 16:16	
Dichlorodifluoromethane	ug/kg	ND	10.0	09/10/21 16:16	v2
Diisopropyl ether	ug/kg	ND	5.0	09/10/21 16:16	
Ethylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
Hexachloro-1,3-butadiene	ug/kg	ND	10.0	09/10/21 16:16	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	09/10/21 16:16	
m&p-Xylene	ug/kg	ND	10.0	09/10/21 16:16	
Methyl-tert-butyl ether	ug/kg	ND	5.0	09/10/21 16:16	
Methylene Chloride	ug/kg	ND	20.0	09/10/21 16:16	
n-Butylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
n-Propylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
Naphthalene	ug/kg	ND	5.0	09/10/21 16:16	
o-Xylene	ug/kg	ND	5.0	09/10/21 16:16	
p-Isopropyltoluene	ug/kg	ND	5.0	09/10/21 16:16	
sec-Butylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
Styrene	ug/kg	ND	5.0	09/10/21 16:16	
tert-Butylbenzene	ug/kg	ND	5.0	09/10/21 16:16	
Tetrachloroethene	ug/kg	ND	5.0	09/10/21 16:16	
Toluene	ug/kg	ND	5.0	09/10/21 16:16	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	09/10/21 16:16	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	09/10/21 16:16	
Trichloroethene	ug/kg	ND	5.0	09/10/21 16:16	
Trichlorofluoromethane	ug/kg	ND	5.0	09/10/21 16:16	
Vinyl acetate	ug/kg	ND	50.0	09/10/21 16:16	
Vinyl chloride	ug/kg	ND	10.0	09/10/21 16:16	
Xylene (Total)	ug/kg	ND	10.0	09/10/21 16:16	
1,2-Dichloroethane-d4 (S)	%	102	70-130	09/10/21 16:16	
4-Bromofluorobenzene (S)	%	99	69-134	09/10/21 16:16	
Toluene-d8 (S)	%	99	70-130	09/10/21 16:16	

LABORATORY CONTROL SAMPLE: 3390895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	1250	1360	109	70-130	
1,1,1-Trichloroethane	ug/kg	1250	1070	86	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	1250	1250	100	70-130	
1,1,2-Trichloroethane	ug/kg	1250	1130	90	70-130	
1,1-Dichloroethane	ug/kg	1250	1190	95	70-130	
1,1-Dichloroethene	ug/kg	1250	1260	101	70-130	
1,1-Dichloropropene	ug/kg	1250	1230	98	70-130	
1,2,3-Trichlorobenzene	ug/kg	1250	1450	116	65-130	
1,2,3-Trichloropropane	ug/kg	1250	1310	104	70-130	
1,2,4-Trichlorobenzene	ug/kg	1250	1420	113	68-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

LABORATORY CONTROL SAMPLE: 3390895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1250	1310	105	70-130	
1,2-Dibromo-3-chloropropane	ug/kg	1250	1390	111	70-130	
1,2-Dibromoethane (EDB)	ug/kg	1250	1340	107	70-130	
1,2-Dichlorobenzene	ug/kg	1250	1430	114	70-130	
1,2-Dichloroethane	ug/kg	1250	1180	94	63-130	
1,2-Dichloropropane	ug/kg	1250	1260	101	70-130	
1,3,5-Trimethylbenzene	ug/kg	1250	1340	107	70-130	
1,3-Dichlorobenzene	ug/kg	1250	1430	115	70-130	
1,3-Dichloropropane	ug/kg	1250	1340	107	70-130	
1,4-Dichlorobenzene	ug/kg	1250	1390	112	70-130	
2,2-Dichloropropane	ug/kg	1250	1220	98	66-130	
2-Butanone (MEK)	ug/kg	2500	2180	87	70-130	
2-Chlorotoluene	ug/kg	1250	1440	115	70-130	
2-Hexanone	ug/kg	2500	2400	96	70-130	
4-Chlorotoluene	ug/kg	1250	1400	112	70-130	
4-Methyl-2-pentanone (MIBK)	ug/kg	2500	2270	91	70-130	
Acetone	ug/kg	2500	2090	83	69-130	
Benzene	ug/kg	1250	1230	98	70-130	
Bromobenzene	ug/kg	1250	1460	117	70-130	
Bromochloromethane	ug/kg	1250	1280	103	70-130	
Bromodichloromethane	ug/kg	1250	1070	86	69-130	
Bromoform	ug/kg	1250	1310	105	70-130	
Bromomethane	ug/kg	1250	1190	95	52-130	
Carbon tetrachloride	ug/kg	1250	1260	101	70-130	
Chlorobenzene	ug/kg	1250	1390	111	70-130	
Chloroethane	ug/kg	1250	1210	97	65-130	
Chloroform	ug/kg	1250	1230	99	70-130	
Chloromethane	ug/kg	1250	1120	90	55-130	
cis-1,2-Dichloroethene	ug/kg	1250	1150	92	70-130	
cis-1,3-Dichloropropene	ug/kg	1250	1270	101	70-130	
Dibromochloromethane	ug/kg	1250	1370	110	70-130	
Dibromomethane	ug/kg	1250	1350	108	70-130	
Dichlorodifluoromethane	ug/kg	1250	1540	123	45-156	v3
Diisopropyl ether	ug/kg	1250	1050	84	70-130	
Ethylbenzene	ug/kg	1250	1250	100	70-130	
Hexachloro-1,3-butadiene	ug/kg	1250	1490	120	66-130	
Isopropylbenzene (Cumene)	ug/kg	1250	1350	108	70-130	
m&p-Xylene	ug/kg	2500	2640	105	70-130	
Methyl-tert-butyl ether	ug/kg	1250	1080	87	70-130	
Methylene Chloride	ug/kg	1250	1090	87	65-130	
n-Butylbenzene	ug/kg	1250	1380	110	67-130	
n-Propylbenzene	ug/kg	1250	1380	111	70-130	
Naphthalene	ug/kg	1250	1370	110	70-130	
o-Xylene	ug/kg	1250	1350	108	70-130	
p-Isopropyltoluene	ug/kg	1250	1380	111	67-130	
sec-Butylbenzene	ug/kg	1250	1360	109	69-130	
Styrene	ug/kg	1250	1360	109	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

LABORATORY CONTROL SAMPLE: 3390895

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
tert-Butylbenzene	ug/kg	1250	1410	113	67-130	
Tetrachloroethene	ug/kg	1250	1440	115	70-130	
Toluene	ug/kg	1250	1270	101	70-130	
trans-1,2-Dichloroethene	ug/kg	1250	1200	96	70-130	
trans-1,3-Dichloropropene	ug/kg	1250	1250	100	68-130	
Trichloroethene	ug/kg	1250	1350	108	70-130	
Trichlorofluoromethane	ug/kg	1250	1290	103	70-130	
Vinyl acetate	ug/kg	2500	2350	94	70-130	
Vinyl chloride	ug/kg	1250	1200	96	61-130	
Xylene (Total)	ug/kg	3750	3980	106	70-130	
1,2-Dichloroethane-d4 (S)	%			82	70-130	
4-Bromofluorobenzene (S)	%			96	69-134	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 3390897

Parameter	Units	92559831002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	922	910	99	70-131	
1,1,1-Trichloroethane	ug/kg	ND	922	800	87	65-133	
1,1,2,2-Tetrachloroethane	ug/kg	ND	922	821	89	66-130	
1,1,2-Trichloroethane	ug/kg	ND	922	777	84	66-133	
1,1-Dichloroethane	ug/kg	ND	922	869	94	65-130	
1,1-Dichloroethene	ug/kg	ND	922	943	102	10-158	
1,1-Dichloropropene	ug/kg	ND	922	950	103	68-133	
1,2,3-Trichlorobenzene	ug/kg	ND	922	1050	114	27-138	
1,2,3-Trichloropropane	ug/kg	ND	922	841	91	67-130	
1,2,4-Trichlorobenzene	ug/kg	ND	922	1050	113	51-134	
1,2,4-Trimethylbenzene	ug/kg	ND	922	956	104	63-136	
1,2-Dibromo-3-chloropropane	ug/kg	ND	922	778	84	32-130	
1,2-Dibromoethane (EDB)	ug/kg	ND	922	879	95	70-130	
1,2-Dichlorobenzene	ug/kg	ND	922	998	108	69-130	
1,2-Dichloroethane	ug/kg	ND	922	852	92	59-130	
1,2-Dichloropropane	ug/kg	ND	922	913	99	70-130	
1,3,5-Trimethylbenzene	ug/kg	ND	922	944	103	65-137	
1,3-Dichlorobenzene	ug/kg	ND	922	1010	109	70-130	
1,3-Dichloropropane	ug/kg	ND	922	905	98	70-130	
1,4-Dichlorobenzene	ug/kg	ND	922	991	108	68-130	
2,2-Dichloropropane	ug/kg	ND	922	819	89	32-130	
2-Butanone (MEK)	ug/kg	ND	1850	1360	74	10-136	
2-Chlorotoluene	ug/kg	ND	922	996	108	69-141	
2-Hexanone	ug/kg	ND	1850	1410	76	10-144	
4-Chlorotoluene	ug/kg	ND	922	961	104	70-132	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	1850	1460	79	25-143	
Acetone	ug/kg	ND	1850	1030	56	10-130	
Benzene	ug/kg	ND	922	927	101	67-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

MATRIX SPIKE SAMPLE: 3390897

Parameter	Units	92559831002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/kg	ND	922	990	107	70-130	
Bromochloromethane	ug/kg	ND	922	887	96	69-134	
Bromodichloromethane	ug/kg	ND	922	728	79	64-130	
Bromoform	ug/kg	ND	922	732	79	62-130	
Bromomethane	ug/kg	ND	922	314	34	20-176	
Carbon tetrachloride	ug/kg	ND	922	901	98	65-140	
Chlorobenzene	ug/kg	ND	922	990	107	70-130	
Chloroethane	ug/kg	ND	922	98.3	11	10-130	
Chloroform	ug/kg	ND	922	886	96	63-130	
Chloromethane	ug/kg	ND	922	905	98	58-130	
cis-1,2-Dichloroethene	ug/kg	ND	922	859	93	66-130	
cis-1,3-Dichloropropene	ug/kg	ND	922	864	94	67-130	
Dibromochloromethane	ug/kg	ND	922	817	89	67-130	
Dibromomethane	ug/kg	ND	922	927	101	63-131	
Dichlorodifluoromethane	ug/kg	ND	922	1140	123	44-180	v3
Diisopropyl ether	ug/kg	ND	922	766	83	63-130	
Ethylbenzene	ug/kg	ND	922	935	102	66-130	
Hexachloro-1,3-butadiene	ug/kg	ND	922	1130	123	64-150	
Isopropylbenzene (Cumene)	ug/kg	ND	922	1020	111	69-135	
m&p-Xylene	ug/kg	ND	1850	1970	107	60-133	
Methyl-tert-butyl ether	ug/kg	ND	922	760	82	65-130	
Methylene Chloride	ug/kg	ND	922	855	93	61-130	
n-Butylbenzene	ug/kg	ND	922	1020	111	65-140	
n-Propylbenzene	ug/kg	ND	922	991	108	67-140	
Naphthalene	ug/kg	ND	922	946	103	15-145	
o-Xylene	ug/kg	ND	922	986	107	66-133	
p-Isopropyltoluene	ug/kg	ND	922	1030	111	56-147	
sec-Butylbenzene	ug/kg	ND	922	1010	109	65-139	
Styrene	ug/kg	ND	922	943	102	70-132	
tert-Butylbenzene	ug/kg	ND	922	999	108	62-135	
Tetrachloroethene	ug/kg	ND	922	1040	113	70-135	
Toluene	ug/kg	ND	922	964	105	67-130	
trans-1,2-Dichloroethene	ug/kg	ND	922	889	96	69-130	
trans-1,3-Dichloropropene	ug/kg	ND	922	841	91	62-130	
Trichloroethene	ug/kg	ND	922	1010	110	70-135	
Trichlorofluoromethane	ug/kg	ND	922	82.4	9	10-130	M1
Vinyl acetate	ug/kg	ND	1850	1620	88	53-130	
Vinyl chloride	ug/kg	ND	922	892	97	61-148	
Xylene (Total)	ug/kg	ND	2770	2950	107	63-132	
1,2-Dichloroethane-d4 (S)	%				91	70-130	
4-Bromofluorobenzene (S)	%				99	69-134	
Toluene-d8 (S)	%				99	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

SAMPLE DUPLICATE: 3390896

Parameter	Units	92559831001 Result	Dup Result	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,1-Trichloroethane	ug/kg	ND	ND		
1,1,2,2-Tetrachloroethane	ug/kg	ND	ND		
1,1,2-Trichloroethane	ug/kg	ND	ND		
1,1-Dichloroethane	ug/kg	ND	ND		
1,1-Dichloroethene	ug/kg	ND	ND		
1,1-Dichloropropene	ug/kg	ND	ND		
1,2,3-Trichlorobenzene	ug/kg	ND	ND		
1,2,3-Trichloropropane	ug/kg	ND	ND		
1,2,4-Trichlorobenzene	ug/kg	ND	ND		
1,2,4-Trimethylbenzene	ug/kg	ND	ND		
1,2-Dibromo-3-chloropropane	ug/kg	ND	ND		
1,2-Dibromoethane (EDB)	ug/kg	ND	ND		
1,2-Dichlorobenzene	ug/kg	ND	ND		
1,2-Dichloroethane	ug/kg	ND	ND		
1,2-Dichloropropane	ug/kg	ND	ND		
1,3,5-Trimethylbenzene	ug/kg	ND	ND		
1,3-Dichlorobenzene	ug/kg	ND	ND		
1,3-Dichloropropane	ug/kg	ND	ND		
1,4-Dichlorobenzene	ug/kg	ND	ND		
2,2-Dichloropropane	ug/kg	ND	ND		
2-Butanone (MEK)	ug/kg	ND	ND		
2-Chlorotoluene	ug/kg	ND	ND		
2-Hexanone	ug/kg	ND	ND		
4-Chlorotoluene	ug/kg	ND	ND		
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	ND		
Acetone	ug/kg	ND	ND		
Benzene	ug/kg	ND	ND		
Bromobenzene	ug/kg	ND	ND		
Bromochloromethane	ug/kg	ND	ND		
Bromodichloromethane	ug/kg	ND	ND		
Bromoform	ug/kg	ND	ND		
Bromomethane	ug/kg	ND	ND		
Carbon tetrachloride	ug/kg	ND	ND		
Chlorobenzene	ug/kg	ND	ND		
Chloroethane	ug/kg	ND	ND		
Chloroform	ug/kg	ND	ND		
Chloromethane	ug/kg	ND	ND		
cis-1,2-Dichloroethene	ug/kg	ND	ND		
cis-1,3-Dichloropropene	ug/kg	ND	ND		
Dibromochloromethane	ug/kg	ND	ND		
Dibromomethane	ug/kg	ND	ND		
Dichlorodifluoromethane	ug/kg	ND	ND		v2
Diisopropyl ether	ug/kg	ND	ND		
Ethylbenzene	ug/kg	ND	ND		
Hexachloro-1,3-butadiene	ug/kg	ND	ND		
Isopropylbenzene (Cumene)	ug/kg	ND	ND		

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

SAMPLE DUPLICATE: 3390896

Parameter	Units	92559831001 Result	Dup Result	RPD	Qualifiers
m&p-Xylene	ug/kg	ND	ND		
Methyl-tert-butyl ether	ug/kg	ND	ND		
Methylene Chloride	ug/kg	ND	ND		
n-Butylbenzene	ug/kg	ND	ND		
n-Propylbenzene	ug/kg	ND	ND		
Naphthalene	ug/kg	ND	ND		
o-Xylene	ug/kg	ND	ND		
p-Isopropyltoluene	ug/kg	ND	ND		
sec-Butylbenzene	ug/kg	ND	ND		
Styrene	ug/kg	ND	ND		
tert-Butylbenzene	ug/kg	ND	ND		
Tetrachloroethene	ug/kg	ND	ND		
Toluene	ug/kg	ND	ND		
trans-1,2-Dichloroethene	ug/kg	ND	ND		
trans-1,3-Dichloropropene	ug/kg	ND	ND		
Trichloroethene	ug/kg	ND	ND		
Trichlorofluoromethane	ug/kg	ND	ND		
Vinyl acetate	ug/kg	ND	ND		
Vinyl chloride	ug/kg	ND	ND		
Xylene (Total)	ug/kg	ND	ND		
1,2-Dichloroethane-d4 (S)	%	98	85		
4-Bromofluorobenzene (S)	%	99	94		
Toluene-d8 (S)	%	98	96		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 646730
QC Batch Method: EPA 3546
Analysis Method: EPA 8015C Modified
Analysis Description: 8015 Solid GCSV
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92560200001, 92560200002

METHOD BLANK: 3392311 Matrix: Solid
Associated Lab Samples: 92560200001, 92560200002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	5.0	09/13/21 17:49	
n-Pentacosane (S)	%	61	32-130	09/13/21 17:49	

LABORATORY CONTROL SAMPLE: 3392312

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	65.6	47.7	73	47-130	
n-Pentacosane (S)	%			72	32-130	

MATRIX SPIKE SAMPLE: 3392313

Parameter	Units	92558750001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	79.6	44.2	54	10-133	
n-Pentacosane (S)	%				54	32-130	

SAMPLE DUPLICATE: 3392314

Parameter	Units	92559278001 Result	Dup Result	RPD	Qualifiers
Diesel Range Organics(C10-C28)	mg/kg	ND	ND		
n-Pentacosane (S)	%	44	50		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 646130
QC Batch Method: SW-846
Analysis Method: SW-846
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Charlotte
Associated Lab Samples: 92560200001, 92560200002, 92560200003, 92560200004, 92560200005

SAMPLE DUPLICATE: 3389086

Parameter	Units	92560181001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	11.6	11.5	0	N2

SAMPLE DUPLICATE: 3389087

Parameter	Units	92560200005 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	23.9	23.8	1	N2

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Nordt Property
Pace Project No.: 92560200

QC Batch: 646151
QC Batch Method: SW-846
Analysis Method: SW-846
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92560200006

SAMPLE DUPLICATE: 3389218

Parameter	Units	92559954001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	19.9	20.2	2	N2

SAMPLE DUPLICATE: 3389219

Parameter	Units	92560200006 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	27.5	27.0	2	N2

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Nordt Property
Pace Project No.: 92560200

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

C7	Analyte is a possible laboratory contaminant (not present in method blank).
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
H1	Analysis conducted outside the EPA method holding time.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
R1	RPD value was outside control limits.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Nordt Property
Pace Project No.: 92560200

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92560200001	**SB-01**	EPA 3546	646730	EPA 8015C Modified	646801
92560200002	**SB-02**	EPA 3546	646730	EPA 8015C Modified	646801
92560200003	**SB-03**	EPA 3050B	646330	EPA 6010D	646511
92560200004	**SB-04**	EPA 3050B	646330	EPA 6010D	646511
92560200005	**SB-05**	EPA 3050B	646330	EPA 6010D	646511
92560200006	**SB-06**	EPA 3050B	646330	EPA 6010D	646511
92560200003	**SB-03**	EPA 7471B	648560	EPA 7471B	648843
92560200004	**SB-04**	EPA 7471B	648560	EPA 7471B	648843
92560200005	**SB-05**	EPA 7471B	649265	EPA 7471B	649402
92560200006	**SB-06**	EPA 7471B	649265	EPA 7471B	649402
92560200001	**SB-01**	EPA 5035A/5030B	646431	EPA 8260D	646447
92560200002	**SB-02**	EPA 5035A/5030B	646431	EPA 8260D	646447
92560200003	**SB-03**	EPA 5035A/5030B	646431	EPA 8260D	646447
92560200004	**SB-04**	EPA 5035A/5030B	646431	EPA 8260D	646447
92560200005	**SB-05**	EPA 5035A/5030B	646431	EPA 8260D	646447
92560200006	**SB-06**	EPA 5035A/5030B	646431	EPA 8260D	646447
92560200001	**SB-01**	SW-846	646130		
92560200002	**SB-02**	SW-846	646130		
92560200003	**SB-03**	SW-846	646130		
92560200004	**SB-04**	SW-846	646130		
92560200005	**SB-05**	SW-846	646130		
92560200006	**SB-06**	SW-846	646151		

Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☒ Raleigh ☐ Mechanicsville ☐ Atlanta ☐ Kernersville ☐

Sample Condition Upon Receipt

Client Name: ECS Mid-Atlantic **Projec**

WO# : 92560200

92560200

Courier: ☐ Commercial ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Pace ☐ Other:____

Custody Seal Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No

Date/Initials Person Examining Contents: KS 9/9/21

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other

Biological Tissue Frozen? ☐ Yes ☐ No ☒ N/A

Thermometer: ☒ IR Gun ID: 92700614 ☒ Wet ☐ Blue ☐ None

Type of Ice:

Cooler Temp: 2.5 **Correction Factor:** Add/Subtract (°C) 0

Cooler Temp Corrected (°C): 2.5

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

				Comments/Discrepancy:
Chain of Custody Present?	☒ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☒ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☒ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☒ No	☐ N/A	4.
Sufficient Volume?	☒ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☒ Yes	☐ No	☐ N/A	
Containers Intact?	☒ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☒ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: SL	☒ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☒ N/A	10.
Trip Blank Present?	☐ Yes	☒ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

***Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.**

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

****Bottom half of box is to list number of bottles**

Project #

WO# : 92560200

PM: AMB Due Date: 09/16/21

CLIENT: 92-ECS Roano

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1									1													3							
2									1													3							
3																						3							
4									1																				
5																						3							
6									1																				
7																						3							
8									1																				
9																						3							
10									1																				
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical
WWW.PACELABS.COM

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	ECS Mid-Atlantic	Report To:	Steven Hay	Attention:	
Address:	7670 Enon Dr	Copy To:		Company Name:	
Suite 101, Roanoke, VA 24019				Address:	
Email:	SHAY@ecslimited.com	Purchase Order #:		Pace Quote:	
Phone:	(540)627-6464 Fax:	Project Name:	Nordt Property, 47:12509-A	Pace Project Manager:	angela.baioni@pacelabs.com,
Requested Due Date:		Project #:	12509-A	Pace Profile #:	9050

Regulatory Agency

State / Location: VA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: DRO by 8015	GRO/VOCs	RCRA Metals	VOC by 8260	Residual Chlorine (Y/N)	9756020
1	SB-01	SL	G			9/7/21	1045		4										X			X		001
2	SB-02						1130		4										X			X		002
3	SB-03						1200		3													X		003
4	SB-03-M						1200		1												X			↓
5	SB-04					9/8/21	0900		3													X		004
6	SB-04-M						0900		1												X			↓
7	SB-05						1000		3													X		005
8	SB-05-M						1000		1												X			↓
9	SB-06						1130		3													X		006
10	SB-06-M						1130		1												X			↓
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Steve Hay / ECS	9/8/21	1700	KS Pace HVL	9/9/21	1000	2.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Steve Hay

SIGNATURE of SAMPLER: Steve Hay

DATE Signed: 09/08/21

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Maryland spectral Services

Analytical Chemistry Services

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
VELAP ID 460040

17 August 2021

Steve Hay
ECS-Roanoke
7670 Enon Dr Suite 101
Roanoke, VA 24019
RE: NORDT PROPERTY

Enclosed are the results of analyses for samples received by the laboratory on 08/12/21 15:10.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

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

Sincerely,

Rabecka Koons
Quality Assurance Officer

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SVP-1		1081221-01	Vapor	08/10/21 19:10	08/12/21 15:10
SVP-2		1081221-02	Vapor	08/10/21 19:17	08/12/21 15:10
SVP-3		1081221-03	Vapor	08/10/21 19:30	08/12/21 15:10
SVP-4		1081221-04	Vapor	08/10/21 19:33	08/12/21 15:10

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Rabecka Koons, Quality Assurance Officer

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report.

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-1

1081221-01 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	ND		ug/m³	9.60	9.60	4	08/12/21	08/12/21 21:00	WB
Benzene	ND		ug/m³	2.56	0.64	4	08/12/21	08/12/21 21:00	WB
Benzyl chloride	ND		ug/m³	4.00	1.00	4	08/12/21	08/12/21 21:00	WB
Bromodichloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:00	WB
Bromoform	ND		ug/m³	8.40	2.10	4	08/12/21	08/12/21 21:00	WB
Bromomethane	ND		ug/m³	3.12	0.78	4	08/12/21	08/12/21 21:00	WB
1,3-Butadiene	ND		ug/m³	1.76	1.76	4	08/12/21	08/12/21 21:00	WB
Carbon disulfide	**8.59**		ug/m³	6.24	6.24	4	08/12/21	08/12/21 21:00	WB
Carbon tetrachloride	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:00	WB
Chlorobenzene	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 21:00	WB
Chloroethane	ND		ug/m³	2.12	1.06	4	08/12/21	08/12/21 21:00	WB
Chloroform	ND		ug/m³	3.88	0.97	4	08/12/21	08/12/21 21:00	WB
Chloromethane	ND		ug/m³	1.64	0.41	4	08/12/21	08/12/21 21:00	WB
3-Chloropropene	ND		ug/m³	2.52	0.63	4	08/12/21	08/12/21 21:00	WB
Cyclohexane	ND		ug/m³	2.76	0.69	4	08/12/21	08/12/21 21:00	WB
Dibromochloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:00	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 21:00	WB
1,2-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:00	WB
1,3-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:00	WB
1,4-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:00	WB
Dichlorodifluoromethane	**19.6**		ug/m³	3.96	3.96	4	08/12/21	08/12/21 21:00	WB
1,1-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 21:00	WB
1,2-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 21:00	WB
1,1-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:00	WB
cis-1,2-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:00	WB
trans-1,2-Dichloroethene	**11.3**		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:00	WB
1,2-Dichloropropane	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 21:00	WB
cis-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 21:00	WB
trans-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 21:00	WB
1,4-Dioxane	ND		ug/m³	2.88	0.72	4	08/12/21	08/12/21 21:00	WB
Ethyl acetate	ND		ug/m³	14.4	14.4	4	08/12/21	08/12/21 21:00	WB
Ethylbenzene	**2.26**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:00	WB
4-Ethyltoluene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:00	WB

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Rabecka Koons, Quality Assurance Officer

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1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-1

1081221-01 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 113	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 21:00	WB
Freon 114	ND		ug/m³	5.60	5.60	4	08/12/21	08/12/21 21:00	WB
n-Heptane	**3.11**	J	ug/m³	3.28	0.82	4	08/12/21	08/12/21 21:00	WB
Hexachlorobutadiene	ND		ug/m³	8.40	8.40	4	08/12/21	08/12/21 21:00	WB
Hexane	ND		ug/m³	56.0	56.0	4	08/12/21	08/12/21 21:00	WB
2-Hexanone	ND		ug/m³	3.28	0.59	4	08/12/21	08/12/21 21:00	WB
Isopropylbenzene (Cumene)	ND		ug/m³	4.40	1.60	4	08/12/21	08/12/21 21:00	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	2.88	0.82	4	08/12/21	08/12/21 21:00	WB
Methylene chloride	ND		ug/m³	72.0	72.0	4	08/12/21	08/12/21 21:00	WB
Methyl ethyl ketone (2-Butanone)	ND		ug/m³	2.36	1.36	4	08/12/21	08/12/21 21:00	WB
Methyl isobutyl ketone	ND		ug/m³	3.28	3.28	4	08/12/21	08/12/21 21:00	WB
Naphthalene	ND		ug/m³	4.40	2.80	4	08/12/21	08/12/21 21:00	WB
Propene	ND		ug/m³	1.36	1.36	4	08/12/21	08/12/21 21:00	WB
n-Propylbenzene	ND		ug/m³	3.92	1.60	4	08/12/21	08/12/21 21:00	WB
Styrene	**0.85**	J	ug/m³	3.40	0.59	4	08/12/21	08/12/21 21:00	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 21:00	WB
Tetrachloroethene	ND		ug/m³	5.60	2.80	4	08/12/21	08/12/21 21:00	WB
Tetrahydrofuran	ND		ug/m³	2.36	0.59	4	08/12/21	08/12/21 21:00	WB
Toluene	**34.4**		ug/m³	3.00	1.40	4	08/12/21	08/12/21 21:00	WB
1,2,4-Trichlorobenzene	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 21:00	WB
1,1,1-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:00	WB
1,1,2-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:00	WB
Trichloroethene	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:00	WB
Trichlorofluoromethane (Freon 11)	**4.49**		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:00	WB
1,2,4-Trimethylbenzene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:00	WB
1,3,5-Trimethylbenzene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:00	WB
2,2,4-Trimethylpentane	ND		ug/m³	3.72	0.93	4	08/12/21	08/12/21 21:00	WB
Vinyl acetate	ND		ug/m³	2.80	2.80	4	08/12/21	08/12/21 21:00	WB
Vinyl bromide	ND		ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:00	WB
Vinyl chloride	ND		ug/m³	2.04	0.51	4	08/12/21	08/12/21 21:00	WB
o-Xylene	**1.91**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:00	WB
m- & p-Xylenes	**8.51**		ug/m³	6.80	1.70	4	08/12/21	08/12/21 21:00	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*98 %*			*08/12/21*	*08/12/21 21:00*	

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Rabecka Koons, Quality Assurance Officer

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1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-2

1081221-02 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**77.4**		ug/m³	9.60	9.60	4	08/12/21	08/12/21 21:29	WB
Benzene	**0.89**	J	ug/m³	2.56	0.64	4	08/12/21	08/12/21 21:29	WB
Benzyl chloride	ND		ug/m³	4.00	1.00	4	08/12/21	08/12/21 21:29	WB
Bromodichloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:29	WB
Bromoform	ND		ug/m³	8.40	2.10	4	08/12/21	08/12/21 21:29	WB
Bromomethane	ND		ug/m³	3.12	0.78	4	08/12/21	08/12/21 21:29	WB
1,3-Butadiene	ND		ug/m³	1.76	1.76	4	08/12/21	08/12/21 21:29	WB
Carbon disulfide	**9.84**		ug/m³	6.24	6.24	4	08/12/21	08/12/21 21:29	WB
Carbon tetrachloride	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:29	WB
Chlorobenzene	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 21:29	WB
Chloroethane	ND		ug/m³	2.12	1.06	4	08/12/21	08/12/21 21:29	WB
Chloroform	ND		ug/m³	3.88	0.97	4	08/12/21	08/12/21 21:29	WB
Chloromethane	**1.24**	J	ug/m³	1.64	0.41	4	08/12/21	08/12/21 21:29	WB
3-Chloropropene	ND		ug/m³	2.52	0.63	4	08/12/21	08/12/21 21:29	WB
Cyclohexane	**0.83**	J	ug/m³	2.76	0.69	4	08/12/21	08/12/21 21:29	WB
Dibromochloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:29	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 21:29	WB
1,2-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:29	WB
1,3-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:29	WB
1,4-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:29	WB
Dichlorodifluoromethane	ND		ug/m³	3.96	3.96	4	08/12/21	08/12/21 21:29	WB
1,1-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 21:29	WB
1,2-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 21:29	WB
1,1-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:29	WB
cis-1,2-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:29	WB
trans-1,2-Dichloroethene	**177**		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:29	WB
1,2-Dichloropropane	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 21:29	WB
cis-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 21:29	WB
trans-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 21:29	WB
1,4-Dioxane	ND		ug/m³	2.88	0.72	4	08/12/21	08/12/21 21:29	WB
Ethyl acetate	ND		ug/m³	14.4	14.4	4	08/12/21	08/12/21 21:29	WB
Ethylbenzene	**1.56**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:29	WB
4-Ethyltoluene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:29	WB
Freon 113	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 21:29	WB

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410-247-7600
www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-2

1081221-02 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	5.60	5.60	4	08/12/21	08/12/21 21:29	WB
n-Heptane	**3.77**		ug/m³	3.28	0.82	4	08/12/21	08/12/21 21:29	WB
Hexachlorobutadiene	ND		ug/m³	8.40	8.40	4	08/12/21	08/12/21 21:29	WB
Hexane	ND		ug/m³	56.0	56.0	4	08/12/21	08/12/21 21:29	WB
2-Hexanone	ND		ug/m³	3.28	0.59	4	08/12/21	08/12/21 21:29	WB
Isopropylbenzene (Cumene)	ND		ug/m³	4.40	1.60	4	08/12/21	08/12/21 21:29	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	2.88	0.82	4	08/12/21	08/12/21 21:29	WB
Methylene chloride	ND		ug/m³	72.0	72.0	4	08/12/21	08/12/21 21:29	WB
Methyl ethyl ketone (2-Butanone)	**3.66**		ug/m³	2.36	1.36	4	08/12/21	08/12/21 21:29	WB
Methyl isobutyl ketone	ND		ug/m³	3.28	3.28	4	08/12/21	08/12/21 21:29	WB
Naphthalene	ND		ug/m³	4.40	2.80	4	08/12/21	08/12/21 21:29	WB
Propene	ND		ug/m³	1.36	1.36	4	08/12/21	08/12/21 21:29	WB
n-Propylbenzene	ND		ug/m³	3.92	1.60	4	08/12/21	08/12/21 21:29	WB
Styrene	ND		ug/m³	3.40	0.59	4	08/12/21	08/12/21 21:29	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 21:29	WB
Tetrachloroethene	ND		ug/m³	5.60	2.80	4	08/12/21	08/12/21 21:29	WB
Tetrahydrofuran	ND		ug/m³	2.36	0.59	4	08/12/21	08/12/21 21:29	WB
Toluene	**14.9**		ug/m³	3.00	1.40	4	08/12/21	08/12/21 21:29	WB
1,2,4-Trichlorobenzene	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 21:29	WB
1,1,1-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:29	WB
1,1,2-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:29	WB
Trichloroethene	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:29	WB
Trichlorofluoromethane (Freon 11)	**1.80**	J	ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:29	WB
1,2,4-Trimethylbenzene	**0.98**	J	ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:29	WB
1,3,5-Trimethylbenzene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:29	WB
2,2,4-Trimethylpentane	ND		ug/m³	3.72	0.93	4	08/12/21	08/12/21 21:29	WB
Vinyl acetate	ND		ug/m³	2.80	2.80	4	08/12/21	08/12/21 21:29	WB
Vinyl bromide	ND		ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:29	WB
Vinyl chloride	ND		ug/m³	2.04	0.51	4	08/12/21	08/12/21 21:29	WB
o-Xylene	**2.43**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:29	WB
m- & p-Xylenes	**6.78**	J	ug/m³	6.80	1.70	4	08/12/21	08/12/21 21:29	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*96 %*			*08/12/21*	*08/12/21 21:29*	

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Analytical Results

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-3

1081221-03 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**26.0**		ug/m³	9.60	9.60	4	08/12/21	08/12/21 21:57	WB
Benzene	**1.41**	J	ug/m³	2.56	0.64	4	08/12/21	08/12/21 21:57	WB
Benzyl chloride	ND		ug/m³	4.00	1.00	4	08/12/21	08/12/21 21:57	WB
Bromodichloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:57	WB
Bromoform	ND		ug/m³	8.40	2.10	4	08/12/21	08/12/21 21:57	WB
Bromomethane	ND		ug/m³	3.12	0.78	4	08/12/21	08/12/21 21:57	WB
1,3-Butadiene	ND		ug/m³	1.76	1.76	4	08/12/21	08/12/21 21:57	WB
Carbon disulfide	**10.1**		ug/m³	6.24	6.24	4	08/12/21	08/12/21 21:57	WB
Carbon tetrachloride	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:57	WB
Chlorobenzene	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 21:57	WB
Chloroethane	ND		ug/m³	2.12	1.06	4	08/12/21	08/12/21 21:57	WB
Chloroform	ND		ug/m³	3.88	0.97	4	08/12/21	08/12/21 21:57	WB
Chloromethane	ND		ug/m³	1.64	0.41	4	08/12/21	08/12/21 21:57	WB
3-Chloropropene	ND		ug/m³	2.52	0.63	4	08/12/21	08/12/21 21:57	WB
Cyclohexane	**1.24**	J	ug/m³	2.76	0.69	4	08/12/21	08/12/21 21:57	WB
Dibromochloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 21:57	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 21:57	WB
1,2-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:57	WB
1,3-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:57	WB
1,4-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 21:57	WB
Dichlorodifluoromethane	**5.14**		ug/m³	3.96	3.96	4	08/12/21	08/12/21 21:57	WB
1,1-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 21:57	WB
1,2-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 21:57	WB
1,1-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:57	WB
cis-1,2-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:57	WB
trans-1,2-Dichloroethene	**45.8**		ug/m³	3.16	0.79	4	08/12/21	08/12/21 21:57	WB
1,2-Dichloropropane	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 21:57	WB
cis-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 21:57	WB
trans-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 21:57	WB
1,4-Dioxane	**2.16**	J	ug/m³	2.88	0.72	4	08/12/21	08/12/21 21:57	WB
Ethyl acetate	ND		ug/m³	14.4	14.4	4	08/12/21	08/12/21 21:57	WB
Ethylbenzene	**1.74**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:57	WB
4-Ethyltoluene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:57	WB
Freon 113	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 21:57	WB

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www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-3

1081221-03 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	5.60	5.60	4	08/12/21	08/12/21 21:57	WB
n-Heptane	**12.0**		ug/m³	3.28	0.82	4	08/12/21	08/12/21 21:57	WB
Hexachlorobutadiene	ND		ug/m³	8.40	8.40	4	08/12/21	08/12/21 21:57	WB
Hexane	ND		ug/m³	56.0	56.0	4	08/12/21	08/12/21 21:57	WB
2-Hexanone	ND		ug/m³	3.28	0.59	4	08/12/21	08/12/21 21:57	WB
Isopropylbenzene (Cumene)	ND		ug/m³	4.40	1.60	4	08/12/21	08/12/21 21:57	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	2.88	0.82	4	08/12/21	08/12/21 21:57	WB
Methylene chloride	ND		ug/m³	72.0	72.0	4	08/12/21	08/12/21 21:57	WB
Methyl ethyl ketone (2-Butanone)	**1.65**	J	ug/m³	2.36	1.36	4	08/12/21	08/12/21 21:57	WB
Methyl isobutyl ketone	ND		ug/m³	3.28	3.28	4	08/12/21	08/12/21 21:57	WB
Naphthalene	ND		ug/m³	4.40	2.80	4	08/12/21	08/12/21 21:57	WB
Propene	ND		ug/m³	1.36	1.36	4	08/12/21	08/12/21 21:57	WB
n-Propylbenzene	ND		ug/m³	3.92	1.60	4	08/12/21	08/12/21 21:57	WB
Styrene	ND		ug/m³	3.40	0.59	4	08/12/21	08/12/21 21:57	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 21:57	WB
Tetrachloroethene	ND		ug/m³	5.60	2.80	4	08/12/21	08/12/21 21:57	WB
Tetrahydrofuran	ND		ug/m³	2.36	0.59	4	08/12/21	08/12/21 21:57	WB
Toluene	**40.2**		ug/m³	3.00	1.40	4	08/12/21	08/12/21 21:57	WB
1,2,4-Trichlorobenzene	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 21:57	WB
1,1,1-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:57	WB
1,1,2-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:57	WB
Trichloroethene	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:57	WB
Trichlorofluoromethane (Freon 11)	**2.02**	J	ug/m³	4.40	1.10	4	08/12/21	08/12/21 21:57	WB
1,2,4-Trimethylbenzene	**1.18**	J	ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:57	WB
1,3,5-Trimethylbenzene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 21:57	WB
2,2,4-Trimethylpentane	ND		ug/m³	3.72	0.93	4	08/12/21	08/12/21 21:57	WB
Vinyl acetate	ND		ug/m³	2.80	2.80	4	08/12/21	08/12/21 21:57	WB
Vinyl bromide	ND		ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:57	WB
Vinyl chloride	ND		ug/m³	2.04	0.51	4	08/12/21	08/12/21 21:57	WB
o-Xylene	**1.74**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 21:57	WB
m- & p-Xylenes	**6.43**	J	ug/m³	6.80	1.70	4	08/12/21	08/12/21 21:57	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*96 %*		*08/12/21*		*08/12/21 21:57*	

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Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-4

1081221-04 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	ND		ug/m³	9.60	9.60	4	08/12/21	08/12/21 22:25	WB
Benzene	**28.1**		ug/m³	2.56	0.64	4	08/12/21	08/12/21 22:25	WB
Benzyl chloride	ND		ug/m³	4.00	1.00	4	08/12/21	08/12/21 22:25	WB
Bromodichloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 22:25	WB
Bromoform	ND		ug/m³	8.40	2.10	4	08/12/21	08/12/21 22:25	WB
Bromomethane	ND		ug/m³	3.12	0.78	4	08/12/21	08/12/21 22:25	WB
1,3-Butadiene	ND		ug/m³	1.76	1.76	4	08/12/21	08/12/21 22:25	WB
Carbon disulfide	**12.7**		ug/m³	6.24	6.24	4	08/12/21	08/12/21 22:25	WB
Carbon tetrachloride	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 22:25	WB
Chlorobenzene	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 22:25	WB
Chloroethane	ND		ug/m³	2.12	1.06	4	08/12/21	08/12/21 22:25	WB
Chloroform	ND		ug/m³	3.88	0.97	4	08/12/21	08/12/21 22:25	WB
Chloromethane	ND		ug/m³	1.64	0.41	4	08/12/21	08/12/21 22:25	WB
3-Chloropropene	ND		ug/m³	2.52	0.63	4	08/12/21	08/12/21 22:25	WB
Cyclohexane	**1.24**	J	ug/m³	2.76	0.69	4	08/12/21	08/12/21 22:25	WB
Dibromochloromethane	ND		ug/m³	5.20	1.30	4	08/12/21	08/12/21 22:25	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 22:25	WB
1,2-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 22:25	WB
1,3-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 22:25	WB
1,4-Dichlorobenzene	ND		ug/m³	4.80	1.20	4	08/12/21	08/12/21 22:25	WB
Dichlorodifluoromethane	ND		ug/m³	3.96	3.96	4	08/12/21	08/12/21 22:25	WB
1,1-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 22:25	WB
1,2-Dichloroethane	ND		ug/m³	3.24	0.81	4	08/12/21	08/12/21 22:25	WB
1,1-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 22:25	WB
cis-1,2-Dichloroethene	ND		ug/m³	3.16	0.79	4	08/12/21	08/12/21 22:25	WB
trans-1,2-Dichloroethene	**142**		ug/m³	3.16	0.79	4	08/12/21	08/12/21 22:25	WB
1,2-Dichloropropane	ND		ug/m³	3.68	0.92	4	08/12/21	08/12/21 22:25	WB
cis-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 22:25	WB
trans-1,3-Dichloropropene	ND		ug/m³	3.64	0.91	4	08/12/21	08/12/21 22:25	WB
1,4-Dioxane	**2.59**	J	ug/m³	2.88	0.72	4	08/12/21	08/12/21 22:25	WB
Ethyl acetate	ND		ug/m³	14.4	14.4	4	08/12/21	08/12/21 22:25	WB
Ethylbenzene	**5.73**		ug/m³	3.48	0.87	4	08/12/21	08/12/21 22:25	WB
4-Ethyltoluene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 22:25	WB
Freon 113	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 22:25	WB

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Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

SVP-4

1081221-04 (Vapor)
Sample Date: 08/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	5.60	5.60	4	08/12/21	08/12/21 22:25	WB
n-Heptane	**7.87**		ug/m³	3.28	0.82	4	08/12/21	08/12/21 22:25	WB
Hexachlorobutadiene	ND		ug/m³	8.40	8.40	4	08/12/21	08/12/21 22:25	WB
Hexane	ND		ug/m³	56.0	56.0	4	08/12/21	08/12/21 22:25	WB
2-Hexanone	ND		ug/m³	3.28	0.59	4	08/12/21	08/12/21 22:25	WB
Isopropylbenzene (Cumene)	ND		ug/m³	4.40	1.60	4	08/12/21	08/12/21 22:25	WB
Methyl tert-butyl ether (MTBE)	**3.32**		ug/m³	2.88	0.82	4	08/12/21	08/12/21 22:25	WB
Methylene chloride	ND		ug/m³	72.0	72.0	4	08/12/21	08/12/21 22:25	WB
Methyl ethyl ketone (2-Butanone)	**1.89**	J	ug/m³	2.36	1.36	4	08/12/21	08/12/21 22:25	WB
Methyl isobutyl ketone	ND		ug/m³	3.28	3.28	4	08/12/21	08/12/21 22:25	WB
Naphthalene	ND		ug/m³	4.40	2.80	4	08/12/21	08/12/21 22:25	WB
Propene	ND		ug/m³	1.36	1.36	4	08/12/21	08/12/21 22:25	WB
n-Propylbenzene	ND		ug/m³	3.92	1.60	4	08/12/21	08/12/21 22:25	WB
Styrene	**3.58**		ug/m³	3.40	0.59	4	08/12/21	08/12/21 22:25	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	5.60	1.40	4	08/12/21	08/12/21 22:25	WB
Tetrachloroethene	ND		ug/m³	5.60	2.80	4	08/12/21	08/12/21 22:25	WB
Tetrahydrofuran	ND		ug/m³	2.36	0.59	4	08/12/21	08/12/21 22:25	WB
Toluene	**51.0**		ug/m³	3.00	1.40	4	08/12/21	08/12/21 22:25	WB
1,2,4-Trichlorobenzene	ND		ug/m³	6.00	1.50	4	08/12/21	08/12/21 22:25	WB
1,1,1-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 22:25	WB
1,1,2-Trichloroethane	ND		ug/m³	4.40	1.10	4	08/12/21	08/12/21 22:25	WB
Trichloroethene	**2.58**	J	ug/m³	4.40	1.10	4	08/12/21	08/12/21 22:25	WB
Trichlorofluoromethane (Freon 11)	**3.60**	J	ug/m³	4.40	1.10	4	08/12/21	08/12/21 22:25	WB
1,2,4-Trimethylbenzene	**1.18**	J	ug/m³	3.92	0.98	4	08/12/21	08/12/21 22:25	WB
1,3,5-Trimethylbenzene	ND		ug/m³	3.92	0.98	4	08/12/21	08/12/21 22:25	WB
2,2,4-Trimethylpentane	ND		ug/m³	3.72	0.93	4	08/12/21	08/12/21 22:25	WB
Vinyl acetate	ND		ug/m³	2.80	2.80	4	08/12/21	08/12/21 22:25	WB
Vinyl bromide	ND		ug/m³	3.48	0.87	4	08/12/21	08/12/21 22:25	WB
Vinyl chloride	ND		ug/m³	2.04	0.51	4	08/12/21	08/12/21 22:25	WB
o-Xylene	**1.91**	J	ug/m³	3.48	0.87	4	08/12/21	08/12/21 22:25	WB
m- & p-Xylenes	**7.47**		ug/m³	6.80	1.70	4	08/12/21	08/12/21 22:25	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*98 %*		*08/12/21*		*08/12/21 22:25*	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Rabecka Koons, Quality Assurance Officer

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report.

Analytical Results

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com

Project: NORDT PROPERTY

Project Number: 47:12509-A
Project Manager: Steve Hay

Reported:
08/17/21 12:06

Notes and Definitions

J	Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
%-Solids	Percent Solids is a supportive test and as such does not require accreditation

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Rabecka Koons, Quality Assurance Officer

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report.

Air Analysis by TO-15

Chain of Custody

Client Contact Information	Project Manager: Steve Hay	Carrier: Fedex	1 of 1 COCs
Company: ECS Mid-Atlantic	Phone: 540-362-2000	Samplers Name(s) Steve Hay	Analysis/ Matrix
7670 Enon Drive	Site Contact:		
Suite 101			
Roanoke, VA 24019			
Project Name: Nordt Property	Analysis Turnaround Time		
Site: Nordt Property	Standard (Specify) X		
PO # 47:12509-A	Rush (Specify)		

Client Sample ID	Sample Date Start	Time Start (24 hr clock)	Sample Date Stop	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	TO-15 FULL LIST	TO-15 ABREVIATED LIST	Indoor / Ambient Air	Soil Gas / Subslab	Comments
SVP - 1		1839	1910		30	0		S-AU	009	1L	✓			✓	1081221-01
SVP - 2		1849	1917		28	0.5		S-ED	082	1L	✓			✓	-02
SVP - 3		1858	1930		30	0		S-EH	167	1L	✓			✓	-03
SVP - 4		1901	1933		30	0		S-CE	007	1L	✓			✓	-04

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time: 8/12/21 15:10
Samples Relinquished by: Steve Hay / ECS	Date/Time: 08-11-21 / 1700	Received by:	Date/Time:
Relinquished by:	Date/Time:	Received by:	Date/Time:

Appendix III: Boring Logs

Project Name: **Nordt Property Phase II**		Sheet: **1 of 1**	Boring No:	**SB-01**
Client: **Roanoke Regional Airport Commission**		Project No.: **47:12509-A**		
Site Location: **1420 Coulter Drive NW, Roanoke, Virginia 24012**		Driller: **Jetco Inc.**	Drill Rig:	**GeoProbe**
Latitude/Longitude:				

Depth/Elevation	PID Reading	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
0	0.0				**SM/MH**	Brown silt. Dry. No indication of impairment.
5 / -5	0.0					
	0.0					
	1.0				**CH**	Red clay. Dry and compact. No indication of impairment.
10 / -10	0.0	SB-01				
	0.0					
15 / -15	0.0					
	0.0					
20 / -20						Refusal encountered at 19.0 feet.
						END OF DRILLING AT 19.0 FT
25 / -25						
30						

▽ WL (First Encountered)	Boring Started:	**Sep 07 2021**
▼ WL (Completion)	Boring Completed:	**Sep 07 2021**
Remarks:	Logged By:	**Steven Hay**
	Principal Engineer/ Responsible PG:	**Garnett Williams**

Project Name:	**Nordt Property Phase II**	Sheet: **1 of 1**	Boring No:	**SB-02**	
Client:	**Roanoke Regional Airport Commission**	Project No.: **47:12509-A**			
Site Location:	**1420 Coulter Drive NW, Roanoke, Virginia 24012**	Driller: **Jetco Inc.**	Drill Rig:	**GeoProbe**	
Latitude/Longitude:					

Depth/Elevation	PID Reading	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
0	0.0				**Asphalt**	Asphalt
5 / -5	0.0					Red clay. Dry and compact. No indication of impairment.
	0.0					
	0.0					
	0.0					
10 / -10	0.0	SB-02			**CH**	
	0.0					
	0.0					
15 / -15	0.0					
	0.0					
	0.0					Light brown clay. Slightly moist. No indication of impairment.
20 / -20	0.0				**CH**	
	0.0					
25 / -25						**END OF DRILLING AT 25.0 FT**
30						

▽ WL (First Encountered)		Boring Started:	**Sep 07 2021**
▼ WL (Completion)		Boring Completed:	**Sep 07 2021**
Remarks:		Logged By:	**Steven Hay**
		Principal Engineer/ Responsible PG:	**Garnett Williams**

Project Name:	**Nordt Property Phase II**	Sheet: **1 of 1**	Boring No:	**SB-03**	
Client:	**Roanoke Regional Airport Commission**	Project No.: **47:12509-A**			
Site Location:	**1420 Coulter Drive NW, Roanoke, Virginia 24012**	Driller: **Jetco Inc.**	Drill Rig:	**GeoProbe**	
Latitude/Longitude:					

Depth/Elevation	PID Reading	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
0	0.0				**Asphalt**	Aspahlt
	0.0	SB-03 (Metals)				Red clay. Dry. No indication of impairment.
5 / -5	0.0					
	0.0					
	0.0				**CH**	
10 / -10	0.0					
	0.0					
	0.0					
15 / -15	0.0	SB-03				
	0.0					Refusal encountered at 18.0 feet.
20 / -20						**END OF DRILLING AT 18.0 FT**
25 / -25						
30						

▽ WL (First Encountered)		Boring Started:	**Sep 07 2021**
▼ WL (Completion)		Boring Completed:	**Sep 07 2021**
Remarks:		Logged By:	**Steven Hay**
		Principal Engineer/ Responsible PG:	**Garnett Williams**

Project Name: **Nordt Property Phase II**		Sheet: **1 of 1**	Boring No:	**SB-04**
Client: **Roanoke Regional Airport Commission**		Project No.: **47:12509-A**		
Site Location: **1420 Coulter Drive NW, Roanoke, Virginia 24012**		Driller: **Jetco Inc.**	Drill Rig:	**GeoProbe**
Latitude/Longitude:				

Depth/Elevation	PID Reading	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
0	0.0				**CH**	Red clay.. Dry. No indication of impairment.
5 / -5	0.0	SB-04 (Metals)				
	0.0				**CH**	Light brown clay. Dry. No indication of impairment.
10 / -10	0.0					
	0.0					
15 / -15	0.0				**CH**	Red clay. Dry. No indication of impairment.
	0.0					
20 / -20	0.0					
	0.0					
25 / -25	0.0	SB-04				**END OF DRILLING AT 25.0 FT**
30						

▽ WL (First Encountered)	Boring Started:	**Sep 07 2021**
▼ WL (Completion)	Boring Completed:	**Sep 07 2021**
Remarks:	Logged By:	**Steven Hay**
	Principal Engineer/ Responsible PG:	**Garnett Williams**

Project Name: **Nordt Property Phase II**	Sheet: **1 of 1**	Boring No:	**SB-05**
Client: **Roanoke Regional Airport Commission**	Project No.: **47:12509-A**		
Site Location: **1420 Coulter Drive NW, Roanoke, Virginia 24012**	Driller: **Jetco Inc.**	Drill Rig:	**GeoProbe**
Latitude/Longitude:			

Depth/Elevation	PID Reading	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
0	0.0				**Topsoil**	Topsoil. Dry. No indication of impairment.
						Red clay. Dry. No indication of impairment.
5 / -5	0.0	SB-05 (Metals)				
	0.0					
	0.0					
10 / -10	0.0				**CH**	
	0.0					
	0.0	SB-05				
15 / -15	0.0					
	0.0					
	0.0				**Limestone**	Weathered rock.
20 / -20	0.0					Refusal encountered at 21.0 feet.
						END OF DRILLING AT 21.0 FT
25 / -25						
30						

▽ WL (First Encountered)	Boring Started:	**Sep 07 2021**
▼ WL (Completion)	Boring Completed:	**Sep 07 2021**
Remarks:	Logged By:	**Steven Hay**
	Principal Engineer/ Responsible PG:	**Garnett Williams**

Project Name: **Nordt Property Phase II**		Sheet: **1 of 1**	Boring No:	**SB-06**
Client: **Roanoke Regional Airport Commission**		Project No.: **47:12509-A**		
Site Location: **1420 Coulter Drive NW, Roanoke, Virginia 24012**	Driller: **Jetco Inc.**		Drill Rig:	**GeoProbe**
Latitude/Longitude:				

Depth/Elevation	PID Reading	Sample Number	Sample Recovery (in)	Graphic Log	Soil Classification	Description
0	0.0				**Topsoil**	Topsoil. Dry. No indication of impairment.
						Brown clay. Dry. No indication of impairment.
5 / -5	0.0	SB-06 (Metals)			**CH**	
	0.0					
	0.0					
10 / -10	0.0	SB-06				
	0.0					
	0.0					
15 / -15	0.0				**Limestone**	Weathered rock.
						Refusal encountered at 17.0 feet.
						END OF DRILLING AT 17.0 FT
20 / -20						
25 / -25						
30						

▽ WL (First Encountered)		Boring Started:	**Sep 07 2021**
▼ WL (Completion)		Boring Completed:	**Sep 07 2021**
Remarks:		Logged By:	**Steven Hay**
		Principal Engineer/ Responsible PG:	**Garnett Williams**