DERIVATION OF SITE-SPECIFIC SOIL RESIDUAL CONTAMINANT LEVELS FOR THE FORMER DUPONT BARKSDALE WORKS FACILITY

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Acronyms

Acronym	Explanation
AECOM	AECOM Technical Services, Inc.
BDC	Bretting Development Corporation, Inc.
Barksdale Works	Former DuPont Barksdale Works Facility
Chemours	The Chemours Company FC, LLC
COPC	Constituent of Potential Concern
CRG	Corporate Remediation Group
CSF	Cancer Slope Factors
DNT	Dinitrotoluene
DNX	Dinitroxylene
Du Pont de Nemours and Company	DuPont
HEAST	Health Effects Assessment Summary Tables
IRIS	Integrated Risk Information System
kg	Kilogram
mg	Milligram
NCEA	National Center for Environmental Assessment
NG	Nitroglycerin
PIONEER	PIONEER Technologies Corporation
RCL	Residual Contaminant Level
RfD	Reference Dose (noncancer)
RSL	Regional Screening Level
TNT	Trinitrotoluene
US	United States
USEPA	United States Environmental Protection Agency
WDNR	Wisconsin Department of Natural Resources

SECTION 1: INTRODUCTION

1.1 Purpose

The purpose of this report is to present the site-specific direct contact residual contaminant levels (RCLs) developed for The Chemours Company, FC, LLC (Chemours), formerly E.I. du Pont de Nemours and Company (DuPont), Former Barksdale Works Facility (Barksdale Works) in Barksdale, Wisconsin (see Figure 1). These soil screening criteria will be used in combination with site-specific background levels to evaluate analytical data from the recreational portion of the site in order to identify areas where no further investigation is required, areas suitable for closure, and constituents of potential concern (COPCs).[1]

This report was originally submitted in 2008. The RCL section was updated to reflect that the site-specific RCLs were calculated using the United States Environmental Protection Agency (USEPA) RSL calculator (USEPA 2023). In response to Wisconsin Department of Natural Resources (WDNR) comments, the background evaluation is provided as a separate document (PIONEER Technologies Corporation [PIONEER] 2023).

1.2 Regulatory Framework

Wisconsin Administrative Code NR 720.07 states "[Responsible parties] shall use information from the sources listed in NR 720.05 (1) to determine the residual contaminant levels or performance standards for each exposure or migration pathway of concern for each soil contaminant of concern ." At Barksdale Works, site-specific soil RCLs are proposed based upon the current and future land use. As described in Section 2.3, the current and future land use in the areas of the Barksdale Works that are currently accessed by persons other than Chemours Corporate Remediation Group (CRG) representatives is recreational. The screening criteria presented in Section 2.0 and the screening criteria determined in the background evaluation (PIONEER 2023) will be used to evaluate analytical data from the recreational portion of the site in order to identify areas where no further investigation is required, areas suitable for closure, and constituents of potential concern (COPCs).

1.3 History and Background

Barksdale Works is located along State Highway 13 in Bayfield County, Wisconsin in the Lake Superior region (3-miles south of Washburn and 6-miles north and west of Ashland; see Figure 1). DuPont operated the Barksdale Works from 1904 to 1971. The facility primarily produced dynamite, nitroglycerin (NG) and trinitrotoluene (TNT) for the United States (US) Military and the mining industry. Other products associated with the explosives industry were produced at the Barksdale Works in smaller

[1] The derivation of background levels at the Site is provided in a separate document (PIONEER 2023).

quantities including Trinitroxylene, Trivelene, Lydol, Nitramon, soda amatol, and Nitramex. Intermediate and supplemental materials produced included sulfuric acid (oil of vitriol), nitric acid, and sellite.

Production of explosives officially ceased at Barksdale in 1971. From 1971 through 1973, cladding and industrial diamond operations (conducted in the Chequamegon-Nicolet National Forest) continued utilizing stockpiled explosives. Upon termination of these operations, DuPont performed dismantling, demolition and clean-up activities during construction seasons through 1983. Following shutdown, the grounds became overgrown by prairie and forest vegetation. Smaller scale demolition activities occurred as late as 1985.

The property was sold to C. G. Bretting Manufacturing Corporation, Inc. (Bretting) in 1986 and subsequently transferred to Bretting Development Corporation, Inc. (BDC). Bretting and BDC have used the Barksdale Works primarily for recreational activities, which include hunting and vehicle and equipment storage.

1.3.1 Environmental Investigation and Remediation

Site investigation activities were initiated in 1997 when a groundwater sample collected from an adjacent residential drinking water well by WDNR indicated the presence of 2,4-dinitrotoluene (DNT) and 2,6-DNT. In response, DuPont worked closely with WDNR to identify affected private wells, and where warranted, installed and maintained carbon treatment systems at affected homes, so that residential drinking water met appropriate Wisconsin regulatory criteria. At the same time, DuPont undertook several hydrogeological and engineering feasibility studies to determine the most appropriate long-term solution to address the affected drinking water supplies in the vicinity of the former Barksdale Works.

In 2003, it was concluded that an extension of Washburn, Wisconsin's municipal water supply pipeline was the most appropriate long-term solution to supply drinking water to residents downgradient and side gradient (to the north) of Barksdale Works, coupled with the elimination of groundwater use. Collectively these areas that were to be serviced by the extension are known as the "Eligible Area" (see Figure 2). The "Eligible Area" was defined based on long-term sampling and analysis of groundwater from domestic wells surrounding Barksdale Works (Figure 2). Construction of the pipeline extension began in 2004 and was completed in the spring of 2005.

Construction and maintenance of the extension was agreed to in a 30-year contract (see Appendix B) between DuPont, the City of Washburn, and Barksdale Township. All existing homes in the "Eligible Area" were connected to the system at the time of construction and any future homes in the "Eligible Area" may to connect to the system by contacting the City of Washburn. Additional measures undertaken by DuPont to eliminate groundwater use within the "Eligible Area" included:

- Plugging and abandoning all potable water supply wells in the "Eligible Area",
- Placing curb stops at vacant property located in the eligible area so that connections can be easily made by future homeowners,

- Entering into agreements with homeowners (see example in Appendix B) that prohibit use of groundwater for any purposes for as long as they own their home (these agreements exist only with those homeowners initially connected at the time of pipeline construction); and
- Removing any perceived financial savings from the use of groundwater by paying for water consumption by homeowners for as long as they own their homes (applicable only to those homeowners present at the time of pipeline construction).

As a result of construction of the municipal water supply extension, use of groundwater is limited to:

- Potable wells located hydraulically side gradient to the south and up gradient to the west of Barksdale Works (see Figure 2), which are historically free of site-related constituents,
- Two wells located at Barksdale Works (Figure 2). One of these wells supplies Chemours' field office and the other supplies BDC's "Clubhouse." Both wells have also been historically unaffected; however, carbon filtration systems are connected to each well and the wells are periodically sampled for site-related constituents. Chemours intends to continue to monitor these wells and maintain the carbon treatment systems for the foreseeable future.

Concurrent with the groundwater investigation and water supply work described above, Chemours has been conducting source investigation work and remedial actions across the Site. In 2012, pilot studies were initiated via a hazardous waste remediation variance (HWRV) permit to develop more sustainable treatment options for addressing residual contamination in site soil and related media. Recent pilot success in 2022 yielded results that support an overarching remediation process for TNT that consists of initial alkaline hydrolysis (AH) treatment, both passive and heated, to achieve site-specific residual contaminant levels (SSRCLs) for direct contact followed by concurrent natural biological degradation and phytoremediation as an ongoing mechanism for sustained constituent reduction to meet Wisconsin performance standards, if necessary. Detail related to this overall process is provided in the Draft April 28, 2023 Interim Remedial Action Plan (IRAP) submitted on behalf of Chemours by AECOM Technical Services, Inc. (AECOM). A new HWRV was issued by WDNR on June 29, 2023 to facilitate IRAP implementation.

1.3.2 Administrative Controls

Administrative controls have been established to ensure the municipal water supply pipeline remains effective in the future and to control site use and potential exposure to recreational users and future land use. Details related to each of these programs are provided below.

1.3.2.1 Groundwater Protection

Wisconsin Department of Natural Resources publication PUB-RR-528 Guidance on Soil Performance Standards (WDNR, 2004) states "It may not be necessary to determine the generic or site-specific numeric RCLs for contaminants as long as all contaminant pathways for those contaminants in an area are addressed by the remedial action, provided the remedial action remains in place, is maintained as appropriate and remains effective." Because the entire community hydraulically downgradient and side gradient (to the north) of the Barksdale Works is connected to a municipal water supply, the system meets the criteria of a performance standard as described in PUB-RR-528.

To ensure that the municipal water supply extension remains effective in the future, Washburn owns and maintains the system and Chemours reimburses Washburn for the maintenance costs annually. In the event that Chemours cannot make these payments in the future, a Secured Collateral Account has been set up that Washburn can access. Additionally, Public Service Commission of Wisconsin regulations will not allow Washburn to terminate service to Barksdale residents connected to the system. As such, water service, once provided, must be maintained in the future. This operational structure will ensure the system is "maintained as appropriate and remains effective."

As a result of the municipal water supply system, Chemours believes that it is not necessary to establish numeric RCLs for soils to be protective of the soil-to-groundwater pathway. However, in discussions with WDNR on June 9, 2023 as part of IRAP and HWRV permit reviews, the agency indicated that development of soil to groundwater RCLs will be required. WDNR and Chemours agreed to address groundwater separately and initially focus on the development of site-specific RCLs for soils that are protective of direct soil contact exposures. As such, this document presents the derivation of direct contact RCLs only. At the request of WDNR, a map showing the approximate extent of affected groundwater is provided as Figure 3.

1.3.2.2 Current and Future Land Use and Exposure Management

The current land use within Barksdale Works is recreational (i.e., used for hunting and game management) in designated areas, and no use in other areas that are actively being investigated (see Figure 4). Access to Barksdale Works is controlled by the current landowner (BDC), and unauthorized use is further restricted by the security fencing surrounding Barksdale Works.

Administrative controls in place for collaborative management of the property include:

- Agreements (see Appendix B) between Chemours and BDC, which allow Chemours to place land use restrictions on the property and provides Chemours right of first refusal in the event BDC desires to sell the property,
- Maintenance of hazard demarcation posts and gates on select roads within the site interior that identify areas where personal protective equipment is required before entering. These are generally located at the within the restricted access areas as indicated in Figure 4. The restricted access areas are generally located within the limit of former manufacturing and product storage operations that are the predominant source areas of contamination. Periodic maintenance of the demarcation posts and gates is performed to maintain functionality and annual maps depicting the location of these items is provided to BDC for field reference.
- Maintenance of an outer, 10-foot-tall perimeter security fence and the placement of no trespassing signs along the fence at specified intervals. According to communications received from the Bayfield County Health Department, WDNR, and the Wisconsin Department of Health and Family Services, these signs contain information regarding previous explosives manufacturing activities at the site and a telephone number to reach WDNR regarding any inquiries.

Updates to land use restrictions, based on site investigation and remediation progress, are communicated by Chemours to BDC representatives annually (recent communications are attached in Appendix B). In addition to the annual communications with BDC, Chemours engages annually with

emergency responders in the area to review protocols for responding to potential emergencies at the site. The most recent written communication with local emergency response leaders is also provided in Appendix B; however, it should be noted that annual on-site meetings are also held and will continue as long as they are deemed valuable by emergency response personnel.

There are no other land uses currently identified or anticipated. The future land use for this property is also recreational and will remain so via the agreements mentioned above. Therefore, a site-specific recreational exposure scenario is used to develop RCLs in order to evaluate soil data collected at Barksdale Works.

1.4 Report Organization

Section 2.0 presents the site-specific RCLs. Section 3.0 presents the references; and Appendix A presents the Toxicity Values that were determined for dinitrotoluene (DNT) and dinitroxylene (DNX) isomers. Appendix B presents supporting documents referenced within this report.

Section 2: SOIL RCLs

2.1 Introduction

This section describes how the site-specific, risk-based RCLs were developed for the Barksdale Works. Site-specific risk-based RCLs were calculated in accordance with procedures listed in Wisconsin Administrative Code NR 720.

Development of RCLs involved identification of the constituents of interest, consideration of current and future land use exposure scenarios, preparation of a toxicity assessment where constituent and exposure route-specific toxicity criteria were identified, identification of equations and exposure factors for each exposure pathway, and calculation of RCLs. Each of these steps is discussed below.

2.2 Constituents of Potential Interest

The constituents of interest include inorganic and organic substances that were detected at least once in soil at Barksdale Works or those substances that may be associated with past manufacturing operations. RCLs were calculated for all of these constituents when toxicity values were available. These values will be updated as needed based on new toxicity information and if new constituents of interest are identified.

2.3 Exposure Scenarios for Current and Future Land Use

Wisconsin Administrative Code NR 720.07 identifies the approaches for determining RCLs based on direct contact with contaminated soils which includes a land use direct contact level. Therefore, a site-specific residual contaminant level based on protection of human health from direct contact with contaminated soil was determined based on the methodology identified in NR 720.12.

The exposure parameters identified in NR 720.12 for the non-industrial exposure scenario were used for Barksdale Works recreational exposure scenario, with two exceptions. First, site-specific information supplied by the current landowners indicated a frequency of property use ranging from 10 to 60 days per year (Bretting, 2006). Based on this information, the exposure frequency parameter value for the non-industrial scenario was modified from 350 days per year to a conservative maximum of 60 days per year. This exposure frequency value is reasonable, given the current and expected future use of the property. Second, although the dermal exposure pathway is not a default pathway identified by WDNR, it was included in development of RCLs for the nitrate explosive and semi-volatile compounds detected in soil at Barksdale Works due to their ability to absorb across the skin.

2.4 Toxicity Assessment

The toxicity values used to develop RCLs included noncancer reference doses (RfDs) and cancer slope factors (CSFs). Both noncancer and cancer (carcinogenic) health effects must be considered when evaluating potential health impacts. The potential for producing carcinogenic effects is limited to certain constituents (i.e., carcinogens). Conversely, adverse noncancer health effects can potentially result

from exposure to any constituent. Therefore, in many cases, a constituent may have a noncancer toxicity value but no cancer toxicity value.

The term RfD was developed by the United States Environmental Protection Agency (USEPA) to refer to the daily intake of a constituent to which an individual, including sensitive subpopulations, could be exposed without any expectation of adverse noncancer health effects (e.g., organ damage, biochemical alterations, and birth defects). The USEPA has developed RfDs for subchronic exposures (i.e., short-term exposures) and chronic exposures (i.e., multiple exposures occurring over an extended period of time). An RfD is defined as "an estimate (with uncertainty spanning perhaps an order of magnitude or greater) of a daily exposure level for the human population, including sensitive subgroups that are likely to be without an appreciable risk of deleterious effects during a portion of the lifetime" (USEPA, 2002). Only chronic RfDs were used to develop RCLs and to evaluate noncancer hazards. RfDs are expressed in units of milligrams of constituent per kilogram of body weight per day (mg/kg-day).

A CSF is a numerical estimate of the carcinogenic potency of a constituent. CSFs are expressed in units of kilogram of body weight-day per milligram of constituent (kg-day/mg), which is the inverse of dose (i.e., mg/kg-day).

The USEPA and other regulatory agencies have evaluated the toxicological potential of numerous constituents and published the corresponding toxicity values. The USEPA RSL calculator uses toxicity values from the following sources in the order of priority as follows:

1. The USEPA Integrated Risk Information System (IRIS)
2. USEPA's Peer Reviewed Toxicity Values, developed by the Office of Research and Development/National Center for Environmental Assessment (NCEA)
3. USEPA's Office of Pesticide Programs (OPP) Human Health Benchmarks for Pesticides (HHBPs)
4. The Agency for Toxic Substances and Disease Registry (ATSDREXITEXIT EPA WEBSITE) minimal risk levels (MRLs).
5. The EPA Office of Water occasionally derives toxicity values presented in Health Advisories or Human Health Toxicity Assessments for special case chemicals.
6. California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA)
7. USEPA screening toxicity values
8. USEPA Superfund Health Effects Assessment Summary Tables – (HEAST)

Toxicity values were not available for some DNT isomers and all of the DNX isomers. Therefore, toxicity information for these constituents was evaluated in order to identify representative toxicity values in order to derive RCLs. This evaluation is presented in Appendix A. Consistent with Appendix A, the DNX isomer RCLs were calculated using the more health protective of the 2,4-dinitrotoluene and 2,6-dinitrotoluene oral RfDs in the USEPA RSL calculator. If a toxicity value was not available from any of these sources, then an RCL was not developed for the constituent except for DNX and TNX. Constituents which used surrogate toxicity values are presented in the table below.

Toxicity Values used for DNT, DNX, and TNX Isomers without Values

Analyte	Group	Toxicity Value(s) used for SSRCL
Dinitrotoluene, 2,3-	DNT	Rfd and CSF for technical grade dinitrotoluene
Dinitrotoluene, 2,4-	DNT	Rfd and CSF for technical grade dinitrotoluene
Dinitrotoluene, 2,5	DNT	Rfd and CSF for technical grade dinitrotoluene
Dinitrotoluene, 2,6-	DNT	Rfd and CSF for technical grade dinitrotoluene
Dinitrotoluene, 3,4-	DNT	Rfd and CSF for technical grade dinitrotoluene
Dinitrotoluene, 3,5-	DNT	Rfd and CSF for technical grade dinitrotoluene
Total DNT Isomers	DNT	Rfd and CSF for technical grade dinitrotoluene. When evaluating the mixture use a cancer risk of 1E-05 and a noncancer Hazard Index of 1.
Dinitrobenzene, 1,2-dimethyl-3,4-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,2-dimethyl-3,5-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,2-dimethyl-3,6-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,2-dimethyl-4,5-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,3-dimethyl-2,4-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,3-dimethyl-2,5	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,4-dimethyl-2,3-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,4-dimethyl-2,5-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,4-dimethyl-2,6-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,5-dimethyl-2,3-	DNX	The lowest Rfd for any DNX Compound
Dinitrobenzene, 1,5-dimethyl-2,4-	DNX	The lowest Rfd for any DNX Compound
Total DNX Isomers	DNX	The lowest Rfd for any DNX Compound
Trinitro-3-xylene, 2,4,6-	TNX	Rfd and CSF for 2,4,6-Trinitrotoluene

2.5 Calculation of Soil RCLs

The USEPA RSL calculator was used to determine all of the RCLs. As described in Section 2.3, the exposure parameters identified in Wisconsin guidance for evaluation of the non-industrial exposure pathways were used with the site-specific exposure frequency value based on data obtained from the current landowners. Exposure parameters used to calculate the noncancer RCLs and cancer RCLs can be found at USEPA's Regional Screening Levels (RSLs) web page[2]. These values are reviewed and/or updated biannually by USEPA. The noncancer and cancer RCLs calculated for each constituent are presented in Table 1. Consistent with WDNR guidelines, the lowest RCL calculated for any exposure pathway was designated as the screening value for each constituent. Calculator inputs and outputs are included in Appendix B.

[2] https://www.epa.gov/risk/regional-screening-levels-rsls-whats-new

SECTION 3: REFERENCES

CRG (Corporate Remediation Group). 2007. Current Conditions for the Former DuPont Barksdale Works, Barksdale, Wisconsin.

Paul Bretting. 2006. Personal Communication to Brad Nave, Senior Site Director, DuPont Corporate Remediation Group. March 17, 2006.

PIONEER. 2023. Derivation of Site-Specific Background Levels for the Former DuPont Barksdale Works Facility, Barksdale, Wisconsin.

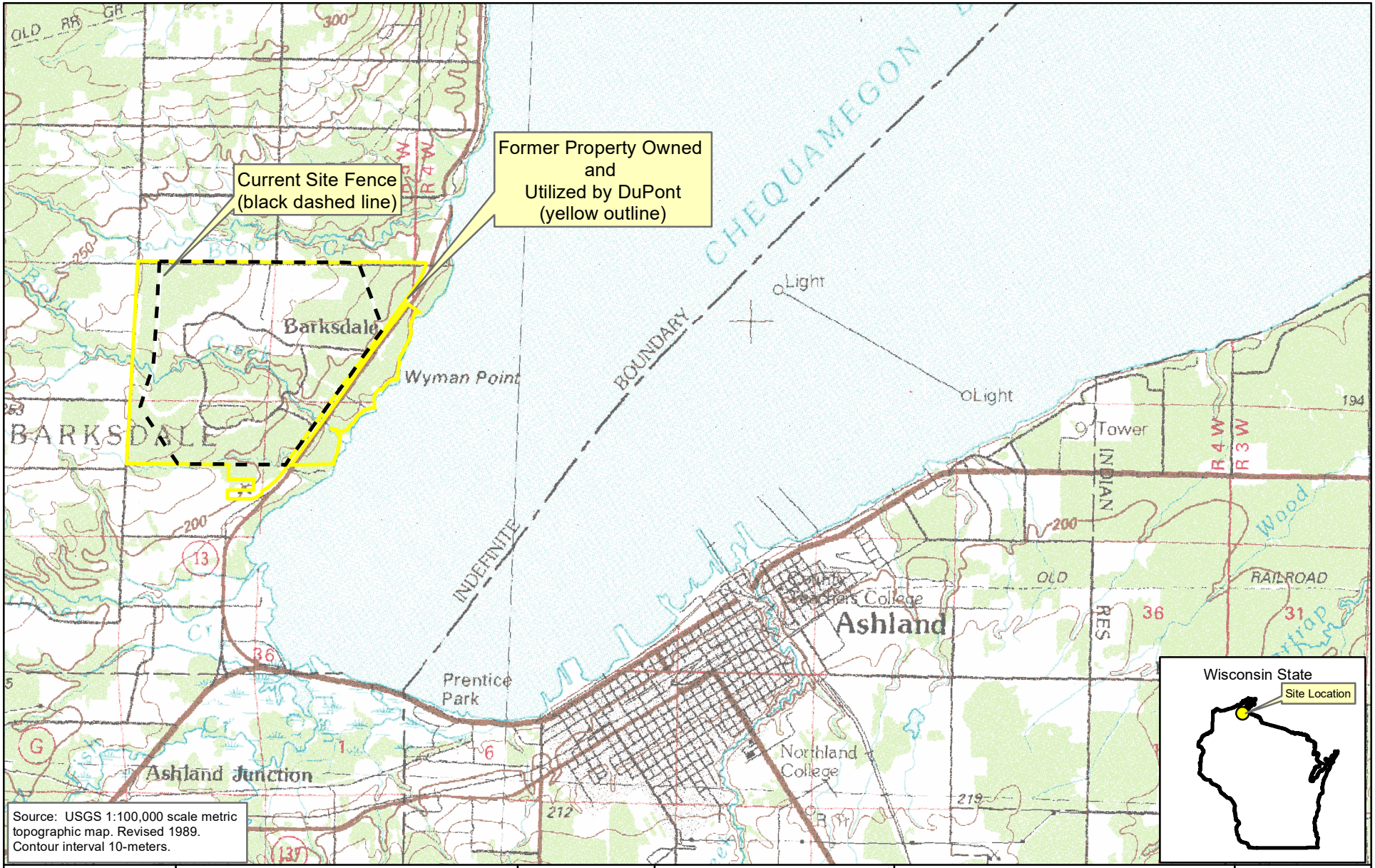
WDNR (Wisconsin Department of Natural Resources). 2004. Guidance on Soil Performance Standards. Bureau for Remediation and Redevelopment. PUB-RR-528.

WDNR (Wisconsin Department of Natural Resources). 2005. *Guidance for Determining Soil Contaminant Background Levels at Remediation Sites*. Bureau for Remediation and Redevelopment. PUB-RR-721.

WDNR (Wisconsin Department of Natural Resources). 2013. *Wisconsin Statewide Soil-Arsenic Background Threshold Value*. Remediation and Redevelopment Program. RR-940.

United States Environmental Protection Agency (USEPA). 2023. Regional Screening Levels (RSL) | Superfund Risk Assessment | US EPA (ornl.gov). https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search

Figures



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Site Location

Derivation of Site-Specific RCLs
Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

PROJECT NUMBER:	60660855
DATE:	Nov 2023
FIGURE NUMBER:	1

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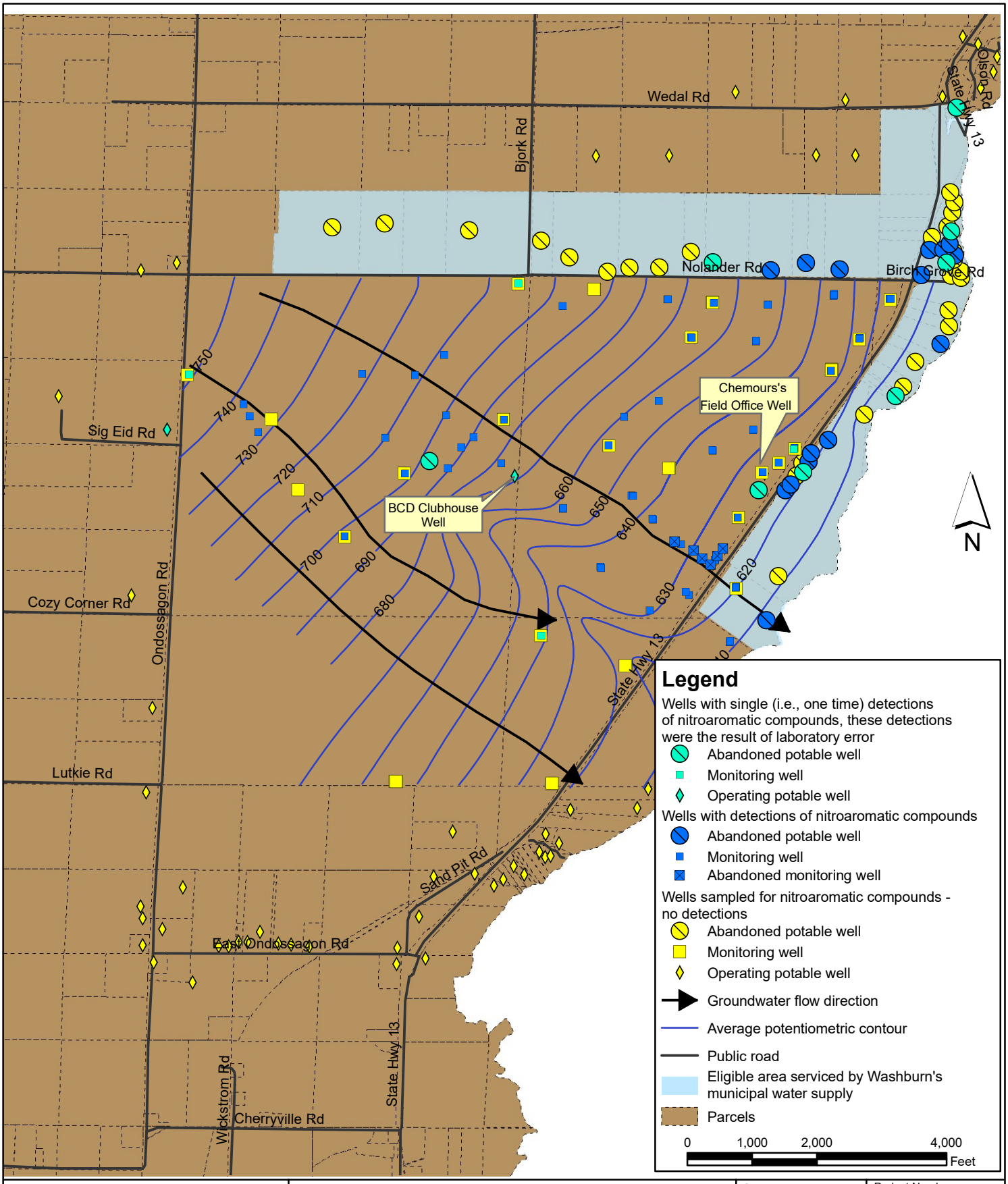

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Title:

Distribution of Drinking Water Sources Surrounding the
Former DuPont Barksdale Works
Derivation of Site-Specific RCLs
Former DuPont Barksdale Works Facility
Barksdale, Wisconsin

Created: KJB	Project Number: 60660855
Date: 10/20/2008	Figure Number: 2

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There have been no confirmed detections of site-related constituents in residential wells or monitoring wells outside of this red dashed boundary

Approximate northern extent of affected groundwater

Approximate western extent of affected groundwater

Approximate southern extent of affected groundwater

Bono Creek

Northern Drainage

Central Drainage

Boyd Creek

Mission Springs Creek

Club House-Inflow

Front Gate-Inflow

PZ-57D
PZ-56D
PZ-37D
PZ-37R
PZ-02O
PZ-02S
PZ-02D
PZ-13D
PZ-42O
PZ-21O
PZ-21D
PZ-11O
PZ-11D
PZ-11X
PZ-34O
PZ-34D
PZ-33O
PZ-33D
PZ-33R
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PZ-12D
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MW-02
PZ-18O
PZ-05S
PZ-05D
MW-05
PZ-28O
PZ-29D
PZ-29X
PZ-36O
PZ-36D
PZ-36X
PZ-35O
PZ-35D
740
730
720
710
700
690
680
670
660
650
640
630
620
610

Legend

October 2016 (10-ft contours) - intermediate zone

- Intermediate Potentiometric Contour
- Groundwater Flow Direction
- Abandoned Drinking Well
- Abandoned Well
- Active Drinking Well
- Monitoring Well (depth intervals designated by label color)
- Piezometer
- Residential Well
- Municipal Water Line
- River/Stream/Creek
- Use Areas
- Burning Ground
- Former Northeastern Production Area
- Former Western Production Area
- Southern Groundwater Area
- East/Central Groundwater Area
- Northeastern Groundwater Area

Well Intervals
(designated by label color)

PZ-32O white label equals shallow interval
PZ-32D black label equals intermediate interval
PZ-32X brown label equals deep interval

Aerial Photo Date: July 9, 2015
Photo Source: National Agriculture Imagery Program

Notes:

Lake Superior water level was at 602.15 feet MSL; lowest point during sampling event on November 1, 2017.

Average lake level during event was 602.50 feet MSL.

Source: NOAA

Area Map (Optional)

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Feet
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Groundwater Map

Derivation of Site-Specific RCLs
Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

PROJECT NUMBER: 60660855
DATE: Nov 2023
FIGURE NUMBER: 3

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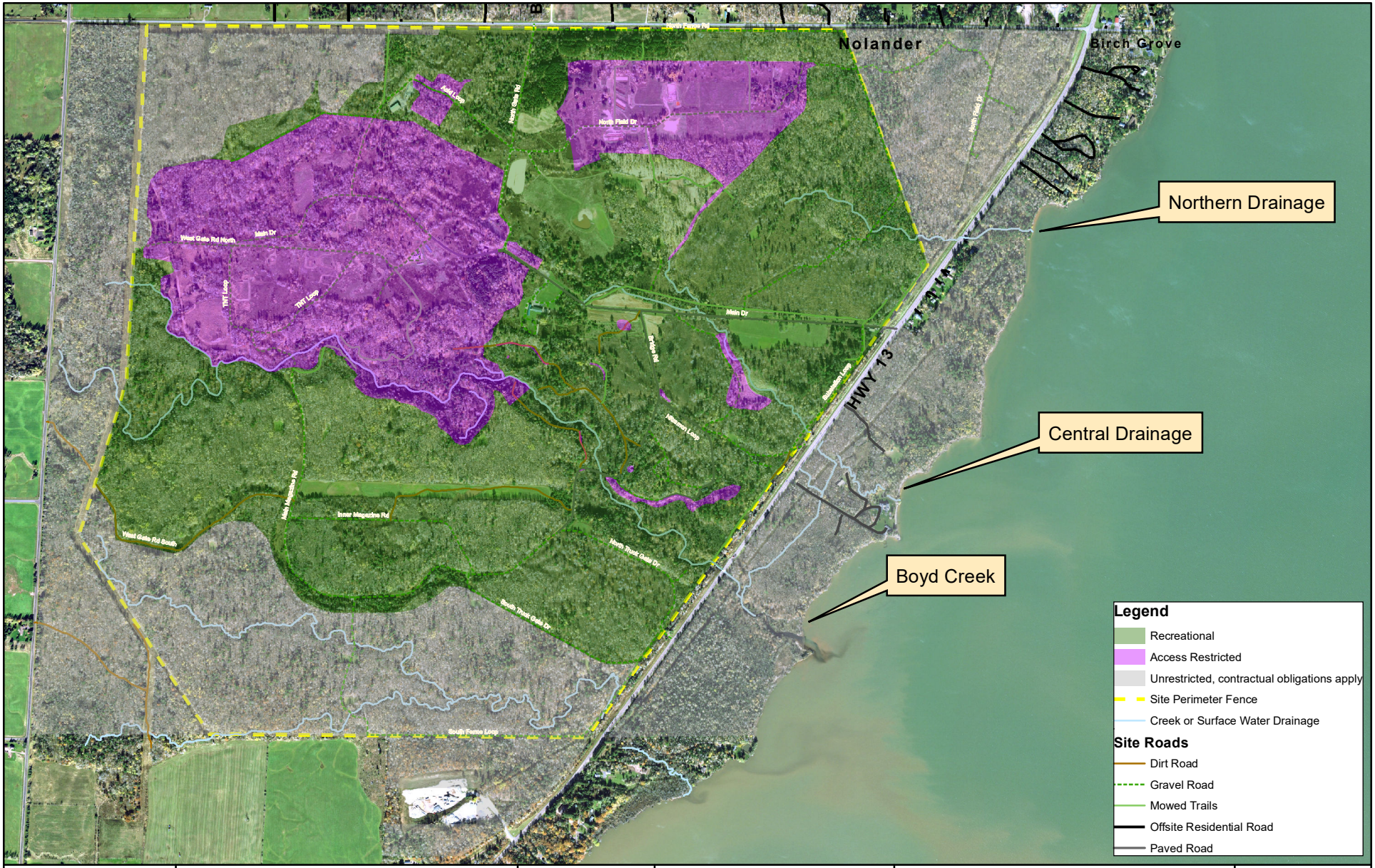

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Area Map (Optional)

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Land Uses

Derivation of Site-Specific RCLs
Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

PROJECT NUMBER:	60660855
DATE:	Nov 2023
FIGURE NUMBER:	4

Tables

Table 1: Residual Contaminant Levels

CAS	Analyte	Data Group	Industrial (mg/kg)	Recreational (mg/kg)	Non-Industrial (mg/kg)
602-01-7	Dinitrotoluene, 2,3-	NAX (Explosives)	5.1	7.0	1.2
121-14-2	Dinitrotoluene, 2,4-	NAX (Explosives)	5.1	7.0	1.2
619-15-8	Dinitrotoluene, 2,5	NAX (Explosives)	5.1	7.0	1.2
606-20-2	Dinitrotoluene, 2,6-	NAX (Explosives)	5.1	7.0	1.2
610-39-9	Dinitrotoluene, 3,4-	NAX (Explosives)	5.1	7.0	1.2
618-85-9	Dinitrotoluene, 3,5-	NAX (Explosives)	5.1	7.0	1.2
EVS1311	Total DNT Isomers	NAX (Explosives)	51	70	12
EVS0672	Dinitrobenzene, 1,2-dimethyl-3,4-	NAX (Explosives)	247	111	19
616-69-3	Dinitrobenzene, 1,2-dimethyl-3,5-	NAX (Explosives)	247	111	19
EVS0709	Dinitrobenzene, 1,2-dimethyl-3,6-	NAX (Explosives)	247	111	19
EVS0670	Dinitrobenzene, 1,2-dimethyl-4,5-	NAX (Explosives)	247	111	19
603-02-1	Dinitrobenzene, 1,3-dimethyl-2,4-	NAX (Explosives)	247	111	19
EVS0708	Dinitrobenzene, 1,3-dimethyl-2,5	NAX (Explosives)	247	111	19
EVS0671	Dinitrobenzene, 1,4-dimethyl-2,3-	NAX (Explosives)	247	111	19
EVS1207	Dinitrobenzene, 1,4-dimethyl-2,5-	NAX (Explosives)	247	111	19
711-41-1	Dinitrobenzene, 1,4-dimethyl-2,6-	NAX (Explosives)	247	111	19
65151-56-6	Dinitrobenzene, 1,5-dimethyl-2,3-	NAX (Explosives)	247	111	19
616-72-8	Dinitrobenzene, 1,5-dimethyl-2,4-	NAX (Explosives)	247	111	19
EVS1312	Total DNX Isomers	NAX (Explosives)	247	111	19
19406-51-0	Amino-2,6-dinitrotoluene, 4-	NAX (Explosives)	113	45	7.7
119-32-4	Amino-2-nitrotoluene, 4-	NAX (Explosives)	--	--	--
35572-78-2	Amino-4,6-dinitrotoluene, 2-	NAX (Explosives)	114	45	7.7
99-55-8	Amino-4-nitrotoluene, 2-	NAX (Explosives)	255	352	60
603-83-8	Amino-6-nitrotoluene, 2-	NAX (Explosives)	--	--	--
62-53-3	Aniline	NAX (Explosives)	403	555	95
59229-75-3	Diamino-4-nitrotoluene, 2,6-	NAX (Explosives)	--	--	--
6629-29-4	Diamino-6-nitrotoluene, 2,4-	NAX (Explosives)	--	--	--
95-80-7	Diaminotoluene, 2,4-	NAX (Explosives)	--	--	--
823-40-5	Diaminotoluene, 2,6-	NAX (Explosives)	--	--	--
534-52-1	Dinitro-o-Cresol, 4,6-	NAX (Explosives)	66	30	5.1
99-65-0	Dintrobenzene, 1,3-	NAX (Explosives)	82	37	6.3
2691-41-0	HMX	NAX (Explosives)	57,000	22,500	3,860
88-74-4	Nitroaniline, 2-	NAX (Explosives)	8,010	3,660	627
98-95-3	Nitrobenzene	NAX (Explosives)	32	43	7.4
55-63-0	Nitroglycerin	NAX (Explosives)	82	37	6.3
86-30-6	Nitrosodiphenylamine, N-	NAX (Explosives)	469	646	111
99-08-1	Nitrotoluene, m-	NAX (Explosives)	82	37	6.3
88-72-2	Nitrotoluene, o-	NAX (Explosives)	15	18	3.2
99-99-0	Nitrotoluene, p-	NAX (Explosives)	144	198	34
78-11-5	PETN	NAX (Explosives)	534	736	126
121-82-4	RDX	NAX (Explosives)	38	49	8.3
479-45-8	Tetryl	NAX (Explosives)	2,330	911	156
632-92-8	Trinitro-3-xylene, 2,4,6-	NAX (Explosives)	96	124	21
99-35-4	Trinitrobenzene, 1,3,5-	NAX (Explosives)	32,400	13,100	2,250
118-96-7	Trinitrotoluene, 2,4,6-	NAX (Explosives)	96	124	21
7429-90-5	Aluminum	Inorganic	1,130,000	452,000	77,500
7440-36-0	Antimony	Inorganic	467	182	31
7440-38-2	Arsenic (inorganic)	Inorganic	3.0	4.0	0.68
7440-39-3	Barium	Inorganic	219,000	89,500	15,300
7440-41-7	Beryllium	Inorganic	2,300	908	156
7440-42-8	Boron	Inorganic	233,000	91,200	15,600
7440-43-9	Cadmium	Inorganic	100	42	7.1
7440-47-3	Chromium (as Cr III)	Inorganic	--	--	--
18540-29-9S	Chromium (VI) Solid	Inorganic	--	--	--
16065-83-1	Chromium III	Inorganic	1,750,000	684,000	117,000
7440-48-4	Cobalt	Inorganic	347	137	23
7440-50-8	Copper	Inorganic	46,700	18,300	3,130

Table 1: Residual Contaminant Levels

CAS	Analyte	Data Group	Industrial (mg/kg)	Recreational (mg/kg)	Non-Industrial (mg/kg)
57-12-5	Cyanide	Inorganic	195	158	27
7439-89-6	Iron	Inorganic	818,000	319,000	54,800
7439-92-1	Lead	Inorganic	800	400	400
7439-95-4	Magnesium	Inorganic	--	--	--
7439-96-5	Manganese	Inorganic	25,900	10,700	1,830
7439-97-6	Mercury	Inorganic	66	91	16
7440-02-0	Nickel	Inorganic	22,500	9,030	1,550
14797-73-0	Perchlorate	Inorganic	818	319	55
7782-49-2	Selenium	Inorganic	5,840	2,280	391
7440-22-4	Silver	Inorganic	5,840	2,280	391
7440-23-5	Sodium	Inorganic	--	--	--
14808-79-8	Sulfate	Inorganic	--	--	--
18496-25-8	Sulfide	Inorganic	--	--	--
7440-28-0	Thallium	Inorganic	12	4.6	0.78
7440-31-5	Tin	Inorganic	701,000	274,000	46,900
7440-62-2	Vanadium	Inorganic	5,840	2,290	393
7440-66-6	Zinc	Inorganic	350,000	137,000	23,500
75-35-4	1,1-Dichloroethene	Volatile	1,430	1,860	320
67-64-1	Acetone	Volatile	1,050,000	411,000	70,400
75-05-8	Acetonitrile	Volatile	4,920	6,830	1,170
71-43-2	Benzene	Volatile	7.1	9.4	1.6
75-27-4	Bromodichloromethane	Volatile	1.8	2.4	0.42
75-25-2	Bromoform	Volatile	113	148	25
75-15-0	Carbon Disulfide	Volatile	4,950	6,210	1,060
56-23-5	Carbon Tetrachloride	Volatile	4.0	5.4	0.92
75-69-4	CFC-11	Volatile	350,000	137,000	23,500
124-48-1	Chlorodibromomethane	Volatile	39	48	8.3
67-66-3	Chloroform	Volatile	2.0	2.7	0.45
106-43-4	Chlorotoluene, 4-	Volatile	23,400	9,130	1,560
106-46-7	Dichlorobenzene, 1,4-	Volatile	16	22	3.7
107-06-2	Dichloroethane, 1,2-	Volatile	2.9	3.8	0.65
100-41-4	Ethylbenzene	Volatile	35	47	8.0
74-88-4	Iodomethane	Volatile	--	--	--
74-83-9	Methyl Bromide	Volatile	43	56	9.6
74-87-3	Methyl Chloride	Volatile	669	929	159
78-93-3	Methyl Ethyl Ketone	Volatile	249,000	181,000	31,100
75-09-2	Methylene Chloride	Volatile	1,150	361	62
100-42-5	Styrene	Volatile	47,200	43,200	7,410
127-18-4	Tetrachloroethylene	Volatile	145	192	33
108-88-3	Toluene	Volatile	55,300	30,600	5,240
71-55-6	Trichloroethane, 1,1,1-	Volatile	51,000	67,100	11,500
79-01-6	Trichloroethene	Volatile	8.4	7.6	1.3
1330-20-7	Xylenes	Volatile	3,570	4,780	819
95-63-6	1,2,4-trimethylbenzene	Semi-Volatile	2,390	2,180	373
95-50-1	1,2-Dichlorobenzene	Semi-Volatile	13,000	13,700	2,350
108-67-8	1,3,5-trimethylbenzene	Semi-Volatile	2,060	1,980	339
541-73-1	1,3-Dichlorobenzene	Semi-Volatile	--	--	--
95-48-7	2-Methylphenol (O-Cresol)	Semi-Volatile	41,000	18,400	3,160
618-87-1	3,5-Dinitroaniline	Semi-Volatile	328	147	25
99-09-2	3-Nitroaniline	Semi-Volatile	--	--	--
100-01-6	4-Nitroaniline	Semi-Volatile	115	158	27
83-32-9	Acenaphthene	Semi-Volatile	45,200	20,900	3,590
208-96-8	Acenaphthylene	Semi-Volatile	--	--	--
120-12-7	Anthracene	Semi-Volatile	226,000	105,000	17,900
56-55-3	Benzo(a)anthracene	Semi-Volatile	21	6.6	1.1
205-99-2	Benzo(b)fluoranthene	Semi-Volatile	21	6.7	1.2
191-24-2	Benzo(g,h,i)perylene	Semi-Volatile	--	--	--

Table 1: Residual Contaminant Levels

CAS	Analyte	Data Group	Industrial (mg/kg)	Recreational (mg/kg)	Non-Industrial (mg/kg)
207-08-9	Benzo(k)fluoranthene	Semi-Volatile	211	67	12
50-32-8	Benzo[a]pyrene	Semi-Volatile	2.1	0.67	0.12
100-51-6	Benzyl Alcohol	Semi-Volatile	82,100	36,900	6,320
117-81-7	Bis(2-ethylhexyl)Phthalate (DEHP)	Semi-Volatile	164	226	39
101-55-3	Bromodiphenyl ether, 4-	Semi-Volatile	--	--	--
85-68-7	Butyl Benzyl Phthalate, N-	Semi-Volatile	1,210	1,670	286
105-60-2	Caprolactam	Semi-Volatile	399,000	183,000	31,300
7005-72-3	Chlorophenyl-phenyl ether, 4-	Semi-Volatile	--	--	--
218-01-9	Chrysene	Semi-Volatile	2,110	670	115
53-70-3	Dibenz(a,h)anthracene	Semi-Volatile	2.1	0.67	0.12
132-64-9	Dibenzofuran	Semi-Volatile	1,170	456	78
84-74-2	Dibutyl Phthalate	Semi-Volatile	82,100	36,900	6,320
120-83-2	Dichlorophenol, 2,4-	Semi-Volatile	2,460	1,110	190
84-66-2	Diethyl Phthalate	Semi-Volatile	657,000	295,000	50,600
206-44-0	Fluoranthene	Semi-Volatile	30,100	13,900	2,390
86-73-7	Fluorene	Semi-Volatile	30,100	13,900	2,390
110-54-3	Hexane	Semi-Volatile	3,670	5,100	874
193-39-5	Indeno (1,2,3-Cd) Pyrene	Semi-Volatile	21	6.7	1.2
78-59-1	Isophorone	Semi-Volatile	2,420	3,330	571
79-20-9	Methyl Acetate	Semi-Volatile	1,170,000	456,000	78,200
108-10-1	Methyl Isobutyl Ketone	Semi-Volatile	200,000	278,000	47,700
1634-04-4	Methyl Tertiary Butyl Ether	Semi-Volatile	282	372	64
91-57-6	Methylnaphthalene, 2-	Semi-Volatile	3,010	1,390	239
EVS0197	Methylphenol, 3- and 4-	Semi-Volatile	--	--	--
91-20-3	Naphthalene	Semi-Volatile	10	14	2.4
117-84-0	N-Dioctyl Phthalate	Semi-Volatile	8,210	3,690	632
87-86-5	Pentachlorophenol	Semi-Volatile	4.0	6.0	1.0
85-01-8	Phenanthrene	Semi-Volatile	--	--	--
129-00-0	Pyrene	Semi-Volatile	22,600	10,500	1,790
120-82-1	Trichlorobenzene, 1,2,4-	Semi-Volatile	113	140	24
11096-82-5	PCB 1260	PCB	1.0	1.4	0.24
7440-70-2	Calcium	Convent	--	--	--
16887-00-6	Chloride	Convent	--	--	--
16984-48-8	Fluoride	Convent	46,700	18,200	3,130
14797-55-8	Nitrate	Convent	1,870,000	730,000	125,000
7704-34-9	Sulfur	Convent	--	--	--
72-20-8	Endrin	Pest	246	111	19
93-72-1	Silvex	Pest	6,570	2,950	506

Notes:

If value = '--', no value could be calculated.

RCLs are based on a cancer risk of 1.0E-06 or a noncancer Hazard Index of 1.

Total DNT Isomers are based on a cancer risk of 1.0E-05 and a noncancer Hazard Index of 1.

Appendix A

APPENDIX A

TOXICITY VALUES FOR DNT AND DNX ISOMERS

BRRTS NOS. 02-04550402 AND 02-0400156
FID NO 804009140

Date: October 24, 2008

Project No.: 507419
18985334

CORPORATE REMEDIATION GROUP
An Alliance between
DuPont and URS Diamond
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TABLES

Table A-1 Published Toxicity Values for DNT Isomers

Table A-2 DNT Isomer Toxicity Information

ATTACHMENT

Attachment A-1 Quantitative Structure Activity Relationship Evaluation for Dinitroxylenes

ACRONYMS

Acronym	Description / Definition
ABS	Absorption
ATSDR	Agency for Toxic Substances and Disease Registry
DNT	Dinitrotoluene
DNX	Dinitroxylene
DuPont	E. I. du Pont de Nemours and Company
HEAST	Health Effects Assessment Summary Tables
HQ	Hazard Quotient
IRIS	Integrated Risk Information System
mg/kg-day	milligram per kilogram per day
QSAR	Quantitative structure-activity relationship
CIIT	Chemical Industry Institute of Toxicology
NCI	National Cancer Institute
RfD	Reference dose
tg-DNT	Technical grade dinitrotoluene
USEPA	United States Environmental Protection Agency
WDNR	Wisconsin Department of Natural Resources

A.1 Determination of Toxicity Values for Dinitrotoluene and Dinitroxylene

Nitroaromatic and nitamine organic compounds, including dintrotoluene (DNT) and dinitroxylene (DNX) isomers were formerly manufactured at the former E. I. du Pont de Nemours and Company (DuPont) Barksdale Works Facility, located in Barksdale, Wisconsin. These isomers were included in investigation sample-analyses lists and were identified in soil. The purpose of this appendix is to identify appropriate toxicity values for DNT and DNX isomers in order to determine risk-based screening levels for these isomers. DNT toxicity information is discussed in Section A.2 and the DNX toxicity information is discussed in Section A.3.

A.2 DNT Toxicity Values

A.2.1 Introduction

There are six different DNT isomers including 2,4-DNT, 2,6-DNT, 2,3-DNT, 2,5-DNT, 3,4-DNT, and 3,5-DNT. Technical grade DNT (tg-DNT) typically consist of 75% 2,4-DNT, 20% 2,6-DNT, and 5% of other isomers (i.e., minor isomers). The two primary isomers that have been evaluated, and for which the United States Environmental Protection Agency (USEPA) has developed toxicity values, are 2,4-DNT, 2,6-DNT, and the 2,4/2,6-DNT mixture. Sections A.2.2 through A.2.4 summarize cancer and noncancer toxicity information contained in the following documents:

- Integrated Risk Information System (IRIS) (USEPA, 2008a,b)
- Health Effects Assessment Summary Table (HEAST) (USEPA, 1994)
- Health Consultation. Dinitrotoluene in Private Wells, Badger Army Ammunition Plant, Baraboo, Sauk County, Wisconsin (ATSDR, 2006)
- Toxicological Profile for 2,4- and 2,6-Dinitrotoluene (ATSDR, 1998)
- Memorandum for Badger Army Ammunition Plant, Joan M. Kenny, 2 Badger Road, Baraboo, WI 53913-5000. Request for Technical Support to Evaluate the Interim Health Advisory Level for Total Dinitrotoluene (DNT) residues in Wisconsin Groundwater (Army, 2007)
- Interim Drinking Water Health Advisory for Dinitrotoluenes (Wisconsin Department of Natural Resources (WDNR), 2007)

A.2.2 Background Toxicity Information

Reported human health effects following DNT exposure were based on occupational exposure studies in which workers were primarily exposed via inhalation, with some contribution assumed from dermal absorption and ingestion. Health effects from chronic exposure may include methemoglobinemia, cyanosis, and neurotoxicity (ATSDR, 1998).

Most animal studies were conducted using either tg-DNT, 2,4-DNT, or 2,6-DNT. Chronic animal dosing studies using DNT isomers have only been performed using DNT isomer mixtures. In two studies (Ellis et al., 1979 and Chemical Industry Institute of Toxicology (CIIT), 1982) the primary isomer was 2,4-DNT however, 2,6-DNT was also

present. In a third study (National Cander Institute (NCI), 1978), increased cancer incidence was not observed and the specific isomer(s) were not identified. Only a few short-term *in vivo* and *in vitro* studies have been performed on the minor isomers.

A.2.3 Cancer Toxicity Information

USEPA has classified the 2,4-DNT/2,6-DNT mixture (98% 2,4-DNT and 2% 2,6-DNT) as a probable human carcinogen based on a chronic bioassay (Ellis et al., 1979) that resulted in tumors at multiple sites in rats. Another chronic animal bioassay (CIIT, 1982) involved exposure to tg-DNT (which contains all of the DNT isomers) resulting in a statistically significant increase in liver cancer. However, the cancer incidence was lower than the Ellis study where only 2,4-DNT and 2,6-DNT were present. The USEPA developed a cancer slope factor of 0.68 $(mg/kg\text{-}day)^{-1}$ for the 2,4-DNT/2,6-DNT mixture based on the Ellis et al. study.

2,6-DNT is considered (based on other short-term assays) to be a cancer initiator and promoter while 2,4-DNT is considered to be a promoter only (USEPA, 2008b). The other DNT isomers were not shown to be initiators or promoters in these short-term studies. The Agency for Toxic Substances and Disease Registry (ATSDR) suggests that 2,6-DNT is primarily responsible for the carcinogenic activity of tg-DNT and that when 2,4-DNT and 2,6-DNT are present in mixtures their combined ability to increase cancer risk is more than just additive (ATSDR, 1998). All DNT isomers have shown positive and negative mutagenic effects in at least one short-term study.

A.2.4 Noncancer Toxicity Information

2,4-DNT has been evaluated for its ability to produce noncancer health effects (Ellis et. al, 1979) and USEPA has identified a noncancer oral reference dose for 2,4-DNT of 0.002 mg/kg-day. This value is based on neurotoxicity and hematological effects seen in dogs. USEPA also has a provisional peer-reviewed oral reference dose (RfD) of 0.001 mg/kg-day for 2,6-DNT (based on toxicity to multiple target tissues). In addition, USEPA has a provisional peer-reviewed oral RfD of 0.002 mg/kg-day for 2,4-DNT/2,6-DNT mixture.

There is not enough information available to conduct independent risk assessments on the other isomers. Only a few short-term studies have been conducted on the 2,3-DNT, 2,5-DNT, 3,4-DNT, and 3,5-DNT isomers and a summary of the findings are presented in Table A-2. The results of the short-term studies indicate that some of the minor isomers may be relatively more toxic than 2,4-DNT and 2,6-DNT.

A.2.5 Toxicity Value Selected for Screening Levels for the DNT Isomers

Overall there is adequate information to quantitatively characterize the toxicity of 2,4-DNT and 2,6-DNT and 2,4-DNT/2,6-DNT mixture (see Table A-1). Taking into account the current toxicological information, the use of the 2,4-DNT/2,6-DNT mixture the oral cancer slope factor of 0.68 $(mg/kg\text{-}day)^{-1}$ is appropriate for developing a screening level for all DNT isomers (i.e., sum of all DNT isomers).

A.3 DNX Toxicity Values

A.3.1 Identification of a Provisional Toxicity Value for DNX Isomers

There is very limited published information on the mammalian toxicity of the eleven DNX isomers. A search of the National Library of Medicine Toxnet database, which consists of eleven different toxicology databases, resulted in no citations. Thus, in order to provide a toxicity value for this class of materials, a surrogate compound had to be identified to provide an estimate of DNX isomer toxicities. The criteria for the surrogate was that it should have similar toxicological endpoints, and, ideally, be tested in parallel studies using DNX isomers. This information was then used in a Quantitative Structure-activity Relationship (QSAR) evaluation.

QSAR evaluations are an established process by which chemical structure is quantitatively correlated with a well-defined process, such as biological activity or chemical reactivity. For example, biological activity can be expressed quantitatively as the concentration of a substance required to give a certain biological response. When physiochemical properties or molecular structures are expressed numerically, a mathematical relationship or quantitative structure-activity relationship can be established between the two substances. The mathematical expression then can be used to predict the biological response of other structurally-similar chemicals.

A.3.2 Quantitative Structure Activity Relationship Evaluation for DNX

Haskell Laboratories performed a QSAR evaluation for DNX and the results are presented in Attachment A-1. Based on a review of the available literature of related compounds, DNT isomers were identified as potential surrogates for the development of a provisional toxicity value for the DNX isomers. DNT exhibits similar toxicological endpoints to DNX, most notably methemoglobinemia. A comparative toxicity study with 3,5-DNX and 2,4-DNT isomers showed a similar mechanism of toxicity. Additionally, there were no significant chronic toxicological differences between DNT and DNX treated animals, and the metabolic profiles between DNT and DNX were consistent.

The mutagenicity of three DNX isomers was evaluated using the Ames assay (Kawai, et al. 1987). The results were negative for 3,5-Dinitro-o-xylene using two different bacteria strains with and without metabolic activation. The results for 4,6-Dinitro-m-xylene and 2,4-Dinitro-m-xylene were negative and positive, depending on the strain of bacteria evaluated.

All of this information considered collectively suggests that DNT represents an acceptable surrogate for estimating DNX toxicity. However, a review of the likely metabolic pathways of the DNX isomers shows that they are not likely to be metabolized into DNT isomers (see Attachment A-1). Therefore, consideration of the carcinogenic potential of DNXs via their metabolism to DNTs is not appropriate.

A.3.3 Toxicity Value Selected for Screening Levels

The USEPA-established oral RfDs for 2,4-DNT and 2,6-DNT are 0.002 and 0.001 mg/kg-day, respectively (see Table A-1). By association, the estimated oral RfDs of DNX isomers were estimated to range from 0.001 to 0.002 mg/kg-day. Because the lower value for the DNX isomers represents a conservative estimate of DNX isomer toxicity, 0.001 mg/kg-day was determined to be an appropriate toxicity value for these isomers.

A.4 References

Agency for Toxic Substances and Disease Registry (ATSDR). December 1998. Toxicological Profile for 2,4- and 2,6-Dinitrotoluene. U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry.

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Reader, S.C.J. and P.M.D. Foster. 1990. The in Vitro Effects of Four Isomers of Dinitrotoluene on Rat Sertoli and Sertoli-Germ Cell Cocultures: Germ Cell Detachment and Lactate and Pyruvate Production. Toxicology and Applied Pharmacology 106:287-294.

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Appendix A Tables

Table A-1

USEPA DNT Toxicity Values

Substance	Type of Toxicity Value	Basis	Value	Source
2,4-DNT/2,6-DNT Mixture	Cancer – Oral Slope Factor	Oral Slope Factor is based on a mixture of 98% 2,4-DNT and 2% 2,6-DNT	0.68 $(mg/kg/day)^{-1}$	IRIS (USEPA 2008b)
2,4-DNT/2,6-DNT Mixture	Noncancer – Oral reference dose		0.002 mg/kg/day	PPRTV (Presented in USEPA 2008c).
2,4-DNT	Noncancer – Oral reference dose	Two-year dog feeding study. 98% 2,4-DNT Toxic endpoints were neurotoxicity, Heinz bodies and biliary tract hyperplasia	0.002 mg/kg/day	IRIS (USEPA 2008b)
2,6-DNT	Noncancer – Oral Reference Dose		0.001 mg/kg/day	PPRTV (Presented in USEPA 2008cUSEPA 2008c)

Notes:
DNT = Dinitrotoluene
IRIS = Integrated Risk Information System
USEPA = United States Environmental Protection Agency
PPRTV = Provisional Peer Reviewed Toxicity Value

Table A-2

DNT Isomer Toxicity Information

Test	2,3-DNT	2,4-DNT	2,5-DNT	2,6-DNT	3,4-DNT	3,5-DNT	Source	Comments
Short-term liver toxicity test (inhibition of protein synthesis in rat hepatocyte suspensions millimoles to produce effect)	0.25	0.52	0.16	0.52	0.24	0.53	Spanggord et al., 1990	Relative Toxicity = 2,5>3,4>2,3>2,4+2.6>3,5
Short-term liver toxicity test (LDH release in rat hepatocyte suspensions, millimoles to produce effect)	0.48	1.79	0.41	1.02	0.30	1.76	Spanggord et al., 1990	Relative Toxicity = 3,4>2,5>2,3>2,6>3,5>2,4
Short-term reproductive toxicity test (rat sertoli cells)	Not tested	No increase in cell mortality	Not tested	Not tested	Increase in cell mortality	Not tested	Sorenson and Brabec, 2003	Relative Toxicity = 3,4>2,4
Short-term reproductive toxicity test (Germ Cell Culture, 50 micromoles dose and relative response)	4.4	1.8	Not tested	2.6	10	Not tested	Reader and Foster, 1990	Relative Toxicity = 3,4>2,3>2,6>2,4

Notes:
DNT = Dinitrotoluene
LDH = Lactate Dehydrogenase

Attachment A-1

Quantitative Structure Activity Relationship Evaluation for Dinitroxylenes

Assessment of the Toxicity Potential of Dinitroxylene Isomers

Haskell Laboratories

Phil Lee and Mario Chen

1

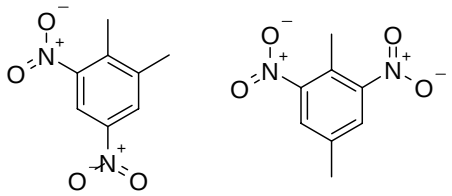
Executive Summary

- The toxicological potential of dintroxylene (DNX) isomers was evaluated using dinitrotoluene (DNT) isomers as surrogates. The rationale is based on structural similarity and the same mechanism of toxicity (methemoglobinemia)
- The estimated oral reference dose (RfD) of DNX isomers is estimated to be ranging from 0.001-0.002 mg/kg-day
- The toxicity ranking of the 11 DNX isomers is based on its metabolic profile. Three metabolic reaction can affect the toxicity of the DNX isomers:
  - Aryl hydroxylation (aerobic conditions) to yield OH-DNX which has higher level of toxicity potential than the parent
  - Alkyl hydroxylation (aerobic condition) to yield benzyl alcohol and carboxylic acid metabolites that have lower toxicity potential than the parent
  - Nitro reduction (anaerobic) to yield the corresponding aniline metabolites that have lower toxicity potential than the parent
- The toxicity potential of DNX isomer is directly correlated to the metabolic reactivity (aryl hydroxylation) of the parent molecule. The position of the nitro groups (*o, p, m*) influence the reactivity of the isomers

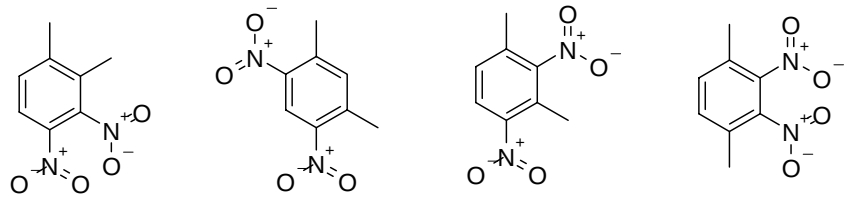
2

Executive Summary
Toxicological Potential Ranking of DNX Isomers

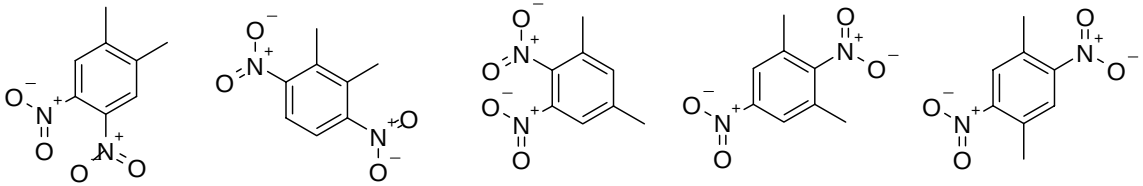
Higher Potential



Moderate Potential



Lower Potential



3

Presentation Outline

- Background and introduction
- Chemical classification
- Selection of surrogates and toxicity data
- Mechanism of toxicity
- Metabolic pathways and toxicological implications
- Structural-Activity Relationships (SAR)
- Metabolic stability and toxicity ranking

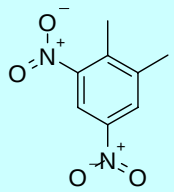
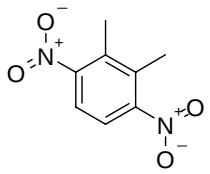
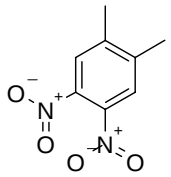
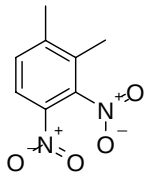
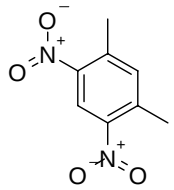
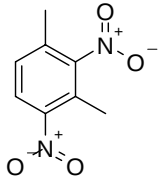
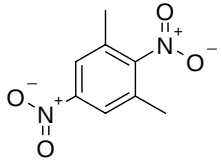
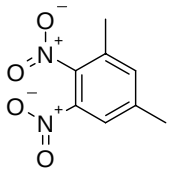
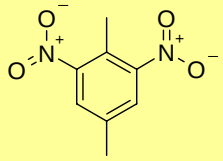
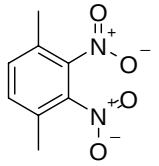
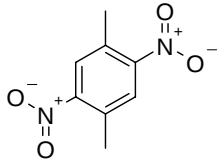
4

Background and Introduction

- Problem definition
- Background/introduction

5

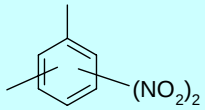
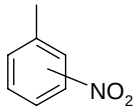
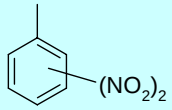
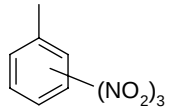
Chemical structures of DNX Isomers

o-xylene				
	3,5-dinitro (4,6-)	3,6-dinitro	4,5-dintro	3,4-dinitro
m-xylene				
	4,6-dinitro	2,4-dinitro	2-5-dinitro	5,6-dinitro
p-xylene				
	2,6-dinitro	2,3-dinitro	2,5-dinitro	

Thee are 11 DNX isomers, 3,5-DNX (same as 4,6-DNX) is the major, and 2,6-DNX is the second major component in the DNX mixture

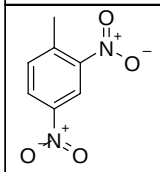
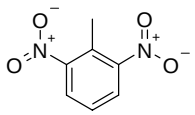
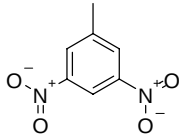
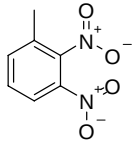
6

Close Structure Analogs Selected as Surrogates for the Toxicity Assessment of DNX Isomers

Compounds of Interest	Close structure analogs
 Dinitroxylene (DNX) isomers	 Nitrotoluene (NT) isomers
	 Dinitrotoluene (DNT) isomers
	 Trinitrotoluene (TNT) isomers

- There is very limited published information on the mammalian toxicity of DNX isomers
- Dintrotoluene (DNT) isomers are selected as surrogates for DNX
- Comparative toxicity study with 3,5-DNX and 2,4-DNT showed similar mechanism of toxicity, support the use of DNT as surrogate for DNX
- Oral and Inhalation Reference Doses (RfD) were established by the US EPA on 2,4-DNT (the major DNT isomer).
- Acute rat oral LD50 for several DNT isomers are available.
- The metabolic profile between DNT and DNX are consistent
- The primary mechanism of toxicity (methemoglobinemia) is common to DNT and DNX

7

	DNT Toxicological Data	
	 2,4-DNT ▪ A comparative toxicity study was conducted between 2,4-DNT and 3,5-DNX in rat after ip dosing (K. Okuda et al., Japan Society for Occupational Health, 5 (5), 15-27. ▪ Oral Reference Dose 0.002 mg/kg/day (IRIS, IIIQ, 2006, www. toxnet.nlm.nih.gov) ▪ Rat oral LD_{50} 268 mg/kg bw (Environmental Contaminant Reference Databook, Wiley InterScience, 1998)	
	 2,6-DNT ▪ Oral Reference Dose 0.001 mg/kg/day (EPA Health effect Assessment Table, 2006, www.toxnet.nlm.nih.gov)	
	 3,5-DNT ▪ Rat oral LD_{50} 216 mg/kg bw (Sax's Dangerous properties of Industrial Material, 10th Edition, Wiley InterScience, 2000) ▪	
	 2,3-DNT ▪ Rat oral LD_{50} 911 mg/kg bw (Sax's Dangerous properties of Industrial Material, 10th Edition, Wiley InterScience, 2000)	8

Toxicity of Dintroxylene Comparison with Dinitrotoluene

- Data reported by K. Okuda et al., Japan Society for Occupational Health, 5 (5), 15-27. (in Japanese)
- 2,4-DNT and 3,5-DNX (same as 4,6-DNX) were used as test substances in mice and rabbits after ip administration
- Conclusions:
  - DNX appears to be less acutely toxic compared to DNT. Estimated LD_{50} to be ca. 100 mg/kg bw.
  - No significant chronic toxicological differences between DNT and DNX treated animals. No observable differences in histological, blood chemistry and liver function analyses.
  - Chronic effects included anemia. Blood chemistry showed methemoglobinemia, Heinz body formation, myelosuppression, ranging from hypoplasia to aplasia.
  - Showed hepatotoxicity effects such as , including GPT increase, retarded BSP clearance.
- Data presented in this study support the selection of DNT as surrogate for DNX and the adoption of 0.001 mg/kg/day (2,6-DNT) as the worst case estimate of the oral reference dose for the DNX isomers.

9

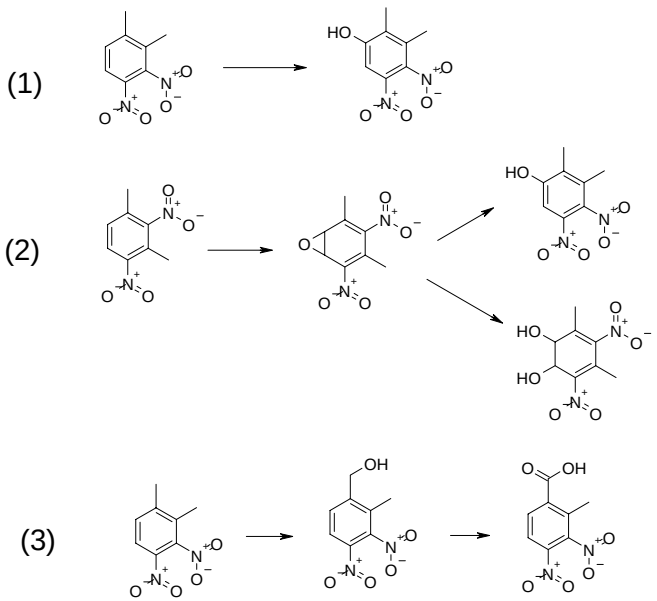
Mechanism of Toxicity

- Methemoglobinemia is reported as the primary toxic effect for aromatic nitro and aromatic amines in mammals by the American Conference of Governmental Industrial Hygienists (ACGIH, 2006)
- Methemoglobinemia is also reported as the primary effects for DNT isomers in fish. Significant “browning” of the blood was observed.
- Methemoglobinemia is defined as the effect of oxidation of hemoglobin which the iron in the heme component is oxidized from the Fe (+2) to the Fe (+3) state. This result in the lowering of the hemoglobin oxygen transport activity to the vital tissues

- Since methemoglobinemia is list as the primary toxic effects for aromatic nitro and aromatic amines, the metabolic profile/reactivity of the 11 DNX isomers will be assessed. Structure Activity Relationship (SAR) based on pharmacokinetic properties (absorption, distribution, metabolism and elimination) is, therefore, conducted

10

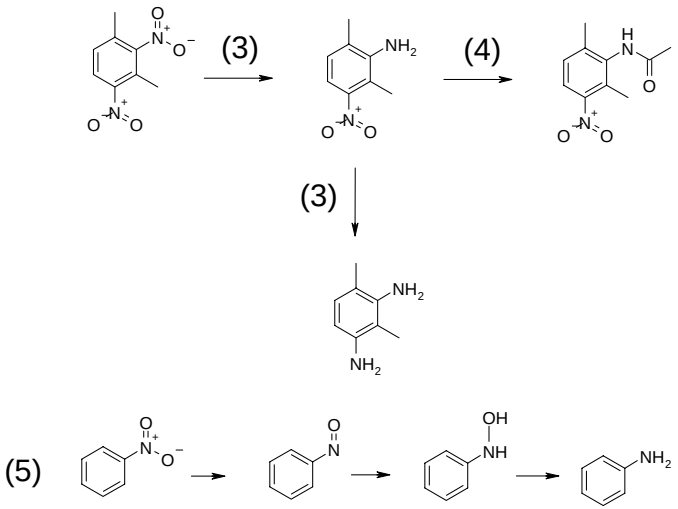
Primary Metabolic Reactions for DNX Isomers (1)



- Hydroxylation is the primary reaction. Three are different hydroxylation reactions
- Aryl hydroxylation involved 2 possible mechanisms.
- Reaction 1 is catalyzed by cytochrome P450 aryl hydroxylase to yield mono-hydroxylated DNX. (Normally, this is considered as a detoxification reaction, to increase elimination; however, for DNX, it is an activation reaction, since the resulted phenol has a higher level of toxicity, see next slide)
- Reaction 2 involves oxidative epoxidation, and the hydration of the epoxide to either mono-hydroxylated DNX or its corresponding diols. This metabolic reaction is catalyzed by GST, might induced oxidative stress to the target animal.
- Reaction 3 is catalyzed by cytochrome P450 alkyl hydroxylase to yield the benzoyl alcohol, follow by oxidation to the corresponding carboxylic acid. This reaction is considered as a detoxification reaction. This reaction precedes the oxidative cleavage/opening of the aromatic ring, an important environmental degradation reaction.

11

Primary Metabolic Reactions for DNX Isomers (2)



- Reaction 3 and 4 describe the primary metabolic pathway on the nitro group.
- Nitro-reduction (Reaction 3) is catalyzed by nitro-reductase to yield the corresponding aniline which can be further conjugated to the N-acetyl analog (Reaction 4). Normally this is considered as a detoxification reaction, where the metabolites exhibit a lower level of toxicity. In the case of aromatic nitro, the aniline metabolites also exhibit methemoglobinemia activities.
- Conclusion: Metabolic reaction has a significant impact on the toxicity of DNX isomers and the isomeric structure influence reactivity

12

Metabolic and Toxicological Significant of Primary Degradation Pathways

	Transformation Importance		Toxicological Significance
	Environmental	Mammalian	
Aryl hydroxylation	Fast	Fast	Activation (A)
Epoxidation/hydration	Slow	Slow	Activation
Aliphatic hydroxylation	Fast	Moderate	Detoxification
Oxidation of alcohol to acid	Moderate	Fast	Detoxification
Ring opening/ Mineralization	Moderate	Not occurred	Detoxification
Nitro-reduction	Fast	Moderate	Detoxification (B)
N-acetylation	Slow	Slow	Detoxification

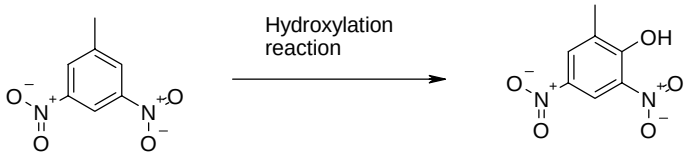
(A) Hydroxylation products of BNX (phenolic compounds) have higher toxicity than the parent molecule, due to increased water-solubility, leading to greater methemoglobinemia effects

(B) Reduction of nitro-moiety to the amino-moiety reduced the toxicity of the molecule. However, the amino-metabolite still exhibit methemoglobinemia effect

13

Contribution of Metabolism to Toxicity

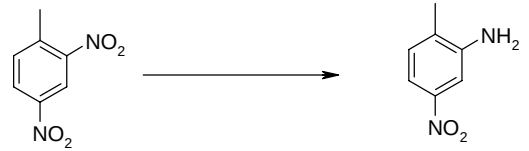
- Limited acute rat oral toxicity data showed a significant increase in rat oral LD50 value between DNT and OH-DNT metabolite (hydroxylation reaction).
- This hydroxylation reaction increase the absorption and distribution potential of 3,5-dimitro-2-hydroxytoluene, which is more toxic than its parent molecule.
- This observation showed the importance of metabolism and pharmacokinetics properties when assessing the toxicological potential of DNX isomers



3,5-DNT
LD50 rat 216 mg/kg bw
Log D (pH3) 2.08
Log D (pH 7.4) 2.08

2,5-dimitro-2-hydroxytoluene
LD50 rat 10-40 mg/kg bw
Lof D (pH3) 2.18
Log D (pH 7.4) -0.56

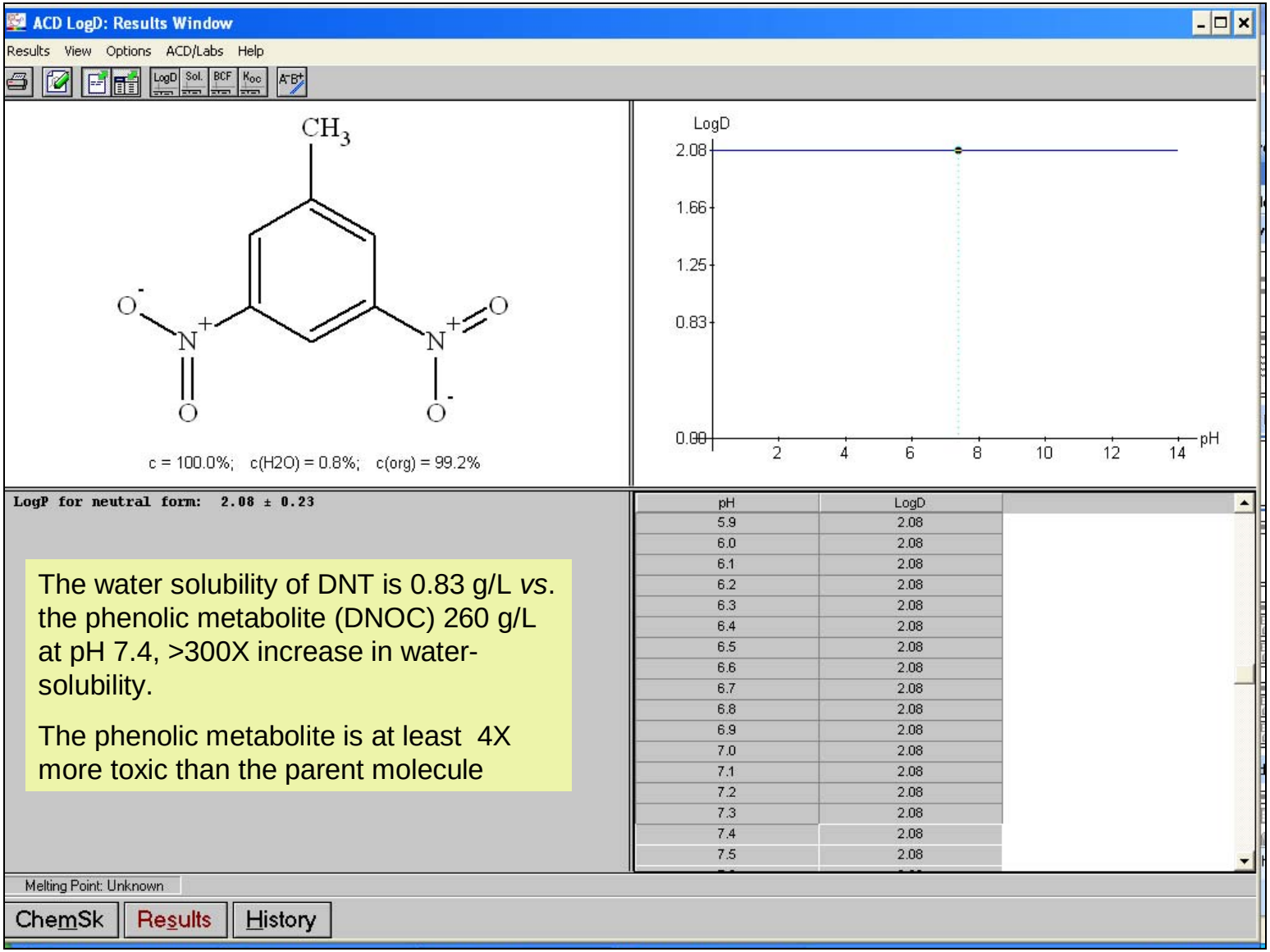
- Nitro-toluidine, metabolites of DNTs had been reported to cause heme metabolism and porphyrin metabolism disorders, resulting in methaemoglobin formation and positivre hepatocellular tumors in laboratory animals; although the toxic effect is less marked than the parent nitro compound.



rat oral LD50 268 mg/kg

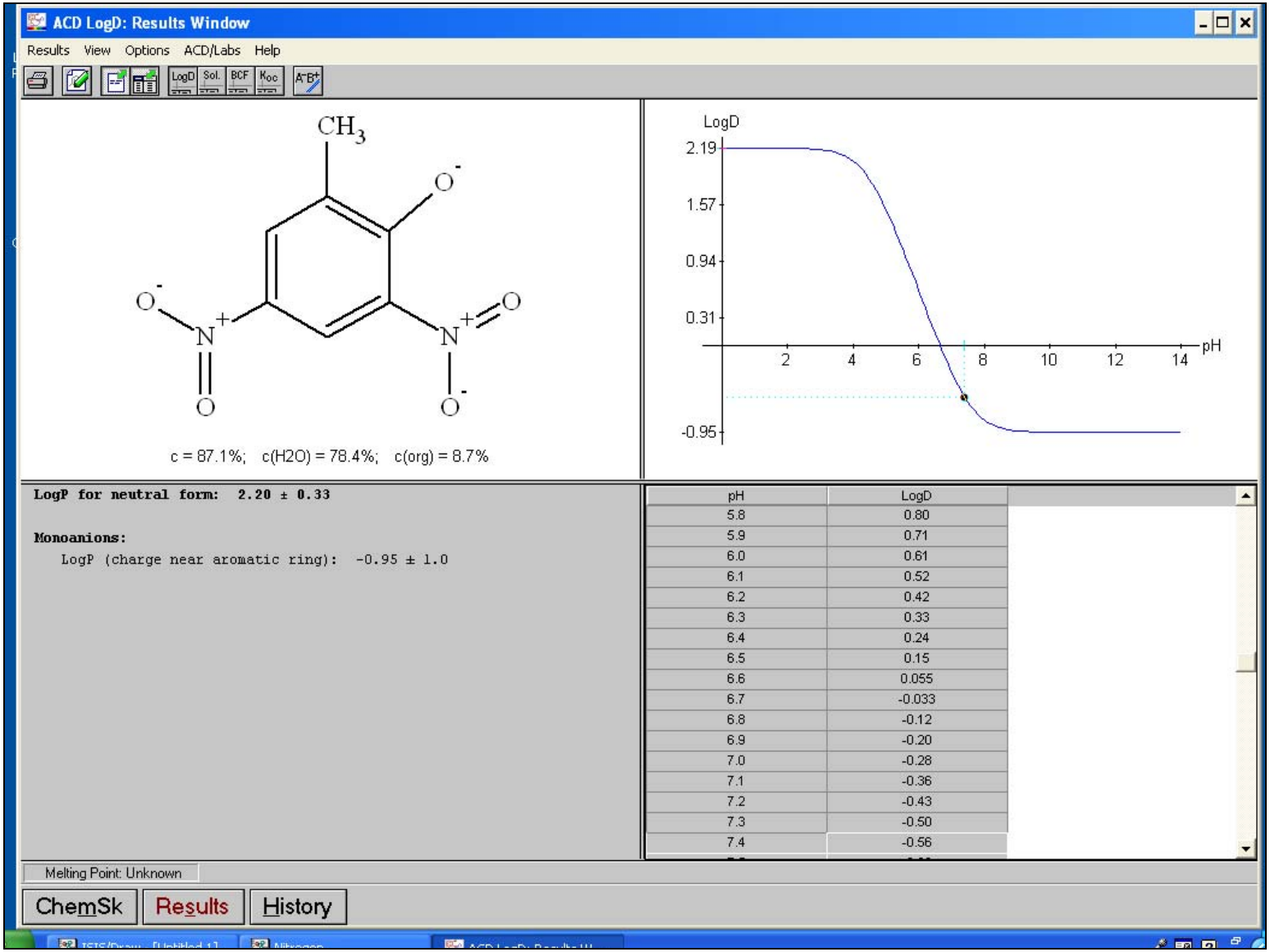
rat ip LD50 900 mg/kg

14



The water solubility of DNT is 0.83 g/L *vs*. the phenolic metabolite (DNOC) 260 g/L at pH 7.4, >300X increase in water-solubility.

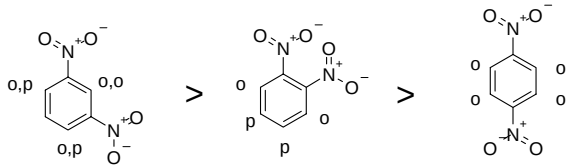
The phenolic metabolite is at least 4X more toxic than the parent molecule



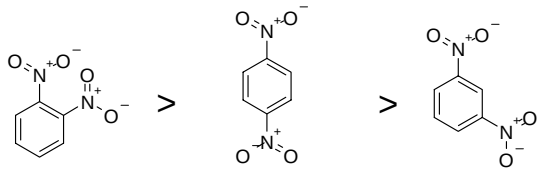
pH	LogD
5.8	0.80
5.9	0.71
6.0	0.61
6.1	0.52
6.2	0.42
6.3	0.33
6.4	0.24
6.5	0.15
6.6	0.055
6.7	-0.033
6.8	-0.12
6.9	-0.20
7.0	-0.28
7.1	-0.36
7.2	-0.43
7.3	-0.50
7.4	-0.56

SAR on the Reactivity of the DNX Isomers

- The chemical/metabolic reactivity of the various DNX isomers will be influenced primary by the position of the NO_2 (nitro)–group
- Aryl hydroxylation: The reaction is initiated by an OH radical as the attacking species; the radical that is formed after attack of OH on the aromatic compound can be stabilized by NO_2-groups in *p*- and *o*-position; the more groups are in *o*- and *p*-position the faster such a reaction will occur
- Aliphatic hydroxylation: Initially a benzyl-radical will be formed; such a radical can be stabilized by NO_2-groups in *p*- and *o*-position; the more such groups are in such position the faster the reaction should occur.
- Nitro-reduction: The initial step will probably be an attack of an electron or some reducing agent; the more NO_2 groups are in *p*- or *o*-position to the attacked NO_2 -group, the faster the reaction should occur.



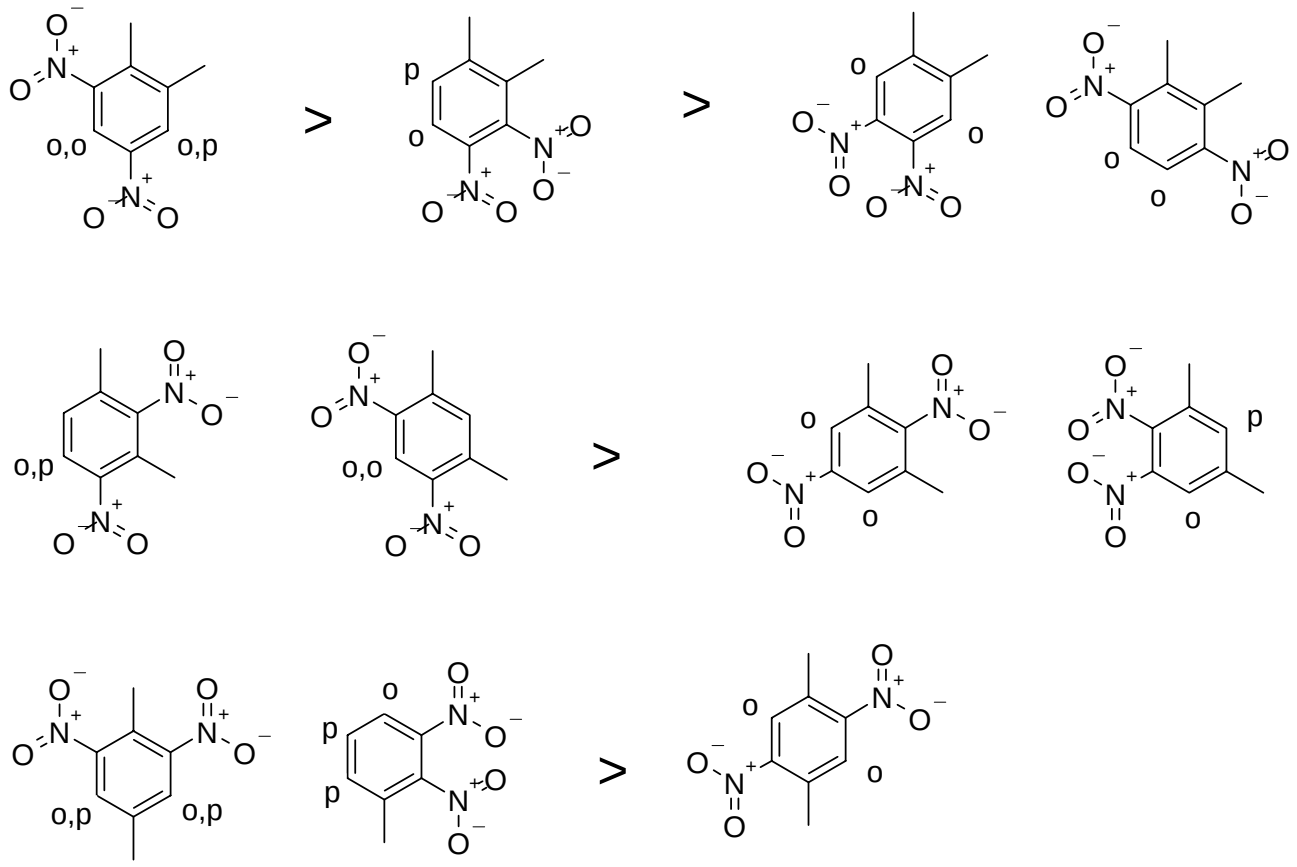
A generalized relative reactivity ranking of the various position for hydroxylation using dinitrobenzene as an illustrating example



A generalized relative reactivity ranking of the various nitro position for N-reduction reaction using dinitrobenzene as an illustrating example

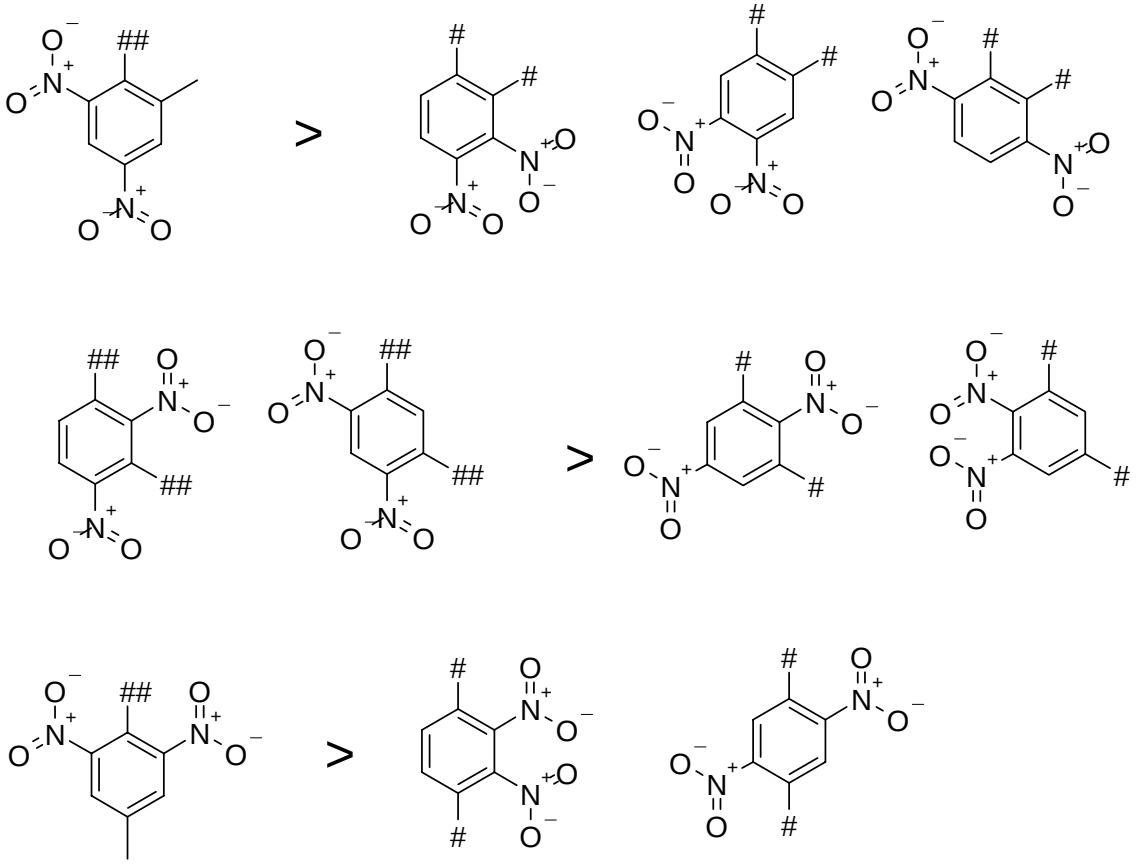
17

Relative Metabolic Reactivity of DNX Isomers to the Aryl Hydroxylation Reaction (Activation)



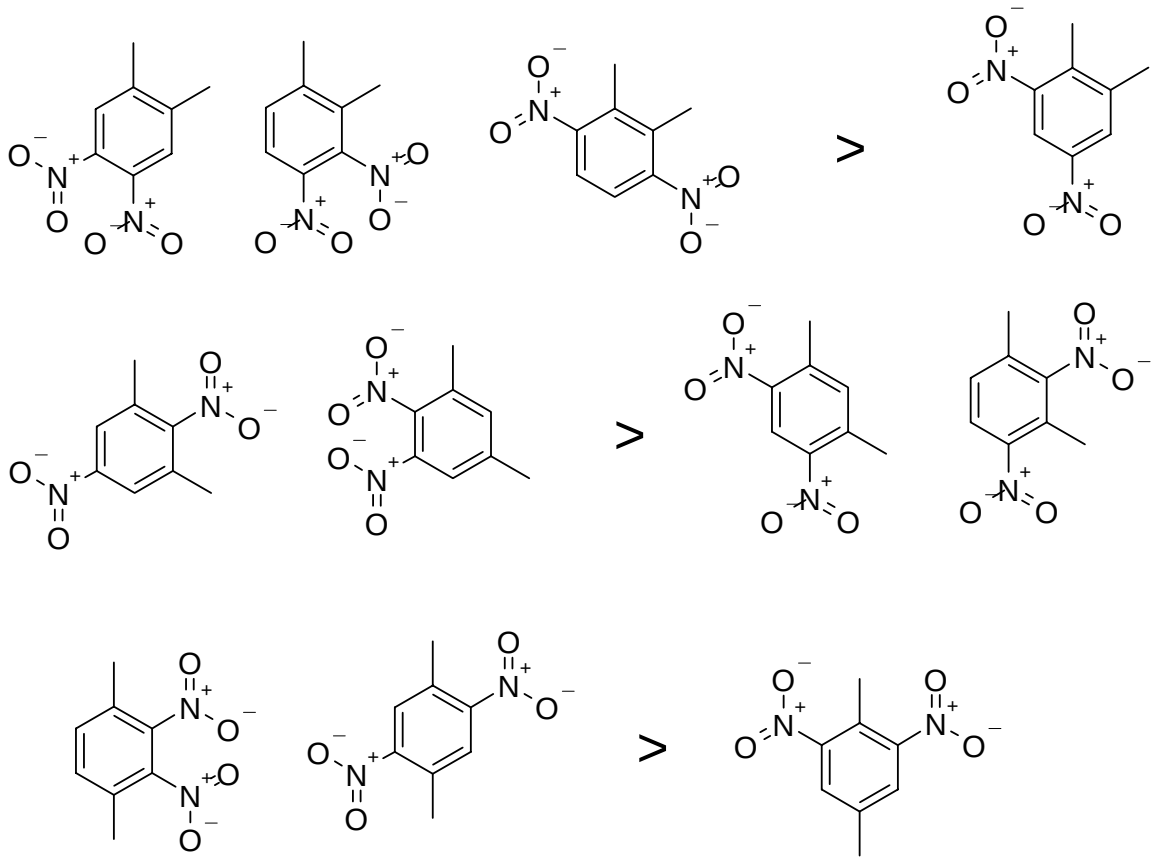
18

Relative Metabolic Reactivity of DNX Isomers to the Alkyl Hydroxylation Reaction (Detoxification)

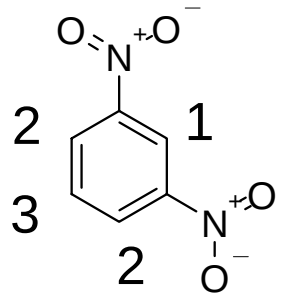


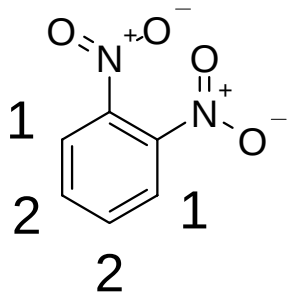
19

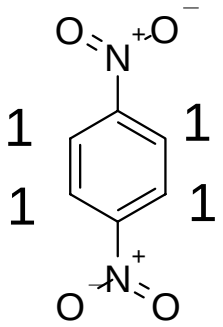
Relative Metabolic Reactivity of DNX Isomers to the N-Reduction Reaction (Detoxification)



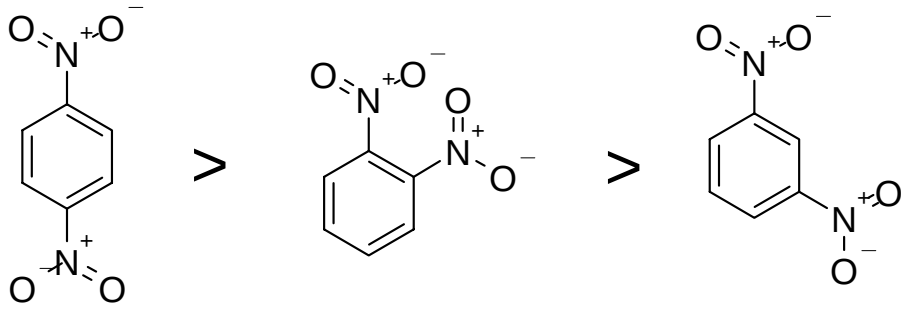
20





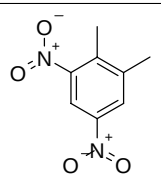
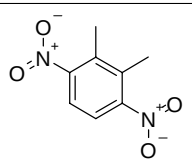
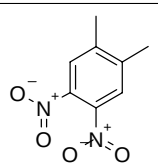
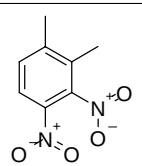
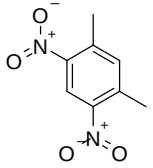
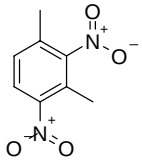
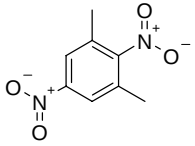
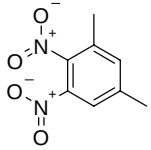
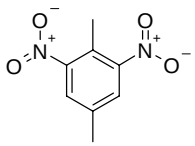
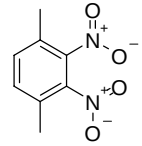
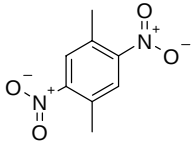


Relative reactivity of the various position on the benzene ring, due to the electronic withdrawing properties of the nitro groups (1 > 2 > 3)



Reactivity of dintrobenzyl substructure

21

o-xylene				
	3,5-dinitro (4,6-)	3,6-dinitro	4,5-dintro	3,4-dinitro
Aryl hydroxylation	H	S	S	M
Alkyl hydroxylation	H	M	M	M
N-Reduction	M	H	H	H
Reactivity ranking	1 (more)	3 (less)	3	2
Toxicity ranking	1 (higher)	3 (lower)	3	2
m-xylene				
	4,6-dinitro	2,4-dinitro	2-5-dinitro	5,6-dinitro
Aryl hydroxylation	M	M	S	S
Alkyl hydroxylation	H	H	M	M
N-Reduction	M	M	H	H
Reactivity ranking	2	2	3	3
Toxicity ranking	2	2	3	3
p-xylene				
	2,6-dinitro	2,3-dinitro	2,5-dinitro	H = high
Aryl hydroxylation	H	M	S	M = moderate
Alkyl hydroxylation	H	M	M	S = slow
N-Reduction	M	H	H	
Reactivity ranking	1	2	3	
Toxicity ranking	1	2	3	

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Appendix B

APPENDIX B

SUPPORTING DOCUMENTATION

Former DuPont Barksdale Site Recreational Use Site Owner Documentation

Cary E Pooler/CL/DuPont
Sent by: Cary E Pooler/Contractor/AE/DuPont

10/24/2008 03:45 PM

To Rosa M Lamb/Contractor/AE/DuPont@DuPont
cc
bcc
Subject Fw: Former DuPont Barksdale Site - Recreational Use - Site Owner Documentation

"Paul Bretting" <paulbretting@bretting.com>
03/17/2006 06:46 PM

To Bradley S Nave/CL/DuPont@DuPont
cc "David Bretting" <davidbretting@bretting.com>
Subject Recreational days at site

Potential recreational days spent on the Barksdale property in my estimation are a low of 10 and as high as 60 in all age categories.

Let me know what you think as these may need to be adjusted going forward.

Paul R. Bretting
Bretting Manufacturing
Telephone: 715-682-5231
paulbretting@bretting.com

Provision of Municipal Water Agreement

January 23, 2004

AGREEMENT BETWEEN THE CITY OF WASHBURN, THE TOWN OF BARKSDALE, AND E. I. DU PONT DE NEMOURS AND COMPANY, REGARDING PROVISION OF MUNICIPAL WATER

THIS AGREEMENT, (the "Water Supply Agreement") is made as of the 27 day of January, 2004, by and among the City of Washburn, ("Washburn"), which owns and operates a public water utility known as The Washburn Water Utility, the Town of Barksdale ("Barksdale"), and E. I. dupont de Nemours and Company ("DuPont").

OPERATIVE FACTS

WHEREAS, certain residents within Barksdale cannot obtain standard quality water through individual, shallow depth private wells without filtering of the water; and

WHEREAS, Barksdale does not operate its own public water utility, nor otherwise provide for the supply of municipal water to its residents; and

WHEREAS, these Barksdale residents desire to obtain municipal water from Washburn; and

WHEREAS, Washburn operates a water service utility and is willing to allow construction of a pipeline to provide these Barksdale residents with an adequate municipal water supply at rates approved by the Public Service Commission of Wisconsin ("PSC"); and

WHEREAS, DuPont is willing to bear the costs of construction of a pipeline and provision of water to these Barksdale residents to the extent provided herein; and

WHEREAS, Barksdale is willing to cooperate with Washburn and DuPont in their efforts to provide municipal water for the benefit of these Barksdale residents;

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants expressed below, it is agreed as follows:

I. AGREEMENT TERMS DEFINED

A. Municipal Water -- Continuous service of Standard Quality Water provided by Washburn and delivered at an available flow of up to 20,000 gallons per day, as well as any additional volume necessary for periodic maintenance flushing of the water main, at a minimum pressure of 85 pounds per square inch measured by a gauge at a meter pit to be located at the southern municipal boundary between Washburn and Barksdale as shown on the map in Appendix A.

B. Standard Quality Water -- Water which meets the standards of federal and state agencies having authority to establish water quality standards and local standards which uniformly apply to Washburn and its customers and as such standards may be amended from time to time.

C. Service Area -- Area to be served with municipal water. The boundaries of the service are depicted in the map attached as Appendix A.

D. Eligible Properties -- Parcels of real estate located within the Service Area as depicted in the map attached as Appendix A.

E. Property Owners -- Owners of Eligible Properties in Barksdale.

F. Operation and Maintenance ("O&M") Activities -- All activities necessary to provide Standard Quality Water and sustain the proper functioning of the water

distribution system to supply the service area in the Town of Barksdale. These activities include, but are not limited to, all activities currently performed by Washburn to manage its existing water supply and distribution system, site and system inspections, routine exercising of valves, lubricating valves, releasing air from the system at air-release valves, checking blow-off hydrants to assure drainage for prevention of freezing, flushing of water mains as needed, repairing water lines and appurtances, reading/calibrating/replacing water meters, billing, locating and marking water mains for Digger's Hotline, replacing main water meter recorder charts as needed, recording pressure-gauge readings at the municipal boundary and any present or future maintenance required by the Wisconsin Department of Natural Resources.

G. Emergency -- Beyond the ability of Washburn to meet the requirements of service as expressed herein due to circumstances beyond Washburn's control, including, but not limited to, maintenance shutdowns during construction and reconstruction of Washburn's municipal water utility and periodically thereafter as necessary.

II. GENERAL OBLIGATIONS OF THE PARTIES

A. The area to be served under this contract shall be delineated on a map attached hereto as Appendix A.

B. DuPont shall conduct and undertake the additional construction of the Washburn water distribution system necessitated solely by the expansion into Barksdale including main pipelines, lateral lines, tie-in connections and metering facilities, and pay all costs, charges, fees, and expenses, including the initial PSC filings, which relate thereto.

C. DuPont shall provide at its cost all construction labor and materials necessary to connect the current primary living space at each of the Eligible Properties to a municipal drinking water supply. The Property Owners will provide final approval of the course that any piping or equipment will take across their Eligible Property.

D. DuPont will provide at its cost all labor and materials necessary to restore any damage to improvements (i.e., buildings, sidewalks, roadways, driveways, or other permanent or temporary structures) or landscaping that result from the construction of the municipal water supply. Restoration shall consist of returning all damaged improvements or landscaping to as near as possible to the condition existing on the date that the construction activities begin. In the case of grass that is damaged as part of the construction work, reseeding of the damaged area is acceptable.

E. All plans and specifications for metering stations, storage facilities, and transmission water mains for the Barksdale distribution system, which are to be installed in the Service Area by DuPont, shall be submitted for review and approval by Washburn prior to the time contracts are awarded or materials are purchased. Washburn shall review and approve all plans and specifications submitted by DuPont under this paragraph and send any objections or concerns about such plans and specifications in writing to DuPont and Barksdale within forty-five (45) days of the date the plans and specifications are submitted to Washburn by DuPont. The failure by Washburn to submit any concerns or objections in writing within the forty-five (45) day period shall mean Washburn has no objections or concerns about such plans and specifications. In the event such written objections are submitted, the parties shall meet within fifteen (15) days of receipt of such written objections and attempt to resolve any disputes by the exercise of good-faith negotiations. If the parties are unable to resolve a dispute over the plans and

specifications or after the exercise of such good-faith negotiations, the matter shall be submitted to arbitration pursuant to the provisions set forth in paragraph CC, *below*.F.

DuPont shall make a yearly payment to Washburn in an amount equal to the time and materials associated with operation and maintenance activities of the waterline extension within the Town of Barksdale (the O&M payment). Specifically, Washburn shall provide DuPont with the preceding calendar year's operation and maintenance calculations, using the criteria required by the PSC and segregating of those costs associated with the extension within the Town of Barksdale, on or before April, 15 of each year. O&M payments from DuPont to Washburn shall be made on or before June 30 of the same year unless DuPont objects to any portion of the operation and maintenance calculations received from Washburn. In that case, DuPont will send any objections or concerns about such operation and maintenance costs in writing to Washburn within thirty (30) days of the date operation and maintenance costs are submitted to DuPont by Washburn. The failure of DuPont to submit any concerns or objections in writing within the thirty (30) dayperiod, shall mean DuPont has no objections or concerns about such operation and maintenance costs. In the event such written objections are submitted, the parties shall meet within fifteen (15) days of receipt of such written objections and attempt to resolve any disputes by the exercise of good-faith negotiations. If the parties are unable to resolve a dispute over the operations and maintenance costs after the exercise of such good-faith negotiations, the matter shall be submitted to arbitration pursuant to the provisions set forth in paragraph CC, below. DuPont's obligation for the O&M payment shall be secured by a Secured Collateral Account. A description of that Account and DuPont's attendant obligations is set forth in Secured Collateral

Account Addendum to the Water Supply Agreement which is attached and hereby incorporated into this Agreement.

G. Washburn shall assist DuPont during construction by isolating existing pipelines to allow for the connection of the proposed pipeline to the existing system.

H. Barksdale shall provide any consents and/or approvals that may be required from it in order to effectuate DuPont's and Washburn's construction, maintenance, alteration or operation with respect to service under this agreement.

I. Barksdale will not tax Washburn-owned facilities located within Barksdale boundaries.

J. DuPont will provide all labor and materials at its cost to plug and abandon the existing drinking water well, once municipal drinking water is supplied to the Eligible Property.

K. DuPont will pay the water charges incurred by each Property Owner for the cost of an average of 300 gallons of water per day for use at the Eligible Property. The average daily volume of water used at the Property will be calculated every three months based on readings obtained from a flow meter installed on the Property. It is anticipated that the Property Owner will bear the cost in excess of 300 gallons per day without reimbursement. The Property Owner can make future requests of DuPont to increase the average daily allowance of water that will be paid by DuPont, should domestic needs (excluding water that will be used as an energy source) at the Property warrant additional supply. In the event that the Property Owner and DuPont cannot agree upon payment for excess usage, DuPont will pay Washburn for such excess use, but expressly retains its right to seek

recovery from the Property Owner for excess use payments made on the Property Owner's behalf.

L. The rates charged Barksdale customers shall be the same rate charged Washburn customers having single-family dwellings until the rate study is done by the PSC, establishing a schedule of rates. Thereafter, the rate charged Barksdale customers will be the rate established and periodically adjusted by the PSC.

M. DuPont's obligation to pay the water charges for the average daily allowance of municipal drinking water specified above shall continue so long as the current Property Owners hold title to their Property within the Service Area. Upon transfer of title to the Property as a result of sale or gift or the death of a Property Owner (or the death of the survivor of owners of Property held in joint tenancy), DuPont's obligations under this paragraph shall terminate; provided however, that if the transferee is a lineal descendant of the Property Owner, DuPont's obligations under this paragraph shall continue for an additional ten (10) years from the date of such transfer.

N. Subsequent to the termination of DuPont's responsibilities under this Agreement, it is anticipated that the Property owners in the Service Area will pay Washburn in accordance with the billings of Washburn the full and correct amount of such billings to be computed upon the prevailing rates and charges as established by the PSC. In the event the Property owners in the Service Area do not pay the water bills submitted by Washburn, Washburn shall provide notice to the property owners of this non-payment. The notice shall be consistent with the provisions of § 66.0809(3) of the Wisconsin Statutes. Washburn further agrees to provide DuPont and Barksdale with copies of any such notices. The parties further agree that Washburn shall have a lien upon such real estate and Barksdale agrees to include the amount of the delinquent bills on the real

estate tax bills applicable to such real estate based upon the information provided to it by Washburn. Barksdale further agrees to tender to Washburn the amounts recovered by this process, less expenses, in payment of the delinquent water charges. DuPont agrees to hold Barksdale harmless from, and in indemnify it for, any legal expenses and/or other liability or expense incurred by Barksdale as a result of its compliance with the provisions of this paragraph.

O. No water purchased under this Agreement may be resold or exchanged after the date of this Agreement to any other municipality in existence as of the date of this Agreement or any individual properties there.

P. Washburn may place restrictions upon the use of water by property owners in the Service Area as a result of an occurrence, which is an Emergency, related to a breakdown, repair, or maintenance of Washburn's facilities, provided such restrictions apply uniformly to other effected customers of Washburn, either within or outside of the Service Area. Washburn shall give Barksdale and the Property Owners in the Service Area as much prior notice as is reasonably possible of any such restriction.

Q. If Washburn does not supply municipal water consistent with the terms of this agreement then DuPont and/or the Property Owner(s) may obtain emergency water service from any other source for the specific period of time in which Washburn is unable to provide such supply.

R. Washburn shall permit DuPont to perform its obligations under this agreement and shall permit the payment of costs, charges, fees, and expenses for the construction, maintenance, operation, and expansion of its water system by DuPont.

S. Washburn agrees that all water purchased or delivered under this Agreement shall be Standard Quality Water, which meets all applicable state and federal regulations and local standards.

T. Washburn shall be responsible for conducting maintenance at its cost including the pipeline, the meters and the meter reading within Washburn City limits. Washburn shall also be responsible for all repairs to and/or replacement of the pipeline and meters within its city limits.

U. This Agreement shall be subject to applicable rules and regulations of the Washburn Water Utility, which are on file with the PSC, and as such rules and regulations may be amended from time to time. The Service Area within Barksdale shall be subject to restrictions that are imposed by Washburn uniformly through its own service area and its other customers and specifically with respect to the rules and regulations aforesaid; such restrictions are subject to approval by any state or federal governmental agency having jurisdiction.

V. This Agreement is subject to the approval of the Common Council of the City of Washburn and the Town Board of Barksdale, and a copy of the Agreement shall be filed with the PSC. Approval of the Common Council of Washburn and the Town Board of Barksdale shall be evidenced by adoption of appropriate resolutions, which approve this Agreement.

W. The effective date of this Agreement shall be the date upon which the PSC approves the Agreement in such manner as the PSC shall deem appropriate.

X. This Agreement shall be governed by, construed, and enforced under and in accordance with the laws of the State of Wisconsin.

Y. This Agreement shall remain in full force and effect for a period of thirty (30) years from and after the effective date. DuPont may, at its option, extend this Agreement by a written notice to extend given to Washburn and Barksdale no less than (12) twelve months prior to the date the Agreement is scheduled to terminate. The notice of extension shall specify the duration of the renewal period.

Z. The parties agree to act in good faith and use due diligence in meeting their respective obligations under this Agreement.

AA. This Agreement may be executed in counterparts, which together shall constitute a single contract.

BB. A party may terminate this Agreement only with the written consent of both the other parties. A party shall give or withhold its consent in writing within thirty (30) days of being formally requested to give its consent. Failure to respond in writing within thirty (30) days shall be deemed consent.

CC. If the parties are unable to resolve a dispute over the terms and conditions of this Agreement after the exercise of good faith negotiations, any party may request in writing that the matter be submitted for determination by an arbitrator. Within fifteen (15) days of receipt of such a request, the parties shall jointly appoint one arbitrator. If the parties cannot agree on the arbitrator, the requesting party may petition a judge in a court of competent jurisdiction to select the arbitrator. The arbitrator may hold such hearings and require such briefs as the arbitrator determines to be necessary. The arbitrator shall issue a written decision within fifteen (15) business days of the final hearing or the final submission of any materials requested by the arbitrator. The decision of the arbitrator shall be binding upon all of the parties. The parties involved in any dispute shall pay the cost of the arbitration equally.

DD. All notices, requests, demands, and other communications under this Agreement shall be in writing and shall be deemed given if personally delivered or mailed, certified mail, return receipt requested, to the following addresses:

If to The Town of Barksdale:
Town of Barksdale
C/OTown Clerk
28805 Wedal Road
Washburn, WI 54891

If to the City of Washburn:
City of Washburn
C/O City Clerk
119 Washington Avenue
Post Office box 638
Washburn, WI 54891

If to DuPont:
General Counsel
E.I. dupont de Nemours Company
1007 Market Street
Wilmington, DE 19898

III. CONTINGENCY OBLIGATIONS

A. DuPont shall pay all costs of re-routing or re-working the pipeline necessitated by Wisconsin Department of Transportation projects or maintenance activities. The pipeline subject to this obligation is that portion which begins at the point of departure from Washburn's boundaries and ends at the point of connection to the laterals to the primary residences on the Property.

B. DuPont retains the sole right to readjust the boundaries of the Barksdale Service Area if that becomes necessary. Specifically, DuPont shall have the right to expand service within the Town of Barksdale to any additional properties that have been affected by DuPont related activities. The cost of any such expansion shall be borne by DuPont.

C. Expansion of service within Washburn city limits shall be at the sole discretion of Washburn provided, however, that any such expansion does not interfere with Washburn's obligations to provide municipal water to Barksdale as set forth in this Agreement and further provided that the cost of any such expansion of service within the city limits shall be borne by Washburn.

D. Within two years prior to the expiration of the initial term of this Agreement, Washburn shall initiate an inspection of the Barksdale municipal water distribution system. The cost of this inspection will be borne equally by Washburn and DuPont. In the event that any portion of the main pipelines (south from the Washburn city limits at the time of the inspection) or any of the metering facilities located outside the then-existing Washburn city limits need replacement, the cost of such replacement shall be borne by DuPont.

E. In the event the Barksdale Property Owners and/or Barksdale desire to expand the service to provide for fire protection, neither Washburn nor DuPont shall have any responsibilities, obligations or liabilities with respect to such expansion of service.

F. In the event that this Agreement is renewed or Washburn is otherwise obligated to continue service to the customers of the Barksdale Distribution System, then the obligations of Barksdale to provide any consents and/or approvals which may be required to effectuate service and to refrain from taxing Washburn-owned facilities (as set forth in paragraphs II. G. and II. H., *above*) shall continue for a concurrent period. Further, the obligations of DuPont to make yearly O&M Payments

C. Expansion of service within Washburn city limits shall be at the sole discretion of Washburn provided, however, that any such expansion does not interfere with Washburn's obligations to provide municipal water to Barksdale as set forth in this Agreement and further provided that the cost of any such expansion of service within the city limits shall be borne by Washburn.

D. Within two years prior to the expiration of the initial term of this Agreement, Washburn shall initiate an inspection of the Barksdale municipal water distribution system. The cost of this inspection will be borne equally by Washburn and DuPont. In the event that any portion of the main pipelines (south from the Washburn city limits at the time of the inspection) or any of the metering facilities located outside the then-existing Washburn city limits need replacement, the cost of such replacement shall be borne by DuPont.

E. In the event the Barksdale Property Owners and/or Barksdale desire to expand the service to provide for fire protection, neither Washburn nor DuPont shall have any responsibilities, obligations or liabilities with respect to such expansion of service.

F. In the event that this Agreement is renewed or Washburn is otherwise obligated to continue service to the customers of the Barksdale Distribution System, then the obligations of Barksdale to provide any consents and/or approvals which may be required to effectuate service and to refrain from taxing Washburn-owned facilities (as set forth in paragraphs II. G. and II. H., *above*) shall continue for a concurrent period. Further, the obligations of DuPont to make yearly O&M Payments

to Washburn and to make necessary replacements to the Barksdale distribution system (as set forth in paragraphs II, F and III D., above), shall also continue.

G. Any party may initiate amendments to this Agreement from time to time as necessary, provided, however, that no such amendment will become effective until agreed upon in writing by all three parties.

H. If the parties are unable to resolve a dispute over the contingency obligations set forth above, the matter shall be submitted to arbitration pursuant to the provisions set forth in paragraph CC, above.

IN THE PRESENCE OF:

CITY OF WASHBURN,
Operating as a Water Public Utility

Date Approved by Common Council: 1-26-04

Mayor

City Clerk/Treasurer

IN THE PRESENCE OF:

TOWN OF BARKSDALE

Date Approved by Township Board: 2-10-04

Board Chairman

Town Clerk

IN THE PRESENCE OF:

E.I. DUPONT DE NEMOURS AND COMPANY

BY: _____

BY: _____ 2/1/04
Counsel for DuPont

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SECURED COLLATERAL ACCOUNT
ADDENDUM TO WATER SUPPLY AGREEMENT

1. The future and current financial obligations of DuPont with respect to operation and maintenance payments ("O&M Payments") under the Water Supply Agreement shall be secured by a "Secured Collateral Account".

2. The Secured Collateral Account shall be a security entitlement account with Robert W. Baird & Co., Incorporated ("Baird") that shall be initially funded by DuPont in the sum of $250,000 within 30 days after the plan for the Washburn Water Utility extension into the Town of Barksdale has been approved by the State of Wisconsin Public Service Commission, the State of Wisconsin Department Natural Resources, the United States Army Corps of Engineers, the County of Bayfield, and any other necessary governmental agencies. The funds deposited into this account shall be invested conservatively as agreed upon by DuPont and Washburn and shall serve as collateral for all current and future obligations of DuPont for O&M Payments under the Water Supply Agreement. DuPont agrees that the balance in this Secured Collateral Account shall not fall below $250,000 and that it will not withdraw either the principal or earnings from the account before Washburn's security interest is terminated.

3. DuPont and Washburn shall enter into a Securities Account Security Agreement (attached as Exhibit 1) whereby DuPont will pledge the Secured Collateral Account as collateral for all current and future obligations of Dupont for O&M Payments under the Water Supply Agreement.

4. To perfect Washburn's security interest in the Secured Collateral Account, DuPont, Washburn and Baird (or any successor broker) shall enter into a Securities Control Agreement (attached as Exhibit 2). In addition, a financing statement (attached as Exhibit 3) shall be filed with both the Delaware Secretary of State's Office and the State of Wisconsin, Department of Financial Institutions.

5. In the event of a default by DuPont with respect to the O&M Payments, and such default having been determined to exist by the duly appointed arbitrator pursuant to Section II, Paragraph CC of the Water Supply Agreement, the amount of damages as determined by the arbitrator, plus costs, reasonable attorney's fees, and legally allowed interest, may be liquidated from the Secured Collateral Account, without further consent of DuPont. In order to effectuate such a liquidation, Washburn shall provide written notification to Baird of its exclusive control rights.

6. In the event DuPont becomes insolvent or is declared by a court of competent jurisdiction to be bankrupt, the entire Secured Collateral Account shall be under the exclusive control of Washburn and the entire Secured Collateral Account shall be used as liquidated damages for all the outstanding obligations of DuPont for O&M Payments under Water Supply Agreement.

7. Exclusive control of the entire Secured Collateral Account shall be granted to Washburn only in the event DuPont becomes insolvent or is declared by a court of competent jurisdiction to be bankrupt, or the arbitrator determines that the damages sustained by Washburn are equal to or exceed the value of the Secured Collateral Account.

8. Exclusive control of a partial amount of the Secured Collateral Account shall be granted to Washburn in the event, and to the extent, that the arbitrator determines that DuPont is in default and that the actual damages, costs and reasonable attorney's fees incurred by Washburn, do not exceed the balance of the Secured Collateral Account.

9. The security interest in the Secured Collateral Account shall terminate when the outstanding obligations of DuPont for O&M Payments under the Water Supply Agreement terminate. Upon termination, Washburn shall execute a

Release of Security Interest and shall file a Termination of Security Interest Statement with the Delaware Secretary of State and the State of Wisconsin, Department of Financial Institutions.

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Existing Reservoir
Existing Water System
Washburn
Proposed Tie-In
Stream Crossing
Well #2 Pump
Well Pump Station #1
Flow Meter Box
Stream Crossing
Former DuPont Barksdale Site
Stream Crossing
Wyman Point
Appendix A
Proposed Water Supply System Layout
1" = 2000'
URS
Legend
Existing Hydrant
Existing Valve
Air Release Valve
Flow Meter
Proposed Valve
Proposed Stream Crossing
Proposed "Blow Off" Hydrant
Existing Water System
Proposed Water Main
Tax Parcels; Draft
Barksdale Eligible Properties

Appendix "A"

Sample Municipal Drinking Water Supply Agreement

Municipal Drinking Water Supply Agreement

I (we), Chris & Tammie Brehing, the owner(s) (hereafter referred to as "OWNER(s)") of the parcel of real estate and improvements located at Fire Call Number 29890 on Nolander Rd, Bayfield County, Wisconsin (hereafter referred to as the "PROPERTY"), consent to have E. I. du Pont de Nemours and Company, Inc. (hereafter referred to as "DuPont") and its designated contractor connect a municipal drinking water supply line to the current primary living space on the PROPERTY. OWNER(s) consent is contingent on the CONDITIONS provided below. DuPont's fulfillment of the obligations specified in this Agreement are also contingent upon municipal, state, and federal government approvals of all agreements, designs, and permit applications that are necessary for construction and operation of the proposed municipal water extension from Washburn to the Barksdale area.

CONDITION 1. DuPont will provide at its cost all construction, labor and materials necessary to connect the current primary living space at the PROPERTY to a municipal drinking water supply, which will include a flow meter to measure water use. OWNER(s) will provide final approval of the course that any piping or equipment will take across the PROPERTY.

CONDITION 2. DuPont will provide at its cost all labor and materials necessary to restore any damage to improvements (i.e., buildings, sidewalks, or other permanent or temporary structures) or landscaping on the PROPERTY that result from the connection of the primary living space to the municipal drinking water supply. Restoration shall consist of returning all damaged improvements or landscaping on the PROPERTY to as near as possible the condition existing on the date that construction activities begin. In the case of grass that is damaged as part of the construction work, reseeding of the damaged area is acceptable.

CONDITION 3. DuPont will pay for an average of 300 gallons of water per day for use at the PROPERTY and pay for maintenance of all equipment up to the point-of-entry into the current primary living space on the PROPERTY. The average daily volume of water used at the PROPERTY will be calculated every three months and based on readings obtained from a flow meter installed on the PROPERTY. OWNER(s) will pay all costs for municipal drinking water supplied to the PROPERTY in excess of 300 gallons per day. OWNER(s) can make future requests to increase the average daily allowance of water that will be paid by DuPont, should domestic needs (excluding water that will be used as an energy source) at the PROPERTY warrant additional supply. Payment by DuPont for the average daily allowance of municipal drinking water specified above will end upon transfer of PROPERTY title as a result of sale, transfer or upon death of OWNER(s). At such time, the new owner will receive and pay water bills from the Washburn Utility to reflect its costs under its traditional methodology. If, however, the transfer of PROPERTY is made directly from OWNER(s) to OWNER(s)' children, whether by sale, transfer or inheritance, DuPont will receive and pay

water bills in accordance with the above methodology for ten (10) years from the date of transfer or until OWNER(s)' children transfer the property, whichever is earlier.

CONDITION 4. DuPont will provide all labor and materials at its cost to plug and abandon the existing drinking water well, once municipal drinking water is supplied to the PROPERTY. Upon abandonment or conversion of the drinking water well, OWNER(s) will make no attempt to obtain groundwater from beneath the PROPERTY for any purpose without written permission from DuPont.

CONDITION 5. DuPont will provide all labor and materials at its cost to remove any existing carbon filtration system that was originally installed at DuPont's expense.

CONDITION 6. DuPont and its contractors may have access to the PROPERTY during normal business hours (Monday through Friday between 8:00 a.m. and 5:00 p.m. Central Time) to perform the construction, restoration, and drinking water well work listed in CONDITIONS 1, 2, 4, and 5. Access to the PROPERTY for the work described in CONDITIONS 1, 2, 4, and 5 is granted until such time that DuPont or its designated representative(s) has completed all work described. Access to the PROPERTY to obtain flow meter readings is granted for as long as the PROPERTY is in possession of OWNER(s).

CONDITION 7. OWNER(s) grants DuPont the authority to obtain at its cost all necessary federal, state, and county permits for completion of the work described above on behalf of OWNER(s), as required.

OWNER(s) consent is provided on this date, 7/6/04 by:

Chris Bretting and Tammie R. Bretting
OWNER(s) SIGNATURE(s)

Chris Bretting and Tammie R. Bretting
OWNER(s) Printed Name(s)

Agreed by DuPont:

Bradley S. Nave 9/10/2003 representing E. I. du Pont de Nemours and Company
(DuPont Signature)

Bradley S. Nave
(DuPont Printed Name)

Project Director
(DuPont Title)

Environmental and Indemnification Agreement with Right of First Refusal

ENVIRONMENTAL AND INDEMNIFICATION AGREEMENT, WITH RIGHT OF FIRST REFUSAL

THIS ENVIRONMENTAL AND INDEMNIFICATION AGREEMENT (this "Agreement") is made and entered into this day of March, 2000 by and between E.I. DUPONT DE NEMOURS AND COMPANY, a Delaware corporation having its principal office and place of business at 1007 Market Street, Wilmington, Delaware 19898 ("DUPONT") and The Bretting Development Company, H. Lyman and Barbara Bretting (collectively "Bretting").

WHEREAS, in 1905 DUPONT began manufacturing activities consisting of the production of dynamite and other explosives at a location in Bayfield County known as the Barksdale Works; all such activities ceased in 1971;

WHEREAS, the Barksdale Works consisted of approximately 1800 acres, all of sections 23 and 24 and the North half of sections 25 and 26 T.48N. – R.5-4W. (hereinafter "The Former Barksdale Works") which are intersected in a northeast to southeast direction by Highway 13 and in an east to west/southwest direction by Boyd Creek;

WHEREAS, manufacturing consisted of the production of trinitrotoluene ("TNT"), nitroglycerin ("NG") and other nitroaromatic compounds which are the ingredients in explosives and of various grades of sulfuric and nitric acids produced and consumed on-site in the manufacture of TNT and NG;

WHEREAS, the buildings and facilities associated with explosive manufacturing activities have been decommissioned, dismantled and demolished, culminating in the total decommissioning of The Former Barksdale Works by 1984;

WHEREAS, in 1985 DUPONT sold The Former Barksdale Works to the Bretting Development Company, a wholly owned subsidiary of Bretting Manufacturing Company;

WHEREAS, as a condition of sale to the Bretting Development Company, the parties restricted certain portions of The Former Barksdale Works that were specifically used for the manufacture of explosives, such restrictions, intending to reduce the risk of injury or damage to persons or property as a result of existing or potential conditions, were imposed and recorded for an area of approximately 196 acres, located in the west central portion of the property west of Highway 13, and provided that the restricted property be left undisturbed in its natural state in perpetuity, the sole exceptions being the use of such property for hunting, stocking of small game or planting of ground cover in connection with the support of such small game;

WHEREAS, nothing in this Environmental and Indemnification Agreement is meant to displace or supersede any such previously recorded restriction, right or privilege;

WHEREAS, in 1992, Bretting Development sold a portion of The Former Barksdale Works real property east of Highway 13 to H. Lyman "Tad" Bretting and Barbara Bretting for residential use;

WHEREAS, in June 1997, the Wisconsin Department of Natural Resources (WDNR) tested five water wells at The Former Barksdale Works; the sample collected from a drinking water supply well of Tad and Barbara Bretting and found low, but detectable, levels of a dinitrotoluene isomer;

WHEREAS, DUPONT was notified of the results of this sampling event and met with Bretting and WDNR representatives in September, 1997;

WHEREAS, since September 1997 DUPONT has voluntarily conducted an investigation of The Former Barksdale Works, with oversight from WDNR, to locate the source of such contamination, and has put in place an appropriate water treatment for the Bretting supply well;

WHEREAS, the results of all investigation by DUPONT of The Former Barksdale Works, and any reports prepared by DUPONT coincident to the investigation, have been shared with Bretting and WDNR;

WHEREAS, the results of the investigation conclude, among other things, given The Former Barksdale Works' current use and anticipated use restrictions, that no additional investigation is required, that the site is stable and that there is no existing or anticipated threat to public health, safety or welfare, or the environment;

WHEREAS, DUPONT, in accordance with the results of the investigation and with the agreement of Bretting, will seek site closure with a Declaration of Use Restrictions under sec. NR 726.05, Wis. Admin. Code;

WHEREAS, in the event such use restrictions are acceptable to WDNR for case closure; and in an effort to document the parties' agreement to such use restrictions, confirm their mutual intention that such restrictions will make further investigation or remediation of The Former Barksdale Works unnecessary, and in consideration for Bretting's acceptance of the deed restrictions necessary for case closure, the parties agree as follows:

1. DEFINITIONS

As used in this Agreement, the following terms have the following meanings:

"Cleanup Costs" shall mean any expenses or costs incurred in connection with the cleanup, remediation or corrective action taken with respect to any Environmental

Matter, including any investigation, cleanup, removal, containment, monitoring or other remediation or response action costs and expenses.

"Declaration of Use Restrictions" shall mean a document referred to as such pursuant to the Wis. Admin. Code, sec. NR 726.05, and agreeable to the Wisconsin Department of Natural Resources (WDNR) as a condition of case closure. The parties mutually proposed Declarations of Use Restrictions, attached to this document as Exhibits "1" and "2", have been or soon will be submitted to the WDNR, for consideration by WDNR as a condition of case closure.

"Environment" shall mean and refer to all conditions of soil (surface and subsurface), geologic strata and formations, streams, rivers, bays, ponds, impoundments, estuaries, or other surface water, ground water, occasional or perched water in or on the surface or subsurface, marshes and other wetlands, flood plains, sediments, sludges or air.

"Environmental Authority" shall mean any federal, state, or local governmental authority, court or tribunal having jurisdiction over Environmental Matters, including without limitation, WDNR and any successor agency.

"Environmental Law" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") (42 U.S.C. §9601 et seq.), the Solid Waste Disposal Act (42 U.S.C.A. §6901 et seq.) (including the Resource Conservation and Recovery Act of 1976, as amended (RCRA)), the Clean Water Act (33 U.S.C.A. §1251 et seq.), the Oil Pollution Act of 1990 (33 U.S.C. §2701 et seq.; the Clean Air Act (42 U.S.C.A. §7401 et seq.), the Toxic Substances Control Act, (15 U.S.C. §2601 et seq.), the Endangered Species Act of 1973 (16 U.S.C.A. §1531 et seq.), and any analogous State of Wisconsin statute or regulation promulgated thereunder.

"Environmental Matters" shall mean all matters, conditions, liabilities, obligations, damages, losses, claims, requirements, prohibitions, and restrictions arising out of or relating to the Environment, safety, or sanitation, or the production, storage, handling, use, emission, release, discharge, dispersal, or disposal of any substance, product or waste which is hazardous or toxic or which is regulated by any Environmental Law whatsoever.

"Environmental Violations" shall mean any violation of Environmental Law, as a result of Pre-Existing Conditions, which are the basis for a court or administrative order, a judgment, a regulatory requirement or any other legally-binding action which requires a party to correct, through remediation, clean-up or other means, said violation of Environmental Laws.

"Hazardous Substances" shall mean nitroaromatic compounds associated with the manufacture of dynamite, including but not limited to, 1,3,5-trinitrobenzene; 1,3-dinitrobenzene; 2,4,6-trinitrotoluene; 2,4-dinitrotoluene; 2,6-dinitrotoluene; 2-amino-4,6-dinitrotoluene; 2/4-nitrotoluene; 3-nitrotoluene; 4-amino-2,6-dinitrotoluene; HMX; nitrobenzene; nitroglycerin; PETN; RDX, and Tetryl.

"Use Restriction" shall mean those measures (including institutional and engineering controls) affecting the title and use of property, and obligations to maintain cover and containment structures, and to monitor, test and report on environmental media and conditions as prescribed by an Environmental Authority to protect against unsafe exposures to hazardous or toxic substances and which may be memorialized in documents of title to "run with the land," which include Declarations of Use Restrictions for Groundwater (Exhibits 1 & 2) and for Soil (Exhibit 1).

"Pre-Existing Conditions" shall mean any Hazardous Substances on or in the Environment at The Former Barksdale Works prior to or at the time of Closing. Closing for purposes of this Agreement shall be the date The Former Barksdale Works was transferred from DUPONT to Bretting Development Corporation, on or about May 30, 1986. "Pre-Existing Conditions" shall not include any materials located in the structures on the Leased Premises as of Closing such as asbestos, lead paint, lead pipes, etc.

2. SCOPE OF REMEDIATION AND ENVIRONMENTAL RESTRICTIONS

(A) Baseline Conditions of The Former Barksdale Works. Bretting acknowledges that DUPONT is seeking case closure at The Former Barksdale Works and has prepared documents for submission to WDNR as part of its obligations thereunder, such documents including data from and summarizing the results of its investigation. Bretting acknowledges that these data and reports identify certain low levels of existing Hazardous Substances on The Former Barksdale Works. The parties specifically accept such conditions as evidence when considering the Pre-Existing Conditions against which the parties' indemnification under this Agreement will be measured.

(B) DUPONT'S Remediation Obligation for Pre-Existing Conditions at The Former Barksdale Works. Except as specifically set forth herein, DUPONT agrees to indemnify Bretting for any and all Cleanup Costs resulting from Environmental Violations, whether asserted by Environmental Authority or third parties, except to the extent that a) all or part of the Cleanup Costs have arisen out of the use or alteration of the The Former Barksdale Works inconsistent with Use Restrictions, or b) such hazardous conditions occurred on the site after Closing as a result of Bretting or any third party's operations, in which case DUPONT'S obligation to pay any Cleanup Costs shall be reduced in an amount commensurate with the extent to which such Cleanup Costs have arisen due to Bretting's (or its affiliates, agents, licensees or invitees), or any third party's use of The Former Barksdale Works or any portion thereof. Third parties for the purposes of this sec. 2(B) shall include, but not be limited to, parties to whom Bretting (or Bretting's family members who are successors in interest of Bretting) has (have) sold all or a portion of The Former Barksdale Works. DUPONT specifically reserves the right, and sole discretion, to conduct all remedial activities with respect to any Pre-Existing Conditions for which it is providing an indemnity under this Agreement.

(C) Scope of Remediation Responsibility. DUPONT'S agreement to be legally liable for Cleanup Costs under Section 2(B) and/or to perform investigation and/or remediation shall be limited only to the investigation to and attainment of applicable remediation standards for non-residential/commercial/industrial uses. In no event will DUPONT be held liable for investigation to or attainment of remediation standards that are inconsistent with, or more conservative than, existing use restrictions, or use restrictions that are acceptable to WDNR as a condition of case closure. Bretting agrees not to seek any remediation standard more stringent than the current or contemplated, non-residential/commercial/industrial standards, unless otherwise required to by law. In no event will DUPONT be liable to Bretting for claims based upon diminution in value or loss in value to Bretting due to failure by DUPONT to cleanup or remediate Pre-Existing Conditions to a standard more stringent than the non-residential/commercial/industrial standard referenced above, even if required to do so by a third party or Environmental Authority.

(D) Bretting's Obligations for Engineering and Institutional Controls. Bretting understands and accepts that any case closure acceptable to WDNR will not necessarily require removal, containment, or other active remediation activities for all Hazardous Substances in the Environment in proximity to The Former Barksdale Works or otherwise meet unrestricted (residential) standards for soil or sediments or ground water quality criteria for ground water. Bretting acknowledges that in connection with, and as a condition of, the concurrence of WDNR for case closure or written equivalent document, the use of The Former Barksdale Works may be restricted to non-residential uses only, or restrictions may be required on the withdrawal or use of ground water, or obligations may be imposed on the installation and maintenance of suitable ground cover, or monitoring and reporting may be required of surface or subsurface conditions, or notice to workers prior to any excavation may be required, or other restrictions may be imposed through the provisions and recordation of a Declaration of Use Restrictions and/or the creation of a use restriction for ground water. Use Restrictions currently agreed to by the Parties, include the land use restrictions on the 196 acres of The Former Barksdale Works which are contained in that certain Indenture which is dated May 30, 1986 and which was recorded with the Bayfield County Register of Deeds on June 26, 1986 at Volume 434, pages 374-79 inclusive as well as all restrictions on the use of soil and/or groundwater at The Former Barksdale Works which are set forth in the attached Declarations of Environmental Restrictions between the Parties (Exhibits 1 & 2), and accepted as a condition of case closure by the Wisconsin Department of Natural Resources. Bretting agrees to accept such Restrictions, without further consideration, and comply with all requirements, and otherwise execute and record all appropriate documents in connection therewith, necessary to record, maintain or abide by such restrictions.

(E) Indemnificaton to Bretting. The Parties specifically acknowledge that no party is indemnifying the other for a violation of environmental law or the generation, manufacture, refinement, transportation, treatment, storage, handling disposal, discharge, spill or release of any Hazardous Substances by any future owner, tenant or other occupant on The Former Barksdale Works.

(F) Indemnification Procedures. With respect to any Environmental Matter for which DUPONT may be required to indemnify Bretting under this Agreement, DUPONT shall have sole discretion as to which Party shall have control over the remediation and negotiations with Environmental Authorities concerning any environmental measures for such Environmental Matter. Notwithstanding the above, DUPONT may not require Bretting to take control over the remediation and/or negotiations, but shall consult with Bretting as to all material negotiations and shall provide Bretting with copies of all proposed documents. If Bretting receives notice that any governmental unit or agency with authority to enforce any Environmental Law requires or will demand a remedial investigation of or remediation of Hazardous Substances at The Former Barksdale Works, Bretting shall provide DUPONT a copy of such notice within 30 days from receipt thereof, or, if shorter, within a timeframe so as to give DUPONT a reasonable and timely opportunity to respond to the notice. Bretting hereby grants a limited, temporary and nonexclusive access license to DUPONT, its employees and contractors to enter upon The Former Barksdale Works and conduct remedial investigations and remediation that may be required by such notice, including but limited to soil and groundwater sampling and well installation. DUPONT agrees to conduct any such activities on the site in a manner so as to minimize the disturbance to existing site conditions, and shall return the property to conditions substantially similar to those existing at the time of entry.

3. RIGHT OF FIRST REFUSAL

(A) In the event Bretting decides to sell The Former Barksdale Works, or any portion thereof, it shall give DUPONT written notice thereof, including the asking price. If Bretting shall then receive an offer to purchase such premises, and the offer shall be satisfactory to Bretting, Bretting shall give DUPONT the right to purchase such portion of the premises for which the offer is made, at the price and on the terms and conditions of the offer so made. Bretting shall give written notice to DUPONT of the receipt of such offer, including in such notice the price and all the material terms and conditions thereof. DUPONT shall have the right to purchase the premises at the price and upon the terms and conditions set forth in the notice by giving Bretting notice of the exercise of such right within twenty (20) days after receipt of Bretting's notice. In the event that DUPONT fails to exercise its right to purchase the premises as aforesaid, and in the further event that the sale of the premises to the original offeror shall fail to be consummated, for whatever reason, DUPONT shall continue to have the right of first refusal as set forth in this section.

(B) DUPONT's right of first refusal shall not apply to transfers between members of the Bretting family, or trusts, partnerships or other entities for their benefit or which they control, but shall apply to the first arms-length transfer thereafter.

4. **MISCELLANEOUS**

(A) This Environmental and Indemnification Agreement is not assignable, except upon the express, written consent of DUPONT, such consent to be solely within DUPONT's discretion.

(B) To the extent Wisconsin Department of Natural Resources does not accept the language of the parties' proposed Declarations of Environmental Restrictions, the parties will work together to create mutually acceptable language that is acceptable to the parties and to WDNR, insofar as such language changes requested by WDNR are not materially different than the words and concepts conveyed in this agreement.

IN WITNESS WHEREOF, DUPONT and Bretting execute this Environmental and Indemnification Agreement With Right of First Refusal by its proper officials thereunto duly authorized or personally, respectively, on this 22 day of March, 2000.

ATTEST:

E.I. du Pont de Nemours and Company

By:

Bretting Development Corp., Inc.

By:

WITNESS:

H. Lyman Bretting

Barbara Bretting

Declaration of Environmental Restrictions

DECLARATION OF ENVIRONMENTAL RESTRICTIONS

This Declaration of Environmental restrictions is made as of the 22 day of March, 2000, by Bretting Development Corp., Inc., a wholly owned subsidiary of the C.G. Bretting Manufacturing Company (together with its successors and assigns, collectively "Owner").

WITNESSETH

WHEREAS, Owner is the owner in fee simple of certain tracts or parcels of land, situated in the County of Bayfield, State of Wisconsin, more particularly described in and conveyed by an Indenture dated May 30, 1986, between E. I. duPont de Nemours and Company and Owner, which Indenture has been recorded with the Register of Deeds of Bayfield County on or about June 26, 1986 at Volume 434, pages 374-379 inclusive, and is attached hereto as Exhibit "A" (referred to herein as "The Former Barksdale Works");

WHEREAS, Owner has subsequently conveyed by Indenture dated April 27, 1992 a certain portion of the above-described parcels to H. Lyman Bretting and Barbara Bretting, husband and wife, as survivorship marital property, which Indenture has been recorded with the register of deeds of Bayfield County on or about May 6, 1992 at Volume 556, Page 109-110, inclusive, and is attached hereto as Exhibit "B";

WHEREAS, nothing in this Declaration is meant to restrict, enlarge, convey, release, grant or confirm any right, in any manner, on any parcel not owned by Owner as of the date of this Declaration, including but not limited to the parcel so-described in the attached Exhibit "B";

WHEREAS, the real property more particularly described in Exhibit "A" (i.e., The Former Barksdale Works), absent those areas on the parcel south of Boyd Creek, and east of Route 13, and also absent such tracts or parcels more particularly described in Exhibit "B" are hereinafter referred to as "The Property";

WHEREAS, The Property has been previously used as a facility for the manufacture of explosives, and the Wisconsin Department of Natural Resources requires a deed restriction as a condition of case closure so as to reduce the risk of injury or damage to persons or property as a result of existing and/or potential conditions resulting from the prior usage so-described;

WHEREAS, this Declaration itself is not intended to create any interest in real estate in favor of the Department of Natural Resources, nor to create a lien against The Property, but merely is intended to provide record or deed notice of certain conditions and restrictions on The Property;

WHEREAS, soils on The Property may contain contaminants above the applicable remediation standards that would allow for unrestricted use of The Property;

EXHIBIT

1

WHEREAS, groundwater underneath The Former Barksdale Works may contain dispersed or trace levels of constituents associated with the former manufacturing operations;
WHEREAS, it is the desire and intention of Owner to impose on The Property restrictions which make it unnecessary to conduct additional soil investigation and remediation activities on The Property, and to impose on The Former Barksdale Works restrictions which make it unnecessary to conduct additional groundwater investigation and remediation activities, and advise certain precautions to be undertaken if groundwater will be used;

WHEREAS, in accordance with the Department's approval of case closure, and in consideration of the terms and conditions of that approval, and other good and valuable consideration, Owner has agreed to subject The Former Barksdale Works to certain statutory and regulatory requirements which impose restrictions upon the use of The Former Barksdale Works, and to restrict certain activities at The Former Barksdale Works, as set forth below.

NOW, THEREFORE, Owner agrees to the restrictions listed below and hereby notifies all interested parties, owners, and operators that the applicable regulations and statutes require of each owner and operator while owning or operating at or on The Former Barksdale Works as follows:

1. GROUNDWATER USE RESTRICTION. The Former Barksdale Works may contain areas of groundwater where the water quality exceeds drinking water standards for certain nitroaromatic compounds associated with the manufacture of dynamite. Anyone who proposes to construct or reconstruct a well on The Former Barksdale Works is required to contact the Department of Natural Resources' Bureau of Drinking Water and Groundwater to determine what specific requirements are applicable prior to constructing or reconstructing a well on The Former Barksdale Works. If construction is proposed on The Former Barksdale Works that will require dewatering, or if groundwater is to be otherwise extracted from the Former Barksdale Works, while this groundwater use restriction is in effect, the groundwater shall be sampled and analyzed for contaminants that were previously detected on the property (including, at a minimum, the following constituents: 1,3,5-trinitrobenzene; 1,3-dinitrobenzene; 2,4,6-trinitrotoluene; 2,4-dinitrotoluene; 2,6-dinitrotoluene; 2-amino-4,6-dinitrotoluene; 2/4-nitrotoluene; 3-nitrotoluene; 4-amino-2,6-dinitrotoluene; HMX; nitrobenzene; nitroglycerin; PETN; RDX, and Tetryl) and any extracted groundwater shall be managed in compliance with applicable statutes and rules.

2. SOIL USE RESTRICTION. The owner(s) of all or any fee interest in all or any portion of The Property and each operator of all or any portion of The Property shall restrict the use of such property to NON-RESIDENTIAL USES ONLY.

3. ALTERATIONS, IMPROVEMENTS AND DISTURBANCES. Any owner of all or any fee interest in all or any portion of The Property and each operator of all or any portion of The Property are advised that there may be applicable worker health and

safety laws and regulations to be followed during any alteration, improvement or disturbance.

4. NOTICE TO LESSEES AND OTHER HOLDERS OF PROPERTY INTERESTS. Owner shall cause all leases, grants, and other written transfers of interest in The Former Barksdale Works to contain a provision expressly requiring all holders thereof to take any such portion of The Former Barksdale Works subject to the restrictions contained herein and to comply with all, and not to violate any of the conditions of this Declaration of Environmental Restrictions.

5. ENFORCEABILITY. These restrictions are hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring The Former Barksdale Works or any portion of The Former Barksdale Works, whether by descent, devise, purchase or otherwise. These restrictions also benefit and are enforceable by the Wisconsin Department of Natural Resources, its successors and assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate the covenants of this Declaration, to prevent the proposed violating or to recover damages for such violation.

6. TERMINATION. Any person who is or becomes owner of any portion of The Former Barksdale Works may request that the Wisconsin Department of Natural Resources or its successor issue a determination that one or more of the restrictions set forth in this Declaration are no longer required. If the Department determines that one or more of the restrictions can be extinguished, an affidavit, with a copy of the Department's written determination, shall be recorded to give notice that such use restriction is no longer binding.

IN WITNESS WHEREOF, Owner hereby executes this Declaration of Environmental Restrictions and has caused these presents to be signed by David H. Bretting, its Treasurer and countersigned by Scott L. Bretting, its Vice Pres., at Ashland, Wisconsin, and its corporate seal to be hereunto affixed, the day and year first above written.

ATTEST:

Scott L Bretting

Bretting Development Corp., Inc.

By:

REGISTER'S OFFICE
Bayfield County, WIS.
RECORDED AT 1 P M.
ON JUN 8 4 1996 IN
vol 434 & 816 pp 374-380
Doc. No. 364809
Otto Korpela
REGISTER OF DEEDS

DEED

TRANSFER FEE $ 975.00
FEE EXEMPT #
RENTAL WEATHERIZATION CODE
YES ☐ NO ☒ EXEMPTION # W-7

THIS INDENTURE, made this 3rd day of MAY, 1986, between E. I. DU PONT DE NEMOURS AND COMPANY, a corporation of the State of Delaware, with its principal place of business at 1007 Market Street, Wilmington, Delaware (GRANTOR), and BRETTING DEVELOPMENT CORP., INC., a wholly owned subsidiary of the C. G. BRETTING MANUFACTURING COMPANY (GRANTEE),

W I T N E S S E T H:

THAT the GRANTOR, for and in consideration of the sum of SEVENTY-FIVE DOLLARS ($75.00), and other good and valuable consideration to it in hand paid by the GRANTEE, the receipt whereof is hereby confessed and acknowledged, has given, granted, bargained, sold, remised, released, aliened, conveyed and confirmed, and by these presents does give, grant, bargain, sell, remise, release, alien, convey and confirm unto the GRANTEE, its successors and assigns, forever, the following described TRACTS or PARCELS of land situated in the County of Bayfield, State of Wisconsin:

TRACT ONE:

Southeast Quarter of the Southeast Quarter (SE 1/4-SE 1/4), Section Fourteen (14), Township Forty-eight (48) North, Range Five (5) West.

TRACT TWO:

Government Lot One (1), Section Nineteen (19), Township Forty-eight (48) North, Range Four (4) West, LESS the parcel of land described in Volume 181 of Deeds, page 58, and more particularly described as follows: Being a part of Government Lot 1, Section 24, Township 48 North, Range 5 West, and Government Lot 1, Section 19, Township 48 North, Range 4 West, described as: Beginning at a point 50 feet South of the intersection of the north line of Section 19 and the water's edge of Lake Superior, thence N.88°56'W., parallel to said north line, 926.04 feet to the easterly right of way line of Wisconsin Highway 13;

EXHIBIT
A

thence S.16°58'W. along said right of way line 162.26 feet; thence continuing along said right of way line, on a 1°54' curve to the right, 973.74 feet; thence continuing along said right of way line, S.35°02'W. 590.72 feet; thence S.54°58'E., 700.2 feet to the water's edge of Lake Superior; thence northeasterly along said water's edge to the point of beginning; and LESS highway right of way.

TRACT THREE:

All of Section Twenty-three (23), Township Forty-eight (48) North, Range Five (5) West.

TRACT FOUR:

Government Lot Two (1), Section Twenty-four (24), Township Forty-eight (48) North, Range Five (5) West, LESS the parcel of land described in Volume 181 of Deeds, page 58, more particularly described above; LESS a parcel of land in Government Lots 1 and 2, Section 24, Township 48 North, Range 5 West described in Volume 202 of Records, page 185, and more particularly described as follows:
Beginning at an iron pipe set at the most northerly corner of Lot No. 1, as shown on Plat of Barksdale Subdivision, Bayfield County, Wisconsin; and running thence: S.54°59'E. 185 feet along the northeasterly line of said Lot No. 1 to the most easterly corner of Barksdale Subdivision as recorded; thence N.35°01'E., 100 feet to an iron pipe; thence N.54°59'W. 160 feet to an iron pipe set in the southeasterly right of way line of State Highway No. 13; thence along the southwesterly right of way line of State Highway No. 13, S.35°01'W., 282.9 feet to an iron pipe; thence still along the same N.54°59'W. 17.0 feet to an iron pipe; thence still along the same S.35°01'W. 17.1 feet to the point and place of beginning, containing therein 1.164 acres, be the same more or less. ALSO LESS the parcel of land described in Volume 224 of records, page 24, more particularly described as follows: Beginning at an iron pipe in the southeasterly right of way line of State Highway No. 13 (97 feet wide), said point being the most northerly corner of a 1.164 acre tract of land conveyed by Grantor to Grantees by deed dated Aug. 17, 1964 (description in Vol 202 of Records, page 185, above); thence from said point of beginning; along the southeasterly right of way line of said Highway No. 13, N.35°01'E., 25 feet to a point; thence S.54°59'E., 168 feet to a point; thence S.35°01'W., 25 feet to an iron pipe; thence along said lands of grantees N.54°59'W., 168 feet to the point and place of beginning, containing 0.094 acre more or less. LESS highway right of way.

TRACT FIVE:

Government Lot Two (2), Section Twenty-four (24), Township Forty-eight (48) North, Range Five (5) West, LESS the Plat of Barksdale Subdivision, LESS highway right of way, LESS the parcel described in Volume 202 of Records, page 185, and more particularly described above. AND LESS the parcel of land described in Volume 159 of Deeds, page 185 and more particularly

Plat of Berkedale Subdivision; thence from said point of beginning, S.34°59'E., 185 feet along the southwesterly line of said Lot No. 8 and lands of Grantees to the most southerly corner of Berkedale Subdivision as recorded; thence S.35°01'W., 30 feet to a point; thence N.54°59'W., 185 feet to a point in the southeasterly edge of right of way of State Highway No. 13; thence N.35°01'E., 30 feet to point and place of beginning.

TRACT SIX:

Government Lot Three (3), the entire Northwest Quarter (NW 1/4), the entire Southwest Quarter (SW 1/4), the West Half of the Northeast Quarter (W 1/2-NE 1/4), the Northeast Quarter of the Northeast Quarter (NE 1/4-NE 1/4), the West Half of the Southeast Quarter (W 1/2-SE 1/4), all in Section Twenty-four (24), Township Forty-eight (48) North, Range Five (5) West.

TRACT SEVEN:

Government Lots One (1), and Two (2), the North Half of the Northwest Quarter (N 1/2-NW 1/4), and the Southwest Quarter of the Northwest Quarter (SW 1/4-NW 1/4), all in Section Twenty-five (25), Township Forty-eight (48) North, Range Five (5) West.

TRACT EIGHT:

A parcel of land located in Lot Four (4) of Section Twenty-five (25) and the Northeast Quarter of the Southeast Quarter of Section Twenty-six (26), all in Township Forty-eight (48) North, Range Five (5) West, included within the following boundary lines, to-wit: Beginning at a point on the North line of said Lot 4 where the West line of the C.St.P.M. & O. Ry. right-of-way intersects the same, thence running West along the North line of said Lot 4 and North line of NE 1/4-SE 1/4, of Section 26, to a point 18 rods West of the East line of said NE 1/4-SE 1/4, thence running due South to the Northwest corner of a certain tract of land heretofore deeded by G. F. Thomas to William J. Harris, thence running East along the North line of said Harris land to the C.St.P.M. & O.Ry. right-of-way, thence running northeasterly along the West line of said right-of-way to the place of beginning.

TRACT NINE:

A parcel of land, more particularly bounded and described as follows, to-wit: Beginning at a point in Lot 4, Section 25, Township 48 North, Range 5 West, on the West side of C.St.P.M. & O. Rly. Company's right of way, at Southeast corner of land sold by G. F. Thomas to Washburn Land Co., thence West 18 rods beyond the section line between Sections 25 and 26, thence South 25 rods, thence West about 20 rods to the Northeast corner of land now or formerly of D. A. McCune, thence South 20 rods to the land now or

formerly of Fred Buss, thence East along South line of NE 1/4-SE 1/4 of Section 26 to right of way of C.St.P.M. & O. Rly. Co., and thence northeasterly along said right of way to the place of beginning.

TRACT TEN:

The West five acres of the South ten acres of the Northeast Quarter of the Southeast Quarter (NE 1/4-SE 1/4), Section Twenty-six (26), Township Forty-eight (48) North, Range Five (5) West, comprising a tract of land 660 feet East and West by 330 feet North and South.

TRACT ELEVEN:

A parcel of land located in the Northeast Quarter of the Southeast Quarter (NE 1/4-SE 1/4), Section 26, Township 48 North, Range 5 West, and included within the following boundary lines, to-wit: Beginning on the North line of said NE 1/4-SE 1/4 at a point 18 rods West of the Northeast corner of said forty, thence running West along said North line to the Northwest corner of said forty, 62 rods more or less; thence running South on West line of said forty, 35 rods more or less, to the North line of land heretofore deeded to the Ashland Lumber Company Vol. 25, page 510, Bayfield County records; thence running East 62 rods more or less to the West line of land heretofore deeded to Emelia Harris, Vol. 56, page 516, Bayfield County records; and thence running North to the place of beginning.

TRACT TWELVE:

The entire Northwest Quarter (NW 1/4) and the entire Northeast Quarter (NE 1/4) of Section Twenty-six (26), Township Forty-eight (48) North, Range Five (5) West.

TOGETHER with all and singular the hereditaments and appurtenances thereunto belonging or in anywise appertaining; and all the estate, right, title, interest, claim or demand whatsoever of the GRANTOR, either in law or equity, either in possession or expectancy of, in and to the above-described premises, and their hereditaments and appurtenances.

This conveyance is made subject to all municipal and zoning advances, recorded easements for public utilities, recorded building and use restrictions and covenants, and general real estate taxes.

TO HAVE AND TO HOLD the above-described premises, with the hereditaments and appurtenances, unto the GRANTEE, its successors and assigns, forever, subject as aforesaid.

WHEREAS, the following described parcel, being a portion of the above-described premises and containing approximately 196 acres has been previously used as a facility for the manufacture of explosives, to wit:

A parcel of land located in the NE-NW, the NW-NE, the NE-NE, the SW-NW, the SE-NW, the SW-NE, the SE-NE, the NW-SW, the NE-SW, the NW-SE, and the NE-SE of Section 23, T. 48 N., R. 5 W. For point of Beginning, commence at the NE corner of said Section and run West, 210 feet, more or less, along the north line of said Section 23, to the centerline of an access road into the GRANTOR'S property, which is the Point of Beginning. Thence from said Point of Beginning by metes and bounds, S 09°-40' W, 2100 feet, more or less, along said centerline to the P.I. of a curve to the left;
Thence leaving said centerline, S 56°-10' W, 3040 feet, more or less, to the centerline of a road. Said point is 100 feet northwesterly, as measured along said road, from the intersection of the centerline of said road and the centerline of Boyd Creek;
Thence S 85°-40' W, 1050 feet;
Thence N 03°-20' W, 1525 feet;
Thence N 52°-00' E, 3768 feet, more or less, to the north line of said Section 23;
Thence East, 1044 feet, more or less, to the Point of Beginning.

The afore-described property hereinafter referred to as RESTRICTED PROPERTY; and

WHEREAS, the parties hereto desire and intend to restrict the use of RESTRICTED PROPERTY in the future so as to reduce the risk of injury or damage to persons and property as a result of the existing conditions; and

WHEREAS, GRANTEE hereby covenants and agrees, for itself and its successors and assigns that RESTRICTED PROPERTY or any portion thereof shall in perpetuity be left undisturbed and in its natural condition and shall not be used for agricultural purposes, livestock raising or breeding, playgrounds, sports, recreation, public parks, or any accessory or incidental use or uses thereto; provided, however, that the sole exceptions to the above-stated restrictive uses shall be the permitted use of the RESTRICTED PROPERTY for purposes of hunting; stocking of small game; and planting of ground cover in connection with the sheltering and support of such small game. If GRANTEE, its successors or assigns shall cause or

permit a breach of said covenant, GRANTOR, or its successors and assigns, may enjoin such unpermitted use and seek other such relief to which it may be entitled. This covenant is to be deemed and considered as a covenant running with the land and binding upon the GRANTEE, its successors and assigns.

IN WITNESS WHEREOF, the GRANTOR has caused these presents to be signed by W. E. Tatum, its Senior Vice President, Materials and Logistics, and countersigned by [illegible], its Assistant Secretary, at Wilmington, Delaware, and its corporate seal to be hereunto affixed, the day and year first above written.

Signed, Sealed and Delivered E. I. DU PONT DE NEMOURS AND COMPANY in the Presence of:

by _____
Senior Vice President - Materials and Logistics

E.I. Dupont DeNemours and Company Seal.
Countersigned:

by _____
Assistant Secretary

APPROVALS

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DOCUMENT NO.
398661

WARRANTY DEED

THIS SPACE RESERVED FOR RECORDING DATA

VOL 256 OF Rec PAGE 105 1/2

REGISTER OF DEEDS

'92 MAY 6 AM 11 28

REGISTER'S OFFICE/BAYFIELD COUNTY, WIS

RETURN TO D, A & W

Pd-12.00 7Tx 154.00 Rec

This indenture, Made this ..... day of ....., A. D. 19 92 between Bretting Development Corp., Inc., a wholly owned subsidiary of C.G. Bretting Manufacturing Co., Inc. a Corporation duly organized and existing under and by virtue of the laws of the State of Wisconsin, located at Ashland Wisconsin, party of the first part and H. Lyman Bretting and Barbara Bretting husband and wife as survivorship marital property part ies of the second part,

Witnesseth, That the said party of the first part, for and in consideration of the sum of Fifty-three Thousand and no/100 Dollars ($53,000.00) to it paid by the said part ies of the second part, the receipt whereof is hereby confessed and acknowledged, has given, granted, bargained, sold, remised, released, aliened, conveyed and confirmed, and by these presents does give, grant, bargain, sell, remise, release, convey, and confirm unto the said part ies of the second part, their heirs and assigns forever, the following described real estate, situated in the County of Bayfield State of Wisconsin, to-wit:

A parcel of land located in the SW-1/4 of the SE-1/4 and Government Lot 3 of Section 24 and Government Lot 1 of Section 25, all in Township 48 North, Range 5 West, Town of Barksdale, Bayfield County, Wisconsin, described as follows: To locate the point of beginning commence at the northeast corner of Section 25 and run S. 89°36'52" E., 3036.90 feet along the north line of said Section 25; thence N. 54°16'07" W., 203.82 feet to the easterly right or way line of Wisconsin State Highway 13, which is the point of beginning. Thence from said point of beginning by metes and bounds: S. 54°16'07" E., 1030.66 feet to a 1" iron pipe that is 76 feet, more or less, N. 54°16'07" W of the water's edge of Chequamegon Bay; thence along a meander line near said water's edge, N. 28° 48' 57" E., 892.57 feet to a 1" iron pipe that is 85 feet, more or less, N. 54°16'07" W., of the water's edge of Chequamegon Bay; thence N. 54°16'07" W., 922.77 feet to the easterly right of way line of Wisconsin State Highway

continued on reverse side

(IF NECESSARY, CONTINUATION ON REVERSE SIDE)

Together with all and singular the hereditaments and appurtenances thereunto belonging or in any wise appertaining; and all the estate, right, title, interest, claim or demand whatsoever, of the said party of the first part, either in law or equity, either in possession or expectancy of, in and to the above bargained premises, and their hereditaments and appurtenances.

To have and to hold the said premises as above described with the hereditaments and appurtenances, unto the said part ies of the second part, and to their heirs and assigns FOREVER.

And the said Bretting Development Corp., Inc. party of the first part, for itself and its successors, does covenant, grant, bargain and agree to and with the said part ies of the second part, their heirs and assigns, that at the time of the ensealing and delivery of these presents it is well seized of the premises above described, as of a good, sure, perfect, absolute and indefeasible estate of inheritance in the law, in fee simple, and that the same are free and clear from all encumbrances whatever, subject to easements, reservations and restrictions of record

and that the above bargained premises in the quiet and peaceable possession of the said part ies of the second part, their heirs, and assigns, against all and every person or persons lawfully claiming the whole or any part thereof, it will forever WARRANT and DEFEND.

In Witness Whereof, the said Bretting Development Corp., Inc. party of the first part has caused these presents to be signed by Scott L. Bretting its President and countersigned by David H. Bretting its Treasurer at Ashland, Wisconsin, and its corporate seal to be hereunto affixed, this 27th day of April A. D. 19 92.

SIGNED AND SEALED IN PRESENCE OF

BRETTING DEVELOPMENT CORP., INC., a wholly owned subsidiary of C.G. Bretting Manufacturing Co., Inc.
Corporate Name

Scott L. Bretting

TRANSFER FEE | FEE EXEMPT

EXHIBIT B

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13) thence along said right of [illegible] S. 35°43'55" W., 570.58 feet; thence S. 35°48'22" W., 315.50 feet to the [illegible] beginning. Including that land lying between the meander line and the water [illegible] of Chequamegon Bay and the extensions of the lot lines to said waters' edge.

Parcel contains 23.1 acres, more or less.

Recent Communications Regarding Land Use

The Chemours Company
c/o AECOM
500 West Jefferson Street
Suite 1600
Louisville, KY 40202

502-569-2301 t
chemours.com

KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

December 20, 2022

Mr. Paul Bretting
Bretting Development Corporation
3401 Lake Park Rd
Ashland, WI 54806

RE: Notice of Continuing Obligations and Residual Contamination
Soil Imported from Boyd Creek and Placed in Use Area PAT
Former E. I. du Pont de Nemours and Company Barksdale Works
72315 State Highway 13
Town of Barksdale, Bayfield County, Wisconsin
FID No.: 804009140
EPA ID No.: WIR000133447
BRRTS No. 02-04-00156
Parcel ID: 04-002-2-48-05-23-1 01-000-10000

Dear Mr. Bretting:

This letter is provided in response to a request from the Wisconsin Department of Natural Resources (WDNR) to inform you, the point of contact for Bretting Development Corporation (BDC, owner of the above referenced site), of the import and placement of approximately 1,635 cubic yards of soil from the Wisconsin Department of Transportation (WisDOT) Boyd Creek bridge replacement project onto the former DuPont Barksdale Works site located at 72315 State Highway 13, Barksdale, Wisconsin (see Figure 1). The soil was imported onto the site at the request of the WDNR and as we discussed with you in our final meeting related to this work on August 23, 2022, this notice serves as formal administrative landowner notification related to the import and application of the WisDOT soil in the Hay Barn area of Use Area PAT.

Typically, notifications of this type are made as part of site closure requests under Wisconsin Administrative Code ch. NR 726 and are intended to address certain potential long-term responsibilities (continuing obligations) for which you may become responsible as part of the case closure request. In this case, there will not be a near-term closure request related to the area where the soil was placed. The intent of this notification is to formally advise you, as we already have in several previous meetings over the past few years, of the condition of the soil and the ongoing conditions and obligations stipulated by WDNR related to placement of the soil on the site. A request for case closure will not be made until at least the time when routine monitoring has shown that the measures taken have resulted in vegetation regrowth and that a uniform perennial vegetative cover or forest have been established in areas where the soil was placed.

BACKGROUND AND SOIL LABORATORY RESULTS

WisDOT concluded that the imported soil contained extensive naturally occurring organic matter and therefore was identified as geotechnically unsuitable for reuse as backfill as part of the 2020 Highway 13 Boyd Creek Bridge replacement project. Additionally, WDNR rules prevented WisDOT from replacing the soil within the area from which it was excavated because nitroaromatic and nitramine organic constituents (NNOCs) associated with former manufacturing on the Barksdale site were present at concentrations above default, WDNR soil to groundwater protection criteria (see Table 1), thus prohibiting placement adjacent to Boyd Creek by Rule. Considering these two factors, WDNR approached Chemours about the possibility of importing the soil onto the site.

Chemours representatives subsequently engaged you prior to May 2020 and it was agreed to use the soil to provide a cover to reduce soil erosion in the vicinity of the Hay Barn. This specific location was selected because vegetative growth in the area has been historically impeded by ongoing bacteriological

conversion of residual elemental sulfur in surface soil to sulfuric acid. The conversion process observed in the area is one that is identical to that which occurs in routine, agricultural applications of elemental sulfur for soil pH manipulation.

As you are aware, the soil was imported between May 26 and July 13, 2020, stored pending approval for application from WDNR, and subsequently spread and seeded this year, based on a discussion with you on August 23 and your subsequent approval. A summary of the August 23, 2022 discussion that was emailed to you following the meeting is attached.

As we have informed you over the course of several conversations over the multi-year project lifespan, the subject soil contains measurable concentrations that the WDNR believes trigger the need for continuing obligations. It is important to note that the detected concentrations of NNOCs in the imported WisDOT soil are nearly identical to existing concentrations of NNOCs detected in surface soil surrounding the Hay Barn during previous characterization work (see Figure 1 and Table 1). As shown in Table 1, these detected concentrations in both existing area soil and in the imported soil are not only comparable, but are below the non-industrial screening criteria, which indicate suitability for use in a residential setting and are the most conservative WDNR screening values. The results are also less than default industrial and site-specific screening criteria, the latter of which is based on the 60-day per year site use frequency you have historically indicated is the maximum number of days individuals recreate on the subject property. Considering these facts, there has been no increased exposure risk from the addition and application of the WisDOT soil in the area.

PLACEMENT AREA STATUS AND CONTINUING OBLIGATIONS

Given that: (1) due to the presence of a municipal water supply downgradient of the site, the groundwater pathway exceedances are not relevant; (2) extensive previous hydrogeological investigations at the site have demonstrated that remediation of groundwater in the fractured bedrock underlying the site is infeasible; and (3) concentrations of detected NNOCs are below appropriate direct contact screening criteria, Chemours will be requesting WDNR concur that no further investigation, remediation, or other clean-up action will be required for the area where the soil has been placed at this time. This no further action (NFA) status means that the concentrations of NNOCs present in the imported soil will remain on this source property after formal site-closure is requested and approved.

As mentioned earlier, WDNR believes the presence of these detected constituents require continuing obligations related to the soil. These obligations will include the following requirements until such time as Use Area and/or site-wide closure is granted by WDNR:

- That the soil will remain where placed within the vicinity of the Hay Barn (see Figure 1). This will be accomplished by minimizing anthropogenic erosive mechanisms in the area and maintaining a sufficient vegetive cover (vegetative density of at least 70%) where the soil was applied.
- That at a minimum, annual inspections be conducted and regrading and/or reseeding be performed as required to help maintain the imported soil remain in place.

As previously communicated to you, Chemours will be the party responsible for fulfilling the above continuing obligations. Furthermore, we agreed that use of the area by BDC representatives will not adversely affect vegetative growth and that BDC will assist Chemours in identifying any areas of erosion that may be observed during your recreational use of the area. Please note that until vegetation is sufficiently established in the area, we will be conducting inspections in accordance with the site's stormwater runoff general permit.

When the case closure request is approved, you will be responsible for the following continuing obligations:

- To construct a new well or to reconstruct an existing well, the property owner at the time of construction or reconstruction will need to obtain prior approval from the WNDR. See **Well Construction Requirements**. Typically, this results in casing off a portion of the aquifer during drilling, when needed to protect the water supply.

- If soil is excavated from the areas with residual contamination, the property owner at the time of excavation will be responsible for determining if contamination is present, determining whether the material would be considered solid or hazardous waste, and ensuring that any storage, treatment, or disposal is in compliance with applicable statues and rules.
- Contaminated soil may be managed in-place, in accordance with ch. NR 718, Wis. Adm. Code, with prior DNR approval. In addition, all current and future property owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.
- Depending on site-specific conditions, construction over contaminated soils or groundwater may result in vapor migration of contaminants into enclosed structures or migration along underground utility lines. The potential for vapor inhalation and means of mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

You will also be responsible for the continuing obligations listed above prior to case closure, associated with your use of the area or work directed by you. With the exception of the existing non-potable use of carbon-filtered water obtained from the well at the clubhouse, which is subject to annual analytical sampling and system maintenance, the installation of water wells or use of groundwater beneath the site is prohibited as part of current recreational use restrictions.

Please note in the future when Use Area PAT or broader site-wide closure is requested, the obligations related to this soil may be modified in consultation with WDNR and you, and may supersede this notification. Under s. 292.12, Wis. Stats., the responsibility for maintaining all necessary continuing obligations for your property will fall on you or any subsequent property owner, unless another person has a legally enforceable responsibility to comply with the requirements of the final closure letter. If you need more time to finalize an agreement on the responsibility for the continuing obligations on your Property, you may request additional time from the WDNR. Note that future property owners would need to negotiate a new agreement.

Under s. 292.12 (5) Wis. Stats., current and future owners and occupants of this property are responsible for complying with continuing obligations imposed as part of an approved closure. The fact sheet "Continuing Obligations for Environmental Protection" (DNR publication RR 819) has been included with this letter, to help explain the responsibilities you may have for maintenance of a certain continuing obligation, the limits of any liability for investigation and cleanup of contamination, and how these differ. If the fact sheet is lost, you may obtain copies at http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf.

MAINTENANCE AND AUDITS OF CONTINUING OBLIGATIONS

An inspection log will need to be filled out periodically as part of the maintenance plan and kept available for inspection by the WDNR. Submittal of the inspection log may also be required. You will also need to notify any future owners or occupants of this property of the need to maintain the continuing obligation and to document that maintenance in the inspection log. Periodic audits of these continuing obligations may be conducted by the WDNR, to ensure that potential exposure to residual contamination is being addressed. The WDNR provides notification before conducting site visits as part of the audit.

WELL CONSTRUCTION REQUIREMENTS

Subject to the groundwater use restriction described above, if this site is closed by WDNR, all properties within the site boundaries where contamination remains, or where a continuing obligation is applied, will be listed on the Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web, at https://dnr.wi.gov/topic/Brownfields/WRRD.html. Inclusion on this database provides public notice of remaining contamination and of any continuing obligations. Documents can be viewed on this database, and include final closure letters, site maps and any applicable maintenance plans. The location of the site may also be viewed on the Remediation and Redevelopment Sites Map (RR Sites Map), at the same internet address listed above. DNR approval prior to well construction or reconstruction is required in accordance with s. NR 812.09 (4) (w), Wis. Adm. Code. This requirement applies to private drinking water

wells and high capacity wells. Special well construction standards may be necessary to protect the well from the remaining contamination. The property owner needs to first obtain approval from a regional water supply specialist in DNR's Drinking Water and Groundwater Program. A well driller can help complete this form. The well construction application, form 3300−254, is on the internet at https://dnr.wi.gov/files/PDF/forms/3300/3300-254.pdf.

SITE CLOSURE

If the DNR grants closure, you will receive a letter which defines the specific continuing obligations on your property. The status of the site (open or closed) may also be checked by searching BRRTS on the Web. You may view or download a copy of the closure letter (sent to the responsible party) from BRRTS on the Web. You may also request a copy of the closure letter from the **responsible party** or by writing to the DNR contact, at Phil Richard, philip.richard@wisconsin.gov, (715) 661-0125. The final closure letter will contain a description of the continuing obligation, any prohibitions on activities and will include any applicable maintenance plan.

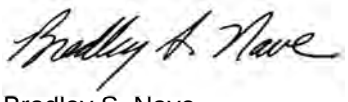
REVIEW AND RESPONSE PERIOD

You have 30 days to comment on the attached form, legal description of your property, and on the proposed request, and related continuing obligations. As such, please review the enclosed parcel description included on the attached Bayfield County Property Listing, and notify me within the next 30 days if the legal description is incorrect.

Note that the WDNR will not review a closure request for at least 30 days after the date of receipt of this letter. As an affected property owner, you have a right to contact the WDNR to provide any technical information that you may have that indicates that this should not be granted for this site. If you would like to submit any information that is relevant to a closure or NFA request, or if you want to waive the 30 day comment period, you should mail that information to the WDNR contact: 875 S 4th Ave, Park Falls, WI, 54552, or at philip.richard@wisconsin.gov.

If you have any questions or comments, please feel free to contact me or Cary Pooler with AECOM. I can be reached by telephone at (812) 406-7117 or by email at Bradley.S.Nave@chemours.com. Cary Pooler can be reached by telephone at (502) 252-5878 or by email at Cary.Pooler@aecom.com.

Sincerely,



Bradley S. Nave
Chemours Corporate Remediation Group

Attachments: Contact Information
Parcel Description (Bayfield County Property Listing)
Figure 1: Project Location Map
Figure 2: Soil Sample Location Map
Figure 3: Soil Grading Plan
Table 1: Soil Analytical Results – NNOCs
Monitoring and Maintenance Plan
Photolog
Email: Summary of August 23, 2022 Discussion Regarding Grading
WDNR Factsheet RR-819: Continuing Obligations for Environmental Protection Responsibilities of Wisconsin Property Owners

cc: Philip Richard, WDNR
Cary Pooler, AECOM
Eric Schmidt, AECOM

Attachment 1

Contact Information

The affected property is:

- (●) the source property (the source of the hazardous substance discharge), but the property is not owned by the person who conducted the cleanup (a deeded property)
- ( ) a deeded property affected by contamination from the source property
- ( ) a right-of-way (ROW)
- ( ) a Department of Transportation (DOT) ROW

Include this completed page as an attachment with all notifications provided under sections A and B.

Contact Information

Responsible Party: The person responsible for sending this form, and for conducting the environmental investigation and cleanup is:

Responsible Party Name: The Chemours Company, FC, LLC

Contact Person Last Name	First	MI	Phone Number (include area code)
Nave	Bradley	S	(812) 406-7117

Address	City	State	ZIP Code
c/o AECOM, 500 W Jefferson St, Suite 1600	Louisville	KY	40202

E-mail: Bradley.S.Nave@Chemours.com

Name of Party Receiving Notification:

Business Name, if applicable: Bretting Development Corporation

Title	Last Name	First	MI	Phone Number (include area code)
	Bretting	Paul	R	(715) 682-5231

Address	City	State	ZIP Code
3401 Lake Park Rd	Ashland	WI	54806

Site Name and Source Property Information:

Site (Activity) Name: DuPont Barksdale Explosives Plant

Address	City	State	ZIP Code
72315 STH 13	Barksdale	WI	54806

DNR ID # (BRRTS#)	(DATCP) ID #
02-04-000156	

Contacts for Questions:

If you have any questions regarding the cleanup or about this notification, please contact the Responsible Party identified above, or contact:

Environmental Consultant:

Contact Person Last Name	First	MI	Phone Number (include area code)
Pooler	Cary	E	(502) 252-5878

Address	City	State	ZIP Code
AECOM, 500 W Jefferson St, Suite 1600	Louisville	KY	40202

E-mail: cary.pooler@aecom.com

Department Contact:

To review the Department's case file, or for questions on cleanups or closure requirements, contact:

Department of: Natural Resources (DNR) Office: Park Falls

Address	City	State	ZIP Code
875 S 4th Ave	Park Falls	WI	54552

Contact Person Last Name	First	MI	Phone Number (include area code)
Richard	Phil	E	(715) 661-0125

E-mail (Firstname.Lastname@wisconsin.gov): philip.richard@wisconsin.gov

Attachment 2

Parcel Description (Bayfield County Property Listing)

Real Estate Bayfield County Property Listing

Today's Date: 11/29/2022

Property Status: Current

Created On: 3/15/2006 1:14:41 PM

Description

Updated: 6/3/2008

Tax ID:	299
PIN:	04-002-2-48-05-23-1 01-000-10000
Legacy PIN:	002102801000
Map ID:	
Municipality:	(002) TOWN OF BARKSDALE
STR:	S23 T48N R05W
Description:	ENTIRE SECTION 187
Recorded Acres:	640.000
Calculated Acres:	639.256
Lottery Claims:	0
First Dollar:	Yes
Zoning:	(F-1) Forestry-1
ESN:	103

Tax Districts

Updated: 3/15/2006

1	STATE
04	COUNTY
002	TOWN OF BARKSDALE
046027	SCHL-WASHBURN
001700	TECHNICAL COLLEGE

Recorded Documents

Updated: 3/15/2006

CONVERSION

Date Recorded: 434-376

Ownership

Updated: 3/15/2006

BRETTING DEVELOPMENT CORP ASHLAND WI

Billing Address:	**Mailing Address:**
BRETTING DEVELOPMENT CORP	**BRETTING DEVELOPMENT CORP**
3401 LAKE PARK RD	3401 LAKE PARK RD
ASHLAND WI 54806	ASHLAND WI 54806

Site Address

* indicates Private Road

N/A

Property Assessment

Updated: 6/24/2021

2022 Assessment Detail

Code	Acres	Land	Imp.
G1-RESIDENTIAL	1.000	2,500	6,900
G6-PRODUCTIVE FOREST	639.000	479,300	0

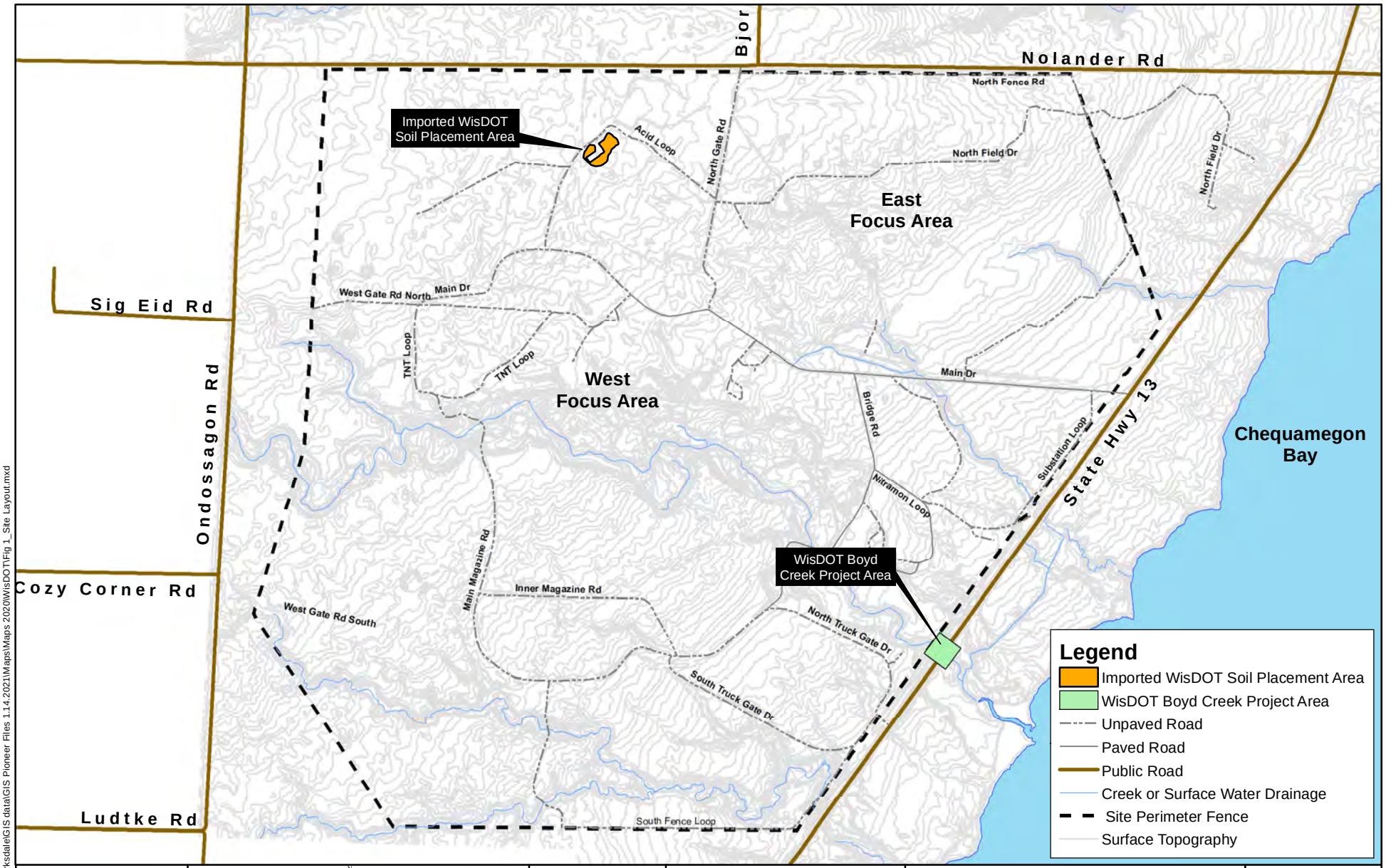
2-Year Comparison	2021	2022	Change
Land:	481,800	481,800	0.0%
Improved:	6,900	6,900	0.0%
Total:	488,700	488,700	0.0%

Property History

N/A

Attachment 3

Figure 1: Project Location Map



C:\Users\desmond.nielsen\Desktop\Barksdale\GIS data\GIS Pioneer Files 1.14.2021\Maps\Maps 2020\WisDOT\Fig 1_Site Layout.mxd

Notes:

Aerial Image Date: 10/18/22

0 700 1,400 2,800

Feet

1:16,800

MAP FORMATTED FOR "A" (8.5" X 11") SIZE SHEET.
SCALE NOT VALID FOR DIFFERENT PAGE SIZE.

FILE NUMBER:

DESIGNED BY: ES

DRAWN BY: DN

DATA QUALITY CHECK BY: ES

AECOM
500 West Jefferson Street
Suite 1600
Louisville, Kentucky 40202

Project Location Map

Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

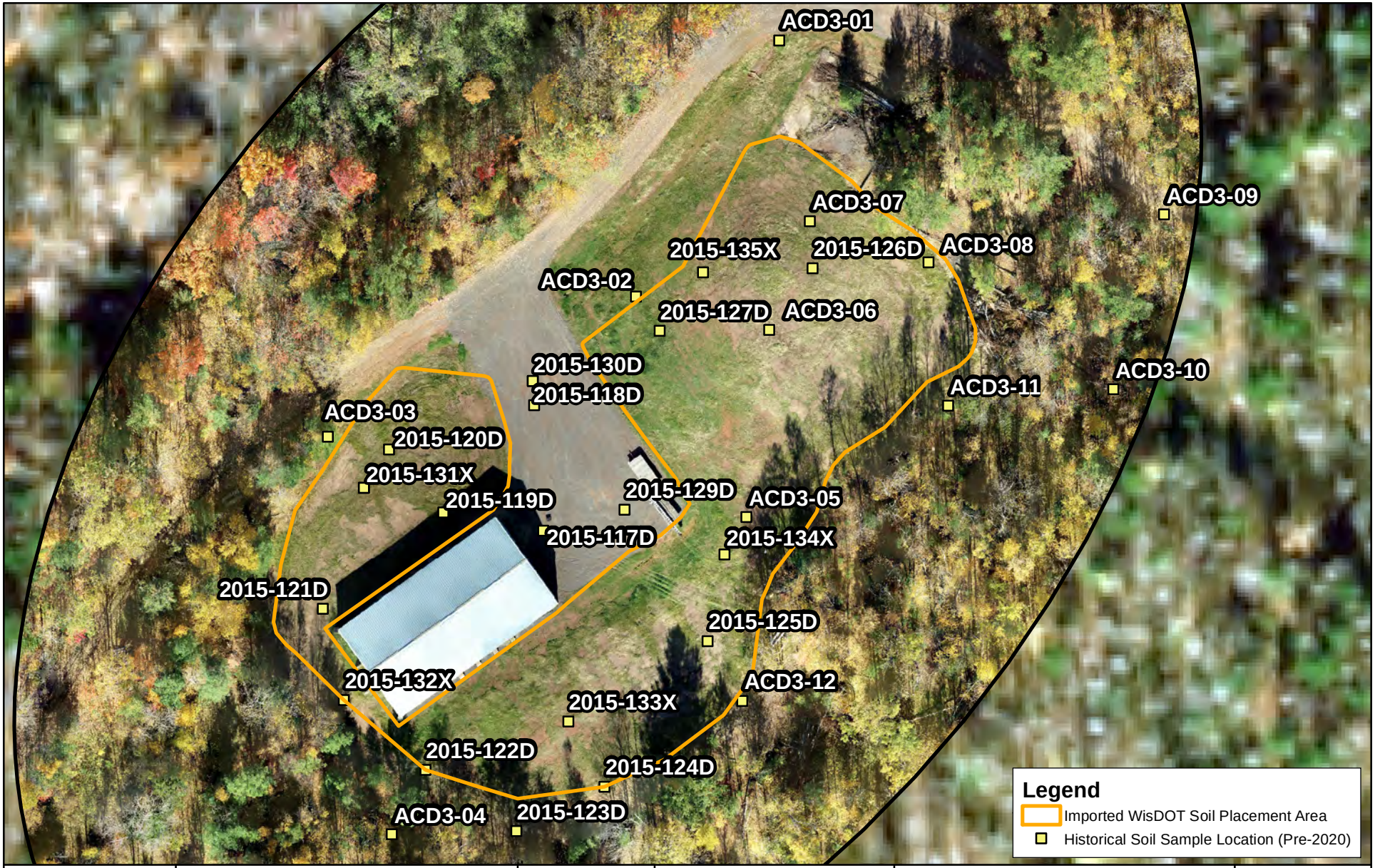
PROJECT NUMBER: 60660855

DATE: Nov. 2022

FIGURE NUMBER: 1

Attachment 4

Figure 2: Soil Sample Location Map



C:\Users\desmond.nielsen\Desktop\Barksdale\GIS data\GIS Pioneer Files 1.14.2021\Maps\Maps 2020\WisDOT\Fig 2_Historical Samples (2).mxd

Notes:
Outlined Area-Aerial Image Date 10/18/22
2018 Aerial Basemap Provided by Baryfield County

N
W E
S

0 35 70 140
Feet
1:840

MAP FORMATTED FOR "A" (8.5" X 11") SIZE SHEET.
SCALE NOT VALID FOR DIFFERENT PAGE SIZE.

FILE NUMBER:

DESIGNED BY: ES

DRAWN BY: DN

DATA QUALITY CHECK BY: ES

AECOM
500 West Jefferson Street
Suite 1600
Louisville, Kentucky 40202

Soil Sample Location Map

Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

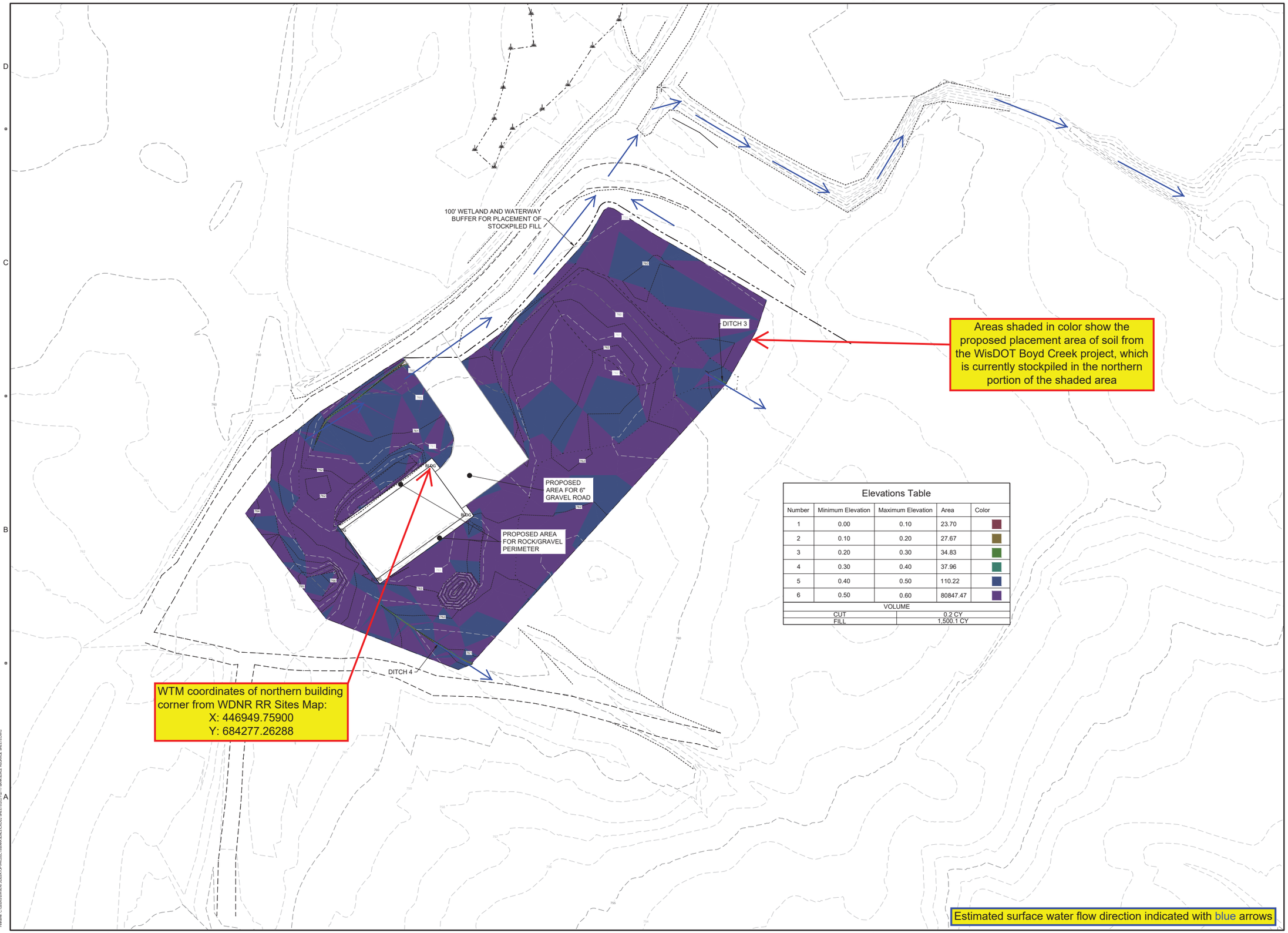
PROJECT NUMBER: 60660855

DATE: Nov. 2022

FIGURE NUMBER: 2

Attachment 5

Figure 3: Soil Grading Plan



Elevations Table

Number	Minimum Elevation	Maximum Elevation	Area	Color
1	0.00	0.10	23.70	
2	0.10	0.20	27.67	
3	0.20	0.30	34.83	
4	0.30	0.40	37.96	
5	0.40	0.50	110.22	
6	0.50	0.60	80847.47	

VOLUME	
CUT	0.2 CY
FILL	1,500.1 CY

ANSI FULL BLEED D (34.00 X 22.00 INCHES)

PROJECT

BARKSDALE GRADING PLAN

FORMER DUPONT BARKSDALE WORKS, BARKSDALE, WISCONSIN 54806

CLIENT

CHEMOURS

CONSULTANTS

AECOM
www.aecom.com

N
W E
S

20 0 40
GRAPHIC SCALE IN FEET

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
1	2/17/2021	

SHEET TITLE

SOIL GRADING PLAN

SHEET NUMBER

Figure 3

Attachment 6

Table 1: Soil Analytical Results – NNOCs

Table 1
Use Area PAT Soil Analytical Results - NNOCs
Notice of Continuing Obligations and Residual Contamination
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Location ID	**ACD3-01**	**ACD3-02**	**ACD3-03**	**ACD3-04**	**ACD3-05**	**ACD3-06**	**ACD3-07**	**ACD3-08**	**ACD3-09**	**ACD3-10**	**ACD3-11**	**ACD3-12**	**2015-117D**	**2015-118D**	**2015-119D**	**2015-120D**
					Field Sample ID	9400331	9400540	9400749	9400958	9401167	9401376	9401585	9401794	9402003	9402212	9402421	9402630	SITG-151007-117D-0-0.5	SITG-151006-118D-0-0.5	SITG-151006-119D-0-0.5	SITG-151006-120D-0-0.5
					Date Sampled	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	10/07/2015	10/06/2015	10/06/2015	10/06/2015
					Start Depth - End Depth	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Parameter Name	**Units**	**Groundwater Pathway RCL**	**Direct Contact RCLs**			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
			Industrial	**Non-Industrial**	**Recreational**																
2,4,6-trinitrotoluene	mg/kg		96	21	124	<0.018	<0.016	<0.014	<0.017	<0.015	**0.065**	**0.031**	**0.033**	**0.029**	**0.05**	**0.054**	**0.03**	**0.43**	<0.2	<0.2	**0.2**
2-amino-4,6-dinitrotoluene	mg/kg		114	7.7	45	<0.038	<0.034	<0.031	<0.036	<0.033	<0.037	<0.035	<0.031	<0.032	<0.031	<0.033	<0.034	<0.21	<0.2	<0.2	<0.2
4-amino-2,6-dinitrotoluene	mg/kg		113	7.7	45	<0.025	<0.022	<0.02	<0.023	<0.021	**0.025**	<0.023	<0.02	<0.021	**0.023**	**0.025**	<0.022	<0.21	<0.2	<0.2	<0.2
1,3,5-trinitrobenzene	mg/kg		32,400	2,250	13,100	<0.016	<0.015	<0.013	<0.015	<0.014	<0.016	<0.015	<0.013	<0.014	<0.013	<0.014	<0.014	<0.21	<0.2	<0.2	<0.2
1,3-dinitrobenzene	mg/kg		82	6.3	37	<0.03	<0.027	<0.024	<0.028	<0.026	<0.029	<0.028	<0.025	<0.025	<0.025	<0.026	<0.026	<0.21	<0.2	<0.2	<0.2
2-nitrotoluene	mg/kg		15	3.2	18	<0.026	<0.023	<0.021	<0.025	<0.022	<0.025	<0.024	<0.021	<0.022	<0.021	<0.023	<0.023	<0.21	<0.2	<0.2	<0.2
3-nitrobenzene	mg/kg		82	6.3	37	<0.033	<0.029	<0.027	<0.031	<0.028	<0.031	<0.03	<0.027	<0.028	<0.027	<0.029	<0.029	<0.21	<0.2	<0.2	<0.2
4-nitrobenzene	mg/kg		144	34	198	<0.1	<0.091	<0.083	<0.097	<0.088	<0.098	<0.094	<0.084	<0.087	<0.084	<0.089	<0.09	<0.21	<0.2	<0.2	<0.2
nitrobenzene	mg/kg		32	7.4	43	<0.016	<0.015	<0.013	<0.015	<0.014	<0.016	<0.015	<0.013	<0.014	<0.013	<0.014	<0.014	<0.21	<0.2	<0.2	<0.2
HMX	mg/kg		57,000	3,860	22,500	<0.021	<0.018	<0.017	<0.019	<0.018	<0.02	<0.019	<0.017	<0.017	<0.017	<0.018	<0.018	--	--	--	--
PETN	mg/kg		534	126	736	<0.1	<0.091	<0.083	<0.097	<0.088	<0.098	<0.094	<0.084	<0.087	<0.084	<0.089	<0.09	--	--	--	--
RDX	mg/kg		38	8.3	49	<0.027	<0.024	<0.022	<0.026	<0.023	<0.026	<0.025	<0.022	<0.023	<0.022	<0.024	<0.024	--	--	--	--
Tetryl	mg/kg		2,330	156	911	<0.03	<0.027	<0.024	<0.028	<0.026	<0.029	<0.028	<0.025	<0.025	<0.025	<0.026	<0.026	--	--	--	--
nitroglycerin	mg/kg		82	6.3	37	**0.21**	<0.073	<0.066	<0.077	<0.07	<0.078	<0.075	<0.067	<0.069	<0.067	<0.071	<0.072	--	--	--	--
2,4-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.047	**0.042**	<0.038	<0.044	<0.04	<0.044	**0.12**	<0.038	<0.039	**0.18**	<0.04	<0.041	<0.21	<0.2	<0.2	<0.2
2,6-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.016	**0.018**	<0.013	<0.015	<0.014	<0.016	<0.015	<0.013	<0.014	**0.064**	<0.014	<0.014	<0.21	<0.2	<0.2	<0.2
2,3-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
2,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
3,4-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
3,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
2,4,6-trinitro-3-xylene	mg/kg		96	21	124	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-3,4-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-3,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-3,6-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-4,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,3-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,3-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,4-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,4-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,4-dimethyl-2,6-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,5-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,5-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2

Notes:

[1]: Maximum concentration of on-site samples included on this table

[2]: Maximum concentration of WisDOT soil/sediment samples per results submitted to WDNR on 7/16/18 by WisDOT

2001 results are from QES-DEN using lab method 8321

2015 results are from ECCS using lab method 8270

mg/kg: milligrams per kilogram

RCL: Residual Contaminant Level

ND: Not detected

Table 1
Use Area PAT Soil Analytical Results - NNOCs
Notice of Continuing Obligations and Residual Contamination
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Location ID	**2015-121D**	**2015-122D**	**2015-123D**	**2015-124D**	**2015-125D**	**2015-126D**	**2015-127D**	**2015-129D**	**2015-130D**	**2015-130D**	**2015-131X**
					Field Sample ID	SITG-151006-121D-0-0.5	SITG-151006-122D-0-0.5	SITG-151006-123D-0-0.5	SITG-151007-124D-0-0.5	SITG-151007-125D-0-0.5	SITG-151007-126D-0-0.5	SITG-151007-127D-0-0.5	SITG-151007-129D-0-0.5	SITG-151007-130D-0-0.5	SITG-151007-130D-0-0.5-D	SITG-151007-131X-0-1
					Date Sampled	10/06/2015	10/06/2015	10/06/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015
					Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 1
			Direct Contact RCLs													
Parameter Name	**Units**	**Groundwater Pathway RCL**	**Industrial**	**Non-Industrial**	**Recreational**	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
2,4,6-trinitrotoluene	mg/kg		96	21	124	**0.2**	**0.36**	**0.28**	<0.2	**0.44**	<0.21	<0.21	**0.23**	**0.31**	<0.2	**0.23**
2-amino-4,6-dinitrotoluene	mg/kg		114	7.7	45	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
4-amino-2,6-dinitrotoluene	mg/kg		113	7.7	45	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3,5-trinitrobenzene	mg/kg		32,400	2,250	13,100	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3-dinitrobenzene	mg/kg		82	6.3	37	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2-nitrotoluene	mg/kg		15	3.2	18	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
3-nitrobenzene	mg/kg		82	6.3	37	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
4-nitrobenzene	mg/kg		144	34	198	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
nitrobenzene	mg/kg		32	7.4	43	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
HMX	mg/kg		57,000	3,860	22,500	--	--	**--**	--	--	--	--	--	--	--	--
PETN	mg/kg		534	126	736	--	--	--	--	--	--	--	--	--	--	--
RDX	mg/kg		38	8.3	49	--	--	--	--	--	--	--	--	--	--	--
Tetryl	mg/kg		2,330	156	911	--	--	--	--	--	--	--	--	--	--	--
nitroglycerin	mg/kg		82	6.3	37	--	--	--	--	--	--	--	--	--	--	--
2,4-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.2	<0.2	**0.65**	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,6-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,3-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
3,4-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
3,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,4,6-trinitro-3-xylene	mg/kg		96	21	124	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-3,4-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-3,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-3,6-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-4,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,4-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,4-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,4-dimethyl-2,6-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,5-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,5-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21

Notes:

[1]: Maximum concentration of on-site samples included on this table

[2]: Maximum concentration of WisDOT soil/sediment samples per results submitted to WDNR on 7/16/18 by WisDOT

2001 results are from QES-DEN using lab method 8321

2015 results are from ECCS using lab method 8270

mg/kg: milligrams per kilogram
RCL: Residual Contaminant Level
ND: Not detected

Table 1
Use Area PAT Soil Analytical Results - NNOCs
Notice of Continuing Obligations and Residual Contamination
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Location ID	**2015-131X**	**2015-132X**	**2015-133X**	**2015-134X**	**2015-135X**	**Maximum Soil Concentration From Use Area PAT[1]**	**Maximum Soil Concentration From Samples Collected as Part of WisDOT Boyd Creek Project[2]**
					Field Sample ID	SITG-151007-131X-0-1-D	SITG-151007-132X-0-1	SITG-151007-133X-0-1	SITG-151007-134X-0-1	SITG-151007-135X-0-1		
					Date Sampled	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015		
					Start Depth - End Depth	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1		
Parameter Name	**Units**	**Groundwater Pathway RCL**	**Direct Contact RCLs**			Report Result	Report Result	Report Result	Report Result	Report Result		
			Industrial	**Non-Industrial**	**Recreational**							
2,4,6-trinitrotoluene	mg/kg		96	21	124	**0.32**	<0.2	**0.33**	**0.35**	**0.25**	0.44	0.48
2-amino-4,6-dinitrotoluene	mg/kg		114	7.7	45	<0.21	<0.2	<0.22	<0.21	<0.21	ND	0.41
4-amino-2,6-dinitrotoluene	mg/kg		113	7.7	45	<0.21	<0.2	<0.22	<0.21	<0.21	0.025	0.41
1,3,5-trinitrobenzene	mg/kg		32,400	2,250	13,100	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,3-dinitrobenzene	mg/kg		82	6.3	37	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
2-nitrotoluene	mg/kg		15	3.2	18	<0.21	<0.2	<0.22	<0.21	<0.21	ND	0.078
3-nitrobenzene	mg/kg		82	6.3	37	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
4-nitrobenzene	mg/kg		144	34	198	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
nitrobenzene	mg/kg		32	7.4	43	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
HMX	mg/kg		57,000	3,860	22,500	--	--	--	--	--	ND	ND
PETN	mg/kg		534	126	736	--	--	--	--	--	ND	ND
RDX	mg/kg		38	8.3	49	--	--	--	--	--	ND	ND
Tetryl	mg/kg		2,330	156	911	--	--	--	--	--	ND	ND
nitroglycerin	mg/kg		82	6.3	37	--	--	--	--	--	0.21	0.031
2,4-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	0.65	0.055
2,6-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	0.064	ND
2,3-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
2,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
3,4-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
3,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
2,4,6-trinitro-3-xylene	mg/kg		96	21	124	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-3,4-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-3,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-3,6-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-4,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,3-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,3-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,4-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,4-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,4-dimethyl-2,6-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,5-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,5-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND

Notes:

[1]: Maximum concentration of on-site samples included on this table

[2]: Maximum concentration of WisDOT soil/sediment samples per results submitted to WDNR on 7/16/18 by WisDOT

2001 results are from QES-DEN using lab method 8321

2015 results are from ECCS using lab method 8270

mg/kg: milligrams per kilogram

RCL: Residual Contaminant Level

ND: Not detected

Attachment 7

Monitoring and Maintenance Plan

The Chemours Company
c/o AECOM
500 West Jefferson Street
Suite 1600
Louisville, KY 40202

502-569-2301 t
chemours.com

December 20, 2022

Mr. Paul Bretting
Bretting Development Corporation
3401 Lake Park Rd
Ashland, WI 54806

RE: Monitoring and Maintenance Plan
Soil Imported from Boyd Creek and Placed in Use Area PAT
Former E. I. du Pont de Nemours and Company Barksdale Works
72315 State Highway 13
Town of Barksdale, Bayfield County, Wisconsin
FID No.: 804009140
EPA ID No.: WIR000133447
BRRTS No. 02-04-00156
Parcel ID: 04-002-2-48-05-23-1 01-000-10000

Dear Mr. Bretting:

The Chemours Company FC, LLC (Chemours) is pleased to provide this monitoring and maintenance plan for the area where soil imported onto the Former DuPont Barksdale Works site from the Wisconsin Department of Transportation (WisDOT) Boyd Creek Bridge replacement project was placed. Project background has been provided in the Soil Grading Plan dated March 5, 2021 and Interim Action and Soil Management Plan dated September 18, 2020.

MONITORING AND MAINTENANCE PLAN

The ground surface in the area outlined on Figure 1 will be inspected once a year in the spring after snow/ice melt for evidence of vegetation loss, soil disturbance, and erosion. Note that the building and driveway shown on Figure 1 is excluded from this Monitoring and Maintenance Plan and will not be inspected. Areas requiring repair will be documented. The inspections will be performed by a representative of Chemours until case closure. At the time of case closure, the requirement for annual inspections and the party responsible for inspections will be re-evaluated.

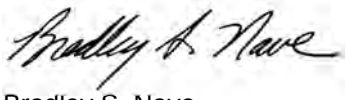
A log of the inspections will be maintained on WDNR Form 4400-305, Continuing Obligations Inspection and Maintenance Log. The log will include recommendations for repair (e.g. vegetation restoration), if applicable. Once repairs are completed, they will be documented in the inspection log. A copy of this maintenance plan and inspection log will be kept at the site. If problems are noted during the annual inspections or at any time during the year, repairs will be scheduled as soon as practical. Recommended repairs will be communicated to the site landowner, Bretting Development Corporation (BDC). BDC will be responsible for repairs due to their activity.

If removal, replacement, or other changes to a cover are considered, the WDNR shall be contacted at least 45 days before taking such an action to determine whether further action may be necessary. If soil is excavated from the area for disposal, soil samples must be collected and the soil must be treated, stored, and disposed of in accordance with applicable local, state, and federal law. Installation of water wells in the area or use of groundwater from beneath the area is prohibited.

This Plan can be amended or withdrawn with written approval of the WDNR.

If you have any questions or comments, please feel free to contact me or Cary Pooler with AECOM. I can be reached by telephone at (812) 406-7117 or by email at Bradley.S.Nave@chemours.com. Cary Pooler can be reached by telephone at (502) 252-5878 or by email at Cary.Pooler@aecom.com.

Sincerely,



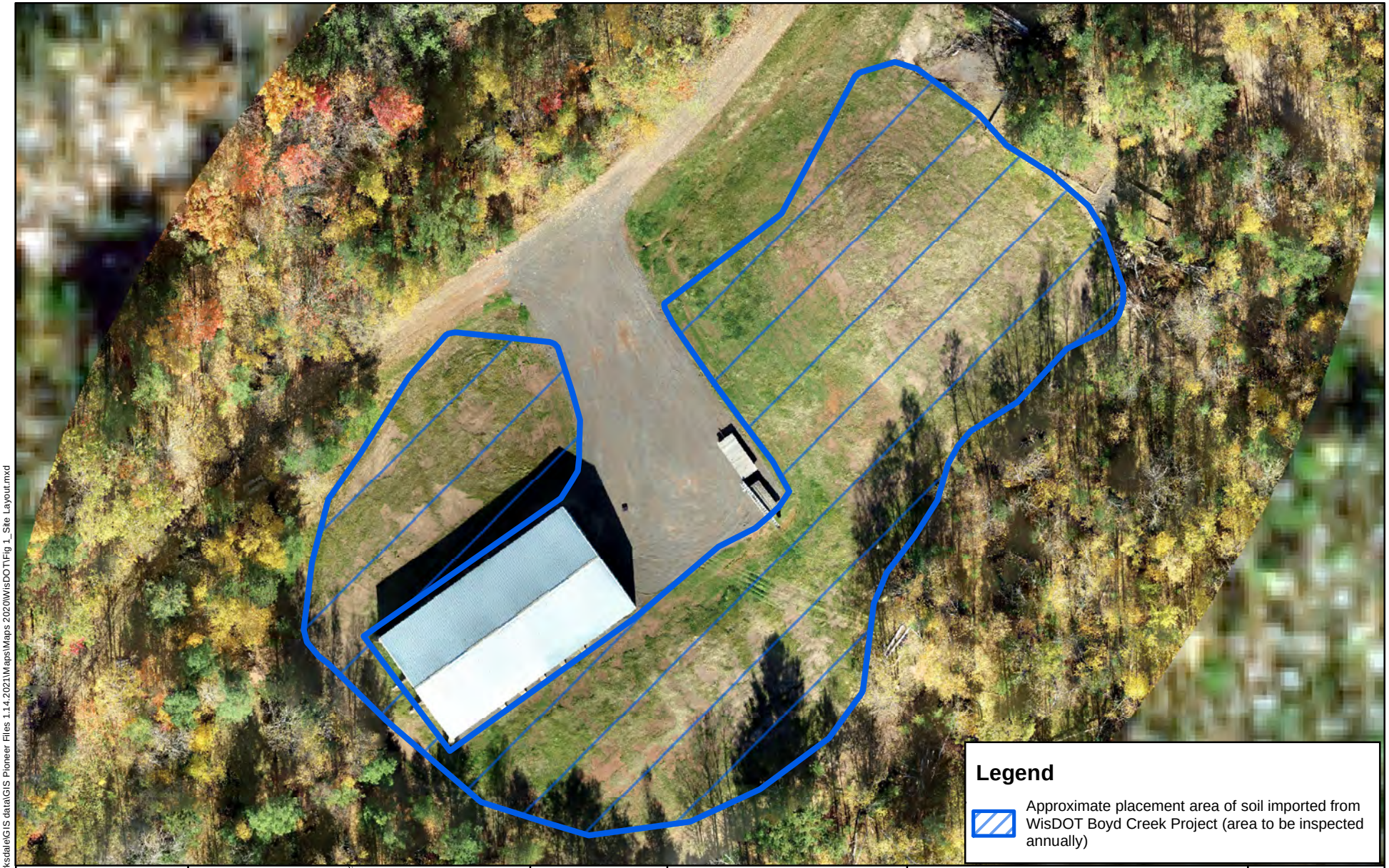
Bradley S. Nave
Chemours Corporate Remediation Group

Attachments: Figure 1: Project Location Map
WDNR Form 4400-305
Photo Log

cc: Philip Richard, WDNR
Cary Pooler, AECOM
Eric Schmidt, AECOM

Monitoring and Maintenance Plan Attachment 1

Figure 1: Project Location Map



Notes:

Aerial Image Date: 10/18/22

0 25 50 100

Feet

1:720

MAP FORMATTED FOR "A" (8.5" X 11") SIZE SHEET.
SCALE NOT VALID FOR DIFFERENT PAGE SIZE.

FILE NUMBER:

DESIGNED BY: ES

DRAWN BY: DN

DATA QUALITY CHECK BY: ES

AECOM
500 West Jefferson Street
Suite 1600
Louisville, Kentucky 40202

Project Location Map

Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

PROJECT NUMBER: 60660855

DATE: Nov. 2022

FIGURE NUMBER: 1

C:\Users\desmond.nielsen\Desktop\Barksdale\GIS data\GIS Pioneer Files 1.14.2021\Maps\Maps 2020\WisDOT\Fig 1_Site Layout.mxd

Monitoring and Maintenance Plan Attachment 2

WDNR Form 4400-305

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

Continuing Obligations Inspection and Maintenance Log

Form 4400-305 (R 7/20)

Directions: In accordance with s. NR 727.05 (1) (b) 3., Wis. Adm. Code, use of this form for documenting the inspections and maintenance of certain continuing obligations is required. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31-19.39, Wis. Stats.]. When using this form, identify the condition that is being inspected. See the closure approval letter for this site for requirements regarding the submittal of this form to the Department of Natural Resources. A copy of this inspection log is required to be maintained either on the property, or at a location specified in the closure approval letter. Do NOT delete previous inspection results. This form was developed to provide a continuous history of site inspection results. The Department of Natural Resources project manager is identified in the closure letter. The project manager may also be identified from the database, BRRTS on the Web, at http://dnr.wi.gov/botw/SetUpBasicSearchForm.do, by searching for the site using the BRRTS ID number, and then looking in the "Who" section.

Activity (Site) Name	BRRTS No.
DuPont Barksdale Explosives Plant	02-04-000156

Inspections are required to be conducted (see closure approval letter):

- (●) annually
- ( ) semi-annually
- ( ) other – specify _____

When submittal of this form is required, submit the form electronically to the DNR project manager. An electronic version of this filled out form, or a scanned version may be sent to the following email address (see closure approval letter):

Inspection Date	Inspector Name	Item	Describe the condition of the item that is being inspected	Recommendations for repair or maintenance	Previous recommendations implemented?	Photographs taken and attached?
		☐ monitoring well ☒ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N
		☐ monitoring well ☐ cover/barrier for soil ☐ sediment cap ☐ other:			◯ Y ◯ N	◯ Y ◯ N

{Click to Add/Edit Image} Date added:

Title:

{Click to Add/Edit Image} Date added:

Title:

Monitoring and Maintenance Plan Attachment 3

Photo Log

SITE PHOTOGRAPHS **Former Barksdale Works**	
Title: Photo 1 Date: 11/2/22 Direction: Southwest Description: General area where soil imported from the WisDOT Boyd Creek project was placed.	
Title: Photo 2 Date: 11/2/22 Direction: Northwest Description: General area where soil imported from the WisDOT Boyd Creek project was placed.	
SITE PHOTOGRAPHS **Former Barksdale Works**	

SITE PHOTOGRAPHS Former Barksdale Works	
Title: Photo 3 Date: 11/2/22 Direction: Southwest Description: General area where soil imported from the WisDOT Boyd Creek project was placed.	
Title: Photo 4 Date: 11/2/22 Direction: Northeast Description: General area where soil imported from the WisDOT Boyd Creek project was placed.	
SITE PHOTOGRAPHS Former Barksdale Works	

Attachment 8

Photo Log

SITE PHOTOGRAPHS

Former Barksdale Works

Title: Photo 1 Date: 5/18/2020 Direction: Northeast Description: Hay Barn area prior to importing WisDOT soil.	
Title: Photo 2 Date: 5/18/2020 Direction: South Description: Hay Barn area prior to importing WisDOT soil.	

SITE PHOTOGRAPHS

Former Barksdale Works

SITE PHOTOGRAPHS Former Barksdale Works	
Title: Photo 3 Date: Spring 2020 Direction: NA Description: Hay Barn area prior to importing WisDOT soil. Aerial image provided by Bayfield County.	
Title: Photo 4 Date: 9/1/2022 Direction: NA Description: Hay Barn area after grading WisDOT imported soil.	
SITE PHOTOGRAPHS Former Barksdale Works	

SITE PHOTOGRAPHS **Former Barksdale Works**	
Title: Photo 5 Date: 9/2/2022 Direction: Northwest Description: Hay Barn area after grading WisDOT imported soil.	
Title: Photo 6 Date: 9/2/2022 Direction: Southwest Description: Hay Barn area after grading WisDOT imported soil	
SITE PHOTOGRAPHS **Former Barksdale Works**	

Attachment 9

Email: Summary of August 23, 2022 Discussion Regarding Grading

Schmidt, Eric

From: Paul Bretting <paulbretting@bretting.com>
Sent: Saturday, August 27, 2022 8:17 AM
To: Pooler, Cary
Cc: Nave, Bradley S; Schmidt, Eric
Subject: [EXTERNAL] RE: Hay Barn Grading Work and WisDOT Soil

Good summary and thanks
I will share accordingly.

From: Pooler, Cary <cary.pooler@aecom.com>
Sent: Thursday, August 25, 2022 10:13 AM
To: Paul Bretting <paulbretting@bretting.com>
Cc: Nave, Bradley S <bradley.s.nave@chemours.com>; Schmidt, Eric <Eric.Schmidt@aecom.com>
Subject: Hay Barn Grading Work and WisDOT Soil

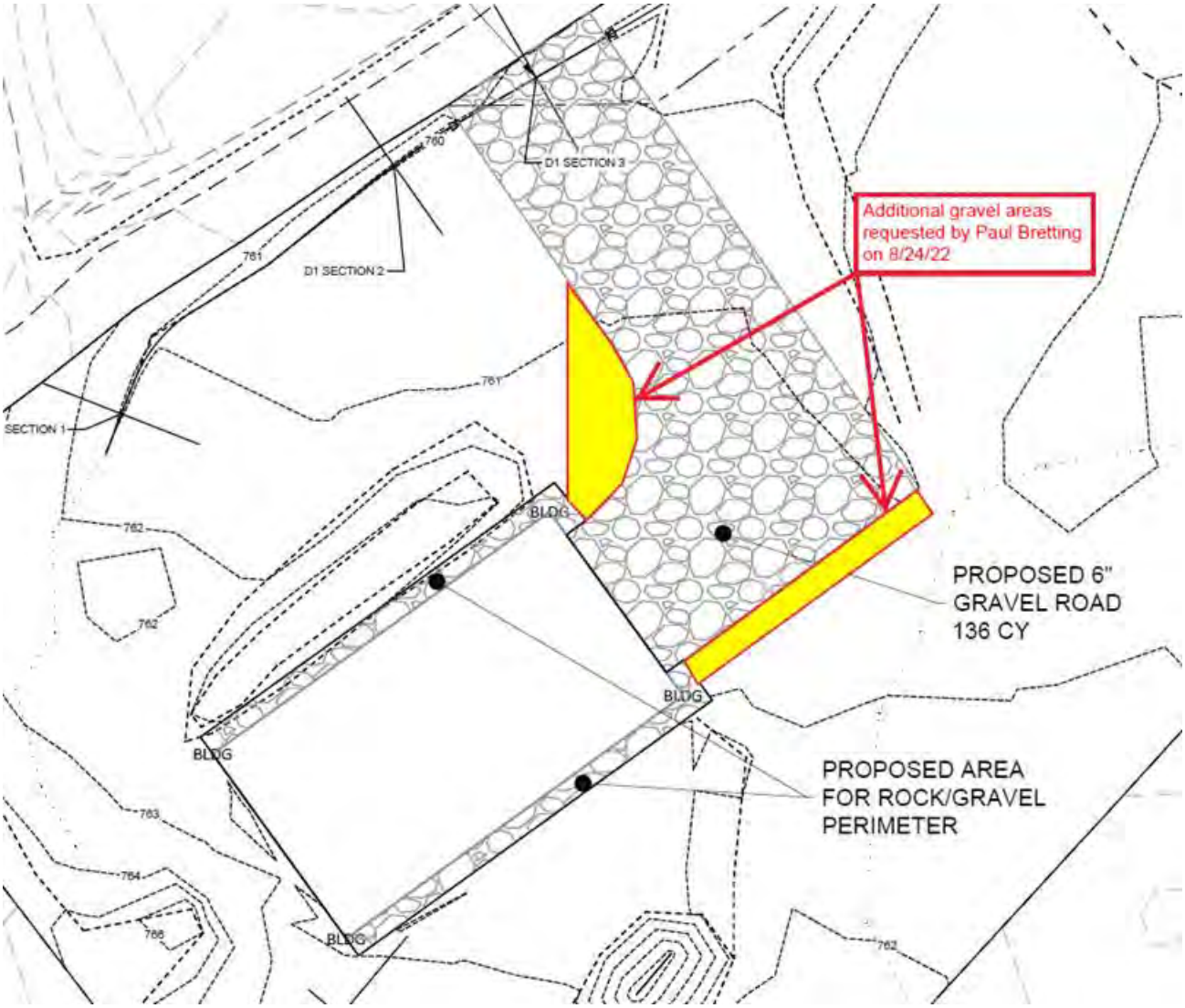
CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Paul:

Thank you for taking the time to meet with Eric Schmidt and me this past Tuesday regarding final details of the longstanding plan to regrade the Hay Barn area and use the imported WisDOT soil (imported onto the site in 2020) as a means to reduce the potential for erosion in the area. To summarize, the following key points were discussed:

1. Consistent with our previous conversations, the concentrations of detected constituents in the WisDOT soil are generally similar to preexisting concentrations detected in soil in the area around the Hay Barn where the WisDOT soil will be placed (see attached table).
2. The concentrations in the WisDOT soil are below the calculated recreational residual contaminant levels (RCLs; see attached table).
3. While the detected constituent concentrations in the WisDOT soil even meet default, non-industrial direct contact RCLs, which are the most stringent in Wisconsin, WDNR is requiring continued maintenance obligations in the area.
4. WDNR is requiring that a default owner notification letter and form, which we reviewed in detail, be provided as part of the WisDOT soil placement work. This letter will be sent to you in the near-term. We noted in our discussion that Chemours would be listed as the responsible party for ongoing obligations in the WDNR letter and form.
5. We agreed to continue with placement/spreading of the WisDOT soil across the area ahead of the notification letter.
6. We discussed that until complete establishment of vegetation and full site closure that we anticipate the continuing obligations will consist of annual inspection and repair of any erosion or rutting of the WisDOT soil placed in the area. The goal of this inspection and repair work is to keep the imported soil where placed. Considering this fact, you requested that we expand the gravel that will be placed in the area to reduce potential rutting and include markers for identification of the gravel limits in front of the overhead door.

I also understand you and Eric were able to meet yesterday to discuss the extent of the expanded gravel area mentioned in Item 6, above. These areas of expansion are identified in the image below.



As has been the case regarding other areas on the site, we would appreciate that you continue to proactively communicate with recreational users regarding the importance of not disturbing (rutting, etc.) soil in the area while vegetation is being established, and then in the future letting us know if any erosion is noted. Also, as you know, rock will be placed in the barn interior and the elevation raised, which may create clearance issues. Please be sure to communicate this elevation change and the importance of verifying clearance to all Hay Barn users.

If you have any questions, please feel free to contact either Brad Nave at (812) 406-7117 or me.

Thanks,

Cary

C.E. "Cary" Pooler, III, P.G.
Associate Vice President/Client Account Manager
D 1-502-252-5878 C 1-502-294-0726
cary.pooler@aecom.com

AECOM
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C.G. Bretting Manufacturing Co., Inc.

Attachment 10

WDNR Factsheet RR-819: Continuing Obligations for Environmental Protection Responsibilities of Wisconsin Property Owners

Remediation and Redevelopment Program June 2017

Continuing Obligations for Environmental Protection

Responsibilities of Wisconsin Property Owners

Wis. Stat. § 292.12

Purpose
This fact sheet is intended to help property owners understand their legal requirements under s. 292.12, Wis. Stats., regarding continuing obligations that arise due to the environmental condition of their property.

Introduction

The term "continuing obligations" refers to certain actions for which property owners are responsible following a completed environmental cleanup. They are sometimes called environmental land use controls or institutional controls. These legal obligations, such as a requirement to maintain pavement over contaminated soil, are most often found in a cleanup approval letter from the state.

Less commonly, a continuing obligation may apply where a cleanup is not yet completed but a cleanup plan has been approved, or at a property owned by a local government that is exempt from certain cleanup requirements.

What Are Continuing Obligations?

Continuing obligations are legal requirements designed to protect public health and the environment in regard to contamination that remains on a property.

Continuing obligations still apply after a property is sold. Each new owner is responsible for complying with the continuing obligations.

Background

Wisconsin, like most states, allows some contamination to remain after cleanup of soil or groundwater contamination (residual contamination). This minimizes the transportation of contamination and reduces cleanup costs while still ensuring that public health and the environment are protected.

The Department of Natural Resources (DNR), through its Remediation and Redevelopment (RR) Program, places sites or properties with residual contamination on a public database in order to provide notice to interested parties about the residual contamination and any associated continuing obligations. Please see the "Public Information" section on page 3 to learn more about the database. (Prior to June 3, 2006, the state used deed restrictions recorded at county courthouses to establish continuing obligations, and those deed restrictions have also been added into the database.)

Types of Continuing Obligations

1. **Manage Contaminated Soil that is Excavated**

   If the property owner intends to dig up an area with contaminated soil, the owner must ensure that proper soil sampling, followed by appropriate treatment or disposal, takes place. Managing contaminated soil must be done in compliance with state law and is usually done under the guidance of a private environmental professional.

2. Manage Construction of Water Supply Wells

If there is soil or groundwater contamination and the property owner plans to construct or reconstruct a water supply well, the owner must obtain prior DNR approval to ensure that well construction is designed to protect the water supply from contamination.

Other Types of Continuing Obligations

Some continuing obligations are designed specifically for conditions on individual properties. Examples include:

- keeping clean soil and vegetation over contaminated soil;
- keeping an asphalt "cover" over contaminated soil or groundwater;
- maintaining a vapor venting system; and
- notifying the state if a structural impediment (e.g. building) that restricted the cleanup is removed. The owner may then need to conduct additional state-approved environmental work.

It is common for properties with approved cleanups to have continuing obligations because the DNR generally does not require removal of all contamination.

Property owners with the types of continuing obligations described above will find these requirements described in the state's cleanup approval letter or cleanup plan approval, and *must*:

- comply with these property-specific requirements; and
- obtain the state's permission before changing portions of the property where these requirements apply.

The requirements apply whether or not the person owned the property at the time that the continuing obligations were placed on the property.

Changing a Continuing Obligation

A property owner has the option to modify a continuing obligation if environmental conditions change. For example, petroleum contamination can degrade over time and property owners may collect new samples showing that residual contamination is gone. They may then request that the DNR modify or remove a continuing obligation. Fees are required for the DNR's review of this request and for processing the change to the database ($1050 review fee, $300/$350 database fee). Fees are subject to change; current fees are found in Wis. Admin. § NR 749 online at http://docs.legis.wisconsin.gov/code/admin_code/nr/700/749.

Public Information

The DNR provides public information about continuing obligations on the Internet. This information helps property owners, purchasers, lessees and lenders understand legal requirements that apply to a property. The DNR has a comprehensive database of contaminated and cleaned up sites, *BRRTS on the Web*. This database shows all contamination activities known to the DNR. Site specific documents are found under the *Documents* section. The information includes maps, deeds, contaminant data and the state's closure letter. The closure letter states that no additional environmental cleanup is needed for past contamination and includes information on property-specific continuing obligations. If a cleanup has not been completed, the state's approval of the remedial action plan will contain the information about

continuing obligations.

Properties with continuing obligations can generally be located in the DNR's *RR Sites Map*. RR Sites Map provides a map view of contaminated and cleaned up sites, including sites with continuing obligations, and links to BRRTS on the Web. *BRRTS on the Web* and *RR Sites Map* are part of the Wisconsin Remediation and Redevelopment Database (WRRD) at http://dnr.wi.gov/topic/Brownfields/wrrd.html.

If a completed cleanup is shown in *BRRTS on the Web* but the site documents cannot be found in the documents section, the DNR's closure letter can still be obtained from a regional office. For assistance, please contact a DNR Environmental Program Associate (see the RR Program's Staff Contact web page at dnr.wi.gov/topic/Brownfields/Contact.html).

Off-Site Contamination: When Continuing Obligations Cross the Property Line

An off-site property owner is someone who owns property that has been affected by contamination that moved through soil, sediment or groundwater from another property. Wis. Stat. § 292.13 provides an exemption from environmental cleanup requirements for owners of "off-site" properties. The DNR will generally not ask off-site property owners to investigate or clean up contamination that came from a different property, as long as the property owner allows access to his or her property so that others who are responsible for the contamination may complete the cleanup.

However, off-site property owners are legally obligated to comply with continuing obligations on their property, even though they did not cause the contamination. For example, if the state approved a cleanup where the person responsible for the contamination placed clean soil over contamination on an off-site property, the owner of the off-site property must either keep that soil in place or obtain state approval before disturbing it.

Property owners and others should check the *Public Information* section above if they need to:

- determine whether and where continuing obligations exist on a property;
- review the inspection, maintenance and reporting requirements, and
- contact the DNR regarding changing that portion of the property. The person to contact is the person that approved the closure or remedial action plan.

Option for an Off-Site Liability Exemption Letter

In general, owners of off-site properties have a legal exemption from environmental cleanup requirements. This exemption does not require a state approval letter. Nonetheless, they may request a property-specific liability exemption letter from the DNR if they have enough information to show that the source of the contamination is not on their property. This letter may be helpful in real estate transactions. The fee for this letter is $700 under Chapter NR 749, Wis. Adm. Code. For more information about this option, please see the RR Program's Liability web page at dnr.wi.gov/topic/Brownfields/Liability.html.

Legal Obligations of Off-Site Property Owners

- Allow access so the person cleaning up the contamination may work on the off-site property (unless the off-site owner completes the cleanup independently).
- Comply with any required continuing obligations on the off-site property.

Required Notifications to Off-Site Property Owners

1. The person responsible for cleaning up contamination must notify affected property owners of any proposed continuing obligations on their off-site property **before** asking the DNR to approve the cleanup. This is required by law and allows the off-site owners to provide the DNR with any technical information that may be relevant to the cleanup approval.

   When circumstances are appropriate, an off-site neighbor and the person responsible for the cleanup may enter into a "legally enforceable agreement" (i.e. a contract). Under this type of private agreement, the person responsible for the contamination may also take responsibility for maintaining a continuing obligation on an off-site property. This agreement would not automatically transfer to future owners of the off-site property. The state is not a party to the agreement and cannot enforce it.

2. If a cleanup proposal that includes off-site continuing obligations is approved, the DNR will send a letter to the off-site owners detailing the continuing obligations that are required for their property. Property owners should inform anyone interested in buying their property about maintaining these continuing obligations. For residential property, this would be part of the real estate disclosure obligation.

More Information

For more information, please visit the RR Program's Continuing Obligations website at dnr.wi.gov/topic/Brownfields/Residual.html.

This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Chief, Public Civil Rights, Office of Civil Rights, U.S. Department of the Interior, 1849 C. Street, NW, Washington, D.C. 20240.

This publication is available in alternative format (large print, Braille, etc.) upon request. Please call for more information. Note: If you need technical assistance or more information, call the Accessibility Coordinator at 608-267-7490 / TTY Access via relay - 711

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October 21, 2022

Mr. Paul Bretting
Bretting Development Corporation
3401 Lake Park Road
Ashland, WI 54806

RE: Site Use Map and Use Restrictions for October 2022 to October 2023 Period
Former DuPont Barksdale Works
72315 State Highway 13
Town of Barksdale, Bayfield County, Wisconsin
FID No.: 804009140
EPA ID No.: WIR000133447
BRRTS No. 02-04-00156

Dear Mr. Bretting:

Attached please find the updated annual Site Use Map for your use and reference for the period starting October 2022 through October 2023. As you are aware, The Chemours Company FC, LLC (Chemours) has been updating and issuing this map annually so that Bretting Development Corporation's (BDC's) primary users and guests may readily identify portions of the former DuPont Barksdale Works property (Site) that are suitable for recreational use at a frequency of 60 days per calendar year per adult user.

Of note on this year's map is the elimination of access restrictions in portions of Use Areas PAJ and PAT, which result in an additional 14 and 1 acres, respectively, that are now available for recreational use on the Site. With the addition of this acreage, the total Site land area currently available for BDC use is approximately 1,475 acres of the 1,798 acres that comprised the former Site and are currently owned by BDC.

Use Area PAJ was historically used for refining 2,4,6-trinitrotoluene (TNT) as part of DuPont's past manufacturing operations. As communicated to you in December 2021, our remediation work within the use area is complete, pending Wisconsin Department of Natural Resources (WDNR) concurrence. The remediation work consisted of implementing a variety of techniques to concurrently locate and remove residual solid product, affected soil, and contaminated remnant debris from the area with a goal of leaving a remaining average concentration of site-related constituents at a level that is acceptable (based on Wisconsin NR 720 code and 60 days/year of exposure) for direct human contact and, therefore, available for recreational use by adults at the above referenced annual frequency. The goal of reaching the point where continued recreational use is appropriate at a 60 day per year per user frequency, which was developed in consultation with you, has been the foundation of the site investigation and remediation work Chemours has been undertaking for many years.

Tables 1A and 1B present a summary of the current in-place, post-remediation concentrations of constituents quantified in soil samples during the course of the remediation work and compares them to site-specific screening criteria. For the sake of clarity and emphasis, we wish to note that the values listed in these tables are representative of current concentrations in soil at present day, after completion of our remediation work. Thus, the concentrations listed are

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those that a user might reasonably be expected to encounter during use of the area. The location of these soil samples is depicted in Figure 1.

As previously mentioned, while we believe the remediation work in Use Area PAJ to be complete, WDNR concurrence is still pending. As such, Chemours is lifting the recreational use restriction for BDC in the area of the Site subject to the following interim limitations that were discussed and agreed to by you in our meeting on October 19, 2022:

- BDC's use of Use Area PAJ must remain recreational and be limited to a frequency of no greater than 60 days per year per adult user. BDC is solely responsible for tracking frequency of use among its primary users and guests.
- BDC shall ensure soil disturbance activities do not occur within Use Area PAJ. In the event of inadvertent soil disturbance, BDC shall grade, seed, and monitor the area(s) for adequate growth until a perennial vegetation cover with a density of at least 70% is achieved.
- Installation of water wells in the area or use of groundwater from beneath the area is prohibited.
- Access to the Use Area shall not be through restricted areas to the north and east. Areas with restricted access are shown on the attached 2022 Land Uses map.

While Chemours appreciates your suggestion that BDC will simply prohibit vehicle access in Use Area PAJ to reduce the potential for soil disturbance, Chemours does not object to light vehicle traffic in the area as long as soil disturbance does not occur as noted above.

In Use Area PAT, Chemours distributed soil that was imported from the 2020 Wisconsin Department of Transportation (WisDOT) Boyd Creek Bridge replacement project in the location identified as the "Hay Barn Area." The current Hay Barn is a pole structure constructed on the Site's former Oil of Vitriol Plant (i.e., sulfuric acid) storage barn foundation by BDC sometime after Site acquisition. This building was part of the 196-acre restricted area outlined in the deed conveyed to BDC by DuPont. WDNR approved placement of the imported soil in this portion of Use Area PAT to reduce the potential for erosion of soil in the area. The completion of this work allows the additional area shown on the attached Annual Land Use Maps to become available for recreational use. The analytical results from the imported soil are below WDNR non-industrial direct contact screening values and a summary of nitramine and nitroaromatic organic compound (NNOCs) detections is provided in Table 2. Interim recreational use restrictions for this area are as follow:

- BDC's use of Use Area PAT must remain recreational and be limited to a frequency of no greater than 60 days per year per adult user. BDC is solely responsible for tracking frequency of use among its primary users and guests.
- Vehicle traffic in the areas without gravel is prohibited while the perennial vegetation cover is being established.

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- Vehicle traffic in areas without gravel should be minimized to the extent possible. Any activity that results soil disturbance and/or in vegetation loss shall be immediately addressed. Based on historical sampling, NNOCs, inorganics (i.e., metals), and polynuclear aromatic hydrocarbons (PAHs) are present in soil below the imported WisDOT soil layer. While the detected concentrations are, on average, below screening criteria in this layer, it should not be disturbed. Note that the imported WisDOT soil layer that covers the natural ground surface is approximately 6-inches thick, on average.
- Installation of water wells in the area or use of groundwater from beneath the area is prohibited.
- Equipment storage in areas without gravel should be only temporary and not result in vegetation loss. Areas where vegetation loss occurs shall be immediately reseeded and monitored for vegetation reestablishment.
- Until complete establishment of vegetation and full site closure, it is anticipated that Chemours will conduct annual inspections of the area where imported soil from the WisDOT project was distributed. Repair of areas affected by erosion or rutting identified during the inspections will be required. BDC is responsible for repairs due to their activity.
- Access to the area shall be limited to the roadways that were improved as part of the soil import work.

As discussed in our October 19, 2022 meeting, a Chemours representative will join you at the site, at a mutually agreeable date and time, within the next 30 days to review and walk the boundaries of these two areas.

Please note that the interim limitations listed herein are subject to change, based on either WDNR's review of the work completed to date in both use areas and/or any future need identified by Chemours and/or WDNR.

As with previous annual use maps, multiple copies of the attached annual use map will be printed on vinyl banner material and delivered to the clubhouse for your distribution to land users.

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If you have any questions or comments, please feel free to contact me by telephone at (812) 406-7117 or by email at Bradley.S.Nave@chemours.com.

Sincerely,

Bradley S. Nave
Chemours Corporate Remediation Group

Attachments:
Attachment 1: 2022 Land Uses Map
Attachment 2: Use Area PAJ Tables
- Table 1A – Use Area PAJ In-Place Soil Analytical Results - NNOCs
- Table 1B – Use Area PAJ In-Place Soil Analytical Results - SVOCs, VOCs, Metals, and TOC

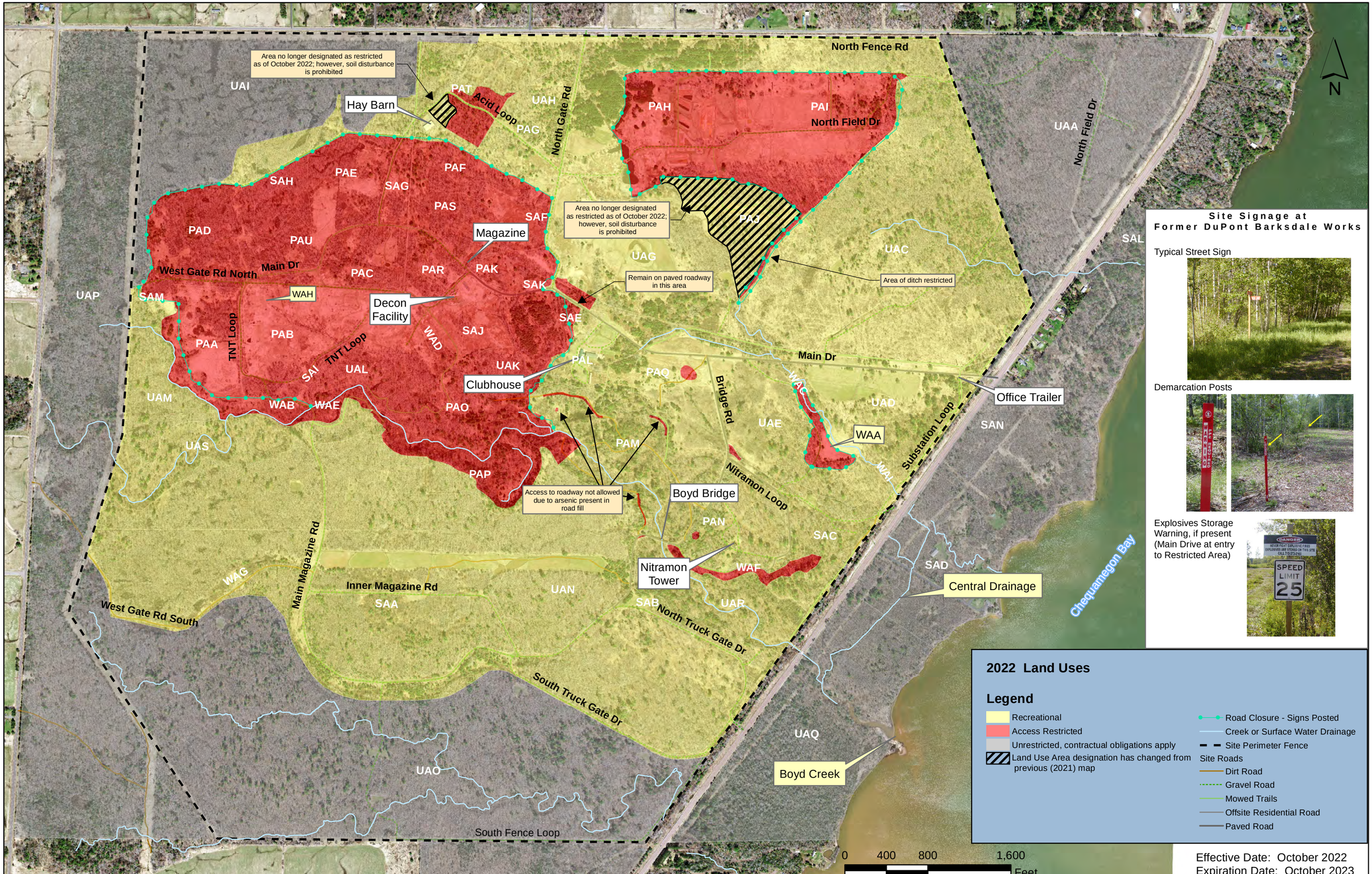
Attachment 3: Use Area PAJ Figure
- Figure 1 – Use Area PAJ Soil Sample Location Map

Attachment 4: Use Area PAT Table
- Table 2: Use Area PAT Soil Analytical Results - NNOCs

cc:
Philip Richard WDNR
Chris Saari, WDNR
Cary Pooler, AECOM
Eric Schmidt, AECOM

Attachment 1

2022 Land Uses Map



Site Signage at Former DuPont Barksdale Works
Typical Street Sign
Demarcation Posts
Explosives Storage Warning, if present (Main Drive at entry to Restricted Area)
SPEED LIMIT 25
2022 Land Uses
Legend
Recreational
Access Restricted
Unrestricted, contractual obligations apply
Land Use Area designation has changed from previous (2021) map
Road Closure - Signs Posted
Creek or Surface Water Drainage
Site Perimeter Fence
Site Roads
Dirt Road
Gravel Road
Mowed Trails
Offsite Residential Road
Paved Road
0 400 800 1,600 Feet
Effective Date: October 2022
Expiration Date: October 2023
North Fence Rd
North Field Dr
North Gate Rd
Acid Loop
Area no longer designated as restricted as of October 2022; however, soil disturbance is prohibited
Hay Barn
Magazine
Decon Facility
Clubhouse
Office Trailer
Boyd Bridge
Nitramon Tower
Central Drainage
Boyd Creek
Area of ditch restricted
Remain on paved roadway in this area
Access to roadway not allowed due to arsenic present in road fill
West Gate Rd North
Main Dr
TNT Loop
Bridge Rd
Nitramon Loop
Substation Loop
Main Magazine Rd
Inner Magazine Rd
West Gate Rd South
North Truck Gate Dr
South Truck Gate Dr
South Fence Loop
Chequamegon Bay
N

Attachment 2

Use Area PAJ Tables

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ006	PAJ016	PAJ016	PAJ016	SWF021	SWF022	SWF023	PAJ017B	PAJ017C	PAJ020	PAJ017C	PAJ017A
				Sample Date	10/24/2003	09/30/2004	09/30/2004	09/30/2004	07/11/2006	07/11/2006	07/11/2006	07/11/2006	07/11/2006	07/11/2006	08/16/2006	08/16/2006
				Start Depth - End Depth (feet)	0 - 2	3 - 4	14 - 15	3 - 4	0 - 1	0 - 1	0 - 1	2 - 3	2 - 3	4 - 5	8 - 9.5	6 - 7
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<35	160	160	290	1800	39 J	69 J	17000	***38000***	280	<22	740
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<41	<42	<39	<42	350	<53	<55	<53	<53	270	<48	1200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<27	<28	<26	<28	530	<27	<28	1100	2400	180	<24	530
2,4-Dinitrotoluene	0.1	5110	1210	7030	**32 J**	<16	<15	<16	<25	**26 J**	**120 J**	<25	<25	**52 J**	<22	<21
2,6-Dinitrotoluene	0.1	5110	1210	7030	**56 J**	<23	<21	<23	<25	<25	<26	<25	<25	**46 J**	<22	<21
2,5-Dinitrotoluene		5110	1210	7030												
3,4-Dinitrotoluene		5110	1210	7030												
3,5-Dinitrotoluene		5110	1210	7030												
Total DNT Isomers		51100	12100	70300	88	<39	<36	<39	<50	51	146	<50	<50	98	<44	<42
2,4,6-Trinitroxylene		96000	21300	124000												
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<24	<25	<24	<25	<42	<41	<43	<41	<41	<40	<37	<35
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<20	<20	<19	<20	<22	<21	<22	<21	<21	49 J	<19	<18
2-Nitrotoluene		14900	3160	18400	<20	<20	<19	<20	<23	<22	<23	<22	<22	<22	29 B	25 B
1-Methyl-4-Nitrobenzene		144000	33900	198000	<15	<16	<15	<16	<51	<49	<51	<50	<49	<48	<45	<42
3,5-Dinitroaniline		328000	25300	147000												

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ017A	PAJ017B	PAJ017B	PAJ017C	PAJ021	PAJ022	PAJ023	PAJ024	PAI016	PAI016	PAI016	I-28-08
				Sample Date	08/17/2006	08/16/2006	08/16/2006	08/16/2006	08/16/2006	08/16/2006	08/16/2006	08/16/2006	08/22/2006	08/17/2006	08/17/2006	09/08/2008
				Start Depth - End Depth (feet)	8 - 9.5	6 - 7	8 - 9.5	6 - 7	0 - 2	0 - 2	0 - 2	0 - 2	0 - 1	0 - 2	0 - 2	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	***32000***	58 J	1400	<26	140	<30	<25	44 J	<24	99 J	56 J	***26000***
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	2700	57 J	400	<56	<52	<64	<53	<52	<51	<50	<50	2400
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	2100	39 J	420	<28	40 J	<33	<27	35 J	<26	<26	<26	3600
2,4-Dinitrotoluene	0.1	5110	1210	7030	**90 J**	<24	**45 J**	<26	**40 J**	<30	<25	<24	<24	<23	<24	**170**
2,6-Dinitrotoluene	0.1	5110	1210	7030	<21	<24	<29	<26	<24	<30	<25	<24	<24	<23	<24	<12
2,5-Dinitrotoluene		5110	1210	7030												
3,4-Dinitrotoluene		5110	1210	7030												
3,5-Dinitrotoluene		5110	1210	7030												
Total DNT Isomers		51100	12100	70300	111	<48	74	<52	64	<60	<50	<48	<48	<46	<48	182
2,4,6-Trinitroxylene		96000	21300	124000												
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<35	<39	<49	<43	<41	<50	<41	<41	<40	<39	<39	<43
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	22 J	<20	<25	<22	<21	<25	<21	<21	<20	<20	<20	44 J
2-Nitrotoluene		14900	3160	18400	26 B	28 B	38 B	31 B	<22	28 J	<22	<22	<22	<21	<21	<15
1-Methyl-4-Nitrobenzene		144000	33900	198000	<42	<47	<58	<52	<49	<59	<49	<49	<48	<47	<47	<16
3,5-Dinitroaniline		328000	25300	147000												

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	H-28-16	H-29-13	H-28-16	H-29-13	I-28-4	I-29-01	I-28-08	I-29-5	I-29-5	G-28-10	J-30-09	G-26-11
				Sample Date	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/08/2008	09/09/2008	08/04/2009	08/06/2009	08/05/2009
				Start Depth - End Depth (feet)	0 - 2	0 - 2								0 - 1	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	33 J	51 J								39 J	1900	<24
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	72 J	99 J								<49	780	<48
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	110 J	130 J								<37	2800	<35
2,4-Dinitrotoluene	0.1	5110	1210	7030	<13	**14 J**	<12	**14**	***1400***	***1300***	**180**	***1400***	**580**	<12	**21 J**	<11
2,6-Dinitrotoluene	0.1	5110	1210	7030	<12	<12	**14**	**16**	**76**	**56**	**24**	**69**	**39**	<12	<12	<11
2,5-Dinitrotoluene		5110	1210	7030												
3,4-Dinitrotoluene		5110	1210	7030			<12	<12	<12	<13	<12	<12	<12	<12	<12	<11
3,5-Dinitrotoluene		5110	1210	7030			<25	<26	49	<27	<26	<25	<25	<25	<25	<24
Total DNT Isomers		51100	12100	70300	<25	26	70.2	75.4	1544.5			1513.3	663.3	<68.1	77	<63.8
2,4,6-Trinitroxylene		96000	21300	124000												
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<42	<43								<41	<41	<40
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<35								<33	<33	<32
2-Nitrotoluene		14900	3160	18400	<14	<15								<14	<14	<14
1-Methyl-4-Nitrobenzene		144000	33900	198000	<16	<16								<15	<15	<15
3,5-Dinitroaniline		328000	25300	147000												

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	G-27-11	H-31-05	H-27-13	I-28-08	PAJ026	PAJ027	PAJ028	PAJ028	PAJ029	PAJ029	PAJ030	RTD-350L000
				Sample Date	08/05/2009	08/06/2009	08/12/2009	08/12/2009	08/24/2009	08/24/2009	08/24/2009	08/24/2009	08/24/2009	08/24/2009	08/24/2009	08/25/2009
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 1	4 - 5	6 - 7	1 - 2	4 - 5	2 - 3	3 - 5	1 - 2	4 - 5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	210	<25	12000	***43000***	1800	1800	4900	1000	17000	11000	390	2800
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<50	<49	160	2300 J	83 J	1900	530 J	<46	1400 J	1800	92 J	80 J
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	38 J	<36	470	6300	970	980 J	850 J	69 J	690 J	1000 J	150	280
2,4-Dinitrotoluene	0.1	5110	1210	7030	<12	<12	**17 J**	**130**	**410**	<120	<120	**16 J**	<120	<120	**30 J**	**26 J**
2,6-Dinitrotoluene	0.1	5110	1210	7030	<12	<12	<12	<12	**91 J**	<120	<120	**43 J**	**130 J**	<120	<12	<13
2,5-Dinitrotoluene		5110	1210	7030												
3,4-Dinitrotoluene		5110	1210	7030	<12	<12	<12	<12	15 J	<120	<120	<11	<120	<120	<12	<13
3,5-Dinitrotoluene		5110	1210	7030	<25	<25	<26	<26	<25	<260	<260	<23	<250	<260	<26	<27
Total DNT Isomers		51100	12100	70300	<68.1	<68.1	74.5	187.4	548	<693	<695	99.6	692	<694	87.4	86.8
2,4,6-Trinitroxylene		96000	21300	124000												
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<41	<41	<43	<43	490	6600	<440	<38	550 J	1500	<43	<45
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<33	<33	<35	<35	<33	<340	<350	<31	<340	<350	<34	<36
2-Nitrotoluene		14900	3160	18400	<14	<14	<15	<15	<14	<150	<150	<13	<140	<150	<15	<16
1-Methyl-4-Nitrobenzene		144000	33900	198000	<15	<15	<16	<16	<15	<160	<160	<14	<160	<160	<16	<17
3,5-Dinitroaniline		328000	25300	147000												

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	RTD-500L004	I-28-12-NE	J-30-07	J-29-15	K-30-02-SW	I-31-01	I-30-06	EC13 064	EC13 065	EC13 083	EC13 084	PAJ-18-2018
				Sample Date	08/25/2009	08/27/2010	09/13/2010	09/13/2010	07/14/2011	08/16/2011	08/16/2011	09/05/2013	09/05/2013	09/10/2013	09/10/2013	09/11/2018
				Start Depth - End Depth (feet)	1 - 3	0 - 1	0 - 1	0 - 1				0 - 5.7	0 - 5.7	0 - 0.8	0 - 1.0	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1400	12000	<6.3	770	23 J	170	12 J	<210	<200	***98000***	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<48	720 J	<15	86 J	37 J	34 J	<14	<210	<200	6100	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<35	1300	8.8 J	93 J	30 J	28 J	10 J	<210	<200	***10000***	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	**19 J**	<92	<10	**11 J**	**11 J**	<9	<9.7	<210	<200	**220**	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<11	<220	<25	<26	<23	<22	<24	<210	<200	<210	<200	<200
2,5-Dinitrotoluene		5110	1210	7030								<210	<200	<210	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<11	<110	<13	<13	<11	<11	<12	<210	<200	<210	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<24	<230	<26	<27	<24	<23	<25	<210	<200	<210	<200	<200
Total DNT Isomers		51100	12100	70300	71.9	<719	<81.5	84.8	75.8	<71.6	<77.8	<1260	<1200	1270	<1200	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000								<210	<200	<210	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<40	<140	<16	<16	<14	<14	<15	<210	<200	<210	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<32	<80	<8.9	<9.2	<8.1	<7.8	<8.4	<210	<200	<210	<200	<200
2-Nitrotoluene		14900	3160	18400	<14	<64	<7.2	<7.4	<6.5	<6.3	<6.8	<210	<200	<210	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<15	<120	<14	<14	<12	<12	<13	<210	<200	<210	<200	<200
3,5-Dinitroaniline		328000	25300	147000								<210	<200	<210	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-18-2018	PAJ-16-2018	PAJ-16-2018	PAJ-17-2018	PAJ-17-2018	PAJ-06-2018	PAJ-06-2018	PAJ-09-2018	PAJ-09-2018	PAJ-10-2018	PAJ-10-2018	PAJ-11-2018
				Sample Date	09/11/2018	09/12/2018	09/12/2018	09/12/2018	09/12/2018	09/13/2018	09/13/2018	09/13/2018	09/13/2018	09/13/2018	09/13/2018	09/13/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater Pathway RCL	**Direct Contact RCLs**														
		Industrial	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
2-Nitrotoluene		14900	3160	18400	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<210	<210	<210	<210	<200	<200	<210	<210	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-11-2018	PAJ-04-2018	PAJ-04-2018	PAJ-28-2018	PAJ-28-2018	PAJ-12-2018	PAJ-12-2018	PAJ-13-2018	PAJ-13-2018	PAJ-14-2018	PAJ-14-2018	PAJ-21-2018
				Sample Date	09/13/2018	09/14/2018	09/14/2018	09/14/2018	09/14/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-21-2018	PAJ-23-2018	PAJ-23-2018	PAJ-27-2018	PAJ-27-2018	PAJ-35-2018	PAJ-35-2018	PAJ-01-2018	PAJ-01-2018	PAJ-02-2018	PAJ-02-2018	PAJ-03-2018
				Sample Date	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/17/2018	09/18/2018	09/18/2018	09/18/2018	09/18/2018	09/18/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<200	<210	<200	<200	<210	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-03-2018	PAJ-07-2018	PAJ-07-2018	PAJ-08-2018	PAJ-08-2018	PAJ-26-2018	PAJ-26-2018	PAJ-15-2018	PAJ-15-2018	PAJ-44-2018	PAJ-44-2018	PAJ-45-2018
				Sample Date	09/18/2018	09/18/2018	09/18/2018	09/18/2018	09/18/2018	09/18/2018	09/18/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-45-2018	PAJ-46-2018	PAJ-46-2018	PAJ-47-2018	PAJ-47-2018	PAJ-48-2018	PAJ-48-2018	PAJ-49-2018	PAJ-49-2018	PAJ-50-2018	PAJ-50-2018	PAJ-31-2018
				Sample Date	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/19/2018	09/20/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-31-2018	PAJ-37-2018	PAJ-37-2018	PAJ-41-2018	PAJ-41-2018	PAJ-19-2018	PAJ-19-2018	PAJ-20-2018	PAJ-20-2018	PAJ-24-2018	PAJ-24-2018	PAJ-25-2018
				Sample Date	09/20/2018	09/20/2018	09/20/2018	09/20/2018	09/20/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<210	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-25-2018	PAJ-29-2018	PAJ-29-2018	PAJ-30-2018	PAJ-30-2018	PAJ-36-2018	PAJ-36-2018	PAJ-22-2018	PAJ-22-2018	PAJ-32-2018	PAJ-32-2018	PAJ-33-2018
				Sample Date	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/24/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<210	<200	<200	<200	<200	<200	570	<210	<210	<210	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1320 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<210	<200	<200	<200	<200	<200	<220	<210 UJ	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<200	<200	<200	<200	<200	<220	<210	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-33-2018	PAJ-34-2018	PAJ-34-2018	PAJ-38-2018	PAJ-38-2018	PAJ-39-2018	PAJ-39-2018	PAJ-40-2018	PAJ-40-2018	PAJ-42-2018	PAJ-42-2018	PAJ-43-2018
				Sample Date	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018	09/25/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
2-Nitrotoluene		14900	3160	18400	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<200	<200	<210	<210	<210	<200	<210	<200	<210	<210	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-43-2018	PAJ-51-2018	PAJ-51-2018	PAJ-52-2018	PAJ-52-2018	PAJ-56-2018	PAJ-56-2018	PAJ-61-2018	PAJ-61-2018	PAJ-60-2018	PAJ-60-2018	PAJ-55-2018
				Sample Date	09/25/2018	09/27/2018	09/27/2018	09/27/2018	09/27/2018	09/28/2018	09/28/2018	09/28/2018	09/28/2018	10/01/2018	10/01/2018	10/02/2018
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<210	<210	<200	<210	<210	<200	<210	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-55-2018	PAJ-57-2018	PAJ-57-2018	PAJ-54-2018	PAJ-54-2018	PAJ-58-2018	PAJ-58-2018	PAJ-62-2018	PAJ-62-2018	PAJ-68-2019	PAJ-68-2019	PAJ-69-2019
				Sample Date	10/02/2018	10/02/2018	10/02/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	08/12/2019	08/12/2019	08/13/2019
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<210	<210	<200	<200	<210	<200	2100	440	<210	<200	5400
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<210	<210	<200	<200	<210	<200	210	<200	<210	<200	220
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<210	<210	<200	<200	<210	<200	370	<200	<210	<200	230
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
2-Nitrotoluene		14900	3160	18400	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<210	<200	<200	<210	<200	<210	<200	<210	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-69-2019	PAJ-70-2019	PAJ-70-2019	PAJ-72-2019	PAJ-72-2019	PAJ-73-2019	PAJ-73-2019	PAJ-73-2019	PAJ-74-2019	PAJ-74-2019	PAJ-71-2019	PAJ-71-2019
				Sample Date	08/13/2019	08/13/2019	08/13/2019	08/15/2019	08/15/2019	08/15/2019	08/15/2019	08/15/2019	08/16/2019	08/16/2019	10/15/2019	10/15/2019
				Start Depth - End Depth (feet)	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<210	<210	<200	<210	470	220	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	200	<210	<210	<200	<210	<210	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	220	230	<210	<210	<200	<210	<210	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	260	<200	<210	<210	<200	<210	<210	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<210	<210	<200	<210	<210	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-75-2020	PAJ-75-2020	PAJ-77-2020	PAJ-77-2020	PAJ-88-2020	PAJ-88-2020	PAJ-89-2020	PAJ-89-2020	PAJ-89-2020	PAJ-89-2020	PAJ-90-2020	PAJ-90-2020
				Sample Date	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020	08/11/2020
				Start Depth - End Depth (feet)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	2 - 4	0 - 2	2 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200 UJ	<210 UJ	<200 UJ	<200 UJ	<200 UJ	<210 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<210	<200	<200	<200	<210	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-84-2020	PAJ-84-2020	PAJ-85-2020	PAJ-85-2020	PAJ-86-2020	PAJ-86-2020	PAJ-78-2020	PAJ-78-2020	PAJ-81-2020	PAJ-81-2020	PAJ-82-2020	PAJ-82-2020
				Sample Date	08/24/2020	08/24/2020	08/24/2020	08/24/2020	08/24/2020	08/24/2020	08/25/2020	08/25/2020	08/25/2020	08/25/2020	08/25/2020	08/25/2020
				Start Depth - End Depth (feet)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<210	<210	<200	<200	<200	***83000***	<200	<210	<210	<210	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<210	<200	<200	<200	910	<200	<210	<210	<210	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<210	<200	<200	<200	940	<200	<210	<210	<210	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
3,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<200 UJ	<210	<200	<210	<210	<210	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
2-Nitrotoluene		14900	3160	18400	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<210	<200	<200	<200	<210	<200	<210	<210	<210	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-83-2020	PAJ-83-2020	PAJ-80-2020	PAJ-80-2020	PAJ-76-2020	PAJ-76-2020	PAJ-79-2020	PAJ-79-2020	PAJ-91-2020	PAJ-91-2020	PAJ-91-2020	PAJ-91-2020
				Sample Date	08/25/2020	08/25/2020	08/26/2020	08/26/2020	08/27/2020	08/27/2020	08/27/2020	08/27/2020	08/27/2020	08/27/2020	08/27/2020	08/27/2020
				Start Depth - End Depth (feet)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	0 - 2	2 - 4	2 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Duplicate
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<210 UJ
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
3,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200 UJ	<210 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<210 UJ
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<210	<210	<200	<200	<200	<200	<200	<200	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<210 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<210 UJ

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	PAJ-92-2020	PAJ-92-2020	PAJ-93-2020	PAJ-93-2020	PAJ-87-2020	PAJ-87-2020	2015-001B	2015-002B	2015-002C	2015-002X	2015-003B	2015-003C
				Sample Date	08/27/2020	08/27/2020	08/27/2020	08/27/2020	08/31/2020	08/31/2020	06/02/2015	06/02/2015	06/02/2015	06/02/2015	06/02/2015	06/02/2015
				Start Depth - End Depth (feet)	0 - 2	2 - 4	0 - 2	2 - 4	0 - 2	2 - 4	1.5 - 2	1.5 - 2	0.5 - 1	0 - 1	1.5 - 2	1 - 1.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	1100	<210	<200	<200	550	340	<210	5600	910	1100
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<210	<210	<200	<200	<210	<210	<210	420	230	220
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<210	<210	<200	<200	<210	<210	<210	910	240	270
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<210	<200	<200	**740**	<210	**230**	***1700***	<210	**260**
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<210	<200	<200	**950**	**280**	**430**	***2700***	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<210	<210	<210	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<210	<200	<200	<210	<210	<210	310	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<210	<210	<210	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	2530	1330	1500	5450	<1260	1310
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<210	<200	<200	<210	<210	<210	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<210	<210	<200	<200	<210	<210	<210	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<210	<200	<200	<210	<210	<210	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<210	<200	<200	<210	220	220	520	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<210	<200	<200	<210	280	320	490	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200 UJ	<200 UJ	<210 UJ	<210 UJ	<200 UJ	<200 UJ	<210	<210	<210	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2015-003X	2015-007X	2015-008X	2015-010X	2015-011X	2015-012X	2015-012X	2017-002C	2017-002N	2017-002S	2017-002Z	2017-003C
				Sample Date	06/02/2015	06/09/2015	06/09/2015	06/09/2015	06/09/2015	06/09/2015	06/09/2015	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	4.5 - 5	3 - 3.5	3.5 - 4	0 - 5	4.5 - 5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1100	220	4400	1100 J	250	<210	<210	<200	<200	250	270	740
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<210	250	<210	<210	<210	<210	<200	<200	200	200	200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<210	330	<210	<210	<210	<210	<200	<200	210	210	220
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	**290**	**260**	**270**	<210	<210	<210	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	**620**	**500**	<210	**240**	**270**	**290**	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1260	1750	1600	1320	1290	1320	1340	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	220
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<210	830	750	780	300	270	280	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	720	620	620	240	250	260	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<210	<210	<210	<210	<210	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-003N	2017-003S	2017-003Z	2017-004C	2017-004N	2017-004S	2017-004Z	2017-005C	2017-005N	2017-005S	2017-005Z	2017-006C
				Sample Date	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/13/2017	07/14/2017
				Start Depth - End Depth (feet)	3.5 - 4	3.5 - 4	1 - 5	3.5 - 5	2 - 2.5	1.5 - 2	1 - 4	3 - 3.5	2 - 2.5	1.5 - 2	1 - 3.5	3.5 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	290	<200	4200	880	18000	210	2600	310	250	220	510	220
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	220	<200	220	<200	200	<200	<200	<200	<200	200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	230	220	220	<200	220	220	<200	<200	210	210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-006N	2017-006S	2017-006Z	2017-007C	2017-007N	2017-007S	2017-007Z	2017-008C	2017-008N	2017-008S	2017-008Z	2017-009C
				Sample Date	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/14/2017	07/17/2017
				Start Depth - End Depth (feet)	2.5 - 3	2.5 - 3	1 - 4	4 - 4.5	2 - 2.5	3 - 3.5	1 - 4.5	3.5 - 4	3 - 3.5	1.5 - 2	1 - 4	2.5 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**													
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**											
Detected Primary Site Related NNOCs (µg/kg)															
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	220	220	220	<200	270	220	460	500	340	210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	230	<200	<200	<200	<200	230	240	240	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-009N	2017-009S	2017-009Z	2017-011Z	2017-012Z	2017-013Z	2017-014Z	2017-015Z	2017-018Z	2017-019Z	2017-020Z	2017-021C
				Sample Date	07/17/2017	07/17/2017	07/17/2017	07/20/2017	07/20/2017	07/20/2017	07/20/2017	07/20/2017	08/22/2017	08/22/2017	08/22/2017	08/23/2017
				Start Depth - End Depth (feet)	2 - 2.5	1.5 - 2	1 - 3	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	1 - 5	1 - 5	1 - 5	5.5 - 5.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	210	270	17000	1100	1200	470	440	290	990	4700	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	550	290	260	260	250	<200	250	310	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	230	1000	380	300	310	270	<200	270	440	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-021N	2017-021S	2017-021SW	2017-021Z	2017-022C	2017-022N	2017-022S	2017-022Z	2017-023C	2017-023N	2017-023S	2017-023Z
				Sample Date	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017	08/23/2017
				Start Depth - End Depth (feet)	3 - 3	3 - 3	3.5 - 3.5	3 - 5.5	5 - 5	5 - 5	2.5 - 2.5	2.5 - 5	5 - 5	5 - 5	2.5 - 2.5	2.5 - 5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	240	1400	210	<200	<200	<200	210	370	320	<200	3800
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<200	260	<200	230	240	<200	<200	280	250	<200	270
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<200	270	<200	230	230	<200	230	260	260	<200	290
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<200	<200	<200	<200	<200	<200	<200	720	240	<200	250
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<200	<200	<200	<200	<200	<200	<200	230	<200	<200	220

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-024Z	2017-025Z	2017-026Z	2017-027Z	2017-028Z	2017-029Z	2017-030Z	2017-031Z	2017-032Z	2017-034C	2017-034E	2017-034W
				Sample Date	08/23/2017	08/23/2017	08/23/2017	08/24/2017	08/24/2017	08/24/2017	08/24/2017	08/24/2017	08/24/2017	08/25/2017	08/25/2017	08/25/2017
				Start Depth - End Depth (feet)	5.5 - 8	5.5 - 8	5.5 - 8	0 - 4	0 - 4	0 - 4	0 - 4	0 - 5	0 - 5	5 - 5	2 - 2	2 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	230	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	240	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	240	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	260	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-034Z	2017-035C	2017-035E	2017-035W	2017-035Z	2017-036C	2017-036E	2017-036W	2017-036Z	2017-037C	2017-037E	2017-037W
				Sample Date	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017
				Start Depth - End Depth (feet)	0 - 5	5 - 5	3 - 3	2 - 2	0 - 5	4 - 4	2 - 2	2 - 2	0 - 4	4 - 4	2 - 2	3 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-037Z	2017-038E	2017-040C	2017-040C	2017-040E	2017-040W	2017-040Z	2017-044C	2017-044E	2017-044W	2017-044Z	2017-045C
				Sample Date	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017
				Start Depth - End Depth (feet)	0 - 4	2 - 2	5 - 5	5 - 5	3 - 3	3 - 3	0 - 5	5 - 5	3 - 3	3 - 3	0 - 5	4.5 - 4.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	250
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-045E	2017-045W	2017-045Z	2017-046C	2017-046E	2017-046W	2017-046Z	2017-048Z	2017-049Z	2017-050Z	2017-053C	2017-053E
				Sample Date	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/25/2017	08/29/2017	08/29/2017
				Start Depth - End Depth (feet)	2 - 2	2 - 2	0 - 4.5	4 - 4	1.5 - 1.5	1.5 - 1.5	0 - 4	0 - 4	0 - 4	0 - 4	4 - 4	2 - 2.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-053W	2017-053Z	2017-054Z	2017-055C	2017-055Z	2017-056C	2017-056Z	2017-057C	2017-057Z	2017-058C	2017-058Z	2017-059C
				Sample Date	08/29/2017	08/29/2017	08/29/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017
				Start Depth - End Depth (feet)	2 - 2.5	0 - 4	0 - 4	6 - 6.5	6 - 6.5	6 - 6.5	6 - 6.5	6 - 6.5	6 - 6.5	6 - 6.5	6 - 6.5	6 - 6.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	210	210	200	210	270	440	<200	300	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	230	<200	<200	<200	240	<200	230	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	240	230	230	230	230	250	<200	240	230
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	210	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-059Z	2017-060C	2017-060Z	2017-061C	2017-061Z	2017-062Z	2017-063C	2017-063Z	2017-064C	2017-064Z	2017-065Z	2017-066Z
				Sample Date	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017
				Start Depth - End Depth (feet)	7.5 - 8	7.5 - 8	7.5 - 8	5 - 5.5	4 - 6	8 - 8.5	6 - 7	6 - 7	7 - 7.5	7 - 7.5	2 - 6	2 - 6
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	230	220	280	210	210	430	200	290	<200	200	200	480
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	230	230	<200	240	270	<200	240	<200	<200	<200	300
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	230	230	230	230	230	240	230	230	<200	230	230	310
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	210	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-067Z	2017-068Z	2017-069Z	2017-070B	2017-070C	2017-070N	2017-070S	2017-070Z	2017-062C	2017-071Z	2017-072Z	2017-073Z
				Sample Date	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/20/2017	09/21/2017	09/21/2017	10/10/2017	10/10/2017
				Start Depth - End Depth (feet)	2 - 7	2 - 7	2 - 8	7 - 7.5	4 - 4.5	4 - 4.5	4 - 4.5	6 - 7.5	9 - 9.5	0 - 6	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	7800	260	<200	270	260	<200	<200	260	350	5400	270	260
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	330	<200	<200	300	300	<200	300	290	300	350	300	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	360	<200	<200	300	300	290	300	290	300	400	300	290
2,4-Dinitrotoluene	0.1	5110	1210	7030	**240**	<200	<200	<200	<200	<200	<200	<200	<200	**240**	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	1240	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	1240	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	290	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-074Z	2017-077Z	2017-078Z	2017-083Z	2017-084Z	2017-085Z	2017-086Z	2017-087Z	2017-088Z	2017-089Z	2017-090Z	2017-091Z
				Sample Date	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/10/2017	10/11/2017
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	690	<200	18000	230	320	250	220	230	310	4800	280
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	310	<200	2300	250	310	250	<200	<210	<210	420	280
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	320	<200	4400	250	340	280	250	270	260	490	350
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	**220**	<200	<200	<200	<200	<210	<210	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	220	<200	<200	<200	<210	<210	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	1220	1220	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	260	<200	<200	<200	<200	<210	<210	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2017-092Z	2017-093Z	2018-001X	2018-002X	2018-003X	2018-005X	2018-006X	2018-007X	2018-008X	2018-009X	2018-010X	2018-011X
				Sample Date	10/11/2017	10/11/2017	07/13/2018	07/13/2018	07/13/2018	07/13/2018	07/13/2018	07/13/2018	07/13/2018	07/13/2018	07/13/2018	07/13/2018
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0.5 - 1	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	1 - 2	1 - 2	1 - 2.5	1 - 2.5	1 - 2	1 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	***26000***	230	9400	<200	18000	410	<200	850	<200	<200	<200	340
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	400	250	290	<200	1200	260	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	570	270	350	<200	1500	310	<200	<200	<200	<200	<200	210
2,4-Dinitrotoluene	0.1	5110	1210	7030	**210**	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	1210	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<210	<200	290	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-012X	2018-013X	2018-013X	2018-014X	2018-014X	2018-015X	2018-020C	2018-020W	2018-021C	2018-021E	2018-021W	2018-022C
				Sample Date	07/16/2018	07/16/2018	07/16/2018	07/16/2018	07/16/2018	07/16/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018
				Start Depth - End Depth (feet)	1 - 2.5	0.5 - 2	0 - 2	1 - 2.5	0 - 2.5	0.5 - 2.5	1.5 - 2	1 - 2	2.5 - 3	2 - 3	2 - 3	3.5 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	240	1500	330	<200	<210	<210	<200	<200	<200	<200	740
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<200	3500	630	210	<210	<210	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	200	2400	490	260	<210	<210	<200	<200	<200	<200	200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<200	<200	<210	<200	<210	<210	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-022E	2018-022W	2018-023C	2018-023E	2018-024C	2018-024E	2018-024W	2018-025C	2018-025E	2018-025W	2018-026C	2018-026E
				Sample Date	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/20/2018	07/24/2018	07/24/2018
				Start Depth - End Depth (feet)	2.5 - 3.5	2.5 - 3.5	4.5 - 5	4 - 4.5	4 - 4.5	3.5 - 4	3.5 - 4	5 - 5.5	4 - 5	4 - 5	5.5 - 6.5	4 - 5.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	***26000***	<200	3500	<200	210	1300	<200	<210	200	<210	***36000***
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	270	<200	<210	<200	<200	<210	<200	<210	<200	<210	210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	280	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<210	<200	<200	<210	<200	<210	<200	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-026W	2018-026Z	2018-027C	2018-027W	2018-027Z	2018-028C	2018-028E	2018-028W	2018-028Z	2018-029C	2018-029E	2018-029W
				Sample Date	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018
				Start Depth - End Depth (feet)	4 - 5.5	5.5 - 6.5	5.5 - 6.5	4 - 5.5	5.5 - 6.5	5.5 - 6.5	4 - 5.5	4 - 5.5	5.5 - 6.5	5.5 - 6.5	4 - 5.5	4 - 5.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1300	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<200	<200	<200	<200	<210	<210	<210	<200	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-029Z	2018-030C	2018-030E	2018-030W	2018-030Z	2018-031C	2018-031E	2018-031W	2018-031Z	2018-032C	2018-032E	2018-032W
				Sample Date	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/24/2018	07/25/2018	07/25/2018	07/25/2018	07/25/2018	07/26/2018	07/26/2018	07/26/2018
				Start Depth - End Depth (feet)	5.5 - 6.5	5.5 - 6.5	4 - 5.5	4 - 5.5	5.5 - 6.5	3.5 - 5	3 - 4	3 - 4	3.5 - 5	4 - 5	3 - 4	3 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<210	<200	<200	<210	<210	7000	2500	13000	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<210	<200	<200	<210	<210	1600	400	5600	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<210	<200	<200	<210	<210	2800	460	***8000***	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<200	<200	<210	<210	<210	<200	<210	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-032Z	2018-033C	2018-033E	2018-033W	2018-033Z	2018-034C	2018-034E	2018-034W	2018-034Z	2018-035E	2018-035N	2018-035S
				Sample Date	07/26/2018	07/26/2018	07/26/2018	07/26/2018	07/26/2018	07/26/2018	07/26/2018	07/26/2018	07/26/2018	08/23/2018	08/23/2018	08/23/2018
				Start Depth - End Depth (feet)	4 - 5	4 - 5	3 - 4	3 - 4	4 - 5	4 - 5	3 - 4	3 - 4	4 - 5	6 - 9	4 - 8	5 - 9
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	210	<210	<200	<200	<200	210	<210	270	<210	<200	2000	310
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<200	<200	<200	<210	<210	210	<210	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<200	<200	<200	<210	<210	<210	<210	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-035W	2018-035Y	2018-035Z	2018-036Z	2018-037Z	2018-038Z	2018-039Z	2018-040Z	2018-041Z	2018-042X	2018-043X	2018-044X
				Sample Date	08/23/2018	08/23/2018	08/23/2018	08/30/2018	08/30/2018	08/30/2018	08/30/2018	08/30/2018	08/30/2018	08/30/2018	08/30/2018	08/30/2018
				Start Depth - End Depth (feet)	5 - 8	0 - 9	7 - 9	7 - 7.5	7 - 7.5	0 - 7	0 - 7	0 - 7	0 - 7	0 - 0	0 - 0	0 - 0
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	570	1900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ	<200 UJ
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-045X	2018-046X	2018-047X	2018-052Z	2018-053Z	2018-054Z	2018-055Z	2018-056Z	2018-057Z	2018-058Z	2018-059Z	2018-060Z
				Sample Date	08/30/2018	08/30/2018	08/30/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/03/2018	10/15/2018
				Start Depth - End Depth (feet)	0 - 0	0 - 0	0 - 0	0 - 9	0 - 9	8 - 9	8 - 9	0 - 9	8 - 9	8 - 9	0 - 9	0 - 0
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	220	<200	<200	210	<200	280	20000
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	1300
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	1500
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200 UJ	<200 UJ	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-061Z	2018-062Z	2018-063Z	2018-064Z	2018-065Z	2018-066Z	2018-067Z	2018-068X	2018-069X	2018-070X	2018-071X	2018-072X
				Sample Date	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018
				Start Depth - End Depth (feet)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	11000	9600	200	19000	***27000***	18000	510	5100	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	320	220	<200	370	910	760	210	280	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	410	220	200	350	1400	1000	230	370	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-073X	2018-074X	2018-075X	2018-076X	2018-077X	2018-078X	2018-079X	2018-080X	2018-081X	2018-082X	2018-083X	2018-084X
				Sample Date	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/15/2018	10/18/2018	10/18/2018
				Start Depth - End Depth (feet)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	590	9500	220	1800	2500	290	***28000***	9600	9000	2900	3100
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	210	380	<200	230	250	<200	480	480	310	350	250
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	200	250	560	240	270	330	230	470	330	290	480	290
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2018-085X	2018-086X	2018-087X	2018-088X	2018-089X	2018-090X	2019-001X	2019-002X	2019-003X	2019-004X	2019-004N	2019-004N
				Sample Date	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	10/18/2018	07/22/2019	07/22/2019	07/23/2019	07/23/2019	08/14/2019	08/14/2019
				Start Depth - End Depth (feet)	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 0	0 - 6	6 - 10	0 - 6	10 - 13	0 - 8	0 - 8
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	3700	2800	290	2100	5800 J	640	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	280	390	<200	330	770	200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	320	500	200	370	570	210	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-004S	2019-004W	2019-005C	2019-006C	2019-006S	2019-007C	2019-007C	2019-007N	2019-007S	2019-008C	2019-008E	2019-008S
				Sample Date	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019
				Start Depth - End Depth (feet)	0 - 8	0 - 8	8 - 8.5	8 - 8.5	0 - 8	4 - 4.5	4 - 4.5	0 - 4	0 - 4	8 - 8.5	0 - 8	0 - 8
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	340	<200	<200	590	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-008X	2019-009C	2019-009E	2019-009N	2019-009X	2019-010C	2019-010E	2019-010N	2019-010S	2019-010X	2019-011C	2019-011E
				Sample Date	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019
				Start Depth - End Depth (feet)	0 - 8	8 - 8.5	0 - 8	0 - 8	0 - 8	4 - 4.5	0 - 4	0 - 4	0 - 4	0 - 4	4 - 4.5	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	1200	510	<200	560	1500	<200	<200	<200	***30000***
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	200	200	<200	<200	<200	770
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	220	210	<200	230	240	200	200	<200	860
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	840
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-011W	2019-011X	2019-012C	2019-012E	2019-012P	2019-012W	2019-012X	2019-013C	2019-013E	2019-013W	2019-013X	2019-014C
				Sample Date	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	4 - 4.5	0 - 4	5.5 - 6	0 - 4	0 - 4	4 - 4.5	0 - 4	0 - 4	0 - 4	4 - 4.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	610	<200	2200	260	<200	<200	14000	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	430	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	210	<200	200	210	<200	<200	580	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	2600	<200	<200	11000	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-014C	2019-014E	2019-014P	2019-014W	2019-014X	2019-015C	2019-015E	2019-015N	2019-015W	2019-015X	2019-005X	2019-006X
				Sample Date	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/14/2019	08/26/2019	08/26/2019
				Start Depth - End Depth (feet)	4 - 4.5	0 - 4	5.5 - 6	0 - 4	0 - 4	4 - 4.5	0 - 4	2 - 4	0 - 4	0 - 4	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	***44000***	<200	13000	340	<200	<200	<200	1500	320	1200	***34000***
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	480	<200	570	200	<200	<200	<200	410	200	<210	600
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	580	<200	760	240	<200	<200	200	570	220	<210	690
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	800	<200	2300	410	250	220	20000	***60000***	200	<210	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<210	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-007X	2019-008X	2019-005N	2019-016C	2019-016N	2019-016S	2019-017C	2019-017N	2019-017S	2019-018C	2019-018N	2019-018S
				Sample Date	08/26/2019	09/16/2019	09/16/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater Pathway RCL	**Direct Contact RCLs**														
		Industrial	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1300	***52000***	380	<210	<210	<210	<210	<210	220	<210	3200	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	360	2000	<200	<210	<210	<210	<210	<210	<200	<210	240	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	610	5800	<200	<210	<210	<210	<210	<210	<200	<210	310	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
2-Nitrotoluene		14900	3160	18400	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<200	<210	<210	<210	<210	<210	<200	<210	<200	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-019C	2019-019N	2019-019S	2019-020C	2019-020N	2019-021C	2019-021N	2019-022C	2019-022C	2019-023C	2019-023N	2019-023S
				Sample Date	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019
				Start Depth - End Depth (feet)	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 4	0 - 4	0 - 3	0 - 3	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<210	<200	<210	***110000 J***	2300	***36000 J***	9600 J	3400 J	<200	<210	***68000 J***
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<210	<200	<210	2500 J	220	580 J	330	510	<200	<210	1300 J
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<210	<200	<210	2100 J	<210	480 J	200	260	<200	<210	1100 J
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<200	<210	290 J	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
2-Nitrotoluene		14900	3160	18400	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<200	<210	<210 UJ	<210	<210 UJ	<200	<200	<200	<210	<210 UJ

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-024C	2019-024N	2019-024S	2019-025C	2019-025N	2019-025S	2019-026C	2019-026N	2019-026S	2019-027C	2019-027N	2019-027S
				Sample Date	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019
				Start Depth - End Depth (feet)	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	200	310	560	<210	<200	<210	<210	1300	<200	<210	<210	3200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	230	<210	<200	<210	<210	290	<200	<210	<210	230
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	210	290	<210	<200	<210	<210	410	<200	<210	<210	280
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<210	<210	<200	<210	<210	<200	<200	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-028C	2019-028N	2019-028S	2019-029C	2019-029C	2019-029N	2019-029S	2019-029W	2019-030C	2019-030E	2019-030N	2019-030S
				Sample Date	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019	09/19/2019
				Start Depth - End Depth (feet)	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	300	***41000 J***	520	350 J	860 J	3900	260	650	<210	<210	<210	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	210	570 J	230	220	<210	310	<210	250	<210	<210	<210	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	230	470 J	270	250	<210	440	<210	330	<210	<210	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	240	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<210	<210 UJ	<210	<210	<210	<210	<210	<210	<210	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-016X	2019-016X	2019-017X	2019-018X	2019-019X	2019-021X	2019-023X	2019-024X	2019-025X	2019-026X	2019-027X	2019-028X
				Sample Date	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019
				Start Depth - End Depth (feet)	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	320	***92000***	310	200	<200	410	200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	520	210	<200	<200	<210	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	490	350	<200	<200	<210	210	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<210	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-029X	2019-030X	2019-031C	2019-031E	2019-031W	2019-031X	2019-032C	2019-032E	2019-032W	2019-032X	2019-033C	2019-033E
				Sample Date	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019
				Start Depth - End Depth (feet)	0 - 3	0 - 3	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**													
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**											
Detected Primary Site Related NNOCs (µg/kg)															
2,4,6-Trinitrotoluene		96000	21300	124000	1400	500	850	***34000***	17000	***34000 J***	680	410	<210	***23000 J***	<200	6500
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	720	350	390	720 J	370	<200	<210	1300 J	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	290	370	450	600 J	250	<200	<210	1000 J	<200	200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
Detected Other NNOCs (µg/kg)															
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200 UJ	<200	<200	<210	<200 UJ	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-034C	2019-034S	2019-034W	2019-035C	2019-035C	2019-035S	2019-035X	2019-036C	2019-036S	2019-036W	2019-036X	2019-037C
				Sample Date	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	20000	<210	3000	3400 J	690 J	270	890	260	200	2300	15000	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	210	<210	<210	<200	<200	<200	<200	<200	<200	<200	640	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	220	<210	470	<200	<200	<200	<200	<200	<200	<200	740	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-038C	2019-039C	2019-040C	2019-040N	2019-040W	2019-041C	2019-041C	2019-041E	2019-041N	2019-041X	2019-042C	2019-042N
				Sample Date	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	920	2000	3500	2200	2700 J	7400 J	1800	1000	2800	210	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	480	<200	<200	<200	<200	200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	300	<200	200	<200	<200	<200	<200	220	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-042X	2019-042X	2019-043C	2019-043N	2019-043X	2019-044C	2019-044C	2019-044E	2019-044N	2019-044W	2019-044X	2019-045C
				Sample Date	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/20/2019	09/24/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	290	400	***25000***	15000	2500	<200	<200	<210	<200	230	<200	250 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	250	240	<200	<200	<200	<210	<200	<210	<200	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	260	320	<200	<200	<200	<210	<200	<210	<200	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<210	<200	<210	<200	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-045C	2019-045E	2019-045N	2019-045S	2019-045X	2019-046C	2019-046N	2019-046S	2019-046X	2019-047C	2019-047N	2019-047S
				Sample Date	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	2400 J	1400	11000	240	8300	1700	1100	12000	13000	1300	1800	17000
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	260	<210	290	<210	<210	<210	220	210	260	370	<210	540
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	330	<210	420	<210	250	<210	320	230	470	310	<210	620
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
2,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
3,4-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
3,5-Dinitrotoluene		5110	1210	7030	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
2-Nitrotoluene		14900	3160	18400	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200
3,5-Dinitroaniline		328000	25300	147000	<210	<210	<210	<210	<210	<210	<200	<210	<210	<200	<210	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-047X	2019-048C	2019-048N	2019-048S	2019-048X	2019-049C	2019-049N	2019-049S	2019-049X	2019-050C	2019-050C	2019-050N
				Sample Date	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	6200	1400	390	<200	230	<200	<200	<210	1600	940 J	500 J	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	700	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	1100	<200	<210	<200	<200	<200	<200	<210	<200	200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<210	<200	<200	<200	<200	<210	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-050S	2019-050X	2019-051C	2019-051N	2019-051S	2019-051W	2019-051X	2019-052C	2019-053C	2019-053X	2019-054C	2019-055C
				Sample Date	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/24/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
				Start Depth - End Depth (feet)	0 - 4	0 - 4	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	***23000 J***	450	<200	290	600	<200	390	4900	1600	20000	380	20000
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	1800 J	<200	<200	<200	<200	<200	<200	690	<210	480	<200	270
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	1500 J	<200	<200	<200	<200	<200	<200	1000	<210	1600	<200	420
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
2,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
3,4-Dinitrotoluene		5110	1210	7030	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
3,5-Dinitrotoluene		5110	1210	7030	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	480 J	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
2-Nitrotoluene		14900	3160	18400	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210
3,5-Dinitroaniline		328000	25300	147000	<200 UJ	<200	<200	<200	<200	<200	<200	<210	<210	<200	<200	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-055X	2019-056C	2019-056X	2019-057C	2019-058C	2019-059C	2019-060C	2019-061C	2019-062C	2019-062E	2019-062X	2019-063C
				Sample Date	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 3	0 - 3	0 - 2	0 - 3	0 - 1	0 - 2	0 - 2	0 - 2	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	6600	770	7000	<200	<210	<200	<210	<210	380	<210	480	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	390	<200	7000	<200	<210	<200	<210	<210	<210	<210	270	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	730	<200	4500	<200	<210	<200	<210	<210	<210	<210	320	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<210	<200	<210	<210	<210	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-063E	2019-063X	2019-064C	2019-064X	2019-065C	2019-065X	2019-066C	2019-066X	2019-067C	2019-067X	2019-068C	2019-068C
				Sample Date	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
				Start Depth - End Depth (feet)	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<200	<210	380	<210	1000	<200	250	<210	280	<210	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<200	<210	<210	<210	220	<200	<210	<210	<210	<210	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<200	<210	<210	<210	660	<200	<210	<210	<210	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<210	<200	<210	<210	<210	<200	<200	<210	<210	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-068X	2019-069C	2019-069X	2019-070C	2019-070X	2019-071C	2019-071E	2019-071X	2019-071X	2019-072C	2019-072X	2019-073C
				Sample Date	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
				Start Depth - End Depth (feet)	0 - 1	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	2100	<200	<200	<210	710	15000	<210	<210	<210	<200	3600	***28000 J***
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	210	<200	<200	<210	<210	270	<210	<210	<210	<200	<210	1100 J
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	290	<200	<200	<210	<210	280	<210	<210	<210	<200	<210	920 J
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
2,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
3,4-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
3,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
2-Nitrotoluene		14900	3160	18400	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ
3,5-Dinitroaniline		328000	25300	147000	<210	<200	<200	<210	<210	<210	<210	<210	<210	<200	<210	<200 UJ

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-073X	2019-074C	2019-074N	2019-074W	2019-074X	2019-075C	2019-075N	2019-076C	2019-076C	2019-077C	2019-077X	2019-078C
				Sample Date	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019	09/25/2019
				Start Depth - End Depth (feet)	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	***26000***	940	13000	450	4000	<200	1000	***51000 J***	***62000 J***	20000	***99000 J***	320
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	630	280	390	<200	500	<200	<200	640 J	620 J	540	2200 J	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	2900	220	460	<200	680	<200	<200	540 J	520 J	460	1800 J	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<210	<200	<200	<200	<200	<200 UJ	<200 UJ	<210	<200 UJ	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-079C	2019-080C	2019-080C	2019-081C	2019-081X	2019-082C	2019-082E	2019-084C	2019-043W-R	2019-043W-R	2019-083C	2019-085C
				Sample Date	09/25/2019	09/26/2019	09/26/2019	09/26/2019	09/26/2019	09/26/2019	09/26/2019	09/27/2019	10/08/2019	10/08/2019	10/08/2019	10/08/2019
				Start Depth - End Depth (feet)	0 - 2	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 3	0 - 4	0 - 4	0 - 8	0 - 8
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	360	<200	<200	870	***48000***	<200	5100	<200	6700 J	390 J	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	290	5700	<200	550	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	290	4800	<200	1300	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<210	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-086C	2019-087C	2019-088C	2019-089C	2019-089N	2019-089S	2019-090C	2019-090N	2019-090S	2019-091Z	2019-092Z	2019-093Z
				Sample Date	10/08/2019	10/08/2019	10/08/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/10/2019	10/22/2019	10/22/2019	10/22/2019
				Start Depth - End Depth (feet)	0 - 8	0 - 8	0 - 8	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3	0 - 1	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	270	***31000***	490	10000	***39000***	2000	550	320	1600
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	320	200	1700	330	620	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	210	210	1100	330	590	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-094Z	2019-095Z	2019-096Z	2019-097Z	2019-098Z	2019-099Z	2019-100Z	2019-101Z	2019-101Z	2019-102Z	2019-103Z	2019-104Z
				Sample Date	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019	10/22/2019
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1800	1900	800	<200	1200	18000	***26000***	1600 J	5700 J	***27000***	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	280	600	230	300	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	250	<200	<200	<200	<200	1500	3600	570 J	1100 J	200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	2019-105Z	2019-106Z	2019-107Z	2019-108Z	001E-2020	002W-2020	003C-2020	004C-2020	004E-2020	004Z-2020	005C-2020	005Z-2020
				Sample Date	10/22/2019	10/22/2019	10/22/2019	10/22/2019	09/01/2020	09/01/2020	09/01/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020	09/03/2020
				Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 1	1 - 2	4 - 4.5	2.5 - 3	3 - 3.5	0 - 3	0 - 1.7	5 - 5.5	1.7 - 5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<210	<210	<210	***25000***	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<210	<210	<210	1400	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<210	<210	<210	2400	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200 UJ	<200 UJ	<210 UJ	<210	<210	<210	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200 UJ	<200 UJ	<210 UJ	<210	<210	<210	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<210	<210	<210	<210	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200 UJ	<200 UJ	<210 UJ	<210	<210	<210	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	006C-2020	007C-2020	007W-2020	007Z-2020	008C-2020	008E-2020	008Z-2020	009C-2020	009E-2020	010C-2020	010C-2020	010E-2020
				Sample Date	09/14/2020	09/14/2020	09/14/2020	09/15/2020	09/15/2020	09/15/2020	09/15/2020	09/15/2020	09/15/2020	09/15/2020	09/15/2020	09/15/2020
				Start Depth - End Depth (feet)	5 - 5.5	4 - 5	0 - 4	2.5 - 4.5	4 - 4.5	0 - 4	0 - 5	3.5 - 4	0 - 4	3.5 - 4	3.5 - 4	0 - 3.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<210	260	<200	300	970	<210	<200	<210	<210	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<210	<200	<200	<210	210	<210	<200	<210	<210	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	250	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
2-Nitrotoluene		14900	3160	18400	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<210	<200	<200	<210	<210	<210	<200	<210	<210	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	010S-2020	011C-2020	011Z-2020	012C-2020	012W-2020	013C-2020	013C-2020	014C-2020	014W-2020	013Z-2020	015C-2020	016C-2020
				Sample Date	09/15/2020	09/16/2020	09/16/2020	09/16/2020	09/16/2020	09/21/2020	09/21/2020	09/21/2020	09/21/2020	09/22/2020	09/29/2020	09/29/2020
				Start Depth - End Depth (feet)	0 - 3.5	3.5 - 4	0 - 1.5	2.5 - 3.5	0 - 2.5	3.5 - 4	3.5 - 4	2 - 2.5	0 - 2	0 - 4.5	3.5 - 4	2.5 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<210	<200	1400	<210	<210	270	210	<210	240	330	<200	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<210	<200	260	<210	<210	<200	<200	<210	<200	<200	<200	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<210	<200	280	<210	<210	<200	<200	<210	<200	<200	<200	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
2,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
3,4-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
3,5-Dinitrotoluene		5110	1210	7030	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
Total DNT Isomers		51100	12100	70300	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<210	<200	<200	<210	<210	200	<200	<210	<200	<200	<200	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
2-Nitrotoluene		14900	3160	18400	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210
3,5-Dinitroaniline		328000	25300	147000	<210	<200	<200	<210	<210	<200	<200	<210	<200	<200	<200	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	016W-2020	017C-2020	018C-2020	019C-2020	020C-2020	020W-2020	021C-2020	021E-2020	021W-2020	022C-2020	022Z-2020	023C-2020
				Sample Date	09/29/2020	09/29/2020	09/29/2020	09/29/2020	09/30/2020	09/30/2020	09/30/2020	09/30/2020	09/30/2020	09/30/2020	09/30/2020	09/30/2020
				Start Depth - End Depth (feet)	0 - 2.5	3.5 - 4	2 - 4	2 - 2.5	1 - 1.5	0 - 1	4 - 4.5	0 - 3.5	0 - 3.5	0.75 - 1.25	0 - 4.5	1 - 1.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<210	330	<200	210	<200	<200	220	<210	910	<200	<210
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1260 [U]	<1260 [U]	<1200 [U]	<1260 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
2-Nitrotoluene		14900	3160	18400	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<210	<200	<200	<200	<200	<200	<210	<210	<200	<210

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	023W-2020	024C-2020	024W-2020	024W-2020	024Z-2020	025C-2020	025S-2020	025W-2020	026C-2020	027C-2020	027W-2020	027Z-2020
				Sample Date	09/30/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020
				Start Depth - End Depth (feet)	0 - 1	1 - 1.5	0 - 1	0 - 1	0 - 0.5	1 - 1.5	0 - 1	0 - 1	0.5 - 1	0.5 - 1	0 - 0.5	0 - 0.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<210	<200	<200	3400	<200	<200	<200	<200	<200	<200	19000
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<210	<200	<200	210	<200	<200	<200	<200	<200	<200	840
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<210	<200	<200	280	<200	<200	<200	<200	<200	<200	1700
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1260 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	220
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<210	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	028C-2020	028W-2020	029C-2020	029E-2020	029Z-2020	030C-2020	030E-2020	031C-2020	031E-2020	032C-2020	032E-2020	032S-2020
				Sample Date	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020	10/05/2020
				Start Depth - End Depth (feet)	0.5 - 1	0 - 0.5	1 - 1.5	0 - 1	0 - 0.2	1 - 1.5	0 - 1	1 - 1.5	0 - 1	1 - 1.5	0 - 1	0 - 1
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	270	6200	19000	20000	200	<200	330	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	430	370	600	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	760	1000	630	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	033C-2020	033E-2020	033W-2020	033Z-2020	034C-2020	034E-2020	034W-2020	035C-2020	035E-2020	035W-2020	035Z-2020	036C-2020
				Sample Date	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020	10/06/2020
				Start Depth - End Depth (feet)	3 - 4	0 - 3.5	0.5 - 3	0.5 - 4	3 - 4	0 - 3.5	0.5 - 3	3 - 4	0 - 3.5	0.5 - 3	0.5 - 4	3 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**													
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**											
Detected Primary Site Related NNOCs (µg/kg)															
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	400	<200	600	<200	<200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)															
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	036E-2020	036W-2020	037C-2020	037E-2020	037W-2020	037Z-2020	038C-2020	038E-2020	038W-2020	039C-2020	039E-2020	039W-2020
				Sample Date	10/06/2020	10/06/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020
				Start Depth - End Depth (feet)	0 - 3.5	0.5 - 3	3 - 4	0 - 3.5	0 - 3	0 - 4	3 - 4	0 - 3.5	0 - 3	3 - 4	0 - 3.5	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	200	<200	<200	<200	<200
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	039Z-2020	040C-2020	040E-2020	040W-2020	040Z-2020	041C-2020	041E-2020	041W-2020	042C-2020	042C-2020	042W-2020	043C-2020
				Sample Date	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/07/2020	10/08/2020	10/08/2020	10/08/2020	10/15/2020
				Start Depth - End Depth (feet)	0 - 4	3 - 4	0 - 3.5	0 - 3	0 - 4	3 - 4	0 - 3.5	0 - 3	3 - 4.5	3 - 4.5	0 - 3	0 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<200	<200	<200	<200	<200	<200	3900	<200	560	640	<200	1400
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<200	<200	<200	<200	<200	<200	290	<200	250	280	<200	240
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<200	<200	<200	<200	<200	<200	240	<200	250	250	<200	330
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	290	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	044C-2020	045C-2020	046C-2020	047X-2020	048X-2020	049X-2020	049X-2020	050X-2020	051X-2020	052X-2020	053X-2020	054X-2020
				Sample Date	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020	10/15/2020
				Start Depth - End Depth (feet)	0 - 2	0 - 2	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	2500	4300	5800	<200	<200	<200	840 J	***24000***	2100	1900	9400	560
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	220	340	320	<200	<200	<200	200	390	210	490	230	200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	270	550	560	<200	<200	<200	230	530	240	230	260	240
2,4-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,6-Dinitrotoluene	0.1	5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,4-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitrotoluene		5110	1210	7030	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Total DNT Isomers		51100	12100	70300	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]	<1200 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
2-Nitrotoluene		14900	3160	18400	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
1-Methyl-4-Nitrobenzene		144000	33900	198000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200
3,5-Dinitroaniline		328000	25300	147000	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	034C-2021	034C-2021	034E-2021	034W-2021	035C-2021	035C-2021	035E-2021	035W-2021	036C-2021	036C-2021	036E-2021	036W-2021
				Sample Date	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021
				Start Depth - End Depth (feet)	3 - 3.5	3 - 3.5	0 - 3	0 - 3	3 - 3.5	3 - 3.5	0 - 3	0 - 3	3 - 3.5	3 - 3.5	0 - 3	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	140 J	140 J	<3.1	170 J	<3.2	<3.1	<3.1	<3.1	<3.2	<3.1	<3.2	<3.1
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	<3.7	<3.7	<3.8	<3.8	<3.7	<3.7	<3.8	<3.8	<3.7	<3.8	<3.7
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.8	<2.7	<2.7	160 J	<2.8	<2.7	<2.7	<2.7	<2.8	<2.7	<2.7	<2.7
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.4	<6.4	<6.4	<6.5	<6.5	<6.4	<6.2	<6.4	<6.4	<6.3	<6.4	<6.2
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.6	<4.6	<4.5	<4.7	<4.6	<4.5	<4.5	<4.6	<4.6	<4.5	<4.6	<4.4
2,5-Dinitrotoluene		5110	1210	7030	<6.8	<6.8	<6.8	<7	<6.9	<6.8	<6.6	<6.8	<6.8	<6.7	<6.8	<6.6
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.5	<4.4	<4.6	<4.5	<4.4	<4.4	<4.5	<4.5	<4.4	<4.5	<4.3
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.8	<4.7	<4.9	<4.8	<4.7	<4.7	<4.8	<4.8	<4.7	<4.8	<4.6
Total DNT Isomers		51100	12100	70300	<34.5 [U]	<34.4 [U]	<34.1 [U]	<35.2 [U]	<34.7 [U]	<34.1 [U]	<33.5 [U]	<34.4 [U]	<34.4 [U]	<33.8 [U]	<34.4 [U]	<33.2 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.7	<2.7	<2.8	<2.8	<2.7	<2.7	<2.7	<2.8	<2.7	<2.7	<2.7
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	<5.7	<5.7	<5.8	<5.8	<5.7	<5.6	<5.7	<5.7	<5.6	<5.7	<5.5
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<33	<33	<34	<34	<33	<33	<34	<34	<33	<34	<33
2-Nitrotoluene		14900	3160	18400	<4.3	<4.2	<4.2	<4.4	<4.3	<4.2	<4.2	<4.3	<4.3	<4.2	<4.3	<4.1
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.6	<5.6	<5.7	<5.6	<5.5	<5.5	<5.6	<5.6	<5.5	<5.6	<5.4
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.5	<2.5	<2.6	<2.6	<2.5	<2.5	<2.5	<2.6	<2.5	<2.5	<2.5

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	037C-2021	037E-2021	037W-2021	037W-2021	038C-2021	038E-2021	038W-2021	039C-2021	039E-2021	039W-2021	040C-2021	040E-2021
				Sample Date	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021
				Start Depth - End Depth (feet)	3 - 3.5	0 - 3	0 - 3	0 - 3	3 - 3.5	0 - 3	0 - 3	3 - 3.5	0 - 3	0 - 3	3 - 3.5	0 - 3
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<3.1	1200	<3.2	<3.2	<3.2	<3.2	<3.2	150 J	140 J	<3.1	130 J	170 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	160 J	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.8	<3.7	<3.7	<3.8
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.7	170 J	<2.8	<2.8	<2.8	<2.8	<2.8	160 J	<2.8	<2.7	<2.7	<2.7
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.4	<6.5	<6.4	<6.5	<6.4	<6.5	<6.5	<6.4	<6.4	<6.3	<6.4	<6.4
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.6	<4.6	<4.6	<4.6	<4.6	<4.7	<4.6	<4.6	<4.6	<4.5	<4.5	<4.6
2,5-Dinitrotoluene		5110	1210	7030	<6.8	<6.9	<6.9	<6.9	<6.8	<6.9	<6.9	<6.8	<6.8	<6.7	<6.8	<6.8
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.5	<4.5	<4.5	<4.5	<4.6	<4.5	<4.5	<4.5	<4.4	<4.4	<4.5
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.8	<4.8	<4.8	<4.8	<4.9	<4.8	<4.8	<4.8	<4.7	<4.7	<4.8
Total DNT Isomers		51100	12100	70300	<34.4 [U]	<34.7 [U]	<34.6 [U]	<34.7 [U]	<34.5 [U]	<35.1 [U]	<34.7 [U]	<34.4 [U]	<34.5 [U]	<33.8 [U]	<34.1 [U]	<34.4 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.7	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.7	<2.7	<2.7
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	<5.8	<5.7	<5.8	<5.7	<5.8	<5.7	<5.7	<5.7	<5.6	<5.7	<5.7
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<33	<34	<34	<34	<34	<34	<34	<34	<34	<33	<33	<34
2-Nitrotoluene		14900	3160	18400	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.2	<4.2	<4.3
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.7	<5.6	<5.7	<5.6	<5.7	<5.6	<5.6	<5.6	<5.5	<5.6	<5.6
3,5-Dinitroaniline		328000	25300	147000	<2.5	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.5	<2.5	<2.5

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	040W-2021	041C-2021	041E-2021	041W-2021	042C-2021	042E-2021	042W-2021	043C-2021	043N-2021	043W-2021	044C-2021	044N-2021
				Sample Date	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	07/15/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	0 - 3	3 - 3.5	0 - 3	0 - 3	3 - 3.5	0 - 3	0 - 3	1.5 - 2	0 - 1.5	0 - 1.5	1.5 - 2	0 - 1.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<3.2	<3.1	150 J	<3.1	<3.1	270	170 J	<3.2	<3.2	280 J	<3.2	290 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	<3.7	<3.8	<3.7	<3.7	160 J	<3.7	<3.8	<3.8	<3.8	<3.8	<3.9
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.8	<2.7	<2.8	<2.7	<2.7	170 J	<2.7	<2.8	<2.8	170 J	<2.8	170 J
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.5	<6.3	<6.5	<6.3	<6.3	<6.5	<6.3	<6.4	<6.5	<6.5	<6.5	<6.6
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.7	<4.5	<4.7	<4.5	<4.5	<4.7	<4.5	<4.6	<4.6	<4.7	<4.7	<4.7
2,5-Dinitrotoluene		5110	1210	7030	<6.9	<6.7	<6.9	<6.7	<6.7	<6.9	<6.8	<6.9	<6.9	<7	<6.9	<7
3,4-Dinitrotoluene		5110	1210	7030	<4.6	<4.4	<4.5	<4.4	<4.4	<4.5	<4.4	<4.5	<4.5	<4.6	<4.6	<4.6
3,5-Dinitrotoluene		5110	1210	7030	<4.9	<4.7	<4.9	<4.7	<4.7	<4.9	<4.7	<4.8	<4.8	<4.9	<4.9	<4.9
Total DNT Isomers		51100	12100	70300	<35.1 [U]	<33.8 [U]	<34.9 [U]	<33.8 [U]	<33.8 [U]	<34.9 [U]	<34 [U]	<34.6 [U]	<34.7 [U]	<35.2 [U]	<35.1 [U]	<35.3 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.7	<2.8	<2.7	<2.7	<2.8	<2.7	<2.8	<2.8	<2.8	<2.8	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.8	<5.6	<5.8	<5.6	<5.6	<5.8	<5.6	<5.7	<5.7	<5.8	<5.8	<5.9
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<33	<34	<33	<33	<34	<33	<34	<34	<34	<34	<35
2-Nitrotoluene		14900	3160	18400	<4.4	<4.2	<4.3	<4.2	<4.2	<4.3	<4.2	<4.3	<4.3	<4.4	<4.4	<4.4
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.7	<5.5	<5.7	<5.5	<5.5	<5.7	<5.5	<5.6	<5.6	<5.7	<5.7	<5.8
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.5	<2.6	<2.5	<2.5	<2.6	<2.5	<2.6	<2.6	<2.6	<2.6	<2.6

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	045C-2021	045N-2021	046C-2021	046N-2021	047C-2021	047E-2021	047N-2021	048C-2021	048W-2021	049C-2021	050C-2021	051C-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	1.5 - 2	0 - 1.5	1.5 - 2	0 - 1.5	1.5 - 2	0 - 1.5	0 - 1.5	1.5 - 2	0 - 1.5	1.5 - 2	1.5 - 2	1.5 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	420 J	<3.2	140 J	1500 J	<3.2	<3.2	<3.2	<3.1	180 J	170 J	4100 J	7800 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	230	<3.8	<3.8	210	<3.8	<3.8	<3.8	<3.7	<3.8	<3.8	1500	1200
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	270	<2.8	180 J	190 J	<2.8	<2.8	<2.8	<2.7	<2.8	190 J	970	1100
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.5	<6.5	<6.5	<6.4	<6.5	<6.5	<6.5	<6.4	<6.5	<6.5	<6.5	**150 J**
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.7	<4.6	<4.6	<4.5	<4.6	<4.7	<4.6	<4.5	<4.6	<4.6	**140 J**	**150 J**
2,5-Dinitrotoluene		5110	1210	7030	<6.9	<6.9	<6.9	<6.8	<6.9	<7	<6.9	<6.8	<6.9	<6.9	<6.9	<6.9
3,4-Dinitrotoluene		5110	1210	7030	<4.6	<4.5	<4.5	<4.4	<4.5	<4.6	<4.5	<4.4	<4.5	<4.5	<4.5	<4.6
3,5-Dinitrotoluene		5110	1210	7030	<4.9	<4.8	<4.9	<4.7	<4.8	<4.9	<4.8	<4.7	<4.8	<4.8	<4.8	<4.9
Total DNT Isomers		51100	12100	70300	<35.1 [U]	<34.7 [U]	<34.8 [U]	<34.1 [U]	<34.7 [U]	<35.2 [U]	<34.7 [U]	<34.1 [U]	<34.7 [U]	<34.7 [U]	170.1 J	323.9 J
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.8	<2.8	<2.7	<2.8	<2.8	<2.8	<2.7	<2.8	<2.8	<2.8	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.8	<5.8	<5.8	<5.6	<5.8	<5.8	<5.8	<5.7	<5.8	<5.7	210	170 J
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<34	<34	<33	<34	<34	<34	<33	<34	<34	<34	<34
2-Nitrotoluene		14900	3160	18400	<4.3	<4.3	<4.3	<4.2	<4.3	<4.4	<4.3	<4.2	<4.3	<4.3	<4.3	<4.4
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.7	<5.6	<5.7	<5.5	<5.7	<5.7	<5.7	<5.6	<5.7	<5.6	<5.6	<5.7
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.6	<2.6	<2.5	<2.6	<2.6	<2.6	<2.5	<2.6	<2.6	<2.6	<2.6

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	052C-2021	053C-2021	053E-2021	053E-2021	054C-2021	055C-2021	056C-2021	057C-2021	058C-2021	059C-2021	060C-2021	060E-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	1.5 - 2	1.5 - 2	0 - 1.5	0 - 1.5	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	0 - 1.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	8200 J	1400 J	<3.2	<3.2	300 J	6700 J	13000 J	6600 J	2700 J	***23000 J***	<3.2	8700 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	1300	210	<3.8	<3.8	190 J	1500	3900	1200	350	640	<3.8	1100
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	620	230	<2.8	<2.8	170 J	850	2200	830	300	660	<2.8	1000
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.6	<6.6	<6.5	<6.4	<6.4	**140 J**	**170 J**	**140 J**	<6.4	<6.5	<6.5	**140 J**
2,6-Dinitrotoluene	0.1	5110	1210	7030	**140 J**	<4.7	<4.7	<4.6	<4.6	**140 J**	**160 J**	**150 J**	**140 J**	<4.7	<4.6	<4.6
2,5-Dinitrotoluene		5110	1210	7030	<7	<7	<6.9	<6.8	<6.8	<6.7	<6.9	<6.9	<6.8	<6.9	<6.9	<6.9
3,4-Dinitrotoluene		5110	1210	7030	<4.6	<4.6	<4.6	<4.5	<4.5	<4.4	<4.5	<4.5	<4.4	<4.5	<4.5	<4.5
3,5-Dinitrotoluene		5110	1210	7030	<4.9	<4.9	<4.9	<4.8	<4.8	<4.7	<4.8	<4.8	<4.7	<4.9	<4.8	<4.8
Total DNT Isomers		51100	12100	70300	170.6 J	<35.3 [U]	<35.1 [U]	<34.5 [U]	<34.4 [U]	303.1	353.6	313.6	169.6	<34.9 [U]	<34.7 [U]	168.2 J
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.8	<2.8	<2.8	<2.7	<2.7	<2.8	<2.8	<2.7	<2.8	<2.8	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	260	<5.8	<5.8	<5.7	<5.7	240	230	150 J	150 J	<5.8	<5.7	<5.8
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<34	<34	<34	<33	<33	<34	<34	<33	<34	<34	<34
2-Nitrotoluene		14900	3160	18400	<4.4	<4.4	<4.3	<4.3	<4.3	<4.2	<4.3	<4.3	<4.2	<4.3	<4.3	<4.3
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.7	<5.7	<5.7	<5.6	<5.6	<5.5	<5.6	<5.7	<5.5	<5.7	<5.6	<5.6
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.6	<2.6	<2.6	<2.5	<2.5	<2.6	<2.6	<2.5	<2.6	<2.6	<2.6

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	061C-2021	061W-2021	062C-2021	063C-2021	064C-2021	065C-2021	066C-2021	067C-2021	067E-2021	067E-2021	068C-2021	068W-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	1.5 - 2	0 - 1.5	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	0 - 1.5	0 - 1.5	1.5 - 2	0 - 1.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1200 J	***27000 J***	6400	7500	4400	***25000***	170 J	1100	2200 J	8800 J	<3.2	7600
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	360	2400	1700	3500	1100	810	<3.8	240	200 J	470	<3.8	570
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	260	2100	850	1400	530	700	<2.8	210	210	370	<2.7	410
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.4	<6.3	**140 J**	**140 J**	**130 J**	<6.5	<6.4	<6.5	<6.5	**140 J**	<6.4	<6.3
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.6	<4.5	**150 J**	**140 J**	**130 J**	<4.6	<4.6	<4.6	<4.7	<4.7	<4.6	<4.5
2,5-Dinitrotoluene		5110	1210	7030	<6.9	<6.7	<6.8	<6.8	<6.7	<6.9	<6.8	<6.9	<7	<7.1	<6.8	<6.7
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.4	<4.5	<4.5	<4.4	<4.5	<4.5	<4.5	<4.6	<4.6	<4.5	<4.4
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.7	<4.8	<4.8	<4.7	<4.8	<4.8	<4.9	<4.9	<5	<4.8	<4.7
Total DNT Isomers		51100	12100	70300	<34.6 [U]	<33.8 [U]	313.5 J	303.4 J	283 J	<34.7 [U]	<34.5 [U]	<34.8 [U]	<35.2 [U]	169	<34.4 [U]	<33.8 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.7	<2.8	<2.7	<2.7	<2.8	<2.8	<2.8	<2.8	<2.8	<2.7	<2.7
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	<5.6	<5.7	<5.7	<5.6	<5.7	<5.7	<5.8	<5.8	<5.9	<5.7	<5.6
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<33	<34	<33	<33	<34	<34	<34	<34	<35	<34	<33
2-Nitrotoluene		14900	3160	18400	<4.3	<4.2	<4.3	<4.3	<4.2	<4.3	<4.3	<4.3	<4.4	<4.4	<4.3	<4.2
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.5	<5.6	<5.6	<5.5	<5.6	<5.6	<5.7	<5.7	<5.8	<5.6	<5.5
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.5	190 J	190 J	170 J	160 J	<2.6	<2.6	<2.6	<2.6	<2.5	<2.5

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	069C-2021	070C-2021	071C-2021	072C-2021	073C-2021	074C-2021	075C-2021	075E-2021	076C-2021	076W-2021	077C-2021	078C-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	1.5 - 2	0 - 1.5	1.5 - 2	0 - 1.5	1.5 - 2	1.5 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	1200	2800	<3.2	<3.1	160 J	<3.2	160 J	200	<3.2	150 J	<3.2	1000 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	600	1300	<3.8	<3.7	<3.8	<3.8	<3.8	<3.8	<3.8	<3.7	<3.8	650
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	650	580	<2.7	<2.7	<2.7	<2.8	<2.7	<2.7	<2.8	<2.7	<2.8	430
2,4-Dinitrotoluene	0.1	5110	1210	7030	**130 J**	**130 J**	<6.4	<6.4	<6.4	<6.6	<6.4	<6.4	<6.5	<6.4	<6.5	**130 J**
2,6-Dinitrotoluene	0.1	5110	1210	7030	**140 J**	**140 J**	<4.6	<4.6	<4.6	<4.7	<4.6	<4.6	<4.6	<4.6	<4.7	**110 J**
2,5-Dinitrotoluene		5110	1210	7030	<6.8	<6.8	<6.8	<6.8	<6.8	<7	<6.8	<6.8	<6.9	<6.8	<6.9	<6.9
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.4	<4.5	<4.5	<4.5	<4.6	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.7	<4.8	<4.8	<4.8	<4.9	<4.8	<4.8	<4.8	<4.8	<4.9	<4.8
Total DNT Isomers		51100	12100	70300	293.4	293.2 J	<34.4 [U]	<34.4 [U]	<34.4 [U]	<35.3 [U]	<34.4 [U]	<34.4 [U]	<34.7 [U]	<34.4 [U]	<34.9 [U]	263.6 J
2,4,6-Trinitroxylene		96000	21300	124000	<2.7	<2.7	<2.7	<2.7	<2.7	<2.8	<2.7	<2.7	<2.8	<2.7	<2.8	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	160 J	<5.7	<5.7	<5.7	<5.8	<5.7	<5.7	<5.7	<5.7	<5.8	<5.7
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<33	<33	<34	<33	<33	<34	<34	<34	<34	<33	<34	<34
2-Nitrotoluene		14900	3160	18400	<4.3	<4.2	<4.3	<4.3	<4.3	<4.4	<4.3	<4.3	<4.3	<4.2	<4.3	<4.3
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.6	<5.6	<5.6	<5.6	<5.7	<5.6	<5.6	<5.6	<5.6	<5.7	<5.6
3,5-Dinitroaniline		328000	25300	147000	<2.5	180 J	<2.5	<2.5	<2.5	<2.6	<2.5	<2.5	<2.6	<2.5	<2.6	170 J

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	079C-2021	080C-2021	080E-2021	081C-2021	081W-2021	082C-2021	082S-2021	082S-2021	082W-2021	083Y-2021	084Y-2021	085Y-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	1.5 - 2	1.5 - 2	0 - 1.5	1.5 - 2	0 - 1.5	1.5 - 2	0 - 1.5	0 - 1.5	0 - 1.5	1 - 2.5	1 - 2.5	0 - 1.5
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	140 J	<3.1	<3.1	<3.1	140 J	<3.1	130 J	<3.1	<3.2	<3.2	130 J	<3.2
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	<3.7	<3.7	<3.7	190 J	<3.7	180 J	<3.7	<3.8	170 J	<3.7	<3.8
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.8	<2.7	<2.7	<2.7	220	<2.7	180 J	170 J	<2.8	170 J	<2.7	<2.8
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.4	<6.3	<6.3	<6.3	<6.3	<6.2	<6.4	<6.3	<6.5	<6.5	<6.4	<6.5
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.6	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.6	<4.6	<4.6	<4.6
2,5-Dinitrotoluene		5110	1210	7030	<6.8	<6.7	<6.8	<6.7	<6.6	<6.6	<6.8	<6.7	<6.9	<6.9	<6.8	<6.9
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.5	<4.5	<4.5	<4.5
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.7	<4.8	<4.8	<4.8	<4.8
Total DNT Isomers		51100	12100	70300	<34.4 [U]	<33.8 [U]	<34 [U]	<33.8 [U]	<33.6 [U]	<33.5 [U]	<34.1 [U]	<33.8 [U]	<34.7 [U]	<34.7 [U]	<34.4 [U]	<34.7 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.8	<2.8	<2.7	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	<5.6	<5.6	<5.6	<5.6	<5.6	<5.7	<5.6	<5.8	<5.7	<5.7	<5.7
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<33	<33	<33	<33	<33	<33	<33	<34	<34	<33	<34
2-Nitrotoluene		14900	3160	18400	<4.3	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.2	<4.3	<4.3	<4.3	<4.3
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.5	<5.5	<5.5	<5.5	<5.5	<5.6	<5.5	<5.7	<5.6	<5.6	<5.6
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.6	<2.6	<2.5	<2.6

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	086Y-2021	087Y-2021	088Y-2021	089Y-2021	090Y-2021	091C-2021	091E-2021	091W-2021	092C-2021	092E-2021	092W-2021	093C-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021
				Start Depth - End Depth (feet)	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5	0 - 1.5	2.5 - 3	1.5 - 2.5	0 - 2.5	2.5 - 3	1.5 - 2.5	0 - 2.5	1.5 - 2
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**													
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	<3.2	<3.2	<3.1	<3.1	<3.2	<3.2	<3.2	<3.2	290 J	<3.2	1500 J	120 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	<3.8	<3.7	<3.7	<3.8	<3.8	<3.8	<3.8	300 J	<3.8	670 J	<3.8
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.8	<2.8	<2.7	<2.7	<2.8	<2.8	<2.8	<2.8	530 J	<2.8	890 J	<2.8
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.5	<6.5	<6.3	<6.3	<6.5	<6.4	<6.4	<6.5	<6.5	<6.5	<6.5	<6.5
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.6	<4.6	<4.5	<4.5	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6
2,5-Dinitrotoluene		5110	1210	7030	<6.9	<6.9	<6.7	<6.7	<6.9	<6.8	<6.8	<6.9	<6.9	<6.9	<6.9	<6.9
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.5	<4.4	<4.4	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.8	<4.7	<4.7	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Total DNT Isomers		51100	12100	70300	<34.7 [U]	<34.7 [U]	<33.8 [U]	<33.8 [U]	<34.7 [U]	<34.4 [U]	<34.5 [U]	<34.7 [U]	<34.7 [U]	<34.7 [U]	<34.7 [U]	<34.7 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.8	<2.7	<2.7	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	<5.7	<5.6	<5.6	<5.7	<5.7	<5.7	<5.7	<5.8	<5.8	<5.8	<5.8
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<34	<33	<33	<34	<34	<34	<34	<34	<34	<34	<34
2-Nitrotoluene		14900	3160	18400	<4.3	<4.3	<4.2	<4.2	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.6	<5.5	<5.5	<5.6	<5.6	<5.6	<5.6	<5.7	<5.6	<5.7	<5.7
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.6	<2.5	<2.5	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	093N-2021	094C-2021	094E-2021	094S-2021	095Y-2021	096Y-2021	097C-2021	098C-2021	099C-2021	100C-2021	101C-2021	102C-2021
				Sample Date	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/17/2021	08/18/2021	08/26/2021	08/26/2021	08/26/2021	08/26/2021	08/26/2021	08/26/2021
				Start Depth - End Depth (feet)	0 - 1.5	1.5 - 2	0 - 1.5	0 - 1.5	1 - 2.5	0 - 1.5	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4	0 - 4
				Excavated	N	N	N	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater	**Direct Contact RCLs**														
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**												
Detected Primary Site Related NNOCs (µg/kg)																
2,4,6-Trinitrotoluene		96000	21300	124000	210	<3.2	150 J	260 J	<3.2	1000 J	<3.2	<3.1	<3.1	<3.1	<3.1	<3.1
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	<3.9	<3.8	<3.8	<3.8	250	<3.8	<3.7	<3.8	<3.7	<3.7	<3.7
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.8	<2.8	<2.8	<2.8	<2.8	390	<2.8	<2.7	<2.7	<2.7	<2.7	<2.7
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.5	<6.6	<6.5	<6.4	<6.5	<6.5	<6.4	<6.3	<6.4	<6.3	<6.4	<6.4
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.6	<4.7	<4.6	<4.6	<4.6	<4.6	<4.6	<4.5	<4.6	<4.5	<4.5	<4.5
2,5-Dinitrotoluene		5110	1210	7030	<6.9	<7	<6.9	<6.8	<6.9	<6.9	<6.9	<6.7	<6.8	<6.7	<6.8	<6.8
3,4-Dinitrotoluene		5110	1210	7030	<4.5	<4.6	<4.5	<4.5	<4.5	<4.5	<4.5	<4.4	<4.5	<4.4	<4.4	<4.4
3,5-Dinitrotoluene		5110	1210	7030	<4.8	<4.9	<4.8	<4.8	<4.8	<4.8	<4.8	<4.7	<4.8	<4.7	<4.7	<4.7
Total DNT Isomers		51100	12100	70300	<34.7 [U]	<35.3 [U]	<34.7 [U]	<34.4 [U]	<34.7 [U]	<34.7 [U]	<34.6 [U]	<33.8 [U]	<34.4 [U]	<33.8 [U]	<34.1 [U]	<34.1 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.7	<2.7	<2.7	<2.7	<2.7
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.7	<5.9	<5.8	<5.7	<5.8	<5.8	<5.7	<5.6	<5.7	<5.6	<5.6	<5.6
Detected Other NNOCs (µg/kg)																
1,3-Dinitrobenzene		82100	6320	36900	<34	<35	<34	<34	<34	<34	<34	<33	<34	<33	<33	<33
2-Nitrotoluene		14900	3160	18400	<4.3	<4.4	<4.3	<4.3	<4.3	<4.3	<4.3	<4.2	<4.3	<4.2	<4.2	<4.2
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.6	<5.8	<5.7	<5.6	<5.7	<5.7	<5.6	<5.5	<5.6	<5.5	<5.5	<5.5
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.5	<2.5	<2.5	<2.5	<2.5

Table 1A
Use Area PAJ In-Place Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

				Sample ID	054W-2021	103Z-2021	104Z-2021	105Z-2021	106Z-2021	107Z-2021	107Z-2021	108Z-2021	108Z-2021
				Sample Date	09/13/2021	09/20/2021	09/20/2021	09/20/2021	09/20/2021	09/20/2021	09/20/2021	09/20/2021	09/20/2021
				Start Depth - End Depth (feet)	0 - 4	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
				Excavated	N	N	N	N	N	N	N	N	N
				Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Duplicate	Field Sample	Field Duplicate
	Groundwater	**Direct Contact RCLs**											
	Pathway RCL	**Industrial**	**Non-Industrial**	**Recreational**									
Detected Primary Site Related NNOCs (µg/kg)													
2,4,6-Trinitrotoluene		96000	21300	124000	<3.2	2600 J	260 J	210 J	260 J	140 J	140 J	170 J	180 J
2-Amino-4,6-Dinitrotoluene		114000	7710	45000	<3.8	220 J	210 J	260 J	240 J	240 J	250 J	290 J	260 J
4-Amino-2,6-Dinitrotoluene		113000	7660	44700	<2.8	220 J	230 J	320 J	270 J	210 J	240 J	380 J	360 J
2,4-Dinitrotoluene	0.1	5110	1210	7030	<6.5	<6.4	<6.5	<6.4	<6.5	<6.5	<6.5	**140 J**	<6.5
2,6-Dinitrotoluene	0.1	5110	1210	7030	<4.7	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6	<4.6
2,5-Dinitrotoluene		5110	1210	7030	<6.9	<6.8	<6.9	<6.8	<6.9	<6.9	<6.9	<6.9	<6.9
3,4-Dinitrotoluene		5110	1210	7030	<4.6	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5
3,5-Dinitrotoluene		5110	1210	7030	<4.9	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Total DNT Isomers		51100	12100	70300	<35 [U]	<34.4 [U]	<34.7 [U]	<34.4 [U]	<34.7 [U]	<34.7 [U]	<34.7 [U]	168.2	<34.7 [U]
2,4,6-Trinitroxylene		96000	21300	124000	<2.8	<2.7	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
1,3,5-Trinitrobenzene		32400000	2250000	13100000	<5.8	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.7	<5.8
Detected Other NNOCs (µg/kg)													
1,3-Dinitrobenzene		82100	6320	36900	<34	<34	<34	<34	<34	<34	<34	<34	<34
2-Nitrotoluene		14900	3160	18400	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3	<4.3
1-Methyl-4-Nitrobenzene		144000	33900	198000	<5.7	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.6	<5.7
3,5-Dinitroaniline		328000	25300	147000	<2.6	<2.5	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6	<2.6

Table 1B
Use Area PAJ In-Place Soil Analytical Results - SVOCs, VOCs, Metals, and TOC
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Sample ID	SWF021	SWF022	SWF023	PAJ006	PAJ017B	PAJ017C	PAJ021	PAJ022	PAJ023	PAJ024
					Sample Date	07/11/2006	07/11/2006	07/11/2006	10/24/2003	07/11/2006	07/11/2006	08/16/2006	08/16/2006	08/16/2006	08/16/2006
					Start Depth - End Depth (feet)	0 - 1	0 - 1	0 - 1	0 - 2	2 - 3	2 - 3	0 - 2	0 - 2	0 - 2	0 - 2
					Excavated	N	N	N	N	N	N	N	N	N	N
					Sample Purpose	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample	Field Sample
	Groundwater Pathway RCL	**Background Concentration**	**Direct Contact RCLs**												
			Industrial	**Non-Industrial**	**Recreational**										
Detected Other SVOCs (µg/kg)															
Pyrene	54545		22600000	1790000	10500000	**45 J**				<14	<14				
Detected VOCs (µg/kg)															
Methylene Chloride	2.56		1150000	61800	361000				0.86 B						
Detected Metals (µg/kg)															
Antimony	542	670	467000	31300	182000	<460	**610 J**	<470				<440	<540	500 J	510 J
Arsenic	584	5000	3000	677	3950	***2500***	***3500***	***2800***				***2700 J***	***2500 J***	***2600 J***	***2100 J***
Barium	164800	177000	219000000	15300000	89500000	88900	67500	50100				87700 J	75400 J	96100 J	66100 J
Beryllium	6320	1700	2300000	156000	908000	590 J	530 J	280 J				720	500 J	700	460 J
Cadmium	752	580	99700	7140	41700	<50	<48	<50				120 J	<58	49 J	<47
Chromium	360000000	44000	1750000000	117000000	684000000	25400	17300	13100				23900	25000	30000	20700
Cobalt	3607.3211	20000	347000	23400	137000	**7400**	**7000**	**6300**				**8300**	**6200**	**8400**	**6100**
Copper	91600	30000	46700000	3130000	18300000	58700	20000	18700				23000	16500	19600	17100
Lead	27000	13000	800000	400000	400000	**128000**	**44900**	**33200**				15300	9500	7300	21200
Mercury	208	37	65800	15700	91400	**290**	140	150				4.5 J	11 J	11 J	11 J
Nickel	13061.224	35000	22500000	1550000	9030000	**18600**	**14700**	**13500**				**24800**	**16100**	**21800**	**15900**
Thallium	284	3100	11700	782	4560	**2200**	**3100**	**2000**				<760	<920	<770	<750
Tin		8800	701000000	46900000	274000000	2700 J	<2200	<2300				2400 J	<2700	3000 J	2400 J
Vanadium	60000	57000	5840000	393000	2290000	37500	36000	39300				36200	38900	41300	32200
Zinc		64000	350000000	23500000	137000000	49000 J	91800 J	64800 J				36300 J	30700 J	39500 J	36900 J
TOC (µg/kg)															
Total Organic Carbon						19400000	27100000	15700000							

Table 1B
Use Area PAJ In-Place Soil Analytical Results - SVOCs, VOCs, Metals, and TOC
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Sample ID	PAI016	PAI016	I-28-12-NE
					Sample Date	08/17/2006	08/17/2006	08/27/2010
					Start Depth - End Depth (feet)	0 - 2	0 - 2	0 - 1
					Excavated	N	N	N
					Sample Purpose	Field Duplicate	Field Sample	Field Sample
	Groundwater	**Background**	**Direct Contact RCLs**					
	Pathway RCL	**Concentration**	**Industrial**	**Non-Industrial**	**Recreational**			
Detected Other SVOCs (µg/kg)								
Pyrene	54545		22600000	1790000	10500000			
Detected VOCs (µg/kg)								
Methylene Chloride	2.56		1150000	61800	361000			
Detected Metals (µg/kg)								
Antimony	542	670	467000	31300	182000	<420	<430	
Arsenic	584	5000	3000	677	3950	***2000***	***2100***	***2100 J***
Barium	164800	177000	219000000	15300000	89500000	62200	84100	
Beryllium	6320	1700	2300000	156000	908000	500 J	650	
Cadmium	752	580	99700	7140	41700	190 J	310 J	
Chromium	360000000	44000	1750000000	117000000	684000000	17900 J	30000 J	
Cobalt	3607.3211	20000	347000	23400	137000	**6500**	**9400**	
Copper	91600	30000	46700000	3130000	18300000	20200	23100	
Lead	27000	13000	800000	400000	400000	5300	9500	**120000 J**
Mercury	208	37	65800	15700	91400	<3.1	<3.1	
Nickel	13061.224	35000	22500000	1550000	9030000	**18900 J**	**25200 J**	
Thallium	284	3100	11700	782	4560	<720	<730	
Tin		8800	701000000	46900000	274000000	<2100	2300 J	
Vanadium	60000	57000	5840000	393000	2290000	32000	38900	
Zinc		64000	350000000	23500000	137000000	24200 J	33000 J	
TOC (µg/kg)								
Total Organic Carbon								

Notes for Use Area PAJ Tables 1A and 1B

Site Use Map and Use Restrictions for October 2022 to October 2023 Period
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

Abbreviations:

DNT	Dinitrotoluene
NNOCs	Nitramine and nitroaromatic organic compounds
RCL	Residual Contaminant Level
SVOCs	Semi-volatile organic compounds
TOC	Total organic carbon
µg/kg	Microgram per kilogram
VOCs	Volatile organic compounds

Data Qualifiers:

<	The compound was not detected at or above the associated numerical value
B	Method blank contamination
J	Quantitation is approximate
[U]	Not detected
UJ	The compound was not detected, but the detection limit and/or reporting limit is probably higher due to low bias identified during the quality assurance review

Soil Sample ID Notes:

C	Sample collected from bottom of excavation
E	Sample collected from eastern sidewall of excavation
N	Sample collected from northern sidewall of excavation
S	Sample collected from southern sidewall of excavation
W	Sample collected from western sidewall of excavation
X/Z	Sample collected from stockpile that was placed back in excavation or a surficial sample collected after backfilling and grading

Exceedance Designations:

Bold	Detected above the Groundwater Pathway RCL
Bold and Italic	Detected above the Non-Industrial RCL for direct contact
Bold, Italic, and Underline	Detected above the Industrial RCL for direct contact

Attachment 3

Use Area PAJ Figure

N

Legend

- PAJ Soil Sample Location
- Railroad

Surface Water

- Intermitent
- Process Ditch
- Storm Ditch
- Process Drain
- WWI Pond 3
- Building (Historical)
- PAJ Boundary
- Excavation Area Within PAJ

0 50 100 200
Feet

AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, DE 19713

Title:

Use Area PAJ Soil Sample Location Map
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

Notes:

Basemap Lidar source: Bayfield County, WI.

Created:	Project Number:
C. DUFFY	60660855
Date: 9/30/2022	Task: 21001
Revision Number: 0 Date:	Figure Number: 1
File Name: Fig04A_SampleLocMap_forLetter.mxd	

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Attachment 4

Use Area PAT Table

Table 2
Use Area PAT Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Location ID	**ACD3-01**	**ACD3-02**	**ACD3-03**	**ACD3-04**	**ACD3-05**	**ACD3-06**	**ACD3-07**	**ACD3-08**	**ACD3-09**	**ACD3-10**	**ACD3-11**	**ACD3-12**	**2015-117D**	**2015-118D**	**2015-119D**	**2015-120D**
					Field Sample ID	9400331	9400540	9400749	9400958	9401167	9401376	9401585	9401794	9402003	9402212	9402421	9402630	SITG-151007-117D-0-0.5	SITG-151006-118D-0-0.5	SITG-151006-119D-0-0.5	SITG-151006-120D-0-0.5
					Date Sampled	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	08/27/2001	10/07/2015	10/06/2015	10/06/2015	10/06/2015
					Start Depth - End Depth	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 2	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
Parameter Name	**Units**	**Groundwater Pathway RCL**	**Direct Contact RCLs**			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
			Industrial	**Non-Industrial**	**Recreational**																
2,4,6-trinitrotoluene	mg/kg		96	21	124	<0.018	<0.016	<0.014	<0.017	<0.015	**0.065**	**0.031**	**0.033**	**0.029**	**0.05**	**0.054**	**0.03**	**0.43**	<0.2	<0.2	**0.2**
2-amino-4,6-dinitrotoluene	mg/kg		114	7.7	45	<0.038	<0.034	<0.031	<0.036	<0.033	<0.037	<0.035	<0.031	<0.032	<0.031	<0.033	<0.034	<0.21	<0.2	<0.2	<0.2
4-amino-2,6-dinitrotoluene	mg/kg		113	7.7	45	<0.025	<0.022	<0.02	<0.023	<0.021	**0.025**	<0.023	<0.02	<0.021	**0.023**	**0.025**	<0.022	<0.21	<0.2	<0.2	<0.2
1,3,5-trinitrobenzene	mg/kg		32,400	2,250	13,100	<0.016	<0.015	<0.013	<0.015	<0.014	<0.016	<0.015	<0.013	<0.014	<0.013	<0.014	<0.014	<0.21	<0.2	<0.2	<0.2
1,3-dinitrobenzene	mg/kg		82	6.3	37	<0.03	<0.027	<0.024	<0.028	<0.026	<0.029	<0.028	<0.025	<0.025	<0.025	<0.026	<0.026	<0.21	<0.2	<0.2	<0.2
2-nitrotoluene	mg/kg		15	3.2	18	<0.026	<0.023	<0.021	<0.025	<0.022	<0.025	<0.024	<0.021	<0.022	<0.021	<0.023	<0.023	<0.21	<0.2	<0.2	<0.2
3-nitrobenzene	mg/kg		82	6.3	37	<0.033	<0.029	<0.027	<0.031	<0.028	<0.031	<0.03	<0.027	<0.028	<0.027	<0.029	<0.029	<0.21	<0.2	<0.2	<0.2
4-nitrobenzene	mg/kg		144	34	198	<0.1	<0.091	<0.083	<0.097	<0.088	<0.098	<0.094	<0.084	<0.087	<0.084	<0.089	<0.09	<0.21	<0.2	<0.2	<0.2
nitrobenzene	mg/kg		32	7.4	43	<0.016	<0.015	<0.013	<0.015	<0.014	<0.016	<0.015	<0.013	<0.014	<0.013	<0.014	<0.014	<0.21	<0.2	<0.2	<0.2
HMX	mg/kg		57,000	3,860	22,500	<0.021	<0.018	<0.017	<0.019	<0.018	<0.02	<0.019	<0.017	<0.017	<0.017	<0.018	<0.018	--	--	--	--
PETN	mg/kg		534	126	736	<0.1	<0.091	<0.083	<0.097	<0.088	<0.098	<0.094	<0.084	<0.087	<0.084	<0.089	<0.09	--	--	--	--
RDX	mg/kg		38	8.3	49	<0.027	<0.024	<0.022	<0.026	<0.023	<0.026	<0.025	<0.022	<0.023	<0.022	<0.024	<0.024	--	--	--	--
Tetryl	mg/kg		2,330	156	911	<0.03	<0.027	<0.024	<0.028	<0.026	<0.029	<0.028	<0.025	<0.025	<0.025	<0.026	<0.026	--	--	--	--
nitroglycerin	mg/kg		82	6.3	37	**0.21**	<0.073	<0.066	<0.077	<0.07	<0.078	<0.075	<0.067	<0.069	<0.067	<0.071	<0.072	--	--	--	--
2,4-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.047	**0.042**	<0.038	<0.044	<0.04	<0.044	**0.12**	<0.038	<0.039	**0.18**	<0.04	<0.041	<0.21	<0.2	<0.2	<0.2
2,6-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.016	**0.018**	<0.013	<0.015	<0.014	<0.016	<0.015	<0.013	<0.014	**0.064**	<0.014	<0.014	<0.21	<0.2	<0.2	<0.2
2,3-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
2,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
3,4-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
3,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
2,4,6-trinitro-3-xylene	mg/kg		96	21	124	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-3,4-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-3,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-3,6-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,2-dimethyl-4,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,3-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,3-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,4-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,4-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,4-dimethyl-2,6-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,5-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2
1,5-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	--	--	--	--	--	--	--	--	--	--	--	--	<0.21	<0.2	<0.2	<0.2

Notes:

[1]: Maximum concentration of on-site samples included on this table

[2]: Maximum concentration of WisDOT soil/sediment samples per results submitted to WDNR on 7/16/18 by WisDOT

2001 results are from QES-DEN using lab method 8321

2015 results are from ECCS using lab method 8270

mg/kg: milligrams per kilogram
RCL: Residual Contaminant Level
ND: Not detected

Table 2
Use Area PAT Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Location ID	**2015-121D**	**2015-122D**	**2015-123D**	**2015-124D**	**2015-125D**	**2015-126D**	**2015-127D**	**2015-129D**	**2015-130D**	**2015-130D**	**2015-131X**
					Field Sample ID	SITG-151006-121D-0-0.5	SITG-151006-122D-0-0.5	SITG-151006-123D-0-0.5	SITG-151007-124D-0-0.5	SITG-151007-125D-0-0.5	SITG-151007-126D-0-0.5	SITG-151007-127D-0-0.5	SITG-151007-129D-0-0.5	SITG-151007-130D-0-0.5	SITG-151007-130D-0-0.5-D	SITG-151007-131X-0-1
					Date Sampled	10/06/2015	10/06/2015	10/06/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015
					Start Depth - End Depth	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 1
Parameter Name	**Units**	**Groundwater Pathway RCL**	**Direct Contact RCLs**			Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
			Industrial	**Non-Industrial**	**Recreational**											
2,4,6-trinitrotoluene	mg/kg		96	21	124	**0.2**	**0.36**	**0.28**	<0.2	**0.44**	<0.21	<0.21	**0.23**	**0.31**	<0.2	**0.23**
2-amino-4,6-dinitrotoluene	mg/kg		114	7.7	45	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
4-amino-2,6-dinitrotoluene	mg/kg		113	7.7	45	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3,5-trinitrobenzene	mg/kg		32,400	2,250	13,100	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3-dinitrobenzene	mg/kg		82	6.3	37	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2-nitrotoluene	mg/kg		15	3.2	18	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
3-nitrobenzene	mg/kg		82	6.3	37	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
4-nitrobenzene	mg/kg		144	34	198	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
nitrobenzene	mg/kg		32	7.4	43	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
HMX	mg/kg		57,000	3,860	22,500	--	--	--	--	--	--	--	--	--	--	--
PETN	mg/kg		534	126	736	--	--	--	--	--	--	--	--	--	--	--
RDX	mg/kg		38	8.3	49	--	--	--	--	--	--	--	--	--	--	--
Tetryl	mg/kg		2,330	156	911	--	--	--	--	--	--	--	--	--	--	--
nitroglycerin	mg/kg		82	6.3	37	--	--	--	--	--	--	--	--	--	--	--
2,4-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.2	<0.2	**0.65**	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,6-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,3-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
3,4-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
3,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
2,4,6-trinitro-3-xylene	mg/kg		96	21	124	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-3,4-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-3,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-3,6-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,2-dimethyl-4,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,3-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,4-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,4-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,4-dimethyl-2,6-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,5-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21
1,5-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.2	<0.2	<0.2	<0.2	<0.21	<0.21	<0.21	<0.21	<0.21	<0.2	<0.21

Notes:

[1]: Maximum concentration of on-site samples included on this table

[2]: Maximum concentration of WisDOT soil/sediment samples per results submitted to WDNR on 7/16/18 by WisDOT

2001 results are from QES-DEN using lab method 8321

2015 results are from ECCS using lab method 8270

mg/kg: milligrams per kilogram
RCL: Residual Contaminant Level
ND: Not detected

Table 2
Use Area PAT Soil Analytical Results - NNOCs
Site Use Map and Use Restrictions for October 2022 to October 2023
Former DuPont Barksdale Works
Town of Barksdale, Bayfield County, Wisconsin

					Location ID	**2015-131X**	**2015-132X**	**2015-133X**	**2015-134X**	**2015-135X**		
					Field Sample ID	SITG-151007-131X-0-1-D	SITG-151007-132X-0-1	SITG-151007-133X-0-1	SITG-151007-134X-0-1	SITG-151007-135X-0-1		
					Date Sampled	10/07/2015	10/07/2015	10/07/2015	10/07/2015	10/07/2015		
					Start Depth - End Depth	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1		
			Direct Contact RCLs								**Maximum Soil Concentration From Use Area PAT[1]**	**Maximum Soil Concentration From Samples Collected as Part of WisDOT Boyd Creek Project[2]**
Parameter Name	**Units**	**Groundwater Pathway RCL**	**Industrial**	**Non-Industrial**	**Recreational**	Report Result	Report Result	Report Result	Report Result	Report Result		
2,4,6-trinitrotoluene	mg/kg		96	21	124	**0.32**	<0.2	**0.33**	**0.35**	**0.25**	0.44	0.48
2-amino-4,6-dinitrotoluene	mg/kg		114	7.7	45	<0.21	<0.2	<0.22	<0.21	<0.21	ND	0.41
4-amino-2,6-dinitrotoluene	mg/kg		113	7.7	45	<0.21	<0.2	<0.22	<0.21	<0.21	0.025	0.41
1,3,5-trinitrobenzene	mg/kg		32,400	2,250	13,100	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,3-dinitrobenzene	mg/kg		82	6.3	37	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
2-nitrotoluene	mg/kg		15	3.2	18	<0.21	<0.2	<0.22	<0.21	<0.21	ND	0.078
3-nitrobenzene	mg/kg		82	6.3	37	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
4-nitrobenzene	mg/kg		144	34	198	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
nitrobenzene	mg/kg		32	7.4	43	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
HMX	mg/kg		57,000	3,860	22,500	--	--	--	--	--	ND	ND
PETN	mg/kg		534	126	736	--	--	--	--	--	ND	ND
RDX	mg/kg		38	8.3	49	--	--	--	--	--	ND	ND
Tetryl	mg/kg		2,330	156	911	--	--	--	--	--	ND	ND
nitroglycerin	mg/kg		82	6.3	37	--	--	--	--	--	0.21	0.031
2,4-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	0.65	0.055
2,6-dinitrotoluene	mg/kg	0.0001	5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	0.064	ND
2,3-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
2,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
3,4-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
3,5-dinitrotoluene	mg/kg		5.1	1.2	7.0	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
2,4,6-trinitro-3-xylene	mg/kg		96	21	124	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-3,4-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-3,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-3,6-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,2-dimethyl-4,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,3-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,3-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,4-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,4-dimethyl-2,5-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,4-dimethyl-2,6-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,5-dimethyl-2,3-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND
1,5-dimethyl-2,4-dinitrobenzene	mg/kg		247	19	111	<0.21	<0.2	<0.22	<0.21	<0.21	ND	ND

Notes:

[1]: Maximum concentration of on-site samples included on this table

[2]: Maximum concentration of WisDOT soil/sediment samples per results submitted to WDNR on 7/16/18 by WisDOT

2001 results are from QES-DEN using lab method 8321

2015 results are from ECCS using lab method 8270

mg/kg: milligrams per kilogram
RCL: Residual Contaminant Level
ND: Not detected

The Chemours Company, FC LLC
500 West Jefferson Street
Suite 1600
Louisville, KY 40202

502-569-2301 t
chemours.com

October 25, 2023

Mr. Paul Bretting
Bretting Development Corporation
3401 Lake Park Road
Ashland, WI 54806

RE: Site Use Map and Use Restrictions for October 2023 to October 2024 Period
Former DuPont Barksdale Works
72315 State Highway 13
Town of Barksdale, Bayfield County, Wisconsin
FID No.: 804009140
EPA ID No.: WIR000133447
BRRTS No. 02-04-00156

Dear Mr. Bretting:

Attached please find the updated annual Site Use Map (map) for your use and reference for the period starting October 2023 through October 2024. As you are aware, The Chemours Company FC, LLC (Chemours) has been updating and issuing this map annually so that Bretting Development Corporation's (BDC's) primary users and guests may readily identify portions of the former DuPont Barksdale Works property (Site) that are suitable for recreational use at a frequency of 60 days per calendar year per adult user.

The boundaries shown on the attached map are consistent with the previous map that was included in the letter to you dated October 21, 2022. The total Site land area currently available for BDC use is approximately 1,475 acres of the 1,798 acres that comprised the former Site and are currently owned by BDC. This total remains unchanged from 2022.

Please note that the boundaries shown on the map are subject to change, based on either WDNR's review of the work completed to date in both use areas and/or any future need identified by Chemours and/or WDNR.

As with previous annual use maps, multiple copies of the attached annual use map will be printed on vinyl banner material and delivered to the clubhouse for your distribution to land users.

If you have any questions or comments, please feel free to contact me by telephone at (812) 406-7117 or by email at Bradley.S.Nave@chemours.com.

Sincerely,

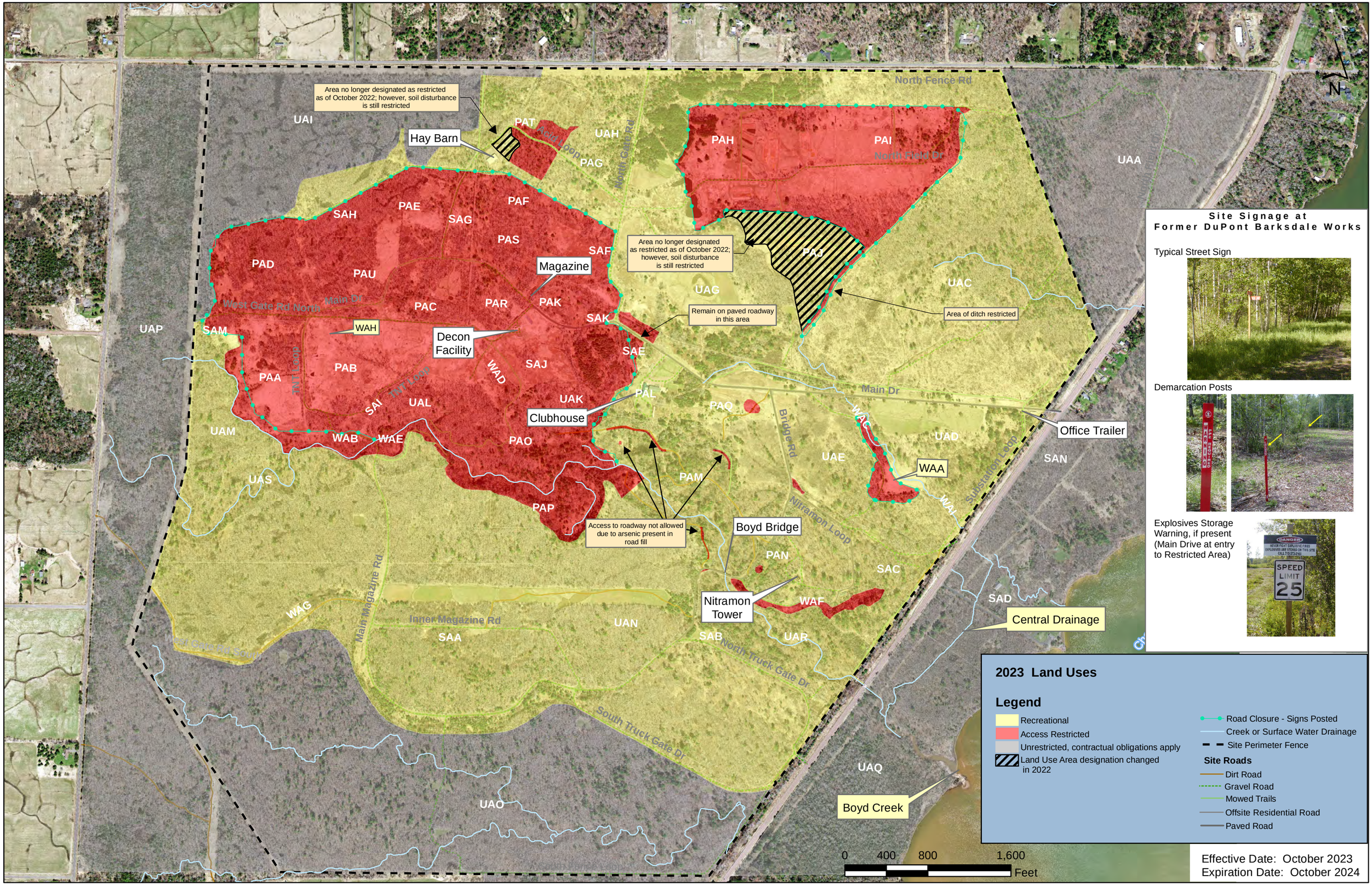
Bradley S. Nave
Chemours Corporate Remediation Group

The Chemours Company, FC LLC
500 West Jefferson Street
Suite 1600
Louisville, KY 40202

502-569-2301 t
chemours.com

Attachments: Attachment 1: 2023 Land Uses Map

cc: Philip Richard WDNR
Cary Pooler, AECOM
Eric Schmidt, AECOM



Site Signage at Former DuPont Barksdale Works

Typical Street Sign

Demarcation Posts

Explosives Storage Warning, if present (Main Drive at entry to Restricted Area)

2023 Land Uses

Legend

- Recreational
- Access Restricted
- Unrestricted, contractual obligations apply
- Land Use Area designation changed in 2022
- Road Closure - Signs Posted
- Creek or Surface Water Drainage
- Site Perimeter Fence

Site Roads

- Dirt Road
- Gravel Road
- Mowed Trails
- Offsite Residential Road
- Paved Road

Effective Date: October 2023
Expiration Date: October 2024

The Chemours Company, FC LLC
500 West Jefferson Street
Suite 1600
Louisville, KY 40202

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chemours.com

October 25, 2023

Chief Mark Guenther
City of Washburn Fire Department
1021 Washington Avenue
Washburn, WI 54891

RE: Firefighting Location Map for October 2023 to October 2024 Period
Former DuPont Barksdale Works
72315 State Highway 13
Town of Barksdale, Bayfield County, Wisconsin

Dear Chief Guenther:

Attached please find the updated annual Firefighting Location Map (map) for your use and reference for the period starting October 2023 through October 2024. The Chemours Company FC, LLC (Chemours) has been updating and issuing this map annually so that the City of Washburn Fire Department (Department) personnel and other users may readily identify portions of the former DuPont Barksdale Works property (Site) where firefighting and ground disturbance is prohibited. These locations generally include areas where explosives were historically manufactured, stored, or disposed of at the Site.

The boundaries shown on the attached map are consistent with the previous map from 2022. As with previous annual firefighting location maps, multiple copies of the attached map will be printed on vinyl banner material and made available for your distribution to Department personnel.

If you have any questions or comments, please feel free to contact me by telephone at (812) 406-7117 or by email at Bradley.S.Nave@chemours.com.

Sincerely,

Bradley S. Nave
Chemours Corporate Remediation Group

Attachments: Attachment 1: 2023 Firefighting Location Map

cc: Philip Richard WDNR
Cary Pooler, AECOM
Eric Schmidt, AECOM

Nolander Rd
Birch Grove Rd
North Fence Rd
N
Hay Barn
Acid Loop
North Gate Rd
North Field Dr
North Field Dr
Rally Spot 3
Water Tower
Magazine
Firefighting and Ground Disturbance is Prohibited within Area of Ditch
West Gate Rd North
Main Dr
Decon Facility
Rally Spot 2
TNT Loop
TNT Loop
Rally Spot 1
Site Personnel
Contact Info
Posted Here
Northern Drainage
Main Dr
Clubhouse
Bridge Rd
Chemours
Office Trailer
Substation Loop
Main Gate
Ondossagon Rd
Area Where Ground Disturbance is Prohibited
Area Where Ground Disturbance is Prohibited
Nitramon Loop
Nitramon Tower
Area Where Ground Disturbance is Prohibited
Main Magazine Rd
Inner Magazine Rd
West Gate Rd South
Area Where Ground Disturbance is Prohibited
North Truck Gate Dr
State Hwy 13
Central Drainage
Chequamegon Bay
South Truck Gate Dr
Rally Spot 4
Boyd Creek
South Fence Loop
0 400 800 1,600
Feet

Site Signage at Former DuPont Barksdale Works

Typical Street Sign

Demarcation Posts

Explosives Storage Warning
(Main Drive at entry to Restricted Area)

2023 Firefighting Location Map

Legend

- Primary Rally Spot
- Alternate Rally Spot
- Public Road
- Site Perimeter Fence
- Offsite Residential Road
- Dirt Road
- Gravel Road
- Paved Road
- Creek
- Firefighting and Ground Disturbance Prohibited
- Ground Disturbance is Prohibited

Effective Date: October 2023
Expiration Date: October 2024

EPA RSL Calculator Inputs and Outputs

Site-specific
Composite Worker Soil Inputs

Variable	Composite Worker Soil Default Value	Site-Specific Value
A (PEF Dispersion Constant)	16.2302	16.8653
A (VF Dispersion Constant)	11.911	16.8653
A (VF Dispersion Constant - mass limit)	11.911	16.8653
B (PEF Dispersion Constant)	18.7762	18.7848
B (VF Dispersion Constant)	18.4385	18.7848
B (VF Dispersion Constant - mass limit)	18.4385	18.7848
City (PEF Climate Zone) Selection	Default	Chicago, IL (7)
City (VF Climate Zone) Selection	Default	Chicago, IL (7)
C (PEF Dispersion Constant)	216.108	215.0624
C (VF Dispersion Constant)	209.7845	215.0624
C (VF Dispersion Constant - mass limit)	209.7845	215.0624
foc (fraction organic carbon in soil) g/g	0.006	0.006
F(x) (function dependent on U_m/U_t) unitless	0.194	0.182
n (total soil porosity) L_{pore}/L_{soil}	0.43396	0.43396
p_b (dry soil bulk density) g/cm^3	1.5	1.5
p_b (dry soil bulk density - mass limit) g/cm^3	1.5	1.5
PEF (particulate emission factor) m^3/kg	1359344438	1560521177
p_s (soil particle density) g/cm^3	2.65	2.65
Q/C_{wind} (g/m^2-s per kg/m^3)	93.77	98.43071437
Q/C_{vol} (g/m^2-s per kg/m^3)	68.18	98.43071437
Q/C_{vol} (g/m^2-s per kg/m^3 - mass limit)	68.18	98.43071437
A_s (PEF acres)	0.5	0.5
A_s (VF acres)	0.5	0.5
A_s (VF mass-limit acres)	0.5	0.5
AF_{com} (skin adherence factor - composite worker) mg/cm^2	0.12	0.12
AT_{com} (averaging time - composite worker)	365	365
BW_{com} (body weight - composite worker)	80	80
ED_{com} (exposure duration - composite worker) yr	25	25
EF_{com} (exposure frequency - composite worker) day/yr	250	250
ET_{com} (exposure time - composite worker) hr	8	8
THQ (target hazard quotient) unitless	0.1	1
IRS_{com} (soil ingestion rate - composite worker) mg/day	100	100
LT (lifetime) yr	70	70
SA_{com} (surface area - composite worker) cm^2/day	3527	3527
TR (target risk) unitless	0.000001	0.000001
T_w (groundwater temperature) Celsius	25	25
$Theta_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396	0.28396
$Theta_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15	0.15
T (exposure interval) s	819936000	819936000
T (exposure interval) yr	26	26
U_m (mean annual wind speed) m/s	4.69	4.65
U_t (equivalent threshold value)	11.32	11.32
V (fraction of vegetative cover) unitless	0.5	0.5
VF_{ml} (volitization factor - mass limit) m^3/kg	0	0

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref
Acenaphthene	83-32-9	No	Yes	Organics	-		-		6.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	3.90E+00	5.03E+03	3.02E+01	1.84E-04	7.52E-03	U
Acenaphthylene	208-96-8	No	Yes	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	1.61E+01	5.03E+03	3.02E+01	1.14E-04	4.66E-03	U
Acetone	67-64-1	No	Yes	Organics	-		-		9.00E-01	U	-		1.00E+00	-	1.00E+00	1.14E+05	1.00E+06	2.36E+00	1.42E-02	3.50E-05	1.43E-03	U
Acetonitrile	75-05-8	No	Yes	Organics	-		-		-		6.00E-02	U	1.00E+00	-	1.00E+00	1.28E+05	1.00E+06	4.67E+00	2.80E-02	3.45E-05	1.41E-03	U
Aluminum	7429-90-5	No	No	Inorgani	-		-		1.00E+00	U	5.00E-03	U	1.00E+00	-	1.00E+00	-	-	-	1.50E+03	-	-	
Aniline	62-53-3	No	No	Organics	5.70E-03	U	1.60E-06	U	7.00E-03	U	1.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	3.60E+04	7.02E+01	-	2.02E-06	8.26E-05	U
Anthracene	120-12-7	No	Yes	Organics	-		-		3.00E-01	U	-		1.00E+00	1.30E-01	1.00E+00	-	4.34E-02	1.64E+04	9.84E+01	5.56E-05	2.27E-03	U
Antimony (metallic)	7440-36-0	No	No	Inorgani	-		-		4.00E-04	U	3.00E-04	U	1.50E-01	-	1.00E+00	-	-	-	4.50E+01	-	-	
Aroclor 1260	11096-82-5	No	Yes	Organics	2.00E+00	U	5.71E-04	U	-		-		1.00E+00	1.40E-01	1.00E+00	-	1.44E-02	3.50E+05	2.10E+03	3.36E-04	1.37E-02	U
Arsenic, Inorganic	7440-38-2	No	No	Inorgani	1.50E+00	U	4.30E-03	U	3.00E-04	U	1.50E-05	U	1.00E+00	3.00E-02	6.00E-01	-	-	-	2.90E+01	-	-	
Barium	7440-39-3	No	No	Inorgani	-		-		2.00E-01	U	5.00E-04	U	7.00E-02	-	1.00E+00	-	-	-	4.10E+01	-	-	
Benz[a]anthracene	56-55-3	Yes	Yes	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	9.40E-03	1.77E+05	1.06E+03	1.20E-05	4.91E-04	U
Benzene	71-43-2	No	Yes	Organics	5.50E-02	U	7.80E-06	U	4.00E-03	U	3.00E-02	U	1.00E+00	-	1.00E+00	1.82E+03	1.79E+03	1.46E+02	8.76E-01	5.55E-03	2.27E-01	U
Benzo[a]pyrene	50-32-8	Yes	No	Organics	1.00E+00	U	6.00E-04	U	3.00E-04	U	2.00E-06	U	1.00E+00	1.30E-01	1.00E+00	-	1.62E-03	5.87E+05	-	4.57E-07	1.87E-05	U
Benzo[b]fluoranthene	205-99-2	Yes	No	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	1.50E-03	5.99E+05	-	6.57E-07	2.69E-05	U
Benzo[g,h,i]perylene	191-24-2	No	No	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	2.60E-04	1.95E+06	-	3.31E-07	1.35E-05	U
Benzo[k]fluoranthene	207-08-9	Yes	No	Organics	1.00E-02	U	6.00E-06	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	8.00E-04	5.87E+05	-	5.84E-07	2.39E-05	U
Benzyl Alcohol	100-51-6	No	No	Organics	-		-		1.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.29E+04	2.15E+01	-	3.37E-07	1.38E-05	U
Beryllium and compounds	7440-41-7	No	No	Inorgani	-		2.40E-03	U	2.00E-03	U	2.00E-05	U	7.00E-03	-	1.00E+00	-	-	-	7.90E+02	-	-	
Bis(2-ethylhexyl)phthalate	117-81-7	No	No	Organics	1.40E-02	U	2.40E-06	U	2.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.70E-01	1.20E+05	-	2.70E-07	1.10E-05	U
Boron And Borates Only	7440-42-8	No	No	Inorgani	-		-		2.00E-01	U	2.00E-02	U	1.00E+00	-	1.00E+00	-	-	-	3.00E+00	-	-	
Bromodichloromethane	75-27-4	No	Yes	Organics	6.20E-02	U	3.70E-05	U	8.00E-03	U	-		1.00E+00	-	1.00E+00	9.31E+02	3.03E+03	3.18E+01	1.91E-01	2.12E-03	8.67E-02	U
Bromodiphenyl Ether, p-	101-55-3	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	2.69E+01	1.45E+00	3.08E+03	1.85E+01	1.17E-04	4.78E-03	U
Bromoform	75-25-2	No	Yes	Organics	7.90E-03	U	1.10E-06	U	2.00E-02	U	-		1.00E+00	-	1.00E+00	9.14E+02	3.10E+03	3.18E+01	1.91E-01	5.35E-04	2.19E-02	U
Bromomethane	74-83-9	No	Yes	Organics	-		-		1.40E-03	U	5.00E-03	U	1.00E+00	-	1.00E+00	3.59E+03	1.52E+04	1.32E+01	7.92E-02	7.34E-03	3.00E-01	U
Butyl Benzyl Phthalate	85-68-7	No	No	Organics	1.90E-03	U	-		2.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.69E+00	7.16E+03	-	1.26E-06	5.15E-05	U
Cadmium (Diet)	7440-43-9	No	No	Inorgani	-		1.80E-03	U	1.00E-04	U	1.00E-05	U	2.50E-02	1.00E-03	1.00E+00	-	-	-	7.50E+01	-	-	
Calcium	7440-70-2	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-	
Caprolactam	105-60-2	No	No	Organics	-		-		5.00E-01	U	2.20E-03	U	1.00E+00	1.00E-01	1.00E+00	-	7.72E+05	2.45E+01	-	2.53E-08	1.03E-06	U
Carbon Disulfide	75-15-0	No	Yes	Organics	-		-		1.00E-01	U	7.00E-01	U	1.00E+00	-	1.00E+00	7.38E+02	2.16E+03	2.17E+01	1.30E-01	1.44E-02	5.89E-01	U
Carbon Tetrachloride	56-23-5	No	Yes	Organics	7.00E-02	U	6.00E-06	U	4.00E-03	U	1.00E-01	U	1.00E+00	-	1.00E+00	4.58E+02	7.93E+02	4.39E+01	2.63E-01	2.76E-02	1.13E+00	U
Chloride	16887-00-6	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-	

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref
Chloroform	67-66-3	No	Yes	Organics	3.10E-02	U	2.30E-05	U	1.00E-02	U	9.77E-02	U	1.00E+00	-	1.00E+00	2.54E+03	7.95E+03	3.18E+01	1.91E-01	3.67E-03	1.50E-01	U
Chloromethane	74-87-3	No	Yes	Organics	-		-		-		9.00E-02	U	1.00E+00	-	1.00E+00	1.32E+03	5.32E+03	1.32E+01	7.92E-02	8.82E-03	3.61E-01	U
Chlorophenyl phenyl ether, 4-	7005-72-3	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	-	3.30E+00	3.08E+03	1.85E+01	9.00E-05	3.68E-03	U
Chlorotoluene, p-	106-43-4	No	Yes	Organics	-		-		2.00E-02	U	-		1.00E+00	-	1.00E+00	2.53E+02	1.06E+02	3.75E+02	2.25E+00	4.38E-03	1.79E-01	U
Chromium(III), Insoluble Salts	16065-83-1	No	No	Inorgani	-		-		1.50E+00	U	-		1.30E-02	-	1.00E+00	-	-	-	1.80E+06	-	-	
Chromium, Total	7440-47-3	No	No	Inorgani	-		-		-		-		1.30E-02	-	1.00E+00	-	-	-	1.80E+06	-	-	
Chrysene	218-01-9	Yes	No	Organics	1.00E-03	U	6.00E-07	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	2.00E-03	1.80E+05	-	5.23E-06	2.14E-04	U
Cobalt	7440-48-4	No	No	Inorgani	-		9.00E-03	U	3.00E-04	U	6.00E-06	U	1.00E+00	-	1.00E+00	-	-	-	4.50E+01	-	-	
Copper	7440-50-8	No	No	Inorgani	-		-		4.00E-02	U	-		1.00E+00	-	1.00E+00	-	-	-	3.50E+01	-	-	
Cresol, o-	95-48-7	No	No	Organics	-		-		5.00E-02	U	6.00E-01	U	1.00E+00	1.00E-01	1.00E+00	-	2.59E+04	3.06E+02	-	1.20E-06	4.91E-05	U
Cyanide (CN-)	57-12-5	No	Yes	Inorgani	-		-		6.00E-04	U	8.00E-04	U	1.00E+00	-	1.00E+00	9.54E+05	9.54E+04	-	9.90E+00	1.01E-04	4.13E-03	U

Chemical	CAS Number	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)
Acenaphthene	83-32-9	5.52E+02	U	8.03E+02	U	PAH	5.06E-02	8.33E-06	6.71E-07	1.56E+09	2.03E+05	0.00E+00	2.03E+05	-	-	-	-	7.01E+04	1.27E+05
Acenaphthylene	208-96-8	5.53E+02	U	7.92E+02	U	PAH	4.50E-02	6.98E-06	3.70E-07	1.56E+09	2.74E+05	0.00E+00	2.74E+05	-	-	-	-	-	-
Acetone	67-64-1	3.29E+02	U	5.08E+02	U	VOC	1.06E-01	1.15E-05	7.13E-05	1.56E+09	1.97E+04	0.00E+00	1.97E+04	-	-	-	-	1.05E+06	-
Acetonitrile	75-05-8	3.55E+02	U	5.45E+02	U	VOC	1.34E-01	1.41E-05	7.92E-05	1.56E+09	1.87E+04	0.00E+00	1.87E+04	-	-	-	-	-	-
Aluminum	7429-90-5	2.79E+03	U	6.70E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.17E+06	-
Aniline	62-53-3	4.57E+02	U	7.04E+02	U	SVOC	8.30E-02	1.01E-05	-	1.56E+09	-	-	-	5.74E+02	1.36E+03	1.20E+07	4.03E+02	8.18E+03	1.93E+04
Anthracene	120-12-7	6.13E+02	U	8.73E+02	U	PAH	3.90E-02	7.85E-06	4.85E-08	1.56E+09	7.56E+05	0.00E+00	7.56E+05	-	-	-	-	3.50E+05	6.37E+05
Antimony (metallic)	7440-36-0	1.91E+03	U	5.07E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	4.67E+02	-
Aroclor 1260	11096-82-5	6.89E+02	U	9.87E+02	U	PCB	2.20E-02	5.61E-06	7.68E-09	1.56E+09	1.90E+06	0.00E+00	1.90E+06	1.64E+00	2.76E+00	4.07E+01	1.00E+00	-	-
Arsenic, Inorganic	7440-38-2	8.88E+02	U	1.67E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	3.63E+00	1.72E+01	4.45E+03	3.00E+00	5.84E+02	2.76E+03
Barium	7440-39-3	1.87E+03	U	3.57E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.34E+05	-
Benz[a]anthracene	56-55-3	7.11E+02	U	9.79E+02	U	PAH	2.61E-02	6.75E-06	6.83E-10	1.56E+09	6.37E+06	0.00E+00	6.37E+06	3.27E+01	5.94E+01	1.30E+03	2.08E+01	-	-
Benzene	71-43-2	3.53E+02	U	5.62E+02	U	VOC	8.95E-02	1.03E-05	1.06E-03	1.56E+09	5.11E+03	0.00E+00	5.11E+03	5.95E+01	-	8.03E+00	7.08E+00	4.67E+03	-
Benzo[a]pyrene	50-32-8	7.68E+02	U	9.69E+02	U	PAH	2.55E-02	6.58E-06	-	1.56E+09	-	-	-	3.27E+00	5.94E+00	3.19E+04	2.11E+00	3.50E+02	6.37E+02
Benzo[b]fluoranthene	205-99-2	7.16E+02	U	9.69E+02	U	PAH	2.50E-02	6.43E-06	-	1.56E+09	-	-	-	3.27E+01	5.94E+01	3.19E+05	2.11E+01	-	-
Benzo[g,h,i]perylene	191-24-2	7.59E+02	U	1.09E+03	U	PAH	2.39E-02	6.09E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Benzo[k]fluoranthene	207-08-9	7.53E+02	U	1.02E+03	U	PAH	2.50E-02	6.43E-06	-	1.56E+09	-	-	-	3.27E+02	5.94E+02	3.19E+06	2.11E+02	-	-
Benzyl Alcohol	100-51-6	4.78E+02	U	7.15E+02	U	SVOC	7.31E-02	9.37E-06	-	1.56E+09	-	-	-	-	-	-	-	1.17E+05	2.76E+05
Beryllium and compounds	7440-41-7	3.04E+03	U	5.20E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	7.97E+03	7.97E+03	2.34E+03	-
Bis(2-ethylhexyl)phthalate	117-81-7	6.57E+02	U	8.35E+02	U	SVOC	1.73E-02	4.18E-06	-	1.56E+09	-	-	-	2.34E+02	5.52E+02	7.97E+06	1.64E+02	2.34E+04	5.52E+04
Boron And Borates Only	7440-42-8	4.27E+03	U	7.93E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.34E+05	-
Bromodichloromethane	75-27-4	3.63E+02	U	5.86E+02	U	VOC	5.63E-02	1.07E-05	8.46E-04	1.56E+09	5.72E+03	0.00E+00	5.72E+03	5.27E+01	-	1.90E+00	1.83E+00	9.34E+03	-
Bromodiphenyl Ether, p-	101-55-3	5.83E+02	U	-		VOC	2.78E-02	7.37E-06	3.84E-07	1.56E+09	2.69E+05	0.00E+00	2.69E+05	-	-	-	-	-	-
Bromoform	75-25-2	4.22E+02	U	6.82E+02	U	VOC	3.57E-02	1.04E-05	1.41E-04	1.56E+09	1.40E+04	0.00E+00	1.40E+04	4.14E+02	-	1.56E+02	1.13E+02	2.34E+04	-
Bromomethane	74-83-9	2.77E+02	U	4.67E+02	U	VOC	1.00E-01	1.35E-05	6.77E-03	1.56E+09	2.02E+03	0.00E+00	2.02E+03	-	-	-	-	1.64E+03	-
Butyl Benzyl Phthalate	85-68-7	6.43E+02	U	9.65E+02	U	SVOC	2.08E-02	5.17E-06	-	1.56E+09	-	-	-	1.72E+03	4.07E+03	-	1.21E+03	2.34E+05	5.52E+05
Cadmium (Diet)	7440-43-9	1.04E+03	U	2.29E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	1.06E+04	1.06E+04	1.17E+02	6.90E+02
Calcium	7440-70-2	1.71E+03	U	3.27E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-
Caprolactam	105-60-2	5.43E+02	U	8.06E+02	U	SVOC	6.92E-02	9.00E-06	-	1.56E+09	-	-	-	-	-	-	-	5.84E+05	1.38E+06
Carbon Disulfide	75-15-0	3.19E+02	U	5.52E+02	U	VOC	1.06E-01	1.30E-05	9.73E-03	1.56E+09	1.69E+03	0.00E+00	1.69E+03	-	-	-	-	1.17E+05	-
Carbon Tetrachloride	56-23-5	3.50E+02	U	5.56E+02	U	VOC	5.71E-02	9.78E-06	5.95E-03	1.56E+09	2.16E+03	0.00E+00	2.16E+03	4.67E+01	-	4.41E+00	4.03E+00	4.67E+03	-
Chloride	16887-00-6	-		-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-

Chemical	CAS Number	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)
Chloroform	67-66-3	3.34E+02	U	5.36E+02	U	VOC	7.69E-02	1.09E-05	1.93E-03	1.56E+09	3.79E+03	0.00E+00	3.79E+03	1.05E+02	-	2.02E+00	1.98E+00	1.17E+04	-
Chloromethane	74-87-3	2.49E+02	U	4.16E+02	U	VOC	1.24E-01	1.36E-05	9.63E-03	1.56E+09	1.70E+03	0.00E+00	1.70E+03	-	-	-	-	-	-
Chlorophenyl phenyl ether, 4-	7005-72-3	5.57E+02	U	-		VOC	2.69E-02	6.96E-06	2.86E-07	1.56E+09	3.11E+05	0.00E+00	3.11E+05	-	-	-	-	-	-
Chlorotoluene, p-	106-43-4	4.35E+02	U	6.16E+02	U	VOC	6.26E-02	8.66E-06	2.51E-04	1.56E+09	1.05E+04	0.00E+00	1.05E+04	-	-	-	-	2.34E+04	-
Chromium(III), Insoluble Salts	16065-83-1	-		-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.75E+06	-
Chromium, Total	7440-47-3	2.91E+03	U	8.56E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-
Chrysene	218-01-9	7.21E+02	U	9.79E+02	U	PAH	2.61E-02	6.75E-06	-	1.56E+09	-	-	-	3.27E+03	5.94E+03	3.19E+07	2.11E+03	-	-
Cobalt	7440-48-4	3.20E+03	U	7.40E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	2.13E+03	2.13E+03	3.50E+02	-
Copper	7440-50-8	2.87E+03	U	5.12E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	4.67E+04	-
Cresol, o-	95-48-7	4.64E+02	U	6.98E+02	U	SVOC	7.28E-02	9.32E-06	-	1.56E+09	-	-	-	-	-	-	-	5.84E+04	1.38E+05
Cyanide (CN-)	57-12-5	-		-		INORGANIC	2.11E-01	2.46E-05	4.66E-06	1.56E+09	7.71E+04	0.00E+00	7.71E+04	-	-	-	-	7.01E+02	-

Chemical	CAS Number	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
Acenaphthene	83-32-9	-	4.52E+04	4.52E+04 nc
Acenaphthylene	208-96-8	-	-	
Acetone	67-64-1	-	1.05E+06	1.05E+06 nc sat max
Acetonitrile	75-05-8	4.92E+03	4.92E+03	4.92E+03 nc
Aluminum	7429-90-5	3.42E+07	1.13E+06	1.13E+06 nc max
Aniline	62-53-3	6.84E+06	5.74E+03	4.03E+02 ca*
Anthracene	120-12-7	-	2.26E+05	2.26E+05 nc max
Antimony (metallic)	7440-36-0	2.05E+06	4.67E+02	4.67E+02 nc
Aroclor 1260	11096-82-5	-	-	1.00E+00 ca
Arsenic, Inorganic	7440-38-2	1.03E+05	4.80E+02	3.00E+00 ca
Barium	7440-39-3	3.42E+06	2.19E+05	2.19E+05 nc max
Benz[a]anthracene	56-55-3	-	-	2.08E+01 ca
Benzene	71-43-2	6.71E+02	5.87E+02	7.08E+00 ca*
Benzo[a]pyrene	50-32-8	1.37E+04	2.22E+02	2.11E+00 ca
Benzo[b]fluoranthene	205-99-2	-	-	2.11E+01 ca
Benzo[g,h,i]perylene	191-24-2	-	-	
Benzo[k]fluoranthene	207-08-9	-	-	2.11E+02 ca
Benzyl Alcohol	100-51-6	-	8.21E+04	8.21E+04 nc
Beryllium and compounds	7440-41-7	1.37E+05	2.30E+03	2.30E+03 nc
Bis(2-ethylhexyl)phthalate	117-81-7	-	1.64E+04	1.64E+02 ca
Boron And Borates Only	7440-42-8	1.37E+08	2.33E+05	2.33E+05 nc max
Bromodichloromethane	75-27-4	-	9.34E+03	1.83E+00 ca
Bromodiphenyl Ether, p-	101-55-3	-	-	
Bromoform	75-25-2	-	2.34E+04	1.13E+02 ca
Bromomethane	74-83-9	4.43E+01	4.31E+01	4.31E+01 nc
Butyl Benzyl Phthalate	85-68-7	-	1.64E+05	1.21E+03 ca
Cadmium (Diet)	7440-43-9	6.84E+04	9.97E+01	9.97E+01 nc
Calcium	7440-70-2	-	-	
Caprolactam	105-60-2	1.50E+07	3.99E+05	3.99E+05 nc max
Carbon Disulfide	75-15-0	5.17E+03	4.95E+03	4.95E+03 nc sat
Carbon Tetrachloride	56-23-5	9.45E+02	7.86E+02	4.03E+00 ca
Chloride	16887-00-6	-	-	

Chemical	CAS Number	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
Chloroform	67-66-3	1.62E+03	1.43E+03	1.98E+00 ca
Chloromethane	74-87-3	6.69E+02	6.69E+02	6.69E+02 nc
Chlorophenyl phenyl ether, 4-	7005-72-3	-	-	
Chlorotoluene, p-	106-43-4	-	2.34E+04	2.34E+04 nc sat
Chromium(III), Insoluble Salts	16065-83-1	-	1.75E+06	1.75E+06 nc max
Chromium, Total	7440-47-3	-	-	
Chrysene	218-01-9	-	-	2.11E+03 ca
Cobalt	7440-48-4	4.10E+04	3.47E+02	3.47E+02 nc
Copper	7440-50-8	-	4.67E+04	4.67E+04 nc
Cresol, o-	95-48-7	4.10E+09	4.10E+04	4.10E+04 nc
Cyanide (CN-)	57-12-5	2.70E+02	1.95E+02	1.95E+02 nc

Chemical	CAS Number	list	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)
Dibenz[a,h]anthracene	53-70-3	53-70-3	Yes	No	Organics	1.00E+00	U	6.00E-04	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	2.49E-03	1.91E+06	-	1.41E-07
Dibenzofuran	132-64-9	132-64-9	No	Yes	Organics	-		-		1.00E-03	U	-		1.00E+00	-	1.00E+00	-	3.10E+00	9.16E+03	5.50E+01	2.13E-04
Dibromochloromethane	124-48-1	124-48-1	No	Yes	Organics	8.40E-02	U	-		2.00E-02	U	-		1.00E+00	-	1.00E+00	8.02E+02	2.70E+03	3.18E+01	1.91E-01	7.83E-04
Dibutyl Phthalate	84-74-2	84-74-2	No	No	Organics	-		-		1.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.12E+01	1.16E+03	-	1.81E-06
Dichlorobenzene, 1,2-	95-50-1	95-50-1	No	Yes	Organics	-		-		9.00E-02	U	2.00E-01	U	1.00E+00	-	1.00E+00	3.76E+02	1.56E+02	3.83E+02	2.30E+00	1.92E-03
Dichlorobenzene, 1,3-	541-73-1	541-73-1	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	2.96E+02	1.25E+02	3.75E+02	2.25E+00	2.63E-03
Dichlorobenzene, 1,4-	106-46-7	106-46-7	No	Yes	Organics	5.40E-03	U	1.10E-05	U	7.00E-02	U	8.00E-01	U	1.00E+00	-	1.00E+00	-	8.13E+01	3.75E+02	2.25E+00	2.41E-03
Dichloroethane, 1,2-	107-06-2	107-06-2	No	Yes	Organics	9.10E-02	U	2.60E-05	U	6.00E-03	U	7.00E-03	U	1.00E+00	-	1.00E+00	2.98E+03	8.60E+03	3.96E+01	2.38E-01	1.18E-03
Dichloroethylene, 1,1-	75-35-4	75-35-4	No	Yes	Organics	-		-		5.00E-02	U	2.00E-01	U	1.00E+00	-	1.00E+00	1.19E+03	2.42E+03	3.18E+01	1.91E-01	2.61E-02
Dichlorophenol, 2,4-	120-83-2	120-83-2	No	No	Organics	-		-		3.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.55E+03	1.47E+02	-	4.29E-06
Diethyl Phthalate	84-66-2	84-66-2	No	No	Organics	-		-		8.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.08E+03	1.05E+02	-	6.10E-07
Dinitro-o-cresol, 4,6-	534-52-1	534-52-1	No	No	Organics	-		-		8.00E-05	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.98E+02	7.54E+02	-	1.40E-06
Dinitroaniline, 3,5-	618-87-1	618-87-1	No	No	Organics	-		-		4.00E-04	U	2.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	1.29E+03	1.69E+02	-	2.96E-11
Dinitrobenzene, 1,3-	99-65-0	99-65-0	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.33E+02	3.52E+02	-	4.90E-08
Dinitrotoluene, 2,3-	602-01-7	602-01-7	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	2.70E+02	5.87E+02	-	9.26E-08
Dinitrotoluene, 2,4-	121-14-2	121-14-2	No	No	Organics	3.10E-01	U	8.90E-05	U	2.00E-03	U	-		1.00E+00	1.02E-01	1.00E+00	-	2.00E+02	5.76E+02	-	5.40E-08
Dinitrotoluene, 2,5-	619-15-8	619-15-8	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	2.20E+02	5.76E+02	-	9.26E-08
Dinitrotoluene, 2,6-	606-20-2	606-20-2	No	No	Organics	1.50E+00	U	-		3.00E-04	U	-		1.00E+00	9.90E-02	1.00E+00	-	1.82E+02	5.87E+02	-	7.47E-07
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	35572-78-2	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	6.00E-03	1.00E+00	-	1.22E+03	2.83E+02	-	3.27E-11
Dinitrotoluene, 3,4-	610-39-9	610-39-9	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.79E+02	5.76E+02	-	9.26E-08
Dinitrotoluene, 3,5-	618-85-9	618-85-9	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.45E+02	5.64E+02	-	9.26E-08
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	19406-51-0	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	9.00E-03	1.00E+00	-	1.22E+03	2.83E+02	-	3.27E-11
Endrin	72-20-8	72-20-8	No	No	Organics	-		-		3.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.50E-01	2.01E+04	-	6.36E-06
Ethylbenzene	100-41-4	100-41-4	No	Yes	Organics	1.10E-02	U	2.50E-06	U	5.00E-02	U	1.00E+00	U	1.00E+00	-	1.00E+00	4.79E+02	1.69E+02	4.46E+02	2.68E+00	7.88E-03
Fluoranthene	206-44-0	206-44-0	No	No	Organics	-		-		4.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	2.60E-01	5.54E+04	-	8.86E-06
Fluorene	86-73-7	86-73-7	No	Yes	Organics	-		-		4.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	1.69E+00	9.16E+03	5.50E+01	9.62E-05
Fluoride	16984-48-8	16984-48-8	No	No	Inorgani	-		-		4.00E-02	U	1.30E-02	U	1.00E+00	-	1.00E+00	-	1.69E+00	-	1.50E+02	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	121-82-4	No	No	Organics	8.00E-02	U	-		4.00E-03	U	-		1.00E+00	1.50E-02	1.00E+00	-	5.97E+01	8.91E+01	-	2.01E-11
Hexane, N-	110-54-3	110-54-3	No	Yes	Organics	-		-		-		7.00E-01	U	1.00E+00	-	1.00E+00	1.41E+02	9.50E+00	1.32E+02	7.92E-01	1.80E+00

Chemical	CAS Number	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)
Dibenz[a,h]anthracene	53-70-3	5.76E-06	U	7.97E+02	U	9.90E+02	U	PAH	2.36E-02	6.02E-06	-	1.56E+09	-	-	-	3.27E+00	5.94E+00	3.19E+04	2.11E+00
Dibenzofuran	132-64-9	8.71E-03	U	5.60E+02	U	8.24E+02	U	FURAN	6.51E-02	7.38E-06	5.49E-07	1.56E+09	2.25E+05	0.00E+00	2.25E+05	-	-	-	-
Dibromochloromethane	124-48-1	3.20E-02	U	3.93E+02	U	6.78E+02	U	VOC	3.66E-02	1.06E-05	2.10E-04	1.56E+09	1.15E+04	0.00E+00	1.15E+04	3.89E+01	-	-	3.89E+01
Dibutyl Phthalate	84-74-2	7.40E-05	U	6.13E+02	U	7.97E+02	U	SVOC	2.14E-02	5.33E-06	-	1.56E+09	-	-	-	-	-	-	-
Dichlorobenzene, 1,2-	95-50-1	7.85E-02	U	4.53E+02	U	7.05E+02	U	VOC	5.62E-02	8.92E-06	9.74E-05	1.56E+09	1.69E+04	0.00E+00	1.69E+04	-	-	-	-
Dichlorobenzene, 1,3-	541-73-1	1.08E-01	U	4.46E+02	U	6.86E+02	U	VOC	5.58E-02	8.85E-06	1.35E-04	1.56E+09	1.43E+04	0.00E+00	1.43E+04	-	-	-	-
Dichlorobenzene, 1,4-	106-46-7	9.85E-02	U	4.47E+02	U	6.69E+02	U	VOC	5.50E-02	8.68E-06	1.22E-04	1.56E+09	1.51E+04	0.00E+00	1.51E+04	6.06E+02	-	1.68E+01	1.64E+01
Dichloroethane, 1,2-	107-06-2	4.82E-02	U	3.57E+02	U	5.62E+02	U	VOC	8.57E-02	1.10E-05	6.35E-04	1.56E+09	6.60E+03	0.00E+00	6.60E+03	3.59E+01	-	3.12E+00	2.87E+00
Dichloroethylene, 1,1-	75-35-4	1.07E+00	U	3.05E+02	U	4.82E+02	U	VOC	8.63E-02	1.10E-05	9.96E-03	1.56E+09	1.67E+03	0.00E+00	1.67E+03	-	-	-	-
Dichlorophenol, 2,4-	120-83-2	1.75E-04	U	4.83E+02	U	7.25E+02	U	SVOC	4.86E-02	8.68E-06	-	1.56E+09	-	-	-	-	-	-	-
Diethyl Phthalate	84-66-2	2.49E-05	U	5.68E+02	U	7.76E+02	U	SVOC	2.61E-02	6.72E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitro-o-cresol, 4,6-	534-52-1	5.72E-05	U	6.51E+02	U	9.77E+02	U	SVOC	5.59E-02	6.53E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitroaniline, 3,5-	618-87-1	1.21E-09	U	6.13E+02	U	-		SVOC	4.03E-02	8.84E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrobenzene, 1,3-	99-65-0	2.00E-06	U	5.64E+02	U	8.08E+02	U	SVOC	4.85E-02	9.21E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrotoluene, 2,3-	602-01-7	3.79E-06	U	5.57E+02	U	-		SVOC	5.91E-02	6.91E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrotoluene, 2,4-	121-14-2	2.21E-06	U	5.73E+02	U	8.14E+02	U	SVOC	3.75E-02	7.90E-06	-	1.56E+09	-	-	-	1.05E+01	2.44E+01	2.15E+05	7.37E+00
Dinitrotoluene, 2,5-	619-15-8	3.79E-06	U	5.57E+02	U	8.14E+02	U	SVOC	3.70E-02	7.76E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrotoluene, 2,6-	606-20-2	3.05E-05	U	5.73E+02	U	7.70E+02	U	SVOC	3.70E-02	7.76E-06	-	1.56E+09	-	-	-	2.18E+00	5.20E+00	-	1.54E+00
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	1.34E-09	U	6.25E+02	U	-		SVOC	5.61E-02	6.55E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrotoluene, 3,4-	610-39-9	3.79E-06	U	5.57E+02	U	8.42E+02	U	SVOC	3.67E-02	7.68E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrotoluene, 3,5-	618-85-9	3.79E-06	U	5.88E+02	U	8.14E+02	U	SVOC	3.69E-02	7.74E-06	-	1.56E+09	-	-	-	-	-	-	-
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.34E-09	U	6.25E+02	U	-		SVOC	5.61E-02	6.55E-06	-	1.56E+09	-	-	-	-	-	-	-
Endrin	72-20-8	2.60E-04	U	6.03E+02	U	-		PEST	3.62E-02	4.22E-06	-	1.56E+09	-	-	-	-	-	-	-
Ethylbenzene	100-41-4	3.22E-01	U	4.09E+02	U	6.17E+02	U	VOC	6.85E-02	8.46E-06	4.14E-04	1.56E+09	8.18E+03	0.00E+00	8.18E+03	2.97E+02	-	4.01E+01	3.53E+01
Fluoranthene	206-44-0	3.62E-04	U	6.57E+02	U	9.05E+02	U	PAH	2.76E-02	7.18E-06	-	1.56E+09	-	-	-	-	-	-	-
Fluorene	86-73-7	3.93E-03	U	5.68E+02	U	8.26E+02	U	PAH	4.40E-02	7.89E-06	1.68E-07	1.56E+09	4.06E+05	0.00E+00	4.06E+05	-	-	-	-
Fluoride	16984-48-8	-		8.52E+01	U	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	8.22E-10	U	6.26E+02	U	-		SVOC	3.12E-02	8.50E-06	-	1.56E+09	-	-	-	4.09E+01	6.44E+02	-	3.84E+01
Hexane, N-	110-54-3	7.36E+01	U	3.42E+02	U	5.08E+02	U	VOC	7.31E-02	8.17E-06	1.93E-02	1.56E+09	1.20E+03	0.00E+00	1.20E+03	-	-	-	-

Chemical	CAS Number	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
Dibenz[a,h]anthracene	53-70-3	-	-	-	-	2.11E+00 ca
Dibenzofuran	132-64-9	1.17E+03	-	-	1.17E+03	1.17E+03 nc
Dibromochloromethane	124-48-1	2.34E+04	-	-	2.34E+04	3.89E+01 ca
Dibutyl Phthalate	84-74-2	1.17E+05	2.76E+05	-	8.21E+04	8.21E+04 nc
Dichlorobenzene, 1,2-	95-50-1	1.05E+05	-	1.48E+04	1.30E+04	1.30E+04 nc sat
Dichlorobenzene, 1,3-	541-73-1	-	-	-	-	
Dichlorobenzene, 1,4-	106-46-7	8.18E+04	-	5.28E+04	3.21E+04	1.64E+01 ca
Dichloroethane, 1,2-	107-06-2	7.01E+03	-	2.02E+02	1.97E+02	2.87E+00 ca*
Dichloroethylene, 1,1-	75-35-4	5.84E+04	-	1.46E+03	1.43E+03	1.43E+03 nc sat
Dichlorophenol, 2,4-	120-83-2	3.50E+03	8.28E+03	-	2.46E+03	2.46E+03 nc
Diethyl Phthalate	84-66-2	9.34E+05	2.21E+06	-	6.57E+05	6.57E+05 nc max
Dinitro-o-cresol, 4,6-	534-52-1	9.34E+01	2.21E+02	-	6.57E+01	6.57E+01 nc
Dinitroaniline, 3,5-	618-87-1	4.67E+02	1.10E+03	1.37E+07	3.28E+02	3.28E+02 nc
Dinitrobenzene, 1,3-	99-65-0	1.17E+02	2.76E+02	-	8.21E+01	8.21E+01 nc
Dinitrotoluene, 2,3-	602-01-7	-	-	-	-	
Dinitrotoluene, 2,4-	121-14-2	2.34E+03	5.41E+03	-	1.63E+03	7.37E+00 ca
Dinitrotoluene, 2,5-	619-15-8	-	-	-	-	
Dinitrotoluene, 2,6-	606-20-2	3.50E+02	8.36E+02	-	2.47E+02	1.54E+00 ca
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	1.17E+02	4.60E+03	-	1.14E+02	1.14E+02 nc
Dinitrotoluene, 3,4-	610-39-9	-	-	-	-	
Dinitrotoluene, 3,5-	618-85-9	-	-	-	-	
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	1.17E+02	3.07E+03	-	1.13E+02	1.13E+02 nc
Endrin	72-20-8	3.50E+02	8.28E+02	-	2.46E+02	2.46E+02 nc
Ethylbenzene	100-41-4	5.84E+04	-	3.58E+04	2.22E+04	3.53E+01 ca
Fluoranthene	206-44-0	4.67E+04	8.49E+04	-	3.01E+04	3.01E+04 nc
Fluorene	86-73-7	4.67E+04	8.49E+04	-	3.01E+04	3.01E+04 nc
Fluoride	16984-48-8	4.67E+04	-	8.89E+07	4.67E+04	4.67E+04 nc
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	4.67E+03	7.36E+04	-	4.39E+03	3.84E+01 ca
Hexane, N-	110-54-3	-	-	3.67E+03	3.67E+03	3.67E+03 nc sat

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	No	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	1.90E-04	1.95E+06	-	3.48E-07	1.42E-05
Iodomethane	74-88-4	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	3.03E+03	1.38E+04	1.32E+01	7.92E-02	5.26E-03	2.15E-01
Iron	7439-89-6	No	No	Inorgani	-		-		7.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	2.50E+01	-	-
Isophorone	78-59-1	No	No	Organics	9.50E-04	U	-		2.00E-01	U	2.00E+00	U	1.00E+00	1.00E-01	1.00E+00	-	1.20E+04	6.52E+01	-	6.64E-06	2.71E-04
Lead and Compounds	7439-92-1	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	9.00E+02	-	-
Magnesium	7439-95-4	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	4.50E+00	-	-
Manganese (Non-diet)	7439-96-5	No	No	Inorgani	-		-		2.40E-02	U	5.00E-05	U	4.00E-02	-	1.00E+00	-	-	-	6.50E+01	-	-
Mercury (elemental)	7439-97-6	No	Yes	Inorgani	-		-		-		3.00E-04	U	1.00E+00	-	1.00E+00	3.13E+00	6.00E-02	-	5.20E+01	8.62E-03	3.52E-01
Methyl Acetate	79-20-9	No	Yes	Organics	-		-		1.00E+00	U	-		1.00E+00	-	1.00E+00	2.90E+04	2.43E+05	3.06E+00	1.84E-02	1.15E-04	4.70E-03
Methyl Ethyl Ketone (2-Butanone)	78-93-3	No	Yes	Organics	-		-		6.00E-01	U	5.00E+00	U	1.00E+00	-	1.00E+00	2.84E+04	2.23E+05	4.51E+00	2.71E-02	5.69E-05	2.33E-03
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	No	Yes	Organics	-		-		-		3.00E+00	U	1.00E+00	-	1.00E+00	3.36E+03	1.90E+04	1.26E+01	7.56E-02	1.38E-04	5.64E-03
Methyl tert-Butyl Ether (MTBE)	1634-04-4	No	Yes	Organics	1.80E-03	U	2.60E-07	U	-		3.00E+00	U	1.00E+00	-	1.00E+00	8.88E+03	5.10E+04	1.16E+01	6.96E-02	5.87E-04	2.40E-02
Methyl-5-Nitroaniline, 2-	99-55-8	No	No	Organics	9.00E-03	U	-		2.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.00E+04	1.79E+02	-	8.29E-09	3.39E-07
Methylene Chloride	75-09-2	Yes	Yes	Organics	2.00E-03	U	1.00E-08	U	6.00E-03	U	6.00E-01	U	1.00E+00	-	1.00E+00	3.32E+03	1.30E+04	2.17E+01	1.30E-01	3.25E-03	1.33E-01
Methylnaphthalene, 2-	91-57-6	No	Yes	Organics	-		-		4.00E-03	U	-		1.00E+00	1.30E-01	1.00E+00	-	2.46E+01	2.48E+03	1.49E+01	5.18E-04	2.12E-02
Naphthalene	91-20-3	No	Yes	Organics	1.20E-01	U	3.40E-05	U	2.00E-02	U	3.00E-03	U	1.00E+00	1.30E-01	1.00E+00	-	3.10E+01	1.54E+03	9.24E+00	4.40E-04	1.80E-02
Nickel Soluble Salts	7440-02-0	No	No	Inorgani	-		2.60E-04	U	2.00E-02	U	9.00E-05	U	4.00E-02	-	1.00E+00	-	-	-	6.50E+01	-	-
Nitrate (measured as nitrogen)	14797-55-8	No	No	Inorgani	-		-		1.60E+00	U	-		1.00E+00	-	1.00E+00	-	-	-	-	-	-
Nitroaniline, 2-	88-74-4	No	No	Organics	-		-		1.00E-02	U	5.00E-05	U	1.00E+00	1.00E-01	1.00E+00	-	1.47E+03	1.11E+02	-	5.90E-08	2.41E-06
Nitroaniline, 3-	99-09-2	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.20E+03	1.09E+02	-	7.91E-09	3.23E-07
Nitroaniline, 4-	100-01-6	No	No	Organics	2.00E-02	U	-		4.00E-03	U	6.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	7.28E+02	1.09E+02	-	1.26E-09	5.15E-08
Nitrobenzene	98-95-3	No	Yes	Organics	-		4.00E-05	U	2.00E-03	U	9.00E-03	U	1.00E+00	-	1.00E+00	3.04E+03	2.09E+03	2.26E+02	1.36E+00	2.40E-05	9.81E-04
Nitroglycerin	55-63-0	No	No	Organics	1.70E-02	U	-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.38E+03	1.16E+02	-	8.66E-08	3.54E-06
Nitrosodiphenylamine, N-	86-30-6	No	No	Organics	4.90E-03	U	2.60E-06	U	-		-		1.00E+00	1.00E-01	1.00E+00	-	3.50E+01	2.63E+03	-	1.21E-06	4.95E-05
Nitrotoluene, 4-Amino-2-	119-32-4	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.40E+03	1.79E+02	-	8.29E-09	3.39E-07
Nitrotoluene, m-	99-08-1	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.00E+02	3.63E+02	-	9.30E-06	3.80E-04
Nitrotoluene, o-	88-72-2	No	Yes	Organics	2.20E-01	U	-		9.00E-04	U	-		1.00E+00	-	1.00E+00	1.51E+03	6.50E+02	3.71E+02	2.23E+00	1.25E-05	5.11E-04
Nitrotoluene, p-	99-99-0	No	No	Organics	1.60E-02	U	-		4.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.42E+02	3.63E+02	-	5.63E-06	2.30E-04
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	No	No	Organics	-		-		5.00E-02	U	-		1.00E+00	6.00E-03	1.00E+00	-	5.00E+00	5.32E+02	-	8.67E-10	3.54E-08
Octyl Phthalate, di-N-	117-84-0	No	No	Organics	-		-		1.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.20E-02	1.41E+05	-	2.57E-06	1.05E-04
Pentachlorophenol	87-86-5	No	No	Organics	4.00E-01	U	5.10E-06	U	5.00E-03	U	-		1.00E+00	2.50E-01	1.00E+00	-	1.40E+01	5.92E+02	-	2.45E-08	1.00E-06
Pentaerythritol tetranitrate (PETN)	78-11-5	No	No	Organics	4.30E-03	U	-		9.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.30E+01	6.48E+02	-	1.32E-09	5.40E-08
Perchlorate and Perchlorate Salts	14797-73-0	No	No	Inorgani	-		-		7.00E-04	U	-		1.00E+00	-	1.00E+00	-	2.45E+05	-	-	-	-
Phenanthrene	85-01-8	No	Yes	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	1.15E+00	1.67E+04	1.00E+02	4.23E-05	1.73E-03

Chemical	CAS Number	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)
Indeno[1,2,3-cd]pyrene	193-39-5	U	8.09E+02	U	1.08E+03	U	PAH	2.47E-02	6.37E-06	-	1.56E+09	-	-	-	3.27E+01	5.94E+01	3.19E+05	2.11E+01
Iodomethane	74-88-4	U	3.16E+02	U	5.28E+02	U	VOC	7.49E-02	1.27E-05	3.90E-03	1.56E+09	2.66E+03	0.00E+00	2.66E+03	-	-	-	-
Iron	7439-89-6		3.27E+03	U	9.34E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Isophorone	78-59-1	U	4.88E+02	U	7.15E+02	U	SVOC	5.25E-02	7.53E-06	-	1.56E+09	-	-	-	3.44E+03	8.13E+03	-	2.42E+03
Lead and Compounds	7439-92-1		2.02E+03	U	5.40E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Magnesium	7439-95-4		1.37E+03	U	2.24E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Manganese (Non-diet)	7439-96-5		2.37E+03	U	4.32E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Mercury (elemental)	7439-97-6	U	6.30E+02	U	1.76E+03	U	INORGANIC	3.07E-02	6.30E-06	1.11E-05	1.56E+09	5.01E+04	0.00E+00	5.01E+04	-	-	-	-
Methyl Acetate	79-20-9	U	3.30E+02	U	5.07E+02	U	VOC	9.58E-02	1.10E-05	2.02E-04	1.56E+09	1.17E+04	0.00E+00	1.17E+04	-	-	-	-
Methyl Ethyl Ketone (2-Butanone)	78-93-3	U	3.53E+02	U	5.37E+02	U	VOC	9.14E-02	1.02E-05	8.94E-05	1.56E+09	1.76E+04	0.00E+00	1.76E+04	-	-	-	-
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	U	3.89E+02	U	5.75E+02	U	VOC	6.98E-02	8.35E-06	1.19E-04	1.56E+09	1.53E+04	0.00E+00	1.53E+04	-	-	-	-
Methyl tert-Butyl Ether (MTBE)	1634-04-4	U	3.28E+02	U	4.97E+02	U	VOC	7.53E-02	8.59E-06	5.53E-04	1.56E+09	7.08E+03	0.00E+00	7.08E+03	1.82E+03	-	3.34E+02	2.82E+02
Methyl-5-Nitroaniline, 2-	99-55-8	U	5.61E+02	U	-		SVOC	6.67E-02	7.79E-06	-	1.56E+09	-	-	-	3.63E+02	8.59E+02	-	2.55E+02
Methylene Chloride	75-09-2	U	3.13E+02	U	5.08E+02	U	VOC	9.99E-02	1.25E-05	2.77E-03	1.56E+09	3.16E+03	0.00E+00	3.16E+03	1.64E+03	-	3.88E+03	1.15E+03
Methylnaphthalene, 2-	91-57-6	U	5.14E+02	U	7.61E+02	U	PAH	5.24E-02	7.78E-06	3.95E-06	1.56E+09	8.38E+04	0.00E+00	8.38E+04	-	-	-	-
Naphthalene	91-20-3	U	4.91E+02	U	7.48E+02	U	PAH	6.05E-02	8.38E-06	6.21E-06	1.56E+09	6.68E+04	0.00E+00	6.68E+04	2.73E+01	4.95E+01	2.41E+01	1.02E+01
Nickel Soluble Salts	7440-02-0		3.18E+03	U	6.99E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	7.36E+04	7.36E+04
Nitrate (measured as nitrogen)	14797-55-8		-		-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Nitroaniline, 2-	88-74-4	U	5.57E+02	U	7.84E+02	U	SVOC	5.19E-02	7.41E-06	-	1.56E+09	-	-	-	-	-	-	-
Nitroaniline, 3-	99-09-2	U	5.79E+02	U	8.15E+02	U	SVOC	5.19E-02	7.41E-06	-	1.56E+09	-	-	-	-	-	-	-
Nitroaniline, 4-	100-01-6	U	6.05E+02	U	8.51E+02	U	SVOC	6.37E-02	9.75E-06	-	1.56E+09	-	-	-	1.64E+02	3.86E+02	-	1.15E+02
Nitrobenzene	98-95-3	U	4.84E+02	U	7.19E+02	U	VOC	6.81E-02	9.45E-06	2.49E-06	1.56E+09	1.06E+05	0.00E+00	1.06E+05	-	-	3.24E+01	3.24E+01
Nitroglycerin	55-63-0	U	5.23E+02	U	6.80E+02	U	SVOC	2.90E-02	7.74E-06	-	1.56E+09	-	-	-	1.92E+02	4.55E+02	-	1.35E+02
Nitrosodiphenylamine, N-	86-30-6	U	6.32E+02	U	-		SVOC	5.59E-02	6.53E-06	-	1.56E+09	-	-	-	6.67E+02	1.58E+03	7.36E+06	4.69E+02
Nitrotoluene, 4-Amino-2-	119-32-4	U	5.61E+02	U	-		SVOC	6.67E-02	7.79E-06	-	1.56E+09	-	-	-	-	-	-	-
Nitrotoluene, m-	99-08-1	U	5.05E+02	U	7.34E+02	U	SVOC	5.87E-02	8.65E-06	-	1.56E+09	-	-	-	-	-	-	-
Nitrotoluene, o-	88-72-2	U	4.95E+02	U	7.20E+02	U	VOC	5.88E-02	8.67E-06	7.12E-07	1.56E+09	1.97E+05	0.00E+00	1.97E+05	1.49E+01	-	-	1.49E+01
Nitrotoluene, p-	99-99-0	U	5.11E+02	U	7.43E+02	U	SVOC	5.74E-02	8.41E-06	-	1.56E+09	-	-	-	2.04E+02	4.83E+02	-	1.44E+02
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	U	7.09E+02	U	-		SVOC	4.28E-02	5.00E-06	-	1.56E+09	-	-	-	-	-	-	-
Octyl Phthalate, di-N-	117-84-0	U	7.04E+02	U	8.40E+02	U	SVOC	3.56E-02	4.15E-06	-	1.56E+09	-	-	-	-	-	-	-
Pentachlorophenol	87-86-5	U	5.83E+02	U	-		HERB	2.95E-02	8.01E-06	-	1.56E+09	-	-	-	8.18E+00	7.73E+00	3.75E+06	3.97E+00
Pentaerythritol tetranitrate (PETN)	78-11-5	U	6.37E+02	U	6.76E+02	U	SVOC	2.58E-02	6.77E-06	-	1.56E+09	-	-	-	7.61E+02	1.80E+03	-	5.34E+02
Perchlorate and Perchlorate Salts	14797-73-0		-		-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-
Phenanthrene	85-01-8	U	6.13E+02	U	8.69E+02	U	PAH	3.45E-02	6.69E-06	3.21E-08	1.56E+09	9.29E+05	0.00E+00	9.29E+05	-	-	-	-

Chemical	CAS Number	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)	Inhalation SL THQ=1 (mg/kg)	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
Indeno[1,2,3-cd]pyrene	193-39-5	-	-	-	-	2.11E+01 ca
Iodomethane	74-88-4	-	-	-	-	
Iron	7439-89-6	8.18E+05	-	-	8.18E+05	8.18E+05 nc max
Isophorone	78-59-1	2.34E+05	5.52E+05	1.37E+10	1.64E+05	2.42E+03 ca*
Lead and Compounds	7439-92-1	-	-	-	-	
Magnesium	7439-95-4	-	-	-	-	
Manganese (Non-diet)	7439-96-5	2.80E+04	-	3.42E+05	2.59E+04	2.59E+04 nc
Mercury (elemental)	7439-97-6	-	-	6.58E+01	6.58E+01	6.58E+01 nc sat
Methyl Acetate	79-20-9	1.17E+06	-	-	1.17E+06	1.17E+06 nc sat max
Methyl Ethyl Ketone (2-Butanone)	78-93-3	7.01E+05	-	3.86E+05	2.49E+05	2.49E+05 nc sat max
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	-	-	2.00E+05	2.00E+05	2.00E+05 nc sat max
Methyl tert-Butyl Ether (MTBE)	1634-04-4	-	-	9.30E+04	9.30E+04	2.82E+02 ca
Methyl-5-Nitroaniline, 2-	99-55-8	2.34E+04	5.52E+04	-	1.64E+04	2.55E+02 ca*
Methylene Chloride	75-09-2	7.01E+03	-	8.31E+03	3.80E+03	1.15E+03 ca**
Methylnaphthalene, 2-	91-57-6	4.67E+03	8.49E+03	-	3.01E+03	3.01E+03 nc
Naphthalene	91-20-3	2.34E+04	4.25E+04	8.78E+02	8.29E+02	1.02E+01 ca*
Nickel Soluble Salts	7440-02-0	2.34E+04	-	6.15E+05	2.25E+04	2.25E+04 nc
Nitrate (measured as nitrogen)	14797-55-8	1.87E+06	-	-	1.87E+06	1.87E+06 nc max
Nitroaniline, 2-	88-74-4	1.17E+04	2.76E+04	3.42E+05	8.01E+03	8.01E+03 nc
Nitroaniline, 3-	99-09-2	-	-	-	-	
Nitroaniline, 4-	100-01-6	4.67E+03	1.10E+04	4.10E+07	3.28E+03	1.15E+02 ca*
Nitrobenzene	98-95-3	2.34E+03	-	4.16E+03	1.50E+03	3.24E+01 ca*
Nitroglycerin	55-63-0	1.17E+02	2.76E+02	-	8.21E+01	8.21E+01 nc
Nitrosodiphenylamine, N-	86-30-6	-	-	-	-	4.69E+02 ca
Nitrotoluene, 4-Amino-2-	119-32-4	-	-	-	-	
Nitrotoluene, m-	99-08-1	1.17E+02	2.76E+02	-	8.21E+01	8.21E+01 nc
Nitrotoluene, o-	88-72-2	1.05E+03	-	-	1.05E+03	1.49E+01 ca*
Nitrotoluene, p-	99-99-0	4.67E+03	1.10E+04	-	3.28E+03	1.44E+02 ca*
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	5.84E+04	2.30E+06	-	5.70E+04	5.70E+04 nc
Octyl Phthalate, di-N-	117-84-0	1.17E+04	2.76E+04	-	8.21E+03	8.21E+03 nc
Pentachlorophenol	87-86-5	5.84E+03	5.52E+03	-	2.84E+03	3.97E+00 ca
Pentaerythritol tetranitrate (PETN)	78-11-5	1.05E+04	2.48E+04	-	7.39E+03	5.34E+02 ca*
Perchlorate and Perchlorate Salts	14797-73-0	8.18E+02	-	-	8.18E+02	8.18E+02 nc
Phenanthrene	85-01-8	-	-	-	-	

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)
Pyrene	129-00-0	No	Yes	Organics	-		-		3.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	1.35E-01	5.43E+04	3.26E+02	1.19E-05	4.87E-04	U	6.77E+02
Selenium	7782-49-2	No	No	Inorgani	-		-		5.00E-03	U	2.00E-02	U	1.00E+00	-	1.00E+00	-	-	-	5.00E+00	-	-		9.58E+02
Silver	7440-22-4	No	No	Inorgani	-		-		5.00E-03	U	-		4.00E-02	-	1.00E+00	-	-	-	8.30E+00	-	-		2.27E+03
Sodium	7440-23-5	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	1.00E+02	-	-		1.15E+03
Styrene	100-42-5	No	Yes	Organics	-		-		2.00E-01	U	1.00E+00	U	1.00E+00	-	1.00E+00	8.67E+02	3.10E+02	4.46E+02	2.68E+00	2.75E-03	1.12E-01	U	4.18E+02
Sulfate	14808-79-8	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	1.00E+06	-	-	-	-		5.63E+02
Sulfur	7704-34-9	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-		7.17E+02
Tetrachloroethylene	127-18-4	No	Yes	Organics	2.10E-03	U	2.60E-07	U	6.00E-03	U	4.00E-02	U	1.00E+00	-	1.00E+00	1.66E+02	2.06E+02	9.49E+01	5.69E-01	1.77E-02	7.24E-01	U	3.94E+02
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	No	No	Organics	-		-		2.00E-03	U	-		1.00E+00	6.50E-04	1.00E+00	-	7.40E+01	4.60E+03	-	2.71E-09	1.11E-07	U	7.05E+02
Thallium (Soluble Salts)	7440-28-0	No	No	Inorgani	-		-		1.00E-05	U	-		1.00E+00	-	1.00E+00	-	-	-	7.10E+01	-	-		1.73E+03
Tin	7440-31-5	No	No	Inorgani	-		-		6.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	2.50E+02	-	-		2.87E+03
Toluene	108-88-3	No	Yes	Organics	-		-		8.00E-02	U	5.00E+00	U	1.00E+00	-	1.00E+00	8.18E+02	5.26E+02	2.34E+02	1.40E+00	6.64E-03	2.71E-01	U	3.84E+02
Trichlorobenzene, 1,2,4-	120-82-1	No	Yes	Organics	2.90E-02	U	-		1.00E-02	U	2.00E-03	U	1.00E+00	-	1.00E+00	4.05E+02	4.90E+01	1.36E+03	8.16E+00	1.42E-03	5.81E-02	U	4.87E+02
Trichloroethane, 1,1,1-	71-55-6	No	Yes	Organics	-		-		2.00E+00	U	5.00E+00	U	1.00E+00	-	1.00E+00	6.41E+02	1.29E+03	4.39E+01	2.63E-01	1.72E-02	7.03E-01	U	3.47E+02
Trichloroethylene	79-01-6	Yes	Yes	Organics	4.60E-02	U	4.10E-06	U	5.00E-04	U	2.00E-03	U	1.00E+00	-	1.00E+00	6.92E+02	1.28E+03	6.07E+01	3.64E-01	9.85E-03	4.03E-01	U	3.60E+02
Trichlorofluoromethane	75-69-4	No	Yes	Organics	-		-		3.00E-01	U	-		1.00E+00	-	1.00E+00	1.23E+03	1.10E+03	4.39E+01	2.63E-01	9.70E-02	3.97E+00	U	2.97E+02
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	No	No	Organics	-		-		8.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	7.10E+01	1.75E+02	-	9.06E-09	3.70E-07	U	6.26E+02
Trimethylbenzene, 1,2,4-	95-63-6	No	Yes	Organics	-		-		1.00E-02	U	6.00E-02	U	1.00E+00	-	1.00E+00	2.18E+02	5.70E+01	6.14E+02	3.68E+00	6.16E-03	2.52E-01	U	4.42E+02
Trimethylbenzene, 1,3,5-	108-67-8	No	Yes	Organics	-		-		1.00E-02	U	6.00E-02	U	1.00E+00	-	1.00E+00	1.82E+02	4.82E+01	6.02E+02	3.61E+00	8.77E-03	3.59E-01	U	4.38E+02
Trinitrobenzene, 1,3,5-	99-35-4	No	No	Organics	-		-		3.00E-02	U	-		1.00E+00	1.90E-02	1.00E+00	-	2.78E+02	1.68E+03	-	6.50E-09	2.66E-07	U	5.88E+02
Trinitrotoluene, 2,4,6-	118-96-7	No	No	Organics	3.00E-02	U	-		5.00E-04	U	-		1.00E+00	3.20E-02	1.00E+00	-	1.15E+02	2.81E+03	-	2.08E-08	8.50E-07	U	6.38E+02
Vanadium and Compounds	7440-62-2	No	No	Inorgani	-		-		5.04E-03	U	1.00E-04	U	2.60E-02	-	1.00E+00	-	-	-	1.00E+03	-	-		3.68E+03
Xylenes	1330-20-7	No	Yes	Organics	-		-		2.00E-01	U	1.00E-01	U	1.00E+00	-	1.00E+00	2.60E+02	1.06E+02	3.83E+02	2.30E+00	6.63E-03	2.71E-01	U	4.11E+02
Zinc and Compounds	7440-66-6	No	No	Inorgani	-		-		3.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	6.20E+01	-	-		1.18E+03

Chemical	CAS Number	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL THQ=1 (mg/kg)	Dermal SL THQ=1 (mg/kg)	Inhalation SL THQ=1 (mg/kg)
Pyrene	129-00-0	U	9.36E+02	U	PAH	2.78E-02	7.25E-06	2.35E-09	1.56E+09	3.43E+06	0.00E+00	3.43E+06	-	-	-	-	3.50E+04	6.37E+04	-
Selenium	7782-49-2	U	1.77E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	5.84E+03	-	1.37E+08
Silver	7440-22-4	U	6.41E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	5.84E+03	-	-
Sodium	7440-23-5	U	2.57E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Styrene	100-42-5	U	6.35E+02	U	VOC	7.11E-02	8.78E-06	1.52E-04	1.56E+09	1.35E+04	0.00E+00	1.35E+04	-	-	-	-	2.34E+05	-	5.91E+04
Sulfate	14808-79-8	U	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Sulfur	7704-34-9	U	1.31E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	127-18-4	U	6.20E+02	U	VOC	5.05E-02	9.46E-06	2.41E-03	1.56E+09	3.39E+03	0.00E+00	3.39E+03	1.56E+03	-	1.60E+02	1.45E+02	7.01E+03	-	5.94E+02
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	U	8.28E+02	U	SVOC	2.56E-02	6.67E-06	-	1.56E+09	-	-	-	-	-	-	-	2.34E+03	8.49E+05	-
Thallium (Soluble Salts)	7440-28-0	U	4.65E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.17E+01	-	-
Tin	7440-31-5	U	4.92E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	7.01E+05	-	-
Toluene	108-88-3	U	5.92E+02	U	VOC	7.78E-02	9.20E-06	7.23E-04	1.56E+09	6.19E+03	0.00E+00	6.19E+03	-	-	-	-	9.34E+04	-	1.36E+05
Trichlorobenzene, 1,2,4-	120-82-1	U	7.25E+02	U	VOC	3.96E-02	8.40E-06	1.48E-05	1.56E+09	4.33E+04	0.00E+00	4.33E+04	1.13E+02	-	-	1.13E+02	1.17E+04	-	3.79E+02
Trichloroethane, 1,1,1-	71-55-6	U	5.45E+02	U	VOC	6.48E-02	9.60E-06	4.89E-03	1.56E+09	2.38E+03	0.00E+00	2.38E+03	-	-	-	-	2.34E+06	-	5.21E+04
Trichloroethylene	79-01-6	U	5.71E+02	U	VOC	6.87E-02	1.02E-05	2.73E-03	1.56E+09	3.19E+03	0.00E+00	3.19E+03	7.11E+01	-	9.54E+00	8.41E+00	5.84E+02	-	2.79E+01
Trichlorofluoromethane	75-69-4	U	4.71E+02	U	VOC	6.54E-02	1.00E-05	1.24E-02	1.56E+09	1.49E+03	0.00E+00	1.49E+03	-	-	-	-	3.50E+05	-	-
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	U	-		HERB	2.34E-02	5.92E-06	-	1.56E+09	-	-	-	-	-	-	-	9.34E+03	2.21E+04	-
Trimethylbenzene, 1,2,4-	95-63-6	U	6.49E+02	U	VOC	6.07E-02	7.92E-06	2.13E-04	1.56E+09	1.14E+04	0.00E+00	1.14E+04	-	-	-	-	1.17E+04	-	3.00E+03
Trimethylbenzene, 1,3,5-	108-67-8	U	6.37E+02	U	VOC	6.02E-02	7.84E-06	3.04E-04	1.56E+09	9.54E+03	0.00E+00	9.54E+03	-	-	-	-	1.17E+04	-	2.51E+03
Trinitrobenzene, 1,3,5-	99-35-4	U	8.46E+02	U	SVOC	2.90E-02	7.69E-06	-	1.56E+09	-	-	-	-	-	-	-	3.50E+04	4.36E+05	-
Trinitrotoluene, 2,4,6-	118-96-7	U	8.28E+02	U	SVOC	2.95E-02	7.92E-06	-	1.56E+09	-	-	-	1.09E+02	8.05E+02	-	9.60E+01	5.84E+02	4.31E+03	-
Vanadium and Compounds	7440-62-2	U	1.13E+04	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	5.89E+03	-	6.84E+05
Xylenes	1330-20-7	U	6.20E+02	U	VOC	6.85E-02	8.46E-06	4.04E-04	1.56E+09	8.28E+03	0.00E+00	8.28E+03	-	-	-	-	2.34E+05	-	3.63E+03
Zinc and Compounds	7440-66-6	U	3.17E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.50E+05	-	-

Chemical	CAS Number	Noncarcinogenic SL THI=1 (mg/kg)	Screening Level (mg/kg)
Pyrene	129-00-0	2.26E+04	2.26E+04 nc
Selenium	7782-49-2	5.84E+03	5.84E+03 nc
Silver	7440-22-4	5.84E+03	5.84E+03 nc
Sodium	7440-23-5	-	
Styrene	100-42-5	4.72E+04	4.72E+04 nc sat
Sulfate	14808-79-8	-	
Sulfur	7704-34-9	-	
Tetrachloroethylene	127-18-4	5.47E+02	1.45E+02 ca**
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	2.33E+03	2.33E+03 nc
Thallium (Soluble Salts)	7440-28-0	1.17E+01	1.17E+01 nc
Tin	7440-31-5	7.01E+05	7.01E+05 nc max
Toluene	108-88-3	5.53E+04	5.53E+04 nc sat
Trichlorobenzene, 1,2,4-	120-82-1	3.67E+02	1.13E+02 ca**
Trichloroethane, 1,1,1-	71-55-6	5.10E+04	5.10E+04 nc sat
Trichloroethylene	79-01-6	2.67E+01	8.41E+00 ca**
Trichlorofluoromethane	75-69-4	3.50E+05	3.50E+05 nc sat max
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	6.57E+03	6.57E+03 nc
Trimethylbenzene, 1,2,4-	95-63-6	2.39E+03	2.39E+03 nc sat
Trimethylbenzene, 1,3,5-	108-67-8	2.06E+03	2.06E+03 nc sat
Trinitrobenzene, 1,3,5-	99-35-4	3.24E+04	3.24E+04 nc
Trinitrotoluene, 2,4,6-	118-96-7	5.14E+02	9.60E+01 ca**
Vanadium and Compounds	7440-62-2	5.84E+03	5.84E+03 nc
Xylenes	1330-20-7	3.57E+03	3.57E+03 nc sat
Zinc and Compounds	7440-66-6	3.50E+05	3.50E+05 nc max

Site-specific Rec
Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
A (PEF Dispersion Constant)	16.2302	16.8653
A (VF Dispersion Constant)	11.911	16.8653
A (VF Dispersion Constant - mass limit)	11.911	16.8653
B (PEF Dispersion Constant)	18.7762	18.7848
B (VF Dispersion Constant)	18.4385	18.7848
B (VF Dispersion Constant - mass limit)	18.4385	18.7848
City (PEF Climate Zone) Selection	Default	Chicago, IL (7)
City (VF Climate Zone) Selection	Default	Chicago, IL (7)
C (PEF Dispersion Constant)	216.108	215.0624
C (VF Dispersion Constant)	209.7845	215.0624
C (VF Dispersion Constant - mass limit)	209.7845	215.0624
foc (fraction organic carbon in soil) g/g	0.006	0.006
F(x) (function dependent on U_m/U_t) unitless	0.194	0.182
n (total soil porosity) L_{pore}/L_{soil}	0.43396	0.43396
p_b (dry soil bulk density) g/cm^3	1.5	1.5
p_b (dry soil bulk density - mass limit) g/cm^3	1.5	1.5
PEF (particulate emission factor) m^3/kg	1359344438	1560521177
p_s (soil particle density) g/cm^3	2.65	2.65
Q/C_{wind} (g/m^2-s per kg/m^3)	93.77	98.43071437
Q/C_{vol} (g/m^2-s per kg/m^3)	68.18	98.43071437
Q/C_{vol} (g/m^2-s per kg/m^3 - mass limit)	68.18	98.43071437
A_s (PEF acres)	0.5	0.5
A_s (VF acres)	0.5	0.5
A_s (VF mass-limit acres)	0.5	0.5
AF_{0-2} (mutagenic skin adherence factor) mg/cm^2	0.2	0.2
AF_{2-6} (mutagenic skin adherence factor) mg/cm^2	0.2	0.2
AF_{6-16} (mutagenic skin adherence factor) mg/cm^2	0.07	0.07
AF_{16-26} (mutagenic skin adherence factor) mg/cm^2	0.07	0.07
AF_{res-a} (skin adherence factor - adult) mg/cm^2	0.07	0.07
AF_{res-c} (skin adherence factor - child) mg/cm^2	0.2	0.2
AT_{res} (averaging time - resident carcinogenic)	365	365
BW_{0-2} (mutagenic body weight) kg	15	15
BW_{2-6} (mutagenic body weight) kg	15	15
BW_{6-16} (mutagenic body weight) kg	80	80
BW_{16-26} (mutagenic body weight) kg	80	80
BW_{res-a} (body weight - adult) kg	80	80
BW_{res-c} (body weight - child) kg	15	15
$DFS_{res-adj}$ (age-adjusted soil dermal factor) mg/kg	103390	17724
$DFSM_{res-adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	428260	73416
ED_{res} (exposure duration) years	26	26
ED_{0-2} (mutagenic exposure duration) years	2	2
ED_{2-6} (mutagenic exposure duration) years	4	4
ED_{6-16} (mutagenic exposure duration) years	10	10
ED_{16-26} (mutagenic exposure duration) years	10	10
ED_{res-a} (exposure duration - adult) years	20	20
ED_{res-c} (exposure duration - child) years	6	6
EF_{res} (exposure frequency) days/year	350	60
EF_{0-2} (mutagenic exposure frequency) days/year	350	60
EF_{2-6} (mutagenic exposure frequency) days/year	350	60
EF_{6-16} (mutagenic exposure frequency) days/year	350	60

Site-specific Rec
Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
EF_{16-26} (mutagenic exposure frequency) days/year	350	60
EF_{res-a} (exposure frequency - adult) days/year	350	60
EF_{res-c} (exposure frequency - child) days/year	350	60
ET_{res} (exposure time) hours/day	24	24
ET_{0-2} (mutagenic exposure time) hours/day	24	24
ET_{2-6} (mutagenic exposure time) hours/day	24	24
ET_{6-16} (mutagenic exposure time) hours/day	24	24
ET_{16-26} (mutagenic exposure time) hours/day	24	24
ET_{res-a} (adult exposure time) hours/day	24	24
ET_{res-c} (child exposure time) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	1
$IFS_{res-adj}$ (age-adjusted soil ingestion factor) mg/kg	36750	6300
$IFSM_{res-adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.3	28600
IRS_{0-2} (mutagenic soil intake rate) mg/day	200	200
IRS_{2-6} (mutagenic soil intake rate) mg/day	200	200
IRS_{6-16} (mutagenic soil intake rate) mg/day	100	100
IRS_{16-26} (mutagenic soil intake rate) mg/day	100	100
IRS_{res-a} (soil intake rate - adult) mg/day	100	100
IRS_{res-c} (soil intake rate - child) mg/day	200	200
LT (lifetime) years	70	70
SA_{0-2} (mutagenic skin surface area) cm^2/day	2373	2373
SA_{2-6} (mutagenic skin surface area) cm^2/day	2373	2373
SA_{6-16} (mutagenic skin surface area) cm^2/day	6032	6032
SA_{16-26} (mutagenic skin surface area) cm^2/day	6032	6032
SA_{res-a} (skin surface area - adult) cm^2/day	6032	6032
SA_{res-c} (skin surface area - child) cm^2/day	2373	2373
TR (target risk) unitless	0.000001	0.000001
T_w (groundwater temperature) Celsius	25	25
$Theta_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396	0.28396
$Theta_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15	0.15
T (exposure interval) s	819936000	819936000
T (exposure interval) yr	26	26
U_m (mean annual wind speed) m/s	4.69	4.65
U_t (equivalent threshold value)	11.32	11.32
V (fraction of vegetative cover) unitless	0.5	0.5
VF_{ml} (volitization factor - mass limit) m^3/kg	0	0

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref
Acenaphthene	83-32-9	No	Yes	Organics	-		-		6.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	3.90E+00	5.03E+03	3.02E+01	1.84E-04	7.52E-03	U	5.52E+02	U
Acenaphthylene	208-96-8	No	Yes	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	1.61E+01	5.03E+03	3.02E+01	1.14E-04	4.66E-03	U	5.53E+02	U
Acetone	67-64-1	No	Yes	Organics	-		-		9.00E-01	U	-		1.00E+00	-	1.00E+00	1.14E+05	1.00E+06	2.36E+00	1.42E-02	3.50E-05	1.43E-03	U	3.29E+02	U
Acetonitrile	75-05-8	No	Yes	Organics	-		-		-		6.00E-02	U	1.00E+00	-	1.00E+00	1.28E+05	1.00E+06	4.67E+00	2.80E-02	3.45E-05	1.41E-03	U	3.55E+02	U
Aluminum	7429-90-5	No	No	Inorgani	-		-		1.00E+00	U	5.00E-03	U	1.00E+00	-	1.00E+00	-	-	-	1.50E+03	-	-		2.79E+03	U
Aniline	62-53-3	No	No	Organics	5.70E-03	U	1.60E-06	U	7.00E-03	U	1.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	3.60E+04	7.02E+01	-	2.02E-06	8.26E-05	U	4.57E+02	U
Anthracene	120-12-7	No	Yes	Organics	-		-		3.00E-01	U	-		1.00E+00	1.30E-01	1.00E+00	-	4.34E-02	1.64E+04	9.84E+01	5.56E-05	2.27E-03	U	6.13E+02	U
Antimony (metallic)	7440-36-0	No	No	Inorgani	-		-		4.00E-04	U	3.00E-04	U	1.50E-01	-	1.00E+00	-	-	-	4.50E+01	-	-		1.91E+03	U
Aroclor 1260	11096-82-5	No	Yes	Organics	2.00E+00	U	5.71E-04	U	-		-		1.00E+00	1.40E-01	1.00E+00	-	1.44E-02	3.50E+05	2.10E+03	3.36E-04	1.37E-02	U	6.89E+02	U
Arsenic, Inorganic	7440-38-2	No	No	Inorgani	1.50E+00	U	4.30E-03	U	3.00E-04	U	1.50E-05	U	1.00E+00	3.00E-02	6.00E-01	-	-	-	2.90E+01	-	-		8.88E+02	U
Barium	7440-39-3	No	No	Inorgani	-		-		2.00E-01	U	5.00E-04	U	7.00E-02	-	1.00E+00	-	-	-	4.10E+01	-	-		1.87E+03	U
Benz[a]anthracene	56-55-3	Yes	Yes	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	9.40E-03	1.77E+05	1.06E+03	1.20E-05	4.91E-04	U	7.11E+02	U
Benzene	71-43-2	No	Yes	Organics	5.50E-02	U	7.80E-06	U	4.00E-03	U	3.00E-02	U	1.00E+00	-	1.00E+00	1.82E+03	1.79E+03	1.46E+02	8.76E-01	5.55E-03	2.27E-01	U	3.53E+02	U
Benzo[a]pyrene	50-32-8	Yes	No	Organics	1.00E+00	U	6.00E-04	U	3.00E-04	U	2.00E-06	U	1.00E+00	1.30E-01	1.00E+00	-	1.62E-03	5.87E+05	-	4.57E-07	1.87E-05	U	7.68E+02	U
Benzo[b]fluoranthene	205-99-2	Yes	No	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	1.50E-03	5.99E+05	-	6.57E-07	2.69E-05	U	7.16E+02	U
Benzo[g,h,i]perylene	191-24-2	No	No	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	2.60E-04	1.95E+06	-	3.31E-07	1.35E-05	U	7.59E+02	U
Benzo[k]fluoranthene	207-08-9	Yes	No	Organics	1.00E-02	U	6.00E-06	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	8.00E-04	5.87E+05	-	5.84E-07	2.39E-05	U	7.53E+02	U
Benzyl Alcohol	100-51-6	No	No	Organics	-		-		1.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.29E+04	2.15E+01	-	3.37E-07	1.38E-05	U	4.78E+02	U
Beryllium and compounds	7440-41-7	No	No	Inorgani	-		2.40E-03	U	2.00E-03	U	2.00E-05	U	7.00E-03	-	1.00E+00	-	-	-	7.90E+02	-	-		3.04E+03	U
Bis(2-ethylhexyl)phthalate	117-81-7	No	No	Organics	1.40E-02	U	2.40E-06	U	2.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.70E-01	1.20E+05	-	2.70E-07	1.10E-05	U	6.57E+02	U
Boron And Borates Only	7440-42-8	No	No	Inorgani	-		-		2.00E-01	U	2.00E-02	U	1.00E+00	-	1.00E+00	-	-	-	3.00E+00	-	-		4.27E+03	U
Bromodichloromethane	75-27-4	No	Yes	Organics	6.20E-02	U	3.70E-05	U	8.00E-03	U	-		1.00E+00	-	1.00E+00	9.31E+02	3.03E+03	3.18E+01	1.91E-01	2.12E-03	8.67E-02	U	3.63E+02	U
Bromodiphenyl Ether, p-	101-55-3	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	2.69E+01	1.45E+00	3.08E+03	1.85E+01	1.17E-04	4.78E-03	U	5.83E+02	U
Bromoform	75-25-2	No	Yes	Organics	7.90E-03	U	1.10E-06	U	2.00E-02	U	-		1.00E+00	-	1.00E+00	9.14E+02	3.10E+03	3.18E+01	1.91E-01	5.35E-04	2.19E-02	U	4.22E+02	U
Bromomethane	74-83-9	No	Yes	Organics	-		-		1.40E-03	U	5.00E-03	U	1.00E+00	-	1.00E+00	3.59E+03	1.52E+04	1.32E+01	7.92E-02	7.34E-03	3.00E-01	U	2.77E+02	U
Butyl Benzyl Phthalate	85-68-7	No	No	Organics	1.90E-03	U	-		2.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.69E+00	7.16E+03	-	1.26E-06	5.15E-05	U	6.43E+02	U
Cadmium (Diet)	7440-43-9	No	No	Inorgani	-		1.80E-03	U	1.00E-04	U	1.00E-05	U	2.50E-02	1.00E-03	1.00E+00	-	-	-	7.50E+01	-	-		1.04E+03	U
Calcium	7440-70-2	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-		1.71E+03	U
Caprolactam	105-60-2	No	No	Organics	-		-		5.00E-01	U	2.20E-03	U	1.00E+00	1.00E-01	1.00E+00	-	7.72E+05	2.45E+01	-	2.53E-08	1.03E-06	U	5.43E+02	U
Carbon Disulfide	75-15-0	No	Yes	Organics	-		-		1.00E-01	U	7.00E-01	U	1.00E+00	-	1.00E+00	7.38E+02	2.16E+03	2.17E+01	1.30E-01	1.44E-02	5.89E-01	U	3.19E+02	U
Carbon Tetrachloride	56-23-5	No	Yes	Organics	7.00E-02	U	6.00E-06	U	4.00E-03	U	1.00E-01	U	1.00E+00	-	1.00E+00	4.58E+02	7.93E+02	4.39E+01	2.63E-01	2.76E-02	1.13E+00	U	3.50E+02	U
Chloride	16887-00-6	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-		-	

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref
Chloroform	67-66-3	No	Yes	Organics	3.10E-02	U	2.30E-05	U	1.00E-02	U	9.77E-02	U	1.00E+00	-	1.00E+00	2.54E+03	7.95E+03	3.18E+01	1.91E-01	3.67E-03	1.50E-01	U	3.34E+02	U
Chloromethane	74-87-3	No	Yes	Organics	-		-		-		9.00E-02	U	1.00E+00	-	1.00E+00	1.32E+03	5.32E+03	1.32E+01	7.92E-02	8.82E-03	3.61E-01	U	2.49E+02	U
Chlorophenyl phenyl ether, 4-	7005-72-3	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	-	3.30E+00	3.08E+03	1.85E+01	9.00E-05	3.68E-03	U	5.57E+02	U
Chlorotoluene, p-	106-43-4	No	Yes	Organics	-		-		2.00E-02	U	-		1.00E+00	-	1.00E+00	2.53E+02	1.06E+02	3.75E+02	2.25E+00	4.38E-03	1.79E-01	U	4.35E+02	U
Chromium(III), Insoluble Salts	16065-83-1	No	No	Inorgani	-		-		1.50E+00	U	-		1.30E-02	-	1.00E+00	-	-	-	1.80E+06	-	-		-	
Chromium, Total	7440-47-3	No	No	Inorgani	-		-		-		-		1.30E-02	-	1.00E+00	-	-	-	1.80E+06	-	-		2.91E+03	U
Chrysene	218-01-9	Yes	No	Organics	1.00E-03	U	6.00E-07	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	2.00E-03	1.80E+05	-	5.23E-06	2.14E-04	U	7.21E+02	U
Cobalt	7440-48-4	No	No	Inorgani	-		9.00E-03	U	3.00E-04	U	6.00E-06	U	1.00E+00	-	1.00E+00	-	-	-	4.50E+01	-	-		3.20E+03	U
Copper	7440-50-8	No	No	Inorgani	-		-		4.00E-02	U	-		1.00E+00	-	1.00E+00	-	-	-	3.50E+01	-	-		2.87E+03	U
Cresol, o-	95-48-7	No	No	Organics	-		-		5.00E-02	U	6.00E-01	U	1.00E+00	1.00E-01	1.00E+00	-	2.59E+04	3.06E+02	-	1.20E-06	4.91E-05	U	4.64E+02	U
Cyanide (CN-)	57-12-5	No	Yes	Inorgani	-		-		6.00E-04	U	8.00E-04	U	1.00E+00	-	1.00E+00	9.54E+05	9.54E+04	-	9.90E+00	1.01E-04	4.13E-03	U	-	

Chemical	CAS Number	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
Acenaphthene	83-32-9	8.03E+02	U	PAH	5.06E-02	8.33E-06	6.71E-07	1.56E+09	2.03E+05	0.00E+00	2.03E+05	-	-	-	-	2.74E+04	8.87E+04	-	2.09E+04
Acenaphthylene	208-96-8	7.92E+02	U	PAH	4.50E-02	6.98E-06	3.70E-07	1.56E+09	2.74E+05	0.00E+00	2.74E+05	-	-	-	-	-	-	-	-
Acetone	67-64-1	5.08E+02	U	VOC	1.06E-01	1.15E-05	7.13E-05	1.56E+09	1.97E+04	0.00E+00	1.97E+04	-	-	-	-	4.11E+05	-	-	4.11E+05
Acetonitrile	75-05-8	5.45E+02	U	VOC	1.34E-01	1.41E-05	7.92E-05	1.56E+09	1.87E+04	0.00E+00	1.87E+04	-	-	-	-	-	-	6.83E+03	6.83E+03
Aluminum	7429-90-5	6.70E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	4.56E+05	-	4.75E+07	4.52E+05
Aniline	62-53-3	7.04E+02	U	SVOC	8.30E-02	1.01E-05	-	1.56E+09	-	-	-	7.12E+02	2.53E+03	1.60E+07	5.55E+02	3.19E+03	1.35E+04	9.49E+06	2.58E+03
Anthracene	120-12-7	8.73E+02	U	PAH	3.90E-02	7.85E-06	4.85E-08	1.56E+09	7.56E+05	0.00E+00	7.56E+05	-	-	-	-	1.37E+05	4.44E+05	-	1.05E+05
Antimony (metallic)	7440-36-0	5.07E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.83E+02	-	2.85E+06	1.82E+02
Aroclor 1260	11096-82-5	9.87E+02	U	PCB	2.20E-02	5.61E-06	7.68E-09	1.56E+09	1.90E+06	0.00E+00	1.90E+06	2.03E+00	5.15E+00	5.44E+01	1.42E+00	-	-	-	-
Arsenic, Inorganic	7440-38-2	1.67E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	4.51E+00	3.20E+01	5.94E+03	3.95E+00	2.28E+02	1.92E+03	1.42E+05	2.04E+02
Barium	7440-39-3	3.57E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	9.13E+04	-	4.75E+06	8.95E+04
Benz[a]anthracene	56-55-3	9.79E+02	U	PAH	2.61E-02	6.75E-06	6.83E-10	1.56E+09	6.37E+06	0.00E+00	6.37E+06	8.93E+00	2.68E+01	6.26E+02	6.63E+00	-	-	-	-
Benzene	71-43-2	5.62E+02	U	VOC	8.95E-02	1.03E-05	1.06E-03	1.56E+09	5.11E+03	0.00E+00	5.11E+03	7.37E+01	-	1.07E+01	9.37E+00	1.83E+03	-	9.32E+02	6.17E+02
Benzo[a]pyrene	50-32-8	9.69E+02	U	PAH	2.55E-02	6.58E-06	-	1.56E+09	-	-	-	8.93E-01	2.68E+00	1.54E+04	6.70E-01	1.37E+02	4.44E+02	1.90E+04	1.04E+02
Benzo[b]fluoranthene	205-99-2	9.69E+02	U	PAH	2.50E-02	6.43E-06	-	1.56E+09	-	-	-	8.93E+00	2.68E+01	1.54E+05	6.70E+00	-	-	-	-
Benzo[g,h,i]perylene	191-24-2	1.09E+03	U	PAH	2.39E-02	6.09E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-
Benzo[k]fluoranthene	207-08-9	1.02E+03	U	PAH	2.50E-02	6.43E-06	-	1.56E+09	-	-	-	8.93E+01	2.68E+02	1.54E+06	6.70E+01	-	-	-	-
Benzyl Alcohol	100-51-6	7.15E+02	U	SVOC	7.31E-02	9.37E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+04	1.92E+05	-	3.69E+04
Beryllium and compounds	7440-41-7	5.20E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	1.06E+04	1.06E+04	9.13E+02	-	1.90E+05	9.08E+02
Bis(2-ethylhexyl)phthalate	117-81-7	8.35E+02	U	SVOC	1.73E-02	4.18E-06	-	1.56E+09	-	-	-	2.90E+02	1.03E+03	1.06E+07	2.26E+02	9.13E+03	3.85E+04	-	7.37E+03
Boron And Borates Only	7440-42-8	7.93E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	9.13E+04	-	1.90E+08	9.12E+04
Bromodichloromethane	75-27-4	5.86E+02	U	VOC	5.63E-02	1.07E-05	8.46E-04	1.56E+09	5.72E+03	0.00E+00	5.72E+03	6.54E+01	-	2.53E+00	2.44E+00	3.65E+03	-	-	3.65E+03
Bromodiphenyl Ether, p-	101-55-3	-		VOC	2.78E-02	7.37E-06	3.84E-07	1.56E+09	2.69E+05	0.00E+00	2.69E+05	-	-	-	-	-	-	-	-
Bromoform	75-25-2	6.82E+02	U	VOC	3.57E-02	1.04E-05	1.41E-04	1.56E+09	1.40E+04	0.00E+00	1.40E+04	5.13E+02	-	2.09E+02	1.48E+02	9.13E+03	-	-	9.13E+03
Bromomethane	74-83-9	4.67E+02	U	VOC	1.00E-01	1.35E-05	6.77E-03	1.56E+09	2.02E+03	0.00E+00	2.02E+03	-	-	-	-	6.39E+02	-	6.15E+01	5.61E+01
Butyl Benzyl Phthalate	85-68-7	9.65E+02	U	SVOC	2.08E-02	5.17E-06	-	1.56E+09	-	-	-	2.13E+03	7.59E+03	-	1.67E+03	9.13E+04	3.85E+05	-	7.37E+04
Cadmium (Diet)	7440-43-9	2.29E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	1.42E+04	1.42E+04	4.56E+01	4.81E+02	9.49E+04	4.17E+01
Calcium	7440-70-2	3.27E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-
Caprolactam	105-60-2	8.06E+02	U	SVOC	6.92E-02	9.00E-06	-	1.56E+09	-	-	-	-	-	-	-	2.28E+05	9.61E+05	2.09E+07	1.83E+05
Carbon Disulfide	75-15-0	5.52E+02	U	VOC	1.06E-01	1.30E-05	9.73E-03	1.56E+09	1.69E+03	0.00E+00	1.69E+03	-	-	-	-	4.56E+04	-	7.19E+03	6.21E+03
Carbon Tetrachloride	56-23-5	5.56E+02	U	VOC	5.71E-02	9.78E-06	5.95E-03	1.56E+09	2.16E+03	0.00E+00	2.16E+03	5.79E+01	-	5.89E+00	5.35E+00	1.83E+03	-	1.31E+03	7.64E+02
Chloride	16887-00-6	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-

Chemical	CAS Number	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)
Chloroform	67-66-3	5.36E+02	U	VOC	7.69E-02	1.09E-05	1.93E-03	1.56E+09	3.79E+03	0.00E+00	3.79E+03	1.31E+02	-	2.70E+00	2.65E+00	4.56E+03	-	2.25E+03	1.51E+03
Chloromethane	74-87-3	4.16E+02	U	VOC	1.24E-01	1.36E-05	9.63E-03	1.56E+09	1.70E+03	0.00E+00	1.70E+03	-	-	-	-	-	-	9.29E+02	9.29E+02
Chlorophenyl phenyl ether, 4-	7005-72-3	-		VOC	2.69E-02	6.96E-06	2.86E-07	1.56E+09	3.11E+05	0.00E+00	3.11E+05	-	-	-	-	-	-	-	-
Chlorotoluene, p-	106-43-4	6.16E+02	U	VOC	6.26E-02	8.66E-06	2.51E-04	1.56E+09	1.05E+04	0.00E+00	1.05E+04	-	-	-	-	9.13E+03	-	-	9.13E+03
Chromium(III), Insoluble Salts	16065-83-1	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	6.84E+05	-	-	6.84E+05
Chromium, Total	7440-47-3	8.56E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-
Chrysene	218-01-9	9.79E+02	U	PAH	2.61E-02	6.75E-06	-	1.56E+09	-	-	-	8.93E+02	2.68E+03	1.54E+07	6.70E+02	-	-	-	-
Cobalt	7440-48-4	7.40E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	2.84E+03	2.84E+03	1.37E+02	-	5.70E+04	1.37E+02
Copper	7440-50-8	5.12E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.83E+04	-	-	1.83E+04
Cresol, o-	95-48-7	6.98E+02	U	SVOC	7.28E-02	9.32E-06	-	1.56E+09	-	-	-	-	-	-	-	2.28E+04	9.61E+04	5.70E+09	1.84E+04
Cyanide (CN-)	57-12-5	-		INORGANIC	2.11E-01	2.46E-05	4.66E-06	1.56E+09	7.71E+04	0.00E+00	7.71E+04	-	-	-	-	2.74E+02	-	3.75E+02	1.58E+02

Chemical	CAS Number	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Acenaphthene	83-32-9	2.92E+05	5.32E+05	-	1.89E+05	2.09E+04 nc
Acenaphthylene	208-96-8	-	-	-	-	
Acetone	67-64-1	4.38E+06	-	-	4.38E+06	4.11E+05 nc sat max
Acetonitrile	75-05-8	-	-	6.83E+03	6.83E+03	6.83E+03 nc
Aluminum	7429-90-5	4.87E+06	-	4.75E+07	4.41E+06	4.52E+05 nc max
Aniline	62-53-3	3.41E+04	8.07E+04	9.49E+06	2.39E+04	5.55E+02 ca
Anthracene	120-12-7	1.46E+06	2.66E+06	-	9.43E+05	1.05E+05 nc max
Antimony (metallic)	7440-36-0	1.95E+03	-	2.85E+06	1.95E+03	1.82E+02 nc
Aroclor 1260	11096-82-5	-	-	-	-	1.42E+00 ca
Arsenic, Inorganic	7440-38-2	2.43E+03	1.15E+04	1.42E+05	1.98E+03	3.95E+00 ca
Barium	7440-39-3	9.73E+05	-	4.75E+06	8.08E+05	8.95E+04 nc
Benz[a]anthracene	56-55-3	-	-	-	-	6.63E+00 ca
Benzene	71-43-2	1.95E+04	-	9.32E+02	8.90E+02	9.37E+00 ca
Benzo[a]pyrene	50-32-8	1.46E+03	2.66E+03	1.90E+04	8.98E+02	6.70E-01 ca
Benzo[b]fluoranthene	205-99-2	-	-	-	-	6.70E+00 ca
Benzo[g,h,i]perylene	191-24-2	-	-	-	-	
Benzo[k]fluoranthene	207-08-9	-	-	-	-	6.70E+01 ca
Benzyl Alcohol	100-51-6	4.87E+05	1.15E+06	-	3.42E+05	3.69E+04 nc
Beryllium and compounds	7440-41-7	9.73E+03	-	1.90E+05	9.26E+03	9.08E+02 nc
Bis(2-ethylhexyl)phthalate	117-81-7	9.73E+04	2.31E+05	-	6.84E+04	2.26E+02 ca
Boron And Borates Only	7440-42-8	9.73E+05	-	1.90E+08	9.68E+05	9.12E+04 nc
Bromodichloromethane	75-27-4	3.89E+04	-	-	3.89E+04	2.44E+00 ca
Bromodiphenyl Ether, p-	101-55-3	-	-	-	-	
Bromoform	75-25-2	9.73E+04	-	-	9.73E+04	1.48E+02 ca
Bromomethane	74-83-9	6.81E+03	-	6.15E+01	6.10E+01	5.61E+01 nc
Butyl Benzyl Phthalate	85-68-7	9.73E+05	2.31E+06	-	6.84E+05	1.67E+03 ca
Cadmium (Diet)	7440-43-9	4.87E+02	2.88E+03	9.49E+04	4.15E+02	4.17E+01 nc
Calcium	7440-70-2	-	-	-	-	
Caprolactam	105-60-2	2.43E+06	5.76E+06	2.09E+07	1.58E+06	1.83E+05 nc max
Carbon Disulfide	75-15-0	4.87E+05	-	7.19E+03	7.08E+03	6.21E+03 nc sat
Carbon Tetrachloride	56-23-5	1.95E+04	-	1.31E+03	1.23E+03	5.35E+00 ca
Chloride	16887-00-6	-	-	-	-	

Chemical	CAS Number	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Chloroform	67-66-3	4.87E+04	-	2.25E+03	2.15E+03	2.65E+00 ca
Chloromethane	74-87-3	-	-	9.29E+02	9.29E+02	9.29E+02 nc
Chlorophenyl phenyl ether, 4-	7005-72-3	-	-	-	-	
Chlorotoluene, p-	106-43-4	9.73E+04	-	-	9.73E+04	9.13E+03 nc sat
Chromium(III), Insoluble Salts	16065-83-1	7.30E+06	-	-	7.30E+06	6.84E+05 nc max
Chromium, Total	7440-47-3	-	-	-	-	
Chrysene	218-01-9	-	-	-	-	6.70E+02 ca
Cobalt	7440-48-4	1.46E+03	-	5.70E+04	1.42E+03	1.37E+02 nc
Copper	7440-50-8	1.95E+05	-	-	1.95E+05	1.83E+04 nc
Cresol, o-	95-48-7	2.43E+05	5.76E+05	5.70E+09	1.71E+05	1.84E+04 nc
Cyanide (CN-)	57-12-5	2.92E+03	-	3.75E+02	3.33E+02	1.58E+02 nc

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref
Dibenz[a,h]anthracene	53-70-3	Yes	No	Organics	1.00E+00	U	6.00E-04	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	2.49E-03	1.91E+06	-	1.41E-07	5.76E-06	U
Dibenzofuran	132-64-9	No	Yes	Organics	-		-		1.00E-03	U	-		1.00E+00	-	1.00E+00	-	3.10E+00	9.16E+03	5.50E+01	2.13E-04	8.71E-03	U
Dibromochloromethane	124-48-1	No	Yes	Organics	8.40E-02	U	-		2.00E-02	U	-		1.00E+00	-	1.00E+00	8.02E+02	2.70E+03	3.18E+01	1.91E-01	7.83E-04	3.20E-02	U
Dibutyl Phthalate	84-74-2	No	No	Organics	-		-		1.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.12E+01	1.16E+03	-	1.81E-06	7.40E-05	U
Dichlorobenzene, 1,2-	95-50-1	No	Yes	Organics	-		-		9.00E-02	U	2.00E-01	U	1.00E+00	-	1.00E+00	3.76E+02	1.56E+02	3.83E+02	2.30E+00	1.92E-03	7.85E-02	U
Dichlorobenzene, 1,3-	541-73-1	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	2.96E+02	1.25E+02	3.75E+02	2.25E+00	2.63E-03	1.08E-01	U
Dichlorobenzene, 1,4-	106-46-7	No	Yes	Organics	5.40E-03	U	1.10E-05	U	7.00E-02	U	8.00E-01	U	1.00E+00	-	1.00E+00	-	8.13E+01	3.75E+02	2.25E+00	2.41E-03	9.85E-02	U
Dichloroethane, 1,2-	107-06-2	No	Yes	Organics	9.10E-02	U	2.60E-05	U	6.00E-03	U	7.00E-03	U	1.00E+00	-	1.00E+00	2.98E+03	8.60E+03	3.96E+01	2.38E-01	1.18E-03	4.82E-02	U
Dichloroethylene, 1,1-	75-35-4	No	Yes	Organics	-		-		5.00E-02	U	2.00E-01	U	1.00E+00	-	1.00E+00	1.19E+03	2.42E+03	3.18E+01	1.91E-01	2.61E-02	1.07E+00	U
Dichlorophenol, 2,4-	120-83-2	No	No	Organics	-		-		3.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.55E+03	1.47E+02	-	4.29E-06	1.75E-04	U
Diethyl Phthalate	84-66-2	No	No	Organics	-		-		8.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.08E+03	1.05E+02	-	6.10E-07	2.49E-05	U
Dinitro-o-cresol, 4,6-	534-52-1	No	No	Organics	-		-		8.00E-05	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.98E+02	7.54E+02	-	1.40E-06	5.72E-05	U
Dinitroaniline, 3,5-	618-87-1	No	No	Organics	-		-		4.00E-04	U	2.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	1.29E+03	1.69E+02	-	2.96E-11	1.21E-09	U
Dinitrobenzene, 1,3-	99-65-0	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.33E+02	3.52E+02	-	4.90E-08	2.00E-06	U
Dinitrotoluene, 2,3-	602-01-7	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	2.70E+02	5.87E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 2,4-	121-14-2	No	No	Organics	3.10E-01	U	8.90E-05	U	2.00E-03	U	-		1.00E+00	1.02E-01	1.00E+00	-	2.00E+02	5.76E+02	-	5.40E-08	2.21E-06	U
Dinitrotoluene, 2,5-	619-15-8	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	2.20E+02	5.76E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 2,6-	606-20-2	No	No	Organics	1.50E+00	U	-		3.00E-04	U	-		1.00E+00	9.90E-02	1.00E+00	-	1.82E+02	5.87E+02	-	7.47E-07	3.05E-05	U
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	6.00E-03	1.00E+00	-	1.22E+03	2.83E+02	-	3.27E-11	1.34E-09	U
Dinitrotoluene, 3,4-	610-39-9	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.79E+02	5.76E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 3,5-	618-85-9	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.45E+02	5.64E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	9.00E-03	1.00E+00	-	1.22E+03	2.83E+02	-	3.27E-11	1.34E-09	U
Endrin	72-20-8	No	No	Organics	-		-		3.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.50E-01	2.01E+04	-	6.36E-06	2.60E-04	U
Ethylbenzene	100-41-4	No	Yes	Organics	1.10E-02	U	2.50E-06	U	5.00E-02	U	1.00E+00	U	1.00E+00	-	1.00E+00	4.79E+02	1.69E+02	4.46E+02	2.68E+00	7.88E-03	3.22E-01	U
Fluoranthene	206-44-0	No	No	Organics	-		-		4.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	2.60E-01	5.54E+04	-	8.86E-06	3.62E-04	U
Fluorene	86-73-7	No	Yes	Organics	-		-		4.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	1.69E+00	9.16E+03	5.50E+01	9.62E-05	3.93E-03	U
Fluoride	16984-48-8	No	No	Inorgani	-		-		4.00E-02	U	1.30E-02	U	1.00E+00	-	1.00E+00	-	1.69E+00	-	1.50E+02	-	-	
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	No	No	Organics	8.00E-02	U	-		4.00E-03	U	-		1.00E+00	1.50E-02	1.00E+00	-	5.97E+01	8.91E+01	-	2.01E-11	8.22E-10	U
Hexane, N-	110-54-3	No	Yes	Organics	-		-		-		7.00E-01	U	1.00E+00	-	1.00E+00	1.41E+02	9.50E+00	1.32E+02	7.92E-01	1.80E+00	7.36E+01	U

Chemical	CAS Number	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)
Dibenz[a,h]anthracene	53-70-3	7.97E+02	U	9.90E+02	U	PAH	2.36E-02	6.02E-06	-	1.56E+09	-	-	-	8.93E-01	2.68E+00	1.54E+04	6.70E-01	-	-
Dibenzofuran	132-64-9	5.60E+02	U	8.24E+02	U	FURAN	6.51E-02	7.38E-06	5.49E-07	1.56E+09	2.25E+05	0.00E+00	2.25E+05	-	-	-	-	4.56E+02	-
Dibromochloromethane	124-48-1	3.93E+02	U	6.78E+02	U	VOC	3.66E-02	1.06E-05	2.10E-04	1.56E+09	1.15E+04	0.00E+00	1.15E+04	4.83E+01	-	-	4.83E+01	9.13E+03	-
Dibutyl Phthalate	84-74-2	6.13E+02	U	7.97E+02	U	SVOC	2.14E-02	5.33E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+04	1.92E+05
Dichlorobenzene, 1,2-	95-50-1	4.53E+02	U	7.05E+02	U	VOC	5.62E-02	8.92E-06	9.74E-05	1.56E+09	1.69E+04	0.00E+00	1.69E+04	-	-	-	-	4.11E+04	-
Dichlorobenzene, 1,3-	541-73-1	4.46E+02	U	6.86E+02	U	VOC	5.58E-02	8.85E-06	1.35E-04	1.56E+09	1.43E+04	0.00E+00	1.43E+04	-	-	-	-	-	-
Dichlorobenzene, 1,4-	106-46-7	4.47E+02	U	6.69E+02	U	VOC	5.50E-02	8.68E-06	1.22E-04	1.56E+09	1.51E+04	0.00E+00	1.51E+04	7.51E+02	-	2.24E+01	2.18E+01	3.19E+04	-
Dichloroethane, 1,2-	107-06-2	3.57E+02	U	5.62E+02	U	VOC	8.57E-02	1.10E-05	6.35E-04	1.56E+09	6.60E+03	0.00E+00	6.60E+03	4.46E+01	-	4.16E+00	3.80E+00	2.74E+03	-
Dichloroethylene, 1,1-	75-35-4	3.05E+02	U	4.82E+02	U	VOC	8.63E-02	1.10E-05	9.96E-03	1.56E+09	1.67E+03	0.00E+00	1.67E+03	-	-	-	-	2.28E+04	-
Dichlorophenol, 2,4-	120-83-2	4.83E+02	U	7.25E+02	U	SVOC	4.86E-02	8.68E-06	-	1.56E+09	-	-	-	-	-	-	-	1.37E+03	5.77E+03
Diethyl Phthalate	84-66-2	5.68E+02	U	7.76E+02	U	SVOC	2.61E-02	6.72E-06	-	1.56E+09	-	-	-	-	-	-	-	3.65E+05	1.54E+06
Dinitro-o-cresol, 4,6-	534-52-1	6.51E+02	U	9.77E+02	U	SVOC	5.59E-02	6.53E-06	-	1.56E+09	-	-	-	-	-	-	-	3.65E+01	1.54E+02
Dinitroaniline, 3,5-	618-87-1	6.13E+02	U	-		SVOC	4.03E-02	8.84E-06	-	1.56E+09	-	-	-	-	-	-	-	1.83E+02	7.69E+02
Dinitrobenzene, 1,3-	99-65-0	5.64E+02	U	8.08E+02	U	SVOC	4.85E-02	9.21E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+01	1.92E+02
Dinitrotoluene, 2,3-	602-01-7	5.57E+02	U	-		SVOC	5.91E-02	6.91E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 2,4-	121-14-2	5.73E+02	U	8.14E+02	U	SVOC	3.75E-02	7.90E-06	-	1.56E+09	-	-	-	1.31E+01	4.56E+01	2.87E+05	1.02E+01	9.13E+02	3.77E+03
Dinitrotoluene, 2,5-	619-15-8	5.57E+02	U	8.14E+02	U	SVOC	3.70E-02	7.76E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 2,6-	606-20-2	5.73E+02	U	7.70E+02	U	SVOC	3.70E-02	7.76E-06	-	1.56E+09	-	-	-	2.70E+00	9.71E+00	-	2.11E+00	1.37E+02	5.83E+02
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	6.25E+02	U	-		SVOC	5.61E-02	6.55E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+01	3.20E+03
Dinitrotoluene, 3,4-	610-39-9	5.57E+02	U	8.42E+02	U	SVOC	3.67E-02	7.68E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 3,5-	618-85-9	5.88E+02	U	8.14E+02	U	SVOC	3.69E-02	7.74E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	6.25E+02	U	-		SVOC	5.61E-02	6.55E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+01	2.14E+03
Endrin	72-20-8	6.03E+02	U	-		PEST	3.62E-02	4.22E-06	-	1.56E+09	-	-	-	-	-	-	-	1.37E+02	5.77E+02
Ethylbenzene	100-41-4	4.09E+02	U	6.17E+02	U	VOC	6.85E-02	8.46E-06	4.14E-04	1.56E+09	8.18E+03	0.00E+00	8.18E+03	3.69E+02	-	5.36E+01	4.68E+01	2.28E+04	-
Fluoranthene	206-44-0	6.57E+02	U	9.05E+02	U	PAH	2.76E-02	7.18E-06	-	1.56E+09	-	-	-	-	-	-	-	1.83E+04	5.92E+04
Fluorene	86-73-7	5.68E+02	U	8.26E+02	U	PAH	4.40E-02	7.89E-06	1.68E-07	1.56E+09	4.06E+05	0.00E+00	4.06E+05	-	-	-	-	1.83E+04	5.92E+04
Fluoride	16984-48-8	8.52E+01	U	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.83E+04	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	6.26E+02	U	-		SVOC	3.12E-02	8.50E-06	-	1.56E+09	-	-	-	5.07E+01	1.20E+03	-	4.86E+01	1.83E+03	5.13E+04
Hexane, N-	110-54-3	3.42E+02	U	5.08E+02	U	VOC	7.31E-02	8.17E-06	1.93E-02	1.56E+09	1.20E+03	0.00E+00	1.20E+03	-	-	-	-	-	-

Chemical	CAS Number	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Dibenz[a,h]anthracene	53-70-3	-	-	-	-	-	-	6.70E-01 ca
Dibenzofuran	132-64-9	-	4.56E+02	4.87E+03	-	-	4.87E+03	4.56E+02 nc
Dibromochloromethane	124-48-1	-	9.13E+03	9.73E+04	-	-	9.73E+04	4.83E+01 ca
Dibutyl Phthalate	84-74-2	-	3.69E+04	4.87E+05	1.15E+06	-	3.42E+05	3.69E+04 nc
Dichlorobenzene, 1,2-	95-50-1	2.05E+04	1.37E+04	4.38E+05	-	2.05E+04	1.96E+04	1.37E+04 nc sat
Dichlorobenzene, 1,3-	541-73-1	-	-	-	-	-	-	
Dichlorobenzene, 1,4-	106-46-7	7.34E+04	2.23E+04	3.41E+05	-	7.34E+04	6.04E+04	2.18E+01 ca
Dichloroethane, 1,2-	107-06-2	2.81E+02	2.55E+02	2.92E+04	-	2.81E+02	2.79E+02	3.80E+00 ca
Dichloroethylene, 1,1-	75-35-4	2.03E+03	1.86E+03	2.43E+05	-	2.03E+03	2.01E+03	1.86E+03 nc sat
Dichlorophenol, 2,4-	120-83-2	-	1.11E+03	1.46E+04	3.46E+04	-	1.03E+04	1.11E+03 nc
Diethyl Phthalate	84-66-2	-	2.95E+05	3.89E+06	9.22E+06	-	2.74E+06	2.95E+05 nc max
Dinitro-o-cresol, 4,6-	534-52-1	-	2.95E+01	3.89E+02	9.22E+02	-	2.74E+02	2.95E+01 nc
Dinitroaniline, 3,5-	618-87-1	1.90E+07	1.47E+02	1.95E+03	4.61E+03	1.90E+07	1.37E+03	1.47E+02 nc
Dinitrobenzene, 1,3-	99-65-0	-	3.69E+01	4.87E+02	1.15E+03	-	3.42E+02	3.69E+01 nc
Dinitrotoluene, 2,3-	602-01-7	-	-	-	-	-	-	
Dinitrotoluene, 2,4-	121-14-2	-	7.35E+02	9.73E+03	2.26E+04	-	6.80E+03	1.02E+01 ca
Dinitrotoluene, 2,5-	619-15-8	-	-	-	-	-	-	
Dinitrotoluene, 2,6-	606-20-2	-	1.11E+02	1.46E+03	3.49E+03	-	1.03E+03	2.11E+00 ca
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	-	4.50E+01	4.87E+02	1.92E+04	-	4.75E+02	4.50E+01 nc
Dinitrotoluene, 3,4-	610-39-9	-	-	-	-	-	-	
Dinitrotoluene, 3,5-	618-85-9	-	-	-	-	-	-	
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	-	4.47E+01	4.87E+02	1.28E+04	-	4.69E+02	4.47E+01 nc
Endrin	72-20-8	-	1.11E+02	1.46E+03	3.46E+03	-	1.03E+03	1.11E+02 nc
Ethylbenzene	100-41-4	4.97E+04	1.56E+04	2.43E+05	-	4.97E+04	4.13E+04	4.68E+01 ca
Fluoranthene	206-44-0	-	1.39E+04	1.95E+05	3.55E+05	-	1.26E+05	1.39E+04 nc
Fluorene	86-73-7	-	1.39E+04	1.95E+05	3.55E+05	-	1.26E+05	1.39E+04 nc
Fluoride	16984-48-8	1.23E+08	1.82E+04	1.95E+05	-	1.23E+08	1.94E+05	1.82E+04 nc
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	-	1.76E+03	1.95E+04	3.07E+05	-	1.83E+04	4.86E+01 ca
Hexane, N-	110-54-3	5.10E+03	5.10E+03	-	-	5.10E+03	5.10E+03	5.10E+03 nc sat

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	No	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	1.90E-04	1.95E+06	-	3.48E-07	1.42E-05	U	8.09E+02	U	1.08E+03	U
Iodomethane	74-88-4	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	3.03E+03	1.38E+04	1.32E+01	7.92E-02	5.26E-03	2.15E-01	U	3.16E+02	U	5.28E+02	U
Iron	7439-89-6	No	No	Inorgani	-		-		7.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	2.50E+01	-	-		3.27E+03	U	9.34E+03	U
Isophorone	78-59-1	No	No	Organics	9.50E-04	U	-		2.00E-01	U	2.00E+00	U	1.00E+00	1.00E-01	1.00E+00	-	1.20E+04	6.52E+01	-	6.64E-06	2.71E-04	U	4.88E+02	U	7.15E+02	U
Lead and Compounds	7439-92-1	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	9.00E+02	-	-		2.02E+03	U	5.40E+03	U
Magnesium	7439-95-4	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	4.50E+00	-	-		1.37E+03	U	2.24E+03	U
Manganese (Non-diet)	7439-96-5	No	No	Inorgani	-		-		2.40E-02	U	5.00E-05	U	4.00E-02	-	1.00E+00	-	-	-	6.50E+01	-	-		2.37E+03	U	4.32E+03	U
Mercury (elemental)	7439-97-6	No	Yes	Inorgani	-		-		-		3.00E-04	U	1.00E+00	-	1.00E+00	3.13E+00	6.00E-02	-	5.20E+01	8.62E-03	3.52E-01	U	6.30E+02	U	1.76E+03	U
Methyl Acetate	79-20-9	No	Yes	Organics	-		-		1.00E+00	U	-		1.00E+00	-	1.00E+00	2.90E+04	2.43E+05	3.06E+00	1.84E-02	1.15E-04	4.70E-03	U	3.30E+02	U	5.07E+02	U
Methyl Ethyl Ketone (2-Butanone)	78-93-3	No	Yes	Organics	-		-		6.00E-01	U	5.00E+00	U	1.00E+00	-	1.00E+00	2.84E+04	2.23E+05	4.51E+00	2.71E-02	5.69E-05	2.33E-03	U	3.53E+02	U	5.37E+02	U
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	No	Yes	Organics	-		-		-		3.00E+00	U	1.00E+00	-	1.00E+00	3.36E+03	1.90E+04	1.26E+01	7.56E-02	1.38E-04	5.64E-03	U	3.89E+02	U	5.75E+02	U
Methyl tert-Butyl Ether (MTBE)	1634-04-4	No	Yes	Organics	1.80E-03	U	2.60E-07	U	-		3.00E+00	U	1.00E+00	-	1.00E+00	8.88E+03	5.10E+04	1.16E+01	6.96E-02	5.87E-04	2.40E-02	U	3.28E+02	U	4.97E+02	U
Methyl-5-Nitroaniline, 2-	99-55-8	No	No	Organics	9.00E-03	U	-		2.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.00E+04	1.79E+02	-	8.29E-09	3.39E-07	U	5.61E+02	U	-	
Methylene Chloride	75-09-2	Yes	Yes	Organics	2.00E-03	U	1.00E-08	U	6.00E-03	U	6.00E-01	U	1.00E+00	-	1.00E+00	3.32E+03	1.30E+04	2.17E+01	1.30E-01	3.25E-03	1.33E-01	U	3.13E+02	U	5.08E+02	U
Methylnaphthalene, 2-	91-57-6	No	Yes	Organics	-		-		4.00E-03	U	-		1.00E+00	1.30E-01	1.00E+00	-	2.46E+01	2.48E+03	1.49E+01	5.18E-04	2.12E-02	U	5.14E+02	U	7.61E+02	U
Naphthalene	91-20-3	No	Yes	Organics	1.20E-01	U	3.40E-05	U	2.00E-02	U	3.00E-03	U	1.00E+00	1.30E-01	1.00E+00	-	3.10E+01	1.54E+03	9.24E+00	4.40E-04	1.80E-02	U	4.91E+02	U	7.48E+02	U
Nickel Soluble Salts	7440-02-0	No	No	Inorgani	-		2.60E-04	U	2.00E-02	U	9.00E-05	U	4.00E-02	-	1.00E+00	-	-	-	6.50E+01	-	-		3.18E+03	U	6.99E+03	U
Nitrate (measured as nitrogen)	14797-55-8	No	No	Inorgani	-		-		1.60E+00	U	-		1.00E+00	-	1.00E+00	-	-	-	-	-	-		-		-	
Nitroaniline, 2-	88-74-4	No	No	Organics	-		-		1.00E-02	U	5.00E-05	U	1.00E+00	1.00E-01	1.00E+00	-	1.47E+03	1.11E+02	-	5.90E-08	2.41E-06	U	5.57E+02	U	7.84E+02	U
Nitroaniline, 3-	99-09-2	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.20E+03	1.09E+02	-	7.91E-09	3.23E-07	U	5.79E+02	U	8.15E+02	U
Nitroaniline, 4-	100-01-6	No	No	Organics	2.00E-02	U	-		4.00E-03	U	6.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	7.28E+02	1.09E+02	-	1.26E-09	5.15E-08	U	6.05E+02	U	8.51E+02	U
Nitrobenzene	98-95-3	No	Yes	Organics	-		4.00E-05	U	2.00E-03	U	9.00E-03	U	1.00E+00	-	1.00E+00	3.04E+03	2.09E+03	2.26E+02	1.36E+00	2.40E-05	9.81E-04	U	4.84E+02	U	7.19E+02	U
Nitroglycerin	55-63-0	No	No	Organics	1.70E-02	U	-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.38E+03	1.16E+02	-	8.66E-08	3.54E-06	U	5.23E+02	U	6.80E+02	U
Nitrosodiphenylamine, N-	86-30-6	No	No	Organics	4.90E-03	U	2.60E-06	U	-		-		1.00E+00	1.00E-01	1.00E+00	-	3.50E+01	2.63E+03	-	1.21E-06	4.95E-05	U	6.32E+02	U	-	
Nitrotoluene, 4-Amino-2-	119-32-4	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.40E+03	1.79E+02	-	8.29E-09	3.39E-07	U	5.61E+02	U	-	
Nitrotoluene, m-	99-08-1	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.00E+02	3.63E+02	-	9.30E-06	3.80E-04	U	5.05E+02	U	7.34E+02	U
Nitrotoluene, o-	88-72-2	No	Yes	Organics	2.20E-01	U	-		9.00E-04	U	-		1.00E+00	-	1.00E+00	1.51E+03	6.50E+02	3.71E+02	2.23E+00	1.25E-05	5.11E-04	U	4.95E+02	U	7.20E+02	U
Nitrotoluene, p-	99-99-0	No	No	Organics	1.60E-02	U	-		4.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.42E+02	3.63E+02	-	5.63E-06	2.30E-04	U	5.11E+02	U	7.43E+02	U
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	No	No	Organics	-		-		5.00E-02	U	-		1.00E+00	6.00E-03	1.00E+00	-	5.00E+00	5.32E+02	-	8.67E-10	3.54E-08	U	7.09E+02	U	-	
Octyl Phthalate, di-N-	117-84-0	No	No	Organics	-		-		1.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.20E-02	1.41E+05	-	2.57E-06	1.05E-04	U	7.04E+02	U	8.40E+02	U
Pentachlorophenol	87-86-5	No	No	Organics	4.00E-01	U	5.10E-06	U	5.00E-03	U	-		1.00E+00	2.50E-01	1.00E+00	-	1.40E+01	5.92E+02	-	2.45E-08	1.00E-06	U	5.83E+02	U	-	
Pentaerythritol tetranitrate (PETN)	78-11-5	No	No	Organics	4.30E-03	U	-		9.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.30E+01	6.48E+02	-	1.32E-09	5.40E-08	U	6.37E+02	U	6.76E+02	U
Perchlorate and Perchlorate Salts	14797-73-0	No	No	Inorgani	-		-		7.00E-04	U	-		1.00E+00	-	1.00E+00	-	2.45E+05	-	-	-	-		-		-	
Phenanthrene	85-01-8	No	Yes	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	1.15E+00	1.67E+04	1.00E+02	4.23E-05	1.73E-03	U	6.13E+02	U	8.69E+02	U

Chemical	CAS Number	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)
Indeno[1,2,3-cd]pyrene	193-39-5	PAH	2.47E-02	6.37E-06	-	1.56E+09	-	-	-	8.93E+00	2.68E+01	1.54E+05	6.70E+00	-	-	-	-	-	-	-
Iodomethane	74-88-4	VOC	7.49E-02	1.27E-05	3.90E-03	1.56E+09	2.66E+03	0.00E+00	2.66E+03	-	-	-	-	-	-	-	-	-	-	-
Iron	7439-89-6	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.19E+05	-	-	3.19E+05	3.41E+06	-	-
Isophorone	78-59-1	SVOC	5.25E-02	7.53E-06	-	1.56E+09	-	-	-	4.27E+03	1.52E+04	-	3.33E+03	9.13E+04	3.85E+05	1.90E+10	7.37E+04	9.73E+05	2.31E+06	1.90E+10
Lead and Compounds	7439-92-1	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	7439-95-4	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manganese (Non-diet)	7439-96-5	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.10E+04	-	4.75E+05	1.07E+04	1.17E+05	-	4.75E+05
Mercury (elemental)	7439-97-6	INORGANIC	3.07E-02	6.30E-06	1.11E-05	1.56E+09	5.01E+04	0.00E+00	5.01E+04	-	-	-	-	-	-	9.14E+01	9.14E+01	-	-	9.14E+01
Methyl Acetate	79-20-9	VOC	9.58E-02	1.10E-05	2.02E-04	1.56E+09	1.17E+04	0.00E+00	1.17E+04	-	-	-	-	4.56E+05	-	-	4.56E+05	4.87E+06	-	-
Methyl Ethyl Ketone (2-Butanone)	78-93-3	VOC	9.14E-02	1.02E-05	8.94E-05	1.56E+09	1.76E+04	0.00E+00	1.76E+04	-	-	-	-	2.74E+05	-	5.36E+05	1.81E+05	2.92E+06	-	5.36E+05
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	VOC	6.98E-02	8.35E-06	1.19E-04	1.56E+09	1.53E+04	0.00E+00	1.53E+04	-	-	-	-	-	-	2.78E+05	2.78E+05	-	-	2.78E+05
Methyl tert-Butyl Ether (MTBE)	1634-04-4	VOC	7.53E-02	8.59E-06	5.53E-04	1.56E+09	7.08E+03	0.00E+00	7.08E+03	2.25E+03	-	4.46E+02	3.72E+02	-	-	1.29E+05	1.29E+05	-	-	1.29E+05
Methyl-5-Nitroaniline, 2-	99-55-8	SVOC	6.67E-02	7.79E-06	-	1.56E+09	-	-	-	4.51E+02	1.60E+03	-	3.52E+02	9.13E+03	3.85E+04	-	7.37E+03	9.73E+04	2.31E+05	-
Methylene Chloride	75-09-2	VOC	9.99E-02	1.25E-05	2.77E-03	1.56E+09	3.16E+03	0.00E+00	3.16E+03	4.47E+02	-	1.87E+03	3.61E+02	2.74E+03	-	1.15E+04	2.21E+03	2.92E+04	-	1.15E+04
Methylnaphthalene, 2-	91-57-6	PAH	5.24E-02	7.78E-06	3.95E-06	1.56E+09	8.38E+04	0.00E+00	8.38E+04	-	-	-	-	1.83E+03	5.92E+03	-	1.39E+03	1.95E+04	3.55E+04	-
Naphthalene	91-20-3	PAH	6.05E-02	8.38E-06	6.21E-06	1.56E+09	6.68E+04	0.00E+00	6.68E+04	3.38E+01	9.24E+01	3.22E+01	1.40E+01	9.13E+03	2.96E+04	1.22E+03	1.04E+03	9.73E+04	1.77E+05	1.22E+03
Nickel Soluble Salts	7440-02-0	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	9.83E+04	9.83E+04	9.13E+03	-	8.54E+05	9.03E+03	9.73E+04	-	8.54E+05
Nitrate (measured as nitrogen)	14797-55-8	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	7.30E+05	-	-	7.30E+05	7.79E+06	-	-
Nitroaniline, 2-	88-74-4	SVOC	5.19E-02	7.41E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+03	1.92E+04	4.75E+05	3.66E+03	4.87E+04	1.15E+05	4.75E+05
Nitroaniline, 3-	99-09-2	SVOC	5.19E-02	7.41E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitroaniline, 4-	100-01-6	SVOC	6.37E-02	9.75E-06	-	1.56E+09	-	-	-	2.03E+02	7.21E+02	-	1.58E+02	1.83E+03	7.69E+03	5.70E+07	1.47E+03	1.95E+04	4.61E+04	5.70E+07
Nitrobenzene	98-95-3	VOC	6.81E-02	9.45E-06	2.49E-06	1.56E+09	1.06E+05	0.00E+00	1.06E+05	-	-	4.32E+01	4.32E+01	9.13E+02	-	5.78E+03	7.88E+02	9.73E+03	-	5.78E+03
Nitroglycerin	55-63-0	SVOC	2.90E-02	7.74E-06	-	1.56E+09	-	-	-	2.39E+02	8.48E+02	-	1.86E+02	4.56E+01	1.92E+02	-	3.69E+01	4.87E+02	1.15E+03	-
Nitrosodiphenylamine, N-	86-30-6	SVOC	5.59E-02	6.53E-06	-	1.56E+09	-	-	-	8.28E+02	2.94E+03	9.83E+06	6.46E+02	-	-	-	-	-	-	-
Nitrotoluene, 4-Amino-2-	119-32-4	SVOC	6.67E-02	7.79E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrotoluene, m-	99-08-1	SVOC	5.87E-02	8.65E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+01	1.92E+02	-	3.69E+01	4.87E+02	1.15E+03	-
Nitrotoluene, o-	88-72-2	VOC	5.88E-02	8.67E-06	7.12E-07	1.56E+09	1.97E+05	0.00E+00	1.97E+05	1.84E+01	-	-	1.84E+01	4.11E+02	-	-	4.11E+02	4.38E+03	-	-
Nitrotoluene, p-	99-99-0	SVOC	5.74E-02	8.41E-06	-	1.56E+09	-	-	-	2.53E+02	9.01E+02	-	1.98E+02	1.83E+03	7.69E+03	-	1.47E+03	1.95E+04	4.61E+04	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	SVOC	4.28E-02	5.00E-06	-	1.56E+09	-	-	-	-	-	-	-	2.28E+04	1.60E+06	-	2.25E+04	2.43E+05	9.60E+06	-
Octyl Phthalate, di-N-	117-84-0	SVOC	3.56E-02	4.15E-06	-	1.56E+09	-	-	-	-	-	-	-	4.56E+03	1.92E+04	-	3.69E+03	4.87E+04	1.15E+05	-
Pentachlorophenol	87-86-5	HERB	2.95E-02	8.01E-06	-	1.56E+09	-	-	-	1.01E+01	1.44E+01	5.01E+06	5.95E+00	2.28E+03	3.85E+03	-	1.43E+03	2.43E+04	2.31E+04	-
Pentaerythritol tetranitrate (PETN)	78-11-5	SVOC	2.58E-02	6.77E-06	-	1.56E+09	-	-	-	9.43E+02	3.35E+03	-	7.36E+02	4.11E+03	1.73E+04	-	3.32E+03	4.38E+04	1.04E+05	-
Perchlorate and Perchlorate Salts	14797-73-0	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.19E+02	-	-	3.19E+02	3.41E+03	-	-
Phenanthrene	85-01-8	PAH	3.45E-02	6.69E-06	3.21E-08	1.56E+09	9.29E+05	0.00E+00	9.29E+05	-	-	-	-	-	-	-	-	-	-	-

Chemical	CAS Number	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Indeno[1,2,3-cd]pyrene	193-39-5	-	6.70E+00 ca
Iodomethane	74-88-4	-	
Iron	7439-89-6	3.41E+06	3.19E+05 nc max
Isophorone	78-59-1	6.84E+05	3.33E+03 ca
Lead and Compounds	7439-92-1	-	
Magnesium	7439-95-4	-	
Manganese (Non-diet)	7439-96-5	9.37E+04	1.07E+04 nc
Mercury (elemental)	7439-97-6	9.14E+01	9.14E+01 nc sat
Methyl Acetate	79-20-9	4.87E+06	4.56E+05 nc sat max
Methyl Ethyl Ketone (2-Butanone)	78-93-3	4.53E+05	1.81E+05 nc sat max
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	2.78E+05	2.78E+05 nc sat max
Methyl tert-Butyl Ether (MTBE)	1634-04-4	1.29E+05	3.72E+02 ca
Methyl-5-Nitroaniline, 2-	99-55-8	6.84E+04	3.52E+02 ca
Methylene Chloride	75-09-2	8.27E+03	3.61E+02 ca
Methylnaphthalene, 2-	91-57-6	1.26E+04	1.39E+03 nc
Naphthalene	91-20-3	1.20E+03	1.40E+01 ca
Nickel Soluble Salts	7440-02-0	8.74E+04	9.03E+03 nc
Nitrate (measured as nitrogen)	14797-55-8	7.79E+06	7.30E+05 nc max
Nitroaniline, 2-	88-74-4	3.19E+04	3.66E+03 nc
Nitroaniline, 3-	99-09-2	-	
Nitroaniline, 4-	100-01-6	1.37E+04	1.58E+02 ca
Nitrobenzene	98-95-3	3.63E+03	4.32E+01 ca
Nitroglycerin	55-63-0	3.42E+02	3.69E+01 nc
Nitrosodiphenylamine, N-	86-30-6	-	6.46E+02 ca
Nitrotoluene, 4-Amino-2-	119-32-4	-	
Nitrotoluene, m-	99-08-1	3.42E+02	3.69E+01 nc
Nitrotoluene, o-	88-72-2	4.38E+03	1.84E+01 ca
Nitrotoluene, p-	99-99-0	1.37E+04	1.98E+02 ca
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	2.37E+05	2.25E+04 nc
Octyl Phthalate, di-N-	117-84-0	3.42E+04	3.69E+03 nc
Pentachlorophenol	87-86-5	1.18E+04	5.95E+00 ca
Pentaerythritol tetranitrate (PETN)	78-11-5	3.08E+04	7.36E+02 ca
Perchlorate and Perchlorate Salts	14797-73-0	3.41E+03	3.19E+02 nc
Phenanthrene	85-01-8	-	

Chemical	CAS Number	list	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)
Pyrene	129-00-0	129-00-0	No	Yes	Organics	-		-		3.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	1.35E-01	5.43E+04	3.26E+02	1.19E-05	4.87E-04
Selenium	7782-49-2	7782-49-2	No	No	Inorgani	-		-		5.00E-03	U	2.00E-02	U	1.00E+00	-	1.00E+00	-	-	-	5.00E+00	-	-
Silver	7440-22-4	7440-22-4	No	No	Inorgani	-		-		5.00E-03	U	-		4.00E-02	-	1.00E+00	-	-	-	8.30E+00	-	-
Sodium	7440-23-5	7440-23-5	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	1.00E+02	-	-
Styrene	100-42-5	100-42-5	No	Yes	Organics	-		-		2.00E-01	U	1.00E+00	U	1.00E+00	-	1.00E+00	8.67E+02	3.10E+02	4.46E+02	2.68E+00	2.75E-03	1.12E-01
Sulfate	14808-79-8	14808-79-8	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	1.00E+06	-	-	-	-
Sulfur	7704-34-9	7704-34-9	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-
Tetrachloroethylene	127-18-4	127-18-4	No	Yes	Organics	2.10E-03	U	2.60E-07	U	6.00E-03	U	4.00E-02	U	1.00E+00	-	1.00E+00	1.66E+02	2.06E+02	9.49E+01	5.69E-01	1.77E-02	7.24E-01
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	479-45-8	No	No	Organics	-		-		2.00E-03	U	-		1.00E+00	6.50E-04	1.00E+00	-	7.40E+01	4.60E+03	-	2.71E-09	1.11E-07
Thallium (Soluble Salts)	7440-28-0	7440-28-0	No	No	Inorgani	-		-		1.00E-05	U	-		1.00E+00	-	1.00E+00	-	-	-	7.10E+01	-	-
Tin	7440-31-5	7440-31-5	No	No	Inorgani	-		-		6.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	2.50E+02	-	-
Toluene	108-88-3	108-88-3	No	Yes	Organics	-		-		8.00E-02	U	5.00E+00	U	1.00E+00	-	1.00E+00	8.18E+02	5.26E+02	2.34E+02	1.40E+00	6.64E-03	2.71E-01
Trichlorobenzene, 1,2,4-	120-82-1	120-82-1	No	Yes	Organics	2.90E-02	U	-		1.00E-02	U	2.00E-03	U	1.00E+00	-	1.00E+00	4.05E+02	4.90E+01	1.36E+03	8.16E+00	1.42E-03	5.81E-02
Trichloroethane, 1,1,1-	71-55-6	71-55-6	No	Yes	Organics	-		-		2.00E+00	U	5.00E+00	U	1.00E+00	-	1.00E+00	6.41E+02	1.29E+03	4.39E+01	2.63E-01	1.72E-02	7.03E-01
Trichloroethylene	79-01-6	79-01-6	Yes	Yes	Organics	4.60E-02	U	4.10E-06	U	5.00E-04	U	2.00E-03	U	1.00E+00	-	1.00E+00	6.92E+02	1.28E+03	6.07E+01	3.64E-01	9.85E-03	4.03E-01
Trichlorofluoromethane	75-69-4	75-69-4	No	Yes	Organics	-		-		3.00E-01	U	-		1.00E+00	-	1.00E+00	1.23E+03	1.10E+03	4.39E+01	2.63E-01	9.70E-02	3.97E+00
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	93-72-1	No	No	Organics	-		-		8.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	7.10E+01	1.75E+02	-	9.06E-09	3.70E-07
Trimethylbenzene, 1,2,4-	95-63-6	95-63-6	No	Yes	Organics	-		-		1.00E-02	U	6.00E-02	U	1.00E+00	-	1.00E+00	2.18E+02	5.70E+01	6.14E+02	3.68E+00	6.16E-03	2.52E-01
Trimethylbenzene, 1,3,5-	108-67-8	108-67-8	No	Yes	Organics	-		-		1.00E-02	U	6.00E-02	U	1.00E+00	-	1.00E+00	1.82E+02	4.82E+01	6.02E+02	3.61E+00	8.77E-03	3.59E-01
Trinitrobenzene, 1,3,5-	99-35-4	99-35-4	No	No	Organics	-		-		3.00E-02	U	-		1.00E+00	1.90E-02	1.00E+00	-	2.78E+02	1.68E+03	-	6.50E-09	2.66E-07
Trinitrotoluene, 2,4,6-	118-96-7	118-96-7	No	No	Organics	3.00E-02	U	-		5.00E-04	U	-		1.00E+00	3.20E-02	1.00E+00	-	1.15E+02	2.81E+03	-	2.08E-08	8.50E-07
Vanadium and Compounds	7440-62-2	7440-62-2	No	No	Inorgani	-		-		5.04E-03	U	1.00E-04	U	2.60E-02	-	1.00E+00	-	-	-	1.00E+03	-	-
Xylenes	1330-20-7	1330-20-7	No	Yes	Organics	-		-		2.00E-01	U	1.00E-01	U	1.00E+00	-	1.00E+00	2.60E+02	1.06E+02	3.83E+02	2.30E+00	6.63E-03	2.71E-01
Zinc and Compounds	7440-66-6	7440-66-6	No	No	Inorgani	-		-		3.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	6.20E+01	-	-

Chemical	CAS Number	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)
Pyrene	129-00-0	U	6.77E+02	U	9.36E+02	U	PAH	2.78E-02	7.25E-06	2.35E-09	1.56E+09	3.43E+06	0.00E+00	3.43E+06	-	-	-	-	1.37E+04	4.44E+04
Selenium	7782-49-2		9.58E+02	U	1.77E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.28E+03	-
Silver	7440-22-4		2.27E+03	U	6.41E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.28E+03	-
Sodium	7440-23-5		1.15E+03	U	2.57E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-
Styrene	100-42-5	U	4.18E+02	U	6.35E+02	U	VOC	7.11E-02	8.78E-06	1.52E-04	1.56E+09	1.35E+04	0.00E+00	1.35E+04	-	-	-	-	9.13E+04	-
Sulfate	14808-79-8		5.63E+02	U	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-
Sulfur	7704-34-9		7.17E+02	U	1.31E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	127-18-4	U	3.94E+02	U	6.20E+02	U	VOC	5.05E-02	9.46E-06	2.41E-03	1.56E+09	3.39E+03	0.00E+00	3.39E+03	1.93E+03	-	2.13E+02	1.92E+02	2.74E+03	-
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	U	7.05E+02	U	8.28E+02	U	SVOC	2.56E-02	6.67E-06	-	1.56E+09	-	-	-	-	-	-	-	9.13E+02	5.92E+05
Thallium (Soluble Salts)	7440-28-0		1.73E+03	U	4.65E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	4.56E+00	-
Tin	7440-31-5		2.87E+03	U	4.92E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.74E+05	-
Toluene	108-88-3	U	3.84E+02	U	5.92E+02	U	VOC	7.78E-02	9.20E-06	7.23E-04	1.56E+09	6.19E+03	0.00E+00	6.19E+03	-	-	-	-	3.65E+04	-
Trichlorobenzene, 1,2,4-	120-82-1	U	4.87E+02	U	7.25E+02	U	VOC	3.96E-02	8.40E-06	1.48E-05	1.56E+09	4.33E+04	0.00E+00	4.33E+04	1.40E+02	-	-	1.40E+02	4.56E+03	-
Trichloroethane, 1,1,1-	71-55-6	U	3.47E+02	U	5.45E+02	U	VOC	6.48E-02	9.60E-06	4.89E-03	1.56E+09	2.38E+03	0.00E+00	2.38E+03	-	-	-	-	9.13E+05	-
Trichloroethylene	79-01-6	U	3.60E+02	U	5.71E+02	U	VOC	6.87E-02	1.02E-05	2.73E-03	1.56E+09	3.19E+03	0.00E+00	3.19E+03	5.12E+01	-	8.89E+00	7.58E+00	2.28E+02	-
Trichlorofluoromethane	75-69-4	U	2.97E+02	U	4.71E+02	U	VOC	6.54E-02	1.00E-05	1.24E-02	1.56E+09	1.49E+03	0.00E+00	1.49E+03	-	-	-	-	1.37E+05	-
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	U	6.26E+02	U	-		HERB	2.34E-02	5.92E-06	-	1.56E+09	-	-	-	-	-	-	-	3.65E+03	1.54E+04
Trimethylbenzene, 1,2,4-	95-63-6	U	4.42E+02	U	6.49E+02	U	VOC	6.07E-02	7.92E-06	2.13E-04	1.56E+09	1.14E+04	0.00E+00	1.14E+04	-	-	-	-	4.56E+03	-
Trimethylbenzene, 1,3,5-	108-67-8	U	4.38E+02	U	6.37E+02	U	VOC	6.02E-02	7.84E-06	3.04E-04	1.56E+09	9.54E+03	0.00E+00	9.54E+03	-	-	-	-	4.56E+03	-
Trinitrobenzene, 1,3,5-	99-35-4	U	5.88E+02	U	8.46E+02	U	SVOC	2.90E-02	7.69E-06	-	1.56E+09	-	-	-	-	-	-	-	1.37E+04	3.04E+05
Trinitrotoluene, 2,4,6-	118-96-7	U	6.38E+02	U	8.28E+02	U	SVOC	2.95E-02	7.92E-06	-	1.56E+09	-	-	-	1.35E+02	1.50E+03	-	1.24E+02	2.28E+02	3.00E+03
Vanadium and Compounds	7440-62-2		3.68E+03	U	1.13E+04	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.30E+03	-
Xylenes	1330-20-7	U	4.11E+02	U	6.20E+02	U	VOC	6.85E-02	8.46E-06	4.04E-04	1.56E+09	8.28E+03	0.00E+00	8.28E+03	-	-	-	-	9.13E+04	-
Zinc and Compounds	7440-66-6		1.18E+03	U	3.17E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.37E+05	-

Chemical	CAS Number	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Pyrene	129-00-0	-	1.05E+04	1.46E+05	2.66E+05	-	9.43E+04	1.05E+04 nc
Selenium	7782-49-2	1.90E+08	2.28E+03	2.43E+04	-	1.90E+08	2.43E+04	2.28E+03 nc
Silver	7440-22-4	-	2.28E+03	2.43E+04	-	-	2.43E+04	2.28E+03 nc
Sodium	7440-23-5	-	-	-	-	-	-	
Styrene	100-42-5	8.21E+04	4.32E+04	9.73E+05	-	8.21E+04	7.57E+04	4.32E+04 nc sat
Sulfate	14808-79-8	-	-	-	-	-	-	
Sulfur	7704-34-9	-	-	-	-	-	-	
Tetrachloroethylene	127-18-4	8.24E+02	6.34E+02	2.92E+04	-	8.24E+02	8.02E+02	1.92E+02 ca sat
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	-	9.11E+02	9.73E+03	3.55E+06	-	9.71E+03	9.11E+02 nc
Thallium (Soluble Salts)	7440-28-0	-	4.56E+00	4.87E+01	-	-	4.87E+01	4.56E+00 nc
Tin	7440-31-5	-	2.74E+05	2.92E+06	-	-	2.92E+06	2.74E+05 nc max
Toluene	108-88-3	1.88E+05	3.06E+04	3.89E+05	-	1.88E+05	1.27E+05	3.06E+04 nc sat
Trichlorobenzene, 1,2,4-	120-82-1	5.26E+02	4.72E+02	4.87E+04	-	5.26E+02	5.21E+02	1.40E+02 ca
Trichloroethane, 1,1,1-	71-55-6	7.24E+04	6.71E+04	9.73E+06	-	7.24E+04	7.19E+04	6.71E+04 nc sat
Trichloroethylene	79-01-6	3.88E+01	3.31E+01	2.43E+03	-	3.88E+01	3.82E+01	7.58E+00 ca
Trichlorofluoromethane	75-69-4	-	1.37E+05	1.46E+06	-	-	1.46E+06	1.37E+05 nc sat max
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	-	2.95E+03	3.89E+04	9.22E+04	-	2.74E+04	2.95E+03 nc
Trimethylbenzene, 1,2,4-	95-63-6	4.17E+03	2.18E+03	4.87E+04	-	4.17E+03	3.84E+03	2.18E+03 nc sat
Trimethylbenzene, 1,3,5-	108-67-8	3.48E+03	1.98E+03	4.87E+04	-	3.48E+03	3.25E+03	1.98E+03 nc sat
Trinitrobenzene, 1,3,5-	99-35-4	-	1.31E+04	1.46E+05	1.82E+06	-	1.35E+05	1.31E+04 nc
Trinitrotoluene, 2,4,6-	118-96-7	-	2.12E+02	2.43E+03	1.80E+04	-	2.14E+03	1.24E+02 ca
Vanadium and Compounds	7440-62-2	9.49E+05	2.29E+03	2.45E+04	-	9.49E+05	2.39E+04	2.29E+03 nc
Xylenes	1330-20-7	5.04E+03	4.78E+03	9.73E+05	-	5.04E+03	5.01E+03	4.78E+03 nc sat
Zinc and Compounds	7440-66-6	-	1.37E+05	1.46E+06	-	-	1.46E+06	1.37E+05 nc max

Site-specific
Resident Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
A (PEF Dispersion Constant)	16.2302	16.8653
A (VF Dispersion Constant)	11.911	16.8653
A (VF Dispersion Constant - mass limit)	11.911	16.8653
B (PEF Dispersion Constant)	18.7762	18.7848
B (VF Dispersion Constant)	18.4385	18.7848
B (VF Dispersion Constant - mass limit)	18.4385	18.7848
City (PEF Climate Zone) Selection	Default	Chicago, IL (7)
City (VF Climate Zone) Selection	Default	Chicago, IL (7)
C (PEF Dispersion Constant)	216.108	215.0624
C (VF Dispersion Constant)	209.7845	215.0624
C (VF Dispersion Constant - mass limit)	209.7845	215.0624
foc (fraction organic carbon in soil) g/g	0.006	0.006
F(x) (function dependent on U_m/U_t) unitless	0.194	0.182
n (total soil porosity) L_{pore}/L_{soil}	0.43396	0.43396
p_b (dry soil bulk density) g/cm^3	1.5	1.5
p_b (dry soil bulk density - mass limit) g/cm^3	1.5	1.5
PEF (particulate emission factor) m^3/kg	1359344438	1560521177
p_s (soil particle density) g/cm^3	2.65	2.65
Q/C_{wind} (g/m^2-s per kg/m^3)	93.77	98.43071437
Q/C_{vol} (g/m^2-s per kg/m^3)	68.18	98.43071437
Q/C_{vol} (g/m^2-s per kg/m^3 - mass limit)	68.18	98.43071437
A_s (PEF acres)	0.5	0.5
A_s (VF acres)	0.5	0.5
A_s (VF mass-limit acres)	0.5	0.5
AF_{0-2} (mutagenic skin adherence factor) mg/cm^2	0.2	0.2
AF_{2-6} (mutagenic skin adherence factor) mg/cm^2	0.2	0.2
AF_{6-16} (mutagenic skin adherence factor) mg/cm^2	0.07	0.07
AF_{16-26} (mutagenic skin adherence factor) mg/cm^2	0.07	0.07
AF_{res-a} (skin adherence factor - adult) mg/cm^2	0.07	0.07
AF_{res-c} (skin adherence factor - child) mg/cm^2	0.2	0.2
AT_{res} (averaging time - resident carcinogenic)	365	365
BW_{0-2} (mutagenic body weight) kg	15	15
BW_{2-6} (mutagenic body weight) kg	15	15
BW_{6-16} (mutagenic body weight) kg	80	80
BW_{16-26} (mutagenic body weight) kg	80	80
BW_{res-a} (body weight - adult) kg	80	80
BW_{res-c} (body weight - child) kg	15	15
$DFS_{res-adj}$ (age-adjusted soil dermal factor) mg/kg	103390	103390
$DFSM_{res-adj}$ (mutagenic age-adjusted soil dermal factor) mg/kg	428260	428260
ED_{res} (exposure duration) years	26	26
ED_{0-2} (mutagenic exposure duration) years	2	2
ED_{2-6} (mutagenic exposure duration) years	4	4
ED_{6-16} (mutagenic exposure duration) years	10	10
ED_{16-26} (mutagenic exposure duration) years	10	10
ED_{res-a} (exposure duration - adult) years	20	20
ED_{res-c} (exposure duration - child) years	6	6
EF_{res} (exposure frequency) days/year	350	350

Site-specific
Resident Soil Inputs

Variable	Resident Soil Default Value	Site-Specific Value
EF_{0-2} (mutagenic exposure frequency) days/year	350	350
EF_{2-6} (mutagenic exposure frequency) days/year	350	350
EF_{6-16} (mutagenic exposure frequency) days/year	350	350
EF_{16-26} (mutagenic exposure frequency) days/year	350	350
EF_{res-a} (exposure frequency - adult) days/year	350	350
EF_{res-c} (exposure frequency - child) days/year	350	350
ET_{res} (exposure time) hours/day	24	24
ET_{0-2} (mutagenic exposure time) hours/day	24	24
ET_{2-6} (mutagenic exposure time) hours/day	24	24
ET_{6-16} (mutagenic exposure time) hours/day	24	24
ET_{16-26} (mutagenic exposure time) hours/day	24	24
ET_{res-a} (adult exposure time) hours/day	24	24
ET_{res-c} (child exposure time) hours/day	24	24
THQ (target hazard quotient) unitless	0.1	1
$IFS_{res-adj}$ (age-adjusted soil ingestion factor) mg/kg	36750	36750
$IFSM_{res-adj}$ (mutagenic age-adjusted soil ingestion factor) mg/kg	166833.3	166833.3
IRS_{0-2} (mutagenic soil intake rate) mg/day	200	200
IRS_{2-6} (mutagenic soil intake rate) mg/day	200	200
IRS_{6-16} (mutagenic soil intake rate) mg/day	100	100
IRS_{16-26} (mutagenic soil intake rate) mg/day	100	100
IRS_{res-a} (soil intake rate - adult) mg/day	100	100
IRS_{res-c} (soil intake rate - child) mg/day	200	200
LT (lifetime) years	70	70
SA_{0-2} (mutagenic skin surface area) cm^2/day	2373	2373
SA_{2-6} (mutagenic skin surface area) cm^2/day	2373	2373
SA_{6-16} (mutagenic skin surface area) cm^2/day	6032	6032
SA_{16-26} (mutagenic skin surface area) cm^2/day	6032	6032
SA_{res-a} (skin surface area - adult) cm^2/day	6032	6032
SA_{res-c} (skin surface area - child) cm^2/day	2373	2373
TR (target risk) unitless	0.000001	0.000001
T_w (groundwater temperature) Celsius	25	25
$Theta_a$ (air-filled soil porosity) L_{air}/L_{soil}	0.28396	0.28396
$Theta_w$ (water-filled soil porosity) L_{water}/L_{soil}	0.15	0.15
T (exposure interval) s	819936000	819936000
T (exposure interval) yr	26	26
U_m (mean annual wind speed) m/s	4.69	4.65
U_t (equivalent threshold value)	11.32	11.32
V (fraction of vegetative cover) unitless	0.5	0.5
VF_{ml} (volitization factor - mass limit) m^3/kg	0	0

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA
Acenaphthene	83-32-9	No	Yes	Organics	-		-		6.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00
Acenaphthylene	208-96-8	No	Yes	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00
Acetone	67-64-1	No	Yes	Organics	-		-		9.00E-01	U	-		1.00E+00	-	1.00E+00
Acetonitrile	75-05-8	No	Yes	Organics	-		-		-		6.00E-02	U	1.00E+00	-	1.00E+00
Aluminum	7429-90-5	No	No	Inorgani	-		-		1.00E+00	U	5.00E-03	U	1.00E+00	-	1.00E+00
Aniline	62-53-3	No	No	Organics	5.70E-03	U	1.60E-06	U	7.00E-03	U	1.00E-03	U	1.00E+00	1.00E-01	1.00E+00
Anthracene	120-12-7	No	Yes	Organics	-		-		3.00E-01	U	-		1.00E+00	1.30E-01	1.00E+00
Antimony (metallic)	7440-36-0	No	No	Inorgani	-		-		4.00E-04	U	3.00E-04	U	1.50E-01	-	1.00E+00
Aroclor 1260	11096-82-5	No	Yes	Organics	2.00E+00	U	5.71E-04	U	-		-		1.00E+00	1.40E-01	1.00E+00
Arsenic, Inorganic	7440-38-2	No	No	Inorgani	1.50E+00	U	4.30E-03	U	3.00E-04	U	1.50E-05	U	1.00E+00	3.00E-02	6.00E-01
Barium	7440-39-3	No	No	Inorgani	-		-		2.00E-01	U	5.00E-04	U	7.00E-02	-	1.00E+00
Benz[a]anthracene	56-55-3	Yes	Yes	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00
Benzene	71-43-2	No	Yes	Organics	5.50E-02	U	7.80E-06	U	4.00E-03	U	3.00E-02	U	1.00E+00	-	1.00E+00
Benzo[a]pyrene	50-32-8	Yes	No	Organics	1.00E+00	U	6.00E-04	U	3.00E-04	U	2.00E-06	U	1.00E+00	1.30E-01	1.00E+00
Benzo[b]fluoranthene	205-99-2	Yes	No	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00
Benzo[g,h,i]perylene	191-24-2	No	No	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00
Benzo[k]fluoranthene	207-08-9	Yes	No	Organics	1.00E-02	U	6.00E-06	U	-		-		1.00E+00	1.30E-01	1.00E+00
Benzyl Alcohol	100-51-6	No	No	Organics	-		-		1.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00
Beryllium and compounds	7440-41-7	No	No	Inorgani	-		2.40E-03	U	2.00E-03	U	2.00E-05	U	7.00E-03	-	1.00E+00
Bis(2-ethylhexyl)phthalate	117-81-7	No	No	Organics	1.40E-02	U	2.40E-06	U	2.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00
Boron And Borates Only	7440-42-8	No	No	Inorgani	-		-		2.00E-01	U	2.00E-02	U	1.00E+00	-	1.00E+00
Bromodichloromethane	75-27-4	No	Yes	Organics	6.20E-02	U	3.70E-05	U	8.00E-03	U	-		1.00E+00	-	1.00E+00
Bromodiphenyl Ether, p-	101-55-3	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00
Bromoform	75-25-2	No	Yes	Organics	7.90E-03	U	1.10E-06	U	2.00E-02	U	-		1.00E+00	-	1.00E+00
Bromomethane	74-83-9	No	Yes	Organics	-		-		1.40E-03	U	5.00E-03	U	1.00E+00	-	1.00E+00
Butyl Benzyl Phthalate	85-68-7	No	No	Organics	1.90E-03	U	-		2.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00
Cadmium (Diet)	7440-43-9	No	No	Inorgani	-		1.80E-03	U	1.00E-04	U	1.00E-05	U	2.50E-02	1.00E-03	1.00E+00
Calcium	7440-70-2	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00
Caprolactam	105-60-2	No	No	Organics	-		-		5.00E-01	U	2.20E-03	U	1.00E+00	1.00E-01	1.00E+00
Carbon Disulfide	75-15-0	No	Yes	Organics	-		-		1.00E-01	U	7.00E-01	U	1.00E+00	-	1.00E+00
Carbon Tetrachloride	56-23-5	No	Yes	Organics	7.00E-02	U	6.00E-06	U	4.00E-03	U	1.00E-01	U	1.00E+00	-	1.00E+00
Chloride	16887-00-6	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00
Chloroform	67-66-3	No	Yes	Organics	3.10E-02	U	2.30E-05	U	1.00E-02	U	9.77E-02	U	1.00E+00	-	1.00E+00
Chloromethane	74-87-3	No	Yes	Organics	-		-		-		9.00E-02	U	1.00E+00	-	1.00E+00
Chlorophenyl phenyl ether, 4-	7005-72-3	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00
Chlorotoluene, p-	106-43-4	No	Yes	Organics	-		-		2.00E-02	U	-		1.00E+00	-	1.00E+00
Chromium(III), Insoluble Salts	16065-83-1	No	No	Inorgani	-		-		1.50E+00	U	-		1.30E-02	-	1.00E+00
Chromium, Total	7440-47-3	No	No	Inorgani	-		-		-		-		1.30E-02	-	1.00E+00
Chrysene	218-01-9	Yes	No	Organics	1.00E-03	U	6.00E-07	U	-		-		1.00E+00	1.30E-01	1.00E+00
Cobalt	7440-48-4	No	No	Inorgani	-		9.00E-03	U	3.00E-04	U	6.00E-06	U	1.00E+00	-	1.00E+00
Copper	7440-50-8	No	No	Inorgani	-		-		4.00E-02	U	-		1.00E+00	-	1.00E+00
Cresol, o-	95-48-7	No	No	Organics	-		-		5.00E-02	U	6.00E-01	U	1.00E+00	1.00E-01	1.00E+00
Cyanide (CN-)	57-12-5	No	Yes	Inorgani	-		-		6.00E-04	U	8.00E-04	U	1.00E+00	-	1.00E+00

Chemical	CAS Number	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type
Acenaphthene	83-32-9	-	3.90E+00	5.03E+03	3.02E+01	1.84E-04	7.52E-03	U	5.52E+02	U	8.03E+02	U	PAH
Acenaphthylene	208-96-8	-	1.61E+01	5.03E+03	3.02E+01	1.14E-04	4.66E-03	U	5.53E+02	U	7.92E+02	U	PAH
Acetone	67-64-1	1.14E+05	1.00E+06	2.36E+00	1.42E-02	3.50E-05	1.43E-03	U	3.29E+02	U	5.08E+02	U	VOC
Acetonitrile	75-05-8	1.28E+05	1.00E+06	4.67E+00	2.80E-02	3.45E-05	1.41E-03	U	3.55E+02	U	5.45E+02	U	VOC
Aluminum	7429-90-5	-	-	-	1.50E+03	-	-		2.79E+03	U	6.70E+03	U	INORGANIC
Aniline	62-53-3	-	3.60E+04	7.02E+01	-	2.02E-06	8.26E-05	U	4.57E+02	U	7.04E+02	U	SVOC
Anthracene	120-12-7	-	4.34E-02	1.64E+04	9.84E+01	5.56E-05	2.27E-03	U	6.13E+02	U	8.73E+02	U	PAH
Antimony (metallic)	7440-36-0	-	-	-	4.50E+01	-	-		1.91E+03	U	5.07E+03	U	INORGANIC
Aroclor 1260	11096-82-5	-	1.44E-02	3.50E+05	2.10E+03	3.36E-04	1.37E-02	U	6.89E+02	U	9.87E+02	U	PCB
Arsenic, Inorganic	7440-38-2	-	-	-	2.90E+01	-	-		8.88E+02	U	1.67E+03	U	INORGANIC
Barium	7440-39-3	-	-	-	4.10E+01	-	-		1.87E+03	U	3.57E+03	U	INORGANIC
Benz[a]anthracene	56-55-3	-	9.40E-03	1.77E+05	1.06E+03	1.20E-05	4.91E-04	U	7.11E+02	U	9.79E+02	U	PAH
Benzene	71-43-2	1.82E+03	1.79E+03	1.46E+02	8.76E-01	5.55E-03	2.27E-01	U	3.53E+02	U	5.62E+02	U	VOC
Benzo[a]pyrene	50-32-8	-	1.62E-03	5.87E+05	-	4.57E-07	1.87E-05	U	7.68E+02	U	9.69E+02	U	PAH
Benzo[b]fluoranthene	205-99-2	-	1.50E-03	5.99E+05	-	6.57E-07	2.69E-05	U	7.16E+02	U	9.69E+02	U	PAH
Benzo[g,h,i]perylene	191-24-2	-	2.60E-04	1.95E+06	-	3.31E-07	1.35E-05	U	7.59E+02	U	1.09E+03	U	PAH
Benzo[k]fluoranthene	207-08-9	-	8.00E-04	5.87E+05	-	5.84E-07	2.39E-05	U	7.53E+02	U	1.02E+03	U	PAH
Benzyl Alcohol	100-51-6	-	4.29E+04	2.15E+01	-	3.37E-07	1.38E-05	U	4.78E+02	U	7.15E+02	U	SVOC
Beryllium and compounds	7440-41-7	-	-	-	7.90E+02	-	-		3.04E+03	U	5.20E+03	U	INORGANIC
Bis(2-ethylhexyl)phthalate	117-81-7	-	2.70E-01	1.20E+05	-	2.70E-07	1.10E-05	U	6.57E+02	U	8.35E+02	U	SVOC
Boron And Borates Only	7440-42-8	-	-	-	3.00E+00	-	-		4.27E+03	U	7.93E+03	U	INORGANIC
Bromodichloromethane	75-27-4	9.31E+02	3.03E+03	3.18E+01	1.91E-01	2.12E-03	8.67E-02	U	3.63E+02	U	5.86E+02	U	VOC
Bromodiphenyl Ether, p-	101-55-3	2.69E+01	1.45E+00	3.08E+03	1.85E+01	1.17E-04	4.78E-03	U	5.83E+02	U	-		VOC
Bromoform	75-25-2	9.14E+02	3.10E+03	3.18E+01	1.91E-01	5.35E-04	2.19E-02	U	4.22E+02	U	6.82E+02	U	VOC
Bromomethane	74-83-9	3.59E+03	1.52E+04	1.32E+01	7.92E-02	7.34E-03	3.00E-01	U	2.77E+02	U	4.67E+02	U	VOC
Butyl Benzyl Phthalate	85-68-7	-	2.69E+00	7.16E+03	-	1.26E-06	5.15E-05	U	6.43E+02	U	9.65E+02	U	SVOC
Cadmium (Diet)	7440-43-9	-	-	-	7.50E+01	-	-		1.04E+03	U	2.29E+03	U	INORGANIC
Calcium	7440-70-2	-	-	-	-	-	-		1.71E+03	U	3.27E+03	U	INORGANIC
Caprolactam	105-60-2	-	7.72E+05	2.45E+01	-	2.53E-08	1.03E-06	U	5.43E+02	U	8.06E+02	U	SVOC
Carbon Disulfide	75-15-0	7.38E+02	2.16E+03	2.17E+01	1.30E-01	1.44E-02	5.89E-01	U	3.19E+02	U	5.52E+02	U	VOC
Carbon Tetrachloride	56-23-5	4.58E+02	7.93E+02	4.39E+01	2.63E-01	2.76E-02	1.13E+00	U	3.50E+02	U	5.56E+02	U	VOC
Chloride	16887-00-6	-	-	-	-	-	-		-		-		INORGANIC
Chloroform	67-66-3	2.54E+03	7.95E+03	3.18E+01	1.91E-01	3.67E-03	1.50E-01	U	3.34E+02	U	5.36E+02	U	VOC
Chloromethane	74-87-3	1.32E+03	5.32E+03	1.32E+01	7.92E-02	8.82E-03	3.61E-01	U	2.49E+02	U	4.16E+02	U	VOC
Chlorophenyl phenyl ether, 4-	7005-72-3	-	3.30E+00	3.08E+03	1.85E+01	9.00E-05	3.68E-03	U	5.57E+02	U	-		VOC
Chlorotoluene, p-	106-43-4	2.53E+02	1.06E+02	3.75E+02	2.25E+00	4.38E-03	1.79E-01	U	4.35E+02	U	6.16E+02	U	VOC
Chromium(III), Insoluble Salts	16065-83-1	-	-	-	1.80E+06	-	-		-		-		INORGANIC
Chromium, Total	7440-47-3	-	-	-	1.80E+06	-	-		2.91E+03	U	8.56E+03	U	INORGANIC
Chrysene	218-01-9	-	2.00E-03	1.80E+05	-	5.23E-06	2.14E-04	U	7.21E+02	U	9.79E+02	U	PAH
Cobalt	7440-48-4	-	-	-	4.50E+01	-	-		3.20E+03	U	7.40E+03	U	INORGANIC
Copper	7440-50-8	-	-	-	3.50E+01	-	-		2.87E+03	U	5.12E+03	U	INORGANIC
Cresol, o-	95-48-7	-	2.59E+04	3.06E+02	-	1.20E-06	4.91E-05	U	4.64E+02	U	6.98E+02	U	SVOC
Cyanide (CN-)	57-12-5	9.54E+05	9.54E+04	-	9.90E+00	1.01E-04	4.13E-03	U	-		-		INORGANIC

Chemical	CAS Number	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)
Acenaphthene	83-32-9	5.06E-02	8.33E-06	6.71E-07	1.56E+09	2.03E+05	0.00E+00	2.03E+05	-	-	-
Acenaphthylene	208-96-8	4.50E-02	6.98E-06	3.70E-07	1.56E+09	2.74E+05	0.00E+00	2.74E+05	-	-	-
Acetone	67-64-1	1.06E-01	1.15E-05	7.13E-05	1.56E+09	1.97E+04	0.00E+00	1.97E+04	-	-	-
Acetonitrile	75-05-8	1.34E-01	1.41E-05	7.92E-05	1.56E+09	1.87E+04	0.00E+00	1.87E+04	-	-	-
Aluminum	7429-90-5	-	-	-	1.56E+09	-	-	-	-	-	-
Aniline	62-53-3	8.30E-02	1.01E-05	-	1.56E+09	-	-	-	1.22E+02	4.34E+02	2.74E+06
Anthracene	120-12-7	3.90E-02	7.85E-06	4.85E-08	1.56E+09	7.56E+05	0.00E+00	7.56E+05	-	-	-
Antimony (metallic)	7440-36-0	-	-	-	1.56E+09	-	-	-	-	-	-
Aroclor 1260	11096-82-5	2.20E-02	5.61E-06	7.68E-09	1.56E+09	1.90E+06	0.00E+00	1.90E+06	3.48E-01	8.83E-01	9.33E+00
Arsenic, Inorganic	7440-38-2	-	-	-	1.56E+09	-	-	-	7.72E-01	5.49E+00	1.02E+03
Barium	7440-39-3	-	-	-	1.56E+09	-	-	-	-	-	-
Benz[a]anthracene	56-55-3	2.61E-02	6.75E-06	6.83E-10	1.56E+09	6.37E+06	0.00E+00	6.37E+06	1.53E+00	4.59E+00	1.07E+02
Benzene	71-43-2	8.95E-02	1.03E-05	1.06E-03	1.56E+09	5.11E+03	0.00E+00	5.11E+03	1.26E+01	-	1.84E+00
Benzo[a]pyrene	50-32-8	2.55E-02	6.58E-06	-	1.56E+09	-	-	-	1.53E-01	4.59E-01	2.64E+03
Benzo[b]fluoranthene	205-99-2	2.50E-02	6.43E-06	-	1.56E+09	-	-	-	1.53E+00	4.59E+00	2.64E+04
Benzo[g,h,i]perylene	191-24-2	2.39E-02	6.09E-06	-	1.56E+09	-	-	-	-	-	-
Benzo[k]fluoranthene	207-08-9	2.50E-02	6.43E-06	-	1.56E+09	-	-	-	1.53E+01	4.59E+01	2.64E+05
Benzyl Alcohol	100-51-6	7.31E-02	9.37E-06	-	1.56E+09	-	-	-	-	-	-
Beryllium and compounds	7440-41-7	-	-	-	1.56E+09	-	-	-	-	-	1.83E+03
Bis(2-ethylhexyl)phthalate	117-81-7	1.73E-02	4.18E-06	-	1.56E+09	-	-	-	4.97E+01	1.77E+02	1.83E+06
Boron And Borates Only	7440-42-8	-	-	-	1.56E+09	-	-	-	-	-	-
Bromodichloromethane	75-27-4	5.63E-02	1.07E-05	8.46E-04	1.56E+09	5.72E+03	0.00E+00	5.72E+03	1.12E+01	-	4.34E-01
Bromodiphenyl Ether, p-	101-55-3	2.78E-02	7.37E-06	3.84E-07	1.56E+09	2.69E+05	0.00E+00	2.69E+05	-	-	-
Bromoform	75-25-2	3.57E-02	1.04E-05	1.41E-04	1.56E+09	1.40E+04	0.00E+00	1.40E+04	8.80E+01	-	3.58E+01
Bromomethane	74-83-9	1.00E-01	1.35E-05	6.77E-03	1.56E+09	2.02E+03	0.00E+00	2.02E+03	-	-	-
Butyl Benzyl Phthalate	85-68-7	2.08E-02	5.17E-06	-	1.56E+09	-	-	-	3.66E+02	1.30E+03	-
Cadmium (Diet)	7440-43-9	-	-	-	1.56E+09	-	-	-	-	-	2.43E+03
Calcium	7440-70-2	-	-	-	1.56E+09	-	-	-	-	-	-
Caprolactam	105-60-2	6.92E-02	9.00E-06	-	1.56E+09	-	-	-	-	-	-
Carbon Disulfide	75-15-0	1.06E-01	1.30E-05	9.73E-03	1.56E+09	1.69E+03	0.00E+00	1.69E+03	-	-	-
Carbon Tetrachloride	56-23-5	5.71E-02	9.78E-06	5.95E-03	1.56E+09	2.16E+03	0.00E+00	2.16E+03	9.93E+00	-	1.01E+00
Chloride	16887-00-6	-	-	-	1.56E+09	-	-	-	-	-	-
Chloroform	67-66-3	7.69E-02	1.09E-05	1.93E-03	1.56E+09	3.79E+03	0.00E+00	3.79E+03	2.24E+01	-	4.63E-01
Chloromethane	74-87-3	1.24E-01	1.36E-05	9.63E-03	1.56E+09	1.70E+03	0.00E+00	1.70E+03	-	-	-
Chlorophenyl phenyl ether, 4-	7005-72-3	2.69E-02	6.96E-06	2.86E-07	1.56E+09	3.11E+05	0.00E+00	3.11E+05	-	-	-
Chlorotoluene, p-	106-43-4	6.26E-02	8.66E-06	2.51E-04	1.56E+09	1.05E+04	0.00E+00	1.05E+04	-	-	-
Chromium(III), Insoluble Salts	16065-83-1	-	-	-	1.56E+09	-	-	-	-	-	-
Chromium, Total	7440-47-3	-	-	-	1.56E+09	-	-	-	-	-	-
Chrysene	218-01-9	2.61E-02	6.75E-06	-	1.56E+09	-	-	-	1.53E+02	4.59E+02	2.64E+06
Cobalt	7440-48-4	-	-	-	1.56E+09	-	-	-	-	-	4.87E+02
Copper	7440-50-8	-	-	-	1.56E+09	-	-	-	-	-	-
Cresol, o-	95-48-7	7.28E-02	9.32E-06	-	1.56E+09	-	-	-	-	-	-
Cyanide (CN-)	57-12-5	2.11E-01	2.46E-05	4.66E-06	1.56E+09	7.71E+04	0.00E+00	7.71E+04	-	-	-

Chemical	CAS Number	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)
Acenaphthene	83-32-9	-	4.69E+03	1.52E+04	-	3.59E+03	5.01E+04	9.12E+04	-	3.23E+04
Acenaphthylene	208-96-8	-	-	-	-	-	-	-	-	-
Acetone	67-64-1	-	7.04E+04	-	-	7.04E+04	7.51E+05	-	-	7.51E+05
Acetonitrile	75-05-8	-	-	-	1.17E+03	1.17E+03	-	-	1.17E+03	1.17E+03
Aluminum	7429-90-5	-	7.82E+04	-	8.14E+06	7.75E+04	8.34E+05	-	8.14E+06	7.57E+05
Aniline	62-53-3	9.52E+01	5.48E+02	2.31E+03	1.63E+06	4.42E+02	5.84E+03	1.38E+04	1.63E+06	4.10E+03
Anthracene	120-12-7	-	2.35E+04	7.61E+04	-	1.79E+04	2.50E+05	4.56E+05	-	1.62E+05
Antimony (metallic)	7440-36-0	-	3.13E+01	-	4.88E+05	3.13E+01	3.34E+02	-	4.88E+05	3.33E+02
Aroclor 1260	11096-82-5	2.43E-01	-	-	-	-	-	-	-	-
Arsenic, Inorganic	7440-38-2	6.77E-01	3.91E+01	3.30E+02	2.44E+04	3.49E+01	4.17E+02	1.98E+03	2.44E+04	3.40E+02
Barium	7440-39-3	-	1.56E+04	-	8.14E+05	1.53E+04	1.67E+05	-	8.14E+05	1.38E+05
Benz[a]anthracene	56-55-3	1.14E+00	-	-	-	-	-	-	-	-
Benzene	71-43-2	1.61E+00	3.13E+02	-	1.60E+02	1.06E+02	3.34E+03	-	1.60E+02	1.53E+02
Benzo[a]pyrene	50-32-8	1.15E-01	2.35E+01	7.61E+01	3.25E+03	1.78E+01	2.50E+02	4.56E+02	3.25E+03	1.54E+02
Benzo[b]fluoranthene	205-99-2	1.15E+00	-	-	-	-	-	-	-	-
Benzo[g,h,i]perylene	191-24-2	-	-	-	-	-	-	-	-	-
Benzo[k]fluoranthene	207-08-9	1.15E+01	-	-	-	-	-	-	-	-
Benzyl Alcohol	100-51-6	-	7.82E+03	3.30E+04	-	6.32E+03	8.34E+04	1.98E+05	-	5.87E+04
Beryllium and compounds	7440-41-7	1.83E+03	1.56E+02	-	3.25E+04	1.56E+02	1.67E+03	-	3.25E+04	1.59E+03
Bis(2-ethylhexyl)phthalate	117-81-7	3.88E+01	1.56E+03	6.59E+03	-	1.26E+03	1.67E+04	3.95E+04	-	1.17E+04
Boron And Borates Only	7440-42-8	-	1.56E+04	-	3.25E+07	1.56E+04	1.67E+05	-	3.25E+07	1.66E+05
Bromodichloromethane	75-27-4	4.18E-01	6.26E+02	-	-	6.26E+02	6.67E+03	-	-	6.67E+03
Bromodiphenyl Ether, p-	101-55-3	-	-	-	-	-	-	-	-	-
Bromoform	75-25-2	2.54E+01	1.56E+03	-	-	1.56E+03	1.67E+04	-	-	1.67E+04
Bromomethane	74-83-9	-	1.10E+02	-	1.05E+01	9.62E+00	1.17E+03	-	1.05E+01	1.05E+01
Butyl Benzyl Phthalate	85-68-7	2.86E+02	1.56E+04	6.59E+04	-	1.26E+04	1.67E+05	3.95E+05	-	1.17E+05
Cadmium (Diet)	7440-43-9	2.43E+03	7.82E+00	8.24E+01	1.63E+04	7.14E+00	8.34E+01	4.94E+02	1.63E+04	7.11E+01
Calcium	7440-70-2	-	-	-	-	-	-	-	-	-
Caprolactam	105-60-2	-	3.91E+04	1.65E+05	3.58E+06	3.13E+04	4.17E+05	9.88E+05	3.58E+06	2.71E+05
Carbon Disulfide	75-15-0	-	7.82E+03	-	1.23E+03	1.06E+03	8.34E+04	-	1.23E+03	1.21E+03
Carbon Tetrachloride	56-23-5	9.17E-01	3.13E+02	-	2.25E+02	1.31E+02	3.34E+03	-	2.25E+02	2.11E+02
Chloride	16887-00-6	-	-	-	-	-	-	-	-	-
Chloroform	67-66-3	4.54E-01	7.82E+02	-	3.87E+02	2.59E+02	8.34E+03	-	3.87E+02	3.69E+02
Chloromethane	74-87-3	-	-	-	1.59E+02	1.59E+02	-	-	1.59E+02	1.59E+02
Chlorophenyl phenyl ether, 4-	7005-72-3	-	-	-	-	-	-	-	-	-
Chlorotoluene, p-	106-43-4	-	1.56E+03	-	-	1.56E+03	1.67E+04	-	-	1.67E+04
Chromium(III), Insoluble Salts	16065-83-1	-	1.17E+05	-	-	1.17E+05	1.25E+06	-	-	1.25E+06
Chromium, Total	7440-47-3	-	-	-	-	-	-	-	-	-
Chrysene	218-01-9	1.15E+02	-	-	-	-	-	-	-	-
Cobalt	7440-48-4	4.87E+02	2.35E+01	-	9.76E+03	2.34E+01	2.50E+02	-	9.76E+03	2.44E+02
Copper	7440-50-8	-	3.13E+03	-	-	3.13E+03	3.34E+04	-	-	3.34E+04
Cresol, o-	95-48-7	-	3.91E+03	1.65E+04	9.76E+08	3.16E+03	4.17E+04	9.88E+04	9.76E+08	2.93E+04
Cyanide (CN-)	57-12-5	-	4.69E+01	-	6.44E+01	2.71E+01	5.01E+02	-	6.44E+01	5.70E+01

Chemical	CAS Number	Screening Level (mg/kg)
Acenaphthene	83-32-9	3.59E+03 nc
Acenaphthylene	208-96-8	
Acetone	67-64-1	7.04E+04 nc
Acetonitrile	75-05-8	1.17E+03 nc
Aluminum	7429-90-5	7.75E+04 nc
Aniline	62-53-3	9.52E+01 ca
Anthracene	120-12-7	1.79E+04 nc
Antimony (metallic)	7440-36-0	3.13E+01 nc
Aroclor 1260	11096-82-5	2.43E-01 ca
Arsenic, Inorganic	7440-38-2	6.77E-01 ca
Barium	7440-39-3	1.53E+04 nc
Benz[a]anthracene	56-55-3	1.14E+00 ca
Benzene	71-43-2	1.61E+00 ca
Benzo[a]pyrene	50-32-8	1.15E-01 ca
Benzo[b]fluoranthene	205-99-2	1.15E+00 ca
Benzo[g,h,i]perylene	191-24-2	
Benzo[k]fluoranthene	207-08-9	1.15E+01 ca
Benzyl Alcohol	100-51-6	6.32E+03 nc
Beryllium and compounds	7440-41-7	1.56E+02 nc
Bis(2-ethylhexyl)phthalate	117-81-7	3.88E+01 ca
Boron And Borates Only	7440-42-8	1.56E+04 nc
Bromodichloromethane	75-27-4	4.18E-01 ca
Bromodiphenyl Ether, p-	101-55-3	
Bromoform	75-25-2	2.54E+01 ca
Bromomethane	74-83-9	9.62E+00 nc
Butyl Benzyl Phthalate	85-68-7	2.86E+02 ca
Cadmium (Diet)	7440-43-9	7.14E+00 nc
Calcium	7440-70-2	
Caprolactam	105-60-2	3.13E+04 nc
Carbon Disulfide	75-15-0	1.06E+03 nc sat
Carbon Tetrachloride	56-23-5	9.17E-01 ca
Chloride	16887-00-6	
Chloroform	67-66-3	4.54E-01 ca
Chloromethane	74-87-3	1.59E+02 nc
Chlorophenyl phenyl ether, 4-	7005-72-3	
Chlorotoluene, p-	106-43-4	1.56E+03 nc sat
Chromium(III), Insoluble Salts	16065-83-1	1.17E+05 nc max
Chromium, Total	7440-47-3	
Chrysene	218-01-9	1.15E+02 ca
Cobalt	7440-48-4	2.34E+01 nc
Copper	7440-50-8	3.13E+03 nc
Cresol, o-	95-48-7	3.16E+03 nc
Cyanide (CN-)	57-12-5	2.71E+01 nc

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref
Dibenz[a,h]anthracene	53-70-3	Yes	No	Organics	1.00E+00	U	6.00E-04	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	2.49E-03	1.91E+06	-	1.41E-07	5.76E-06	U
Dibenzofuran	132-64-9	No	Yes	Organics	-		-		1.00E-03	U	-		1.00E+00	-	1.00E+00	-	3.10E+00	9.16E+03	5.50E+01	2.13E-04	8.71E-03	U
Dibromochloromethane	124-48-1	No	Yes	Organics	8.40E-02	U	-		2.00E-02	U	-		1.00E+00	-	1.00E+00	8.02E+02	2.70E+03	3.18E+01	1.91E-01	7.83E-04	3.20E-02	U
Dibutyl Phthalate	84-74-2	No	No	Organics	-		-		1.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.12E+01	1.16E+03	-	1.81E-06	7.40E-05	U
Dichlorobenzene, 1,2-	95-50-1	No	Yes	Organics	-		-		9.00E-02	U	2.00E-01	U	1.00E+00	-	1.00E+00	3.76E+02	1.56E+02	3.83E+02	2.30E+00	1.92E-03	7.85E-02	U
Dichlorobenzene, 1,3-	541-73-1	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	2.96E+02	1.25E+02	3.75E+02	2.25E+00	2.63E-03	1.08E-01	U
Dichlorobenzene, 1,4-	106-46-7	No	Yes	Organics	5.40E-03	U	1.10E-05	U	7.00E-02	U	8.00E-01	U	1.00E+00	-	1.00E+00	-	8.13E+01	3.75E+02	2.25E+00	2.41E-03	9.85E-02	U
Dichloroethane, 1,2-	107-06-2	No	Yes	Organics	9.10E-02	U	2.60E-05	U	6.00E-03	U	7.00E-03	U	1.00E+00	-	1.00E+00	2.98E+03	8.60E+03	3.96E+01	2.38E-01	1.18E-03	4.82E-02	U
Dichloroethylene, 1,1-	75-35-4	No	Yes	Organics	-		-		5.00E-02	U	2.00E-01	U	1.00E+00	-	1.00E+00	1.19E+03	2.42E+03	3.18E+01	1.91E-01	2.61E-02	1.07E+00	U
Dichlorophenol, 2,4-	120-83-2	No	No	Organics	-		-		3.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.55E+03	1.47E+02	-	4.29E-06	1.75E-04	U
Diethyl Phthalate	84-66-2	No	No	Organics	-		-		8.00E-01	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.08E+03	1.05E+02	-	6.10E-07	2.49E-05	U
Dinitro-o-cresol, 4,6-	534-52-1	No	No	Organics	-		-		8.00E-05	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.98E+02	7.54E+02	-	1.40E-06	5.72E-05	U
Dinitroaniline, 3,5-	618-87-1	No	No	Organics	-		-		4.00E-04	U	2.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	1.29E+03	1.69E+02	-	2.96E-11	1.21E-09	U
Dinitrobenzene, 1,3-	99-65-0	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.33E+02	3.52E+02	-	4.90E-08	2.00E-06	U
Dinitrotoluene, 2,3-	602-01-7	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	2.70E+02	5.87E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 2,4-	121-14-2	No	No	Organics	3.10E-01	U	8.90E-05	U	2.00E-03	U	-		1.00E+00	1.02E-01	1.00E+00	-	2.00E+02	5.76E+02	-	5.40E-08	2.21E-06	U
Dinitrotoluene, 2,5-	619-15-8	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	2.20E+02	5.76E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 2,6-	606-20-2	No	No	Organics	1.50E+00	U	-		3.00E-04	U	-		1.00E+00	9.90E-02	1.00E+00	-	1.82E+02	5.87E+02	-	7.47E-07	3.05E-05	U
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	6.00E-03	1.00E+00	-	1.22E+03	2.83E+02	-	3.27E-11	1.34E-09	U
Dinitrotoluene, 3,4-	610-39-9	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.79E+02	5.76E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 3,5-	618-85-9	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.45E+02	5.64E+02	-	9.26E-08	3.79E-06	U
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	9.00E-03	1.00E+00	-	1.22E+03	2.83E+02	-	3.27E-11	1.34E-09	U
Endrin	72-20-8	No	No	Organics	-		-		3.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.50E-01	2.01E+04	-	6.36E-06	2.60E-04	U
Ethylbenzene	100-41-4	No	Yes	Organics	1.10E-02	U	2.50E-06	U	5.00E-02	U	1.00E+00	U	1.00E+00	-	1.00E+00	4.79E+02	1.69E+02	4.46E+02	2.68E+00	7.88E-03	3.22E-01	U
Fluoranthene	206-44-0	No	No	Organics	-		-		4.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	2.60E-01	5.54E+04	-	8.86E-06	3.62E-04	U
Fluorene	86-73-7	No	Yes	Organics	-		-		4.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	1.69E+00	9.16E+03	5.50E+01	9.62E-05	3.93E-03	U
Fluoride	16984-48-8	No	No	Inorgani	-		-		4.00E-02	U	1.30E-02	U	1.00E+00	-	1.00E+00	-	1.69E+00	-	1.50E+02	-	-	
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	No	No	Organics	8.00E-02	U	-		4.00E-03	U	-		1.00E+00	1.50E-02	1.00E+00	-	5.97E+01	8.91E+01	-	2.01E-11	8.22E-10	U
Hexane, N-	110-54-3	No	Yes	Organics	-		-		-		7.00E-01	U	1.00E+00	-	1.00E+00	1.41E+02	9.50E+00	1.32E+02	7.92E-01	1.80E+00	7.36E+01	U

Chemical	CAS Number	Normal Boiling Point BP (K)	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)
Dibenz[a,h]anthracene	53-70-3	7.97E+02	U	9.90E+02	U	PAH	2.36E-02	6.02E-06	-	1.56E+09	-	-	-	1.53E-01	4.59E-01	2.64E+03	1.15E-01	-	-
Dibenzofuran	132-64-9	5.60E+02	U	8.24E+02	U	FURAN	6.51E-02	7.38E-06	5.49E-07	1.56E+09	2.25E+05	0.00E+00	2.25E+05	-	-	-	-	7.82E+01	-
Dibromochloromethane	124-48-1	3.93E+02	U	6.78E+02	U	VOC	3.66E-02	1.06E-05	2.10E-04	1.56E+09	1.15E+04	0.00E+00	1.15E+04	8.28E+00	-	-	8.28E+00	1.56E+03	-
Dibutyl Phthalate	84-74-2	6.13E+02	U	7.97E+02	U	SVOC	2.14E-02	5.33E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+03	3.30E+04
Dichlorobenzene, 1,2-	95-50-1	4.53E+02	U	7.05E+02	U	VOC	5.62E-02	8.92E-06	9.74E-05	1.56E+09	1.69E+04	0.00E+00	1.69E+04	-	-	-	-	7.04E+03	-
Dichlorobenzene, 1,3-	541-73-1	4.46E+02	U	6.86E+02	U	VOC	5.58E-02	8.85E-06	1.35E-04	1.56E+09	1.43E+04	0.00E+00	1.43E+04	-	-	-	-	-	-
Dichlorobenzene, 1,4-	106-46-7	4.47E+02	U	6.69E+02	U	VOC	5.50E-02	8.68E-06	1.22E-04	1.56E+09	1.51E+04	0.00E+00	1.51E+04	1.29E+02	-	3.85E+00	3.74E+00	5.48E+03	-
Dichloroethane, 1,2-	107-06-2	3.57E+02	U	5.62E+02	U	VOC	8.57E-02	1.10E-05	6.35E-04	1.56E+09	6.60E+03	0.00E+00	6.60E+03	7.64E+00	-	7.13E-01	6.52E-01	4.69E+02	-
Dichloroethylene, 1,1-	75-35-4	3.05E+02	U	4.82E+02	U	VOC	8.63E-02	1.10E-05	9.96E-03	1.56E+09	1.67E+03	0.00E+00	1.67E+03	-	-	-	-	3.91E+03	-
Dichlorophenol, 2,4-	120-83-2	4.83E+02	U	7.25E+02	U	SVOC	4.86E-02	8.68E-06	-	1.56E+09	-	-	-	-	-	-	-	2.35E+02	9.89E+02
Diethyl Phthalate	84-66-2	5.68E+02	U	7.76E+02	U	SVOC	2.61E-02	6.72E-06	-	1.56E+09	-	-	-	-	-	-	-	6.26E+04	2.64E+05
Dinitro-o-cresol, 4,6-	534-52-1	6.51E+02	U	9.77E+02	U	SVOC	5.59E-02	6.53E-06	-	1.56E+09	-	-	-	-	-	-	-	6.26E+00	2.64E+01
Dinitroaniline, 3,5-	618-87-1	6.13E+02	U	-		SVOC	4.03E-02	8.84E-06	-	1.56E+09	-	-	-	-	-	-	-	3.13E+01	1.32E+02
Dinitrobenzene, 1,3-	99-65-0	5.64E+02	U	8.08E+02	U	SVOC	4.85E-02	9.21E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+00	3.30E+01
Dinitrotoluene, 2,3-	602-01-7	5.57E+02	U	-		SVOC	5.91E-02	6.91E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 2,4-	121-14-2	5.73E+02	U	8.14E+02	U	SVOC	3.75E-02	7.90E-06	-	1.56E+09	-	-	-	2.24E+00	7.82E+00	4.92E+04	1.74E+00	1.56E+02	6.46E+02
Dinitrotoluene, 2,5-	619-15-8	5.57E+02	U	8.14E+02	U	SVOC	3.70E-02	7.76E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 2,6-	606-20-2	5.73E+02	U	7.70E+02	U	SVOC	3.70E-02	7.76E-06	-	1.56E+09	-	-	-	4.63E-01	1.66E+00	-	3.63E-01	2.35E+01	9.99E+01
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	6.25E+02	U	-		SVOC	5.61E-02	6.55E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+00	5.49E+02
Dinitrotoluene, 3,4-	610-39-9	5.57E+02	U	8.42E+02	U	SVOC	3.67E-02	7.68E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 3,5-	618-85-9	5.88E+02	U	8.14E+02	U	SVOC	3.69E-02	7.74E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	6.25E+02	U	-		SVOC	5.61E-02	6.55E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+00	3.66E+02
Endrin	72-20-8	6.03E+02	U	-		PEST	3.62E-02	4.22E-06	-	1.56E+09	-	-	-	-	-	-	-	2.35E+01	9.89E+01
Ethylbenzene	100-41-4	4.09E+02	U	6.17E+02	U	VOC	6.85E-02	8.46E-06	4.14E-04	1.56E+09	8.18E+03	0.00E+00	8.18E+03	6.32E+01	-	9.18E+00	8.02E+00	3.91E+03	-
Fluoranthene	206-44-0	6.57E+02	U	9.05E+02	U	PAH	2.76E-02	7.18E-06	-	1.56E+09	-	-	-	-	-	-	-	3.13E+03	1.01E+04
Fluorene	86-73-7	5.68E+02	U	8.26E+02	U	PAH	4.40E-02	7.89E-06	1.68E-07	1.56E+09	4.06E+05	0.00E+00	4.06E+05	-	-	-	-	3.13E+03	1.01E+04
Fluoride	16984-48-8	8.52E+01	U	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.13E+03	-
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	6.26E+02	U	-		SVOC	3.12E-02	8.50E-06	-	1.56E+09	-	-	-	8.69E+00	2.06E+02	-	8.34E+00	3.13E+02	8.79E+03
Hexane, N-	110-54-3	3.42E+02	U	5.08E+02	U	VOC	7.31E-02	8.17E-06	1.93E-02	1.56E+09	1.20E+03	0.00E+00	1.20E+03	-	-	-	-	-	-

Chemical	CAS Number	Inhalation SL Child THQ=1 (mg/kg)	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Dibenz[a,h]anthracene	53-70-3	-	-	-	-	-	-	1.15E-01 ca
Dibenzofuran	132-64-9	-	7.82E+01	8.34E+02	-	-	8.34E+02	7.82E+01 nc
Dibromochloromethane	124-48-1	-	1.56E+03	1.67E+04	-	-	1.67E+04	8.28E+00 ca
Dibutyl Phthalate	84-74-2	-	6.32E+03	8.34E+04	1.98E+05	-	5.87E+04	6.32E+03 nc
Dichlorobenzene, 1,2-	95-50-1	3.52E+03	2.35E+03	7.51E+04	-	3.52E+03	3.36E+03	2.35E+03 nc sat
Dichlorobenzene, 1,3-	541-73-1	-	-	-	-	-	-	
Dichlorobenzene, 1,4-	106-46-7	1.26E+04	3.81E+03	5.84E+04	-	1.26E+04	1.03E+04	3.74E+00 ca
Dichloroethane, 1,2-	107-06-2	4.82E+01	4.37E+01	5.01E+03	-	4.82E+01	4.78E+01	6.52E-01 ca
Dichloroethylene, 1,1-	75-35-4	3.48E+02	3.20E+02	4.17E+04	-	3.48E+02	3.45E+02	3.20E+02 nc
Dichlorophenol, 2,4-	120-83-2	-	1.90E+02	2.50E+03	5.93E+03	-	1.76E+03	1.90E+02 nc
Diethyl Phthalate	84-66-2	-	5.06E+04	6.67E+05	1.58E+06	-	4.69E+05	5.06E+04 nc
Dinitro-o-cresol, 4,6-	534-52-1	-	5.06E+00	6.67E+01	1.58E+02	-	4.69E+01	5.06E+00 nc
Dinitroaniline, 3,5-	618-87-1	3.25E+06	2.53E+01	3.34E+02	7.90E+02	3.25E+06	2.35E+02	2.53E+01 nc
Dinitrobenzene, 1,3-	99-65-0	-	6.32E+00	8.34E+01	1.98E+02	-	5.87E+01	6.32E+00 nc
Dinitrotoluene, 2,3-	602-01-7	-	-	-	-	-	-	
Dinitrotoluene, 2,4-	121-14-2	-	1.26E+02	1.67E+03	3.87E+03	-	1.17E+03	1.74E+00 ca
Dinitrotoluene, 2,5-	619-15-8	-	-	-	-	-	-	
Dinitrotoluene, 2,6-	606-20-2	-	1.90E+01	2.50E+02	5.99E+02	-	1.77E+02	3.63E-01 ca
Dinitrotoluene, 2-Amino-4,6-	35572-78-2	-	7.71E+00	8.34E+01	3.29E+03	-	8.14E+01	7.71E+00 nc
Dinitrotoluene, 3,4-	610-39-9	-	-	-	-	-	-	
Dinitrotoluene, 3,5-	618-85-9	-	-	-	-	-	-	
Dinitrotoluene, 4-Amino-2,6-	19406-51-0	-	7.66E+00	8.34E+01	2.20E+03	-	8.04E+01	7.66E+00 nc
Endrin	72-20-8	-	1.90E+01	2.50E+02	5.93E+02	-	1.76E+02	1.90E+01 nc
Ethylbenzene	100-41-4	8.53E+03	2.68E+03	4.17E+04	-	8.53E+03	7.08E+03	8.02E+00 ca
Fluoranthene	206-44-0	-	2.39E+03	3.34E+04	6.08E+04	-	2.15E+04	2.39E+03 nc
Fluorene	86-73-7	-	2.39E+03	3.34E+04	6.08E+04	-	2.15E+04	2.39E+03 nc
Fluoride	16984-48-8	2.12E+07	3.13E+03	3.34E+04	-	2.12E+07	3.33E+04	3.13E+03 nc
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	-	3.02E+02	3.34E+03	5.27E+04	-	3.14E+03	8.34E+00 ca
Hexane, N-	110-54-3	8.74E+02	8.74E+02	-	-	8.74E+02	8.74E+02	8.74E+02 nc sat

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)
Indeno[1,2,3-cd]pyrene	193-39-5	Yes	No	Organics	1.00E-01	U	6.00E-05	U	-		-		1.00E+00	1.30E-01	1.00E+00	-	1.90E-04	1.95E+06	-	3.48E-07	1.42E-05	U	8.09E+02
Iodomethane	74-88-4	No	Yes	Organics	-		-		-		-		1.00E+00	-	1.00E+00	3.03E+03	1.38E+04	1.32E+01	7.92E-02	5.26E-03	2.15E-01	U	3.16E+02
Iron	7439-89-6	No	No	Inorgani	-		-		7.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	2.50E+01	-	-		3.27E+03
Isophorone	78-59-1	No	No	Organics	9.50E-04	U	-		2.00E-01	U	2.00E+00	U	1.00E+00	1.00E-01	1.00E+00	-	1.20E+04	6.52E+01	-	6.64E-06	2.71E-04	U	4.88E+02
Lead and Compounds	7439-92-1	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	9.00E+02	-	-		2.02E+03
Magnesium	7439-95-4	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	4.50E+00	-	-		1.37E+03
Manganese (Non-diet)	7439-96-5	No	No	Inorgani	-		-		2.40E-02	U	5.00E-05	U	4.00E-02	-	1.00E+00	-	-	-	6.50E+01	-	-		2.37E+03
Mercury (elemental)	7439-97-6	No	Yes	Inorgani	-		-		-		3.00E-04	U	1.00E+00	-	1.00E+00	3.13E+00	6.00E-02	-	5.20E+01	8.62E-03	3.52E-01	U	6.30E+02
Methyl Acetate	79-20-9	No	Yes	Organics	-		-		1.00E+00	U	-		1.00E+00	-	1.00E+00	2.90E+04	2.43E+05	3.06E+00	1.84E-02	1.15E-04	4.70E-03	U	3.30E+02
Methyl Ethyl Ketone (2-Butanone)	78-93-3	No	Yes	Organics	-		-		6.00E-01	U	5.00E+00	U	1.00E+00	-	1.00E+00	2.84E+04	2.23E+05	4.51E+00	2.71E-02	5.69E-05	2.33E-03	U	3.53E+02
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	No	Yes	Organics	-		-		-		3.00E+00	U	1.00E+00	-	1.00E+00	3.36E+03	1.90E+04	1.26E+01	7.56E-02	1.38E-04	5.64E-03	U	3.89E+02
Methyl tert-Butyl Ether (MTBE)	1634-04-4	No	Yes	Organics	1.80E-03	U	2.60E-07	U	-		3.00E+00	U	1.00E+00	-	1.00E+00	8.88E+03	5.10E+04	1.16E+01	6.96E-02	5.87E-04	2.40E-02	U	3.28E+02
Methyl-5-Nitroaniline, 2-	99-55-8	No	No	Organics	9.00E-03	U	-		2.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.00E+04	1.79E+02	-	8.29E-09	3.39E-07	U	5.61E+02
Methylene Chloride	75-09-2	Yes	Yes	Organics	2.00E-03	U	1.00E-08	U	6.00E-03	U	6.00E-01	U	1.00E+00	-	1.00E+00	3.32E+03	1.30E+04	2.17E+01	1.30E-01	3.25E-03	1.33E-01	U	3.13E+02
Methylnaphthalene, 2-	91-57-6	No	Yes	Organics	-		-		4.00E-03	U	-		1.00E+00	1.30E-01	1.00E+00	-	2.46E+01	2.48E+03	1.49E+01	5.18E-04	2.12E-02	U	5.14E+02
Naphthalene	91-20-3	No	Yes	Organics	1.20E-01	U	3.40E-05	U	2.00E-02	U	3.00E-03	U	1.00E+00	1.30E-01	1.00E+00	-	3.10E+01	1.54E+03	9.24E+00	4.40E-04	1.80E-02	U	4.91E+02
Nickel Soluble Salts	7440-02-0	No	No	Inorgani	-		2.60E-04	U	2.00E-02	U	9.00E-05	U	4.00E-02	-	1.00E+00	-	-	-	6.50E+01	-	-		3.18E+03
Nitrate (measured as nitrogen)	14797-55-8	No	No	Inorgani	-		-		1.60E+00	U	-		1.00E+00	-	1.00E+00	-	-	-	-	-	-		-
Nitroaniline, 2-	88-74-4	No	No	Organics	-		-		1.00E-02	U	5.00E-05	U	1.00E+00	1.00E-01	1.00E+00	-	1.47E+03	1.11E+02	-	5.90E-08	2.41E-06	U	5.57E+02
Nitroaniline, 3-	99-09-2	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.20E+03	1.09E+02	-	7.91E-09	3.23E-07	U	5.79E+02
Nitroaniline, 4-	100-01-6	No	No	Organics	2.00E-02	U	-		4.00E-03	U	6.00E-03	U	1.00E+00	1.00E-01	1.00E+00	-	7.28E+02	1.09E+02	-	1.26E-09	5.15E-08	U	6.05E+02
Nitrobenzene	98-95-3	No	Yes	Organics	-		4.00E-05	U	2.00E-03	U	9.00E-03	U	1.00E+00	-	1.00E+00	3.04E+03	2.09E+03	2.26E+02	1.36E+00	2.40E-05	9.81E-04	U	4.84E+02
Nitroglycerin	55-63-0	No	No	Organics	1.70E-02	U	-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	1.38E+03	1.16E+02	-	8.66E-08	3.54E-06	U	5.23E+02
Nitrosodiphenylamine, N-	86-30-6	No	No	Organics	4.90E-03	U	2.60E-06	U	-		-		1.00E+00	1.00E-01	1.00E+00	-	3.50E+01	2.63E+03	-	1.21E-06	4.95E-05	U	6.32E+02
Nitrotoluene, 4-Amino-2-	119-32-4	No	No	Organics	-		-		-		-		1.00E+00	1.00E-01	1.00E+00	-	1.40E+03	1.79E+02	-	8.29E-09	3.39E-07	U	5.61E+02
Nitrotoluene, m-	99-08-1	No	No	Organics	-		-		1.00E-04	U	-		1.00E+00	1.00E-01	1.00E+00	-	5.00E+02	3.63E+02	-	9.30E-06	3.80E-04	U	5.05E+02
Nitrotoluene, o-	88-72-2	No	Yes	Organics	2.20E-01	U	-		9.00E-04	U	-		1.00E+00	-	1.00E+00	1.51E+03	6.50E+02	3.71E+02	2.23E+00	1.25E-05	5.11E-04	U	4.95E+02
Nitrotoluene, p-	99-99-0	No	No	Organics	1.60E-02	U	-		4.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.42E+02	3.63E+02	-	5.63E-06	2.30E-04	U	5.11E+02
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	No	No	Organics	-		-		5.00E-02	U	-		1.00E+00	6.00E-03	1.00E+00	-	5.00E+00	5.32E+02	-	8.67E-10	3.54E-08	U	7.09E+02
Octyl Phthalate, di-N-	117-84-0	No	No	Organics	-		-		1.00E-02	U	-		1.00E+00	1.00E-01	1.00E+00	-	2.20E-02	1.41E+05	-	2.57E-06	1.05E-04	U	7.04E+02
Pentachlorophenol	87-86-5	No	No	Organics	4.00E-01	U	5.10E-06	U	5.00E-03	U	-		1.00E+00	2.50E-01	1.00E+00	-	1.40E+01	5.92E+02	-	2.45E-08	1.00E-06	U	5.83E+02

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)$^{-1}$	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)
Pentaerythritol tetranitrate (PETN)	78-11-5	No	No	Organics	4.30E-03	U	-		9.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	4.30E+01	6.48E+02	-	1.32E-09	5.40E-08	U	6.37E+02
Perchlorate and Perchlorate Salts	14797-73-0	No	No	Inorgani	-		-		7.00E-04	U	-		1.00E+00	-	1.00E+00	-	2.45E+05	-	-	-	-		-
Phenanthrene	85-01-8	No	Yes	Organics	-		-		-		-		1.00E+00	1.30E-01	1.00E+00	-	1.15E+00	1.67E+04	1.00E+02	4.23E-05	1.73E-03	U	6.13E+02

Chemical	CAS Number	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)
Indeno[1,2,3-cd]pyrene	193-39-5	U	1.08E+03	U	PAH	2.47E-02	6.37E-06	-	1.56E+09	-	-	-	1.53E+00	4.59E+00	2.64E+04	1.15E+00	-	-	-
Iodomethane	74-88-4	U	5.28E+02	U	VOC	7.49E-02	1.27E-05	3.90E-03	1.56E+09	2.66E+03	0.00E+00	2.66E+03	-	-	-	-	-	-	-
Iron	7439-89-6	U	9.34E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	5.48E+04	-	-
Isophorone	78-59-1	U	7.15E+02	U	SVOC	5.25E-02	7.53E-06	-	1.56E+09	-	-	-	7.32E+02	2.60E+03	-	5.71E+02	1.56E+04	6.59E+04	3.25E+09
Lead and Compounds	7439-92-1	U	5.40E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Magnesium	7439-95-4	U	2.24E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Manganese (Non-diet)	7439-96-5	U	4.32E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.88E+03	-	8.14E+04
Mercury (elemental)	7439-97-6	U	1.76E+03	U	INORGANIC	3.07E-02	6.30E-06	1.11E-05	1.56E+09	5.01E+04	0.00E+00	5.01E+04	-	-	-	-	-	-	1.57E+01
Methyl Acetate	79-20-9	U	5.07E+02	U	VOC	9.58E-02	1.10E-05	2.02E-04	1.56E+09	1.17E+04	0.00E+00	1.17E+04	-	-	-	-	7.82E+04	-	-
Methyl Ethyl Ketone (2-Butanone)	78-93-3	U	5.37E+02	U	VOC	9.14E-02	1.02E-05	8.94E-05	1.56E+09	1.76E+04	0.00E+00	1.76E+04	-	-	-	-	4.69E+04	-	9.18E+04
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	U	5.75E+02	U	VOC	6.98E-02	8.35E-06	1.19E-04	1.56E+09	1.53E+04	0.00E+00	1.53E+04	-	-	-	-	-	-	4.77E+04
Methyl tert-Butyl Ether (MTBE)	1634-04-4	U	4.97E+02	U	VOC	7.53E-02	8.59E-06	5.53E-04	1.56E+09	7.08E+03	0.00E+00	7.08E+03	3.86E+02	-	7.64E+01	6.38E+01	-	-	2.21E+04
Methyl-5-Nitroaniline, 2-	99-55-8	U	-		SVOC	6.67E-02	7.79E-06	-	1.56E+09	-	-	-	7.72E+01	2.75E+02	-	6.03E+01	1.56E+03	6.59E+03	-
Methylene Chloride	75-09-2	U	5.08E+02	U	VOC	9.99E-02	1.25E-05	2.77E-03	1.56E+09	3.16E+03	0.00E+00	3.16E+03	7.66E+01	-	3.21E+02	6.18E+01	4.69E+02	-	1.98E+03
Methylnaphthalene, 2-	91-57-6	U	7.61E+02	U	PAH	5.24E-02	7.78E-06	3.95E-06	1.56E+09	8.38E+04	0.00E+00	8.38E+04	-	-	-	-	3.13E+02	1.01E+03	-
Naphthalene	91-20-3	U	7.48E+02	U	PAH	6.05E-02	8.38E-06	6.21E-06	1.56E+09	6.68E+04	0.00E+00	6.68E+04	5.79E+00	1.58E+01	5.52E+00	2.40E+00	1.56E+03	5.07E+03	2.09E+02
Nickel Soluble Salts	7440-02-0	U	6.99E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	1.69E+04	1.69E+04	1.56E+03	-	1.46E+05
Nitrate (measured as nitrogen)	14797-55-8		-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	1.25E+05	-	-
Nitroaniline, 2-	88-74-4	U	7.84E+02	U	SVOC	5.19E-02	7.41E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+02	3.30E+03	8.14E+04
Nitroaniline, 3-	99-09-2	U	8.15E+02	U	SVOC	5.19E-02	7.41E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Nitroaniline, 4-	100-01-6	U	8.51E+02	U	SVOC	6.37E-02	9.75E-06	-	1.56E+09	-	-	-	3.48E+01	1.24E+02	-	2.71E+01	3.13E+02	1.32E+03	9.76E+06
Nitrobenzene	98-95-3	U	7.19E+02	U	VOC	6.81E-02	9.45E-06	2.49E-06	1.56E+09	1.06E+05	0.00E+00	1.06E+05	-	-	7.41E+00	7.41E+00	1.56E+02	-	9.91E+02
Nitroglycerin	55-63-0	U	6.80E+02	U	SVOC	2.90E-02	7.74E-06	-	1.56E+09	-	-	-	4.09E+01	1.45E+02	-	3.19E+01	7.82E+00	3.30E+01	-
Nitrosodiphenylamine, N-	86-30-6	U	-		SVOC	5.59E-02	6.53E-06	-	1.56E+09	-	-	-	1.42E+02	5.04E+02	1.69E+06	1.11E+02	-	-	-
Nitrotoluene, 4-Amino-2-	119-32-4	U	-		SVOC	6.67E-02	7.79E-06	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Nitrotoluene, m-	99-08-1	U	7.34E+02	U	SVOC	5.87E-02	8.65E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+00	3.30E+01	-
Nitrotoluene, o-	88-72-2	U	7.20E+02	U	VOC	5.88E-02	8.67E-06	7.12E-07	1.56E+09	1.97E+05	0.00E+00	1.97E+05	3.16E+00	-	-	3.16E+00	7.04E+01	-	-
Nitrotoluene, p-	99-99-0	U	7.43E+02	U	SVOC	5.74E-02	8.41E-06	-	1.56E+09	-	-	-	4.35E+01	1.54E+02	-	3.39E+01	3.13E+02	1.32E+03	-
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	U	-		SVOC	4.28E-02	5.00E-06	-	1.56E+09	-	-	-	-	-	-	-	3.91E+03	2.75E+05	-
Octyl Phthalate, di-N-	117-84-0	U	8.40E+02	U	SVOC	3.56E-02	4.15E-06	-	1.56E+09	-	-	-	-	-	-	-	7.82E+02	3.30E+03	-
Pentachlorophenol	87-86-5	U	-		HERB	2.95E-02	8.01E-06	-	1.56E+09	-	-	-	1.74E+00	2.47E+00	8.59E+05	1.02E+00	3.91E+02	6.59E+02	-

Chemical	CAS Number	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)
Pentaerythritol tetranitrate (PETN)	78-11-5	U	6.76E+02	U	SVOC	2.58E-02	6.77E-06	-	1.56E+09	-	-	-	1.62E+02	5.75E+02	-	1.26E+02	7.04E+02	2.97E+03	-
Perchlorate and Perchlorate Salts	14797-73-0		-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	5.48E+01	-	-
Phenanthrene	85-01-8	U	8.69E+02	U	PAH	3.45E-02	6.69E-06	3.21E-08	1.56E+09	9.29E+05	0.00E+00	9.29E+05	-	-	-	-	-	-	-

Chemical	CAS Number	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Indeno[1,2,3-cd]pyrene	193-39-5	-	-	-	-	-	1.15E+00 ca
Iodomethane	74-88-4	-	-	-	-	-	
Iron	7439-89-6	5.48E+04	5.84E+05	-	-	5.84E+05	5.48E+04 nc
Isophorone	78-59-1	1.26E+04	1.67E+05	3.95E+05	3.25E+09	1.17E+05	5.71E+02 ca
Lead and Compounds	7439-92-1	-	-	-	-	-	
Magnesium	7439-95-4	-	-	-	-	-	
Manganese (Non-diet)	7439-96-5	1.83E+03	2.00E+04	-	8.14E+04	1.61E+04	1.83E+03 nc
Mercury (elemental)	7439-97-6	1.57E+01	-	-	1.57E+01	1.57E+01	1.57E+01 nc sat
Methyl Acetate	79-20-9	7.82E+04	8.34E+05	-	-	8.34E+05	7.82E+04 nc sat
Methyl Ethyl Ketone (2-Butanone)	78-93-3	3.11E+04	5.01E+05	-	9.18E+04	7.76E+04	3.11E+04 nc sat
Methyl Isobutyl Ketone (4-methyl-2-pentanone)	108-10-1	4.77E+04	-	-	4.77E+04	4.77E+04	4.77E+04 nc sat
Methyl tert-Butyl Ether (MTBE)	1634-04-4	2.21E+04	-	-	2.21E+04	2.21E+04	6.38E+01 ca
Methyl-5-Nitroaniline, 2-	99-55-8	1.26E+03	1.67E+04	3.95E+04	-	1.17E+04	6.03E+01 ca
Methylene Chloride	75-09-2	3.79E+02	5.01E+03	-	1.98E+03	1.42E+03	6.18E+01 ca
Methylnaphthalene, 2-	91-57-6	2.39E+02	3.34E+03	6.08E+03	-	2.15E+03	2.39E+02 nc
Naphthalene	91-20-3	1.78E+02	1.67E+04	3.04E+04	2.09E+02	2.05E+02	2.40E+00 ca
Nickel Soluble Salts	7440-02-0	1.55E+03	1.67E+04	-	1.46E+05	1.50E+04	1.55E+03 nc
Nitrate (measured as nitrogen)	14797-55-8	1.25E+05	1.33E+06	-	-	1.33E+06	1.25E+05 nc max
Nitroaniline, 2-	88-74-4	6.27E+02	8.34E+03	1.98E+04	8.14E+04	5.47E+03	6.27E+02 nc
Nitroaniline, 3-	99-09-2	-	-	-	-	-	
Nitroaniline, 4-	100-01-6	2.53E+02	3.34E+03	7.90E+03	9.76E+06	2.35E+03	2.71E+01 ca
Nitrobenzene	98-95-3	1.35E+02	1.67E+03	-	9.91E+02	6.22E+02	7.41E+00 ca
Nitroglycerin	55-63-0	6.32E+00	8.34E+01	1.98E+02	-	5.87E+01	6.32E+00 nc
Nitrosodiphenylamine, N-	86-30-6	-	-	-	-	-	1.11E+02 ca
Nitrotoluene, 4-Amino-2-	119-32-4	-	-	-	-	-	
Nitrotoluene, m-	99-08-1	6.32E+00	8.34E+01	1.98E+02	-	5.87E+01	6.32E+00 nc
Nitrotoluene, o-	88-72-2	7.04E+01	7.51E+02	-	-	7.51E+02	3.16E+00 ca
Nitrotoluene, p-	99-99-0	2.53E+02	3.34E+03	7.90E+03	-	2.35E+03	3.39E+01 ca
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	3.86E+03	4.17E+04	1.65E+06	-	4.07E+04	3.86E+03 nc
Octyl Phthalate, di-N-	117-84-0	6.32E+02	8.34E+03	1.98E+04	-	5.87E+03	6.32E+02 nc
Pentachlorophenol	87-86-5	2.45E+02	4.17E+03	3.95E+03	-	2.03E+03	1.02E+00 ca

Chemical	CAS Number	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Pentaerythritol tetranitrate (PETN)	78-11-5	5.69E+02	7.51E+03	1.78E+04	-	5.28E+03	1.26E+02 ca
Perchlorate and Perchlorate Salts	14797-73-0	5.48E+01	5.84E+02	-	-	5.84E+02	5.48E+01 nc
Phenanthrene	85-01-8	-	-	-	-	-	

Chemical	CAS Number	Mutagen?	Volatile?	Chemical Type	SF_o(mg/kg-day)[1]	SF_o Ref	IUR (ug/m^3)$^{-1}$	IUR Ref	RfD (mg/kg-day)	RfD Ref	RfC (mg/m^3)	RfC Ref	GIABS	ABS	RBA	Soil Saturation Concentration (mg/kg)	S (mg/L)	K_{oc} (cm^3/g)	K_d (cm^3/g)	HLC (atm-m^3/mole)	Henry's Law Constant Used in Calcs (unitless)	H` and HLC Ref	Normal Boiling Point BP (K)
Pyrene	129-00-0	No	Yes	Organics	-		-		3.00E-02	U	-		1.00E+00	1.30E-01	1.00E+00	-	1.35E-01	5.43E+04	3.26E+02	1.19E-05	4.87E-04	U	6.77E+02
Selenium	7782-49-2	No	No	Inorgani	-		-		5.00E-03	U	2.00E-02	U	1.00E+00	-	1.00E+00	-	-	-	5.00E+00	-	-		9.58E+02
Silver	7440-22-4	No	No	Inorgani	-		-		5.00E-03	U	-		4.00E-02	-	1.00E+00	-	-	-	8.30E+00	-	-		2.27E+03
Sodium	7440-23-5	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	1.00E+02	-	-		1.15E+03
Styrene	100-42-5	No	Yes	Organics	-		-		2.00E-01	U	1.00E+00	U	1.00E+00	-	1.00E+00	8.67E+02	3.10E+02	4.46E+02	2.68E+00	2.75E-03	1.12E-01	U	4.18E+02
Sulfate	14808-79-8	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	1.00E+06	-	-	-	-		5.63E+02
Sulfur	7704-34-9	No	No	Inorgani	-		-		-		-		1.00E+00	-	1.00E+00	-	-	-	-	-	-		7.17E+02
Tetrachloroethylene	127-18-4	No	Yes	Organics	2.10E-03	U	2.60E-07	U	6.00E-03	U	4.00E-02	U	1.00E+00	-	1.00E+00	1.66E+02	2.06E+02	9.49E+01	5.69E-01	1.77E-02	7.24E-01	U	3.94E+02
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	No	No	Organics	-		-		2.00E-03	U	-		1.00E+00	6.50E-04	1.00E+00	-	7.40E+01	4.60E+03	-	2.71E-09	1.11E-07	U	7.05E+02
Thallium (Soluble Salts)	7440-28-0	No	No	Inorgani	-		-		1.00E-05	U	-		1.00E+00	-	1.00E+00	-	-	-	7.10E+01	-	-		1.73E+03
Tin	7440-31-5	No	No	Inorgani	-		-		6.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	2.50E+02	-	-		2.87E+03
Toluene	108-88-3	No	Yes	Organics	-		-		8.00E-02	U	5.00E+00	U	1.00E+00	-	1.00E+00	8.18E+02	5.26E+02	2.34E+02	1.40E+00	6.64E-03	2.71E-01	U	3.84E+02
Trichlorobenzene, 1,2,4-	120-82-1	No	Yes	Organics	2.90E-02	U	-		1.00E-02	U	2.00E-03	U	1.00E+00	-	1.00E+00	4.05E+02	4.90E+01	1.36E+03	8.16E+00	1.42E-03	5.81E-02	U	4.87E+02
Trichloroethane, 1,1,1-	71-55-6	No	Yes	Organics	-		-		2.00E+00	U	5.00E+00	U	1.00E+00	-	1.00E+00	6.41E+02	1.29E+03	4.39E+01	2.63E-01	1.72E-02	7.03E-01	U	3.47E+02
Trichloroethylene	79-01-6	Yes	Yes	Organics	4.60E-02	U	4.10E-06	U	5.00E-04	U	2.00E-03	U	1.00E+00	-	1.00E+00	6.92E+02	1.28E+03	6.07E+01	3.64E-01	9.85E-03	4.03E-01	U	3.60E+02
Trichlorofluoromethane	75-69-4	No	Yes	Organics	-		-		3.00E-01	U	-		1.00E+00	-	1.00E+00	1.23E+03	1.10E+03	4.39E+01	2.63E-01	9.70E-02	3.97E+00	U	2.97E+02
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	No	No	Organics	-		-		8.00E-03	U	-		1.00E+00	1.00E-01	1.00E+00	-	7.10E+01	1.75E+02	-	9.06E-09	3.70E-07	U	6.26E+02
Trimethylbenzene, 1,2,4-	95-63-6	No	Yes	Organics	-		-		1.00E-02	U	6.00E-02	U	1.00E+00	-	1.00E+00	2.18E+02	5.70E+01	6.14E+02	3.68E+00	6.16E-03	2.52E-01	U	4.42E+02
Trimethylbenzene, 1,3,5-	108-67-8	No	Yes	Organics	-		-		1.00E-02	U	6.00E-02	U	1.00E+00	-	1.00E+00	1.82E+02	4.82E+01	6.02E+02	3.61E+00	8.77E-03	3.59E-01	U	4.38E+02
Trinitrobenzene, 1,3,5-	99-35-4	No	No	Organics	-		-		3.00E-02	U	-		1.00E+00	1.90E-02	1.00E+00	-	2.78E+02	1.68E+03	-	6.50E-09	2.66E-07	U	5.88E+02
Trinitrotoluene, 2,4,6-	118-96-7	No	No	Organics	3.00E-02	U	-		5.00E-04	U	-		1.00E+00	3.20E-02	1.00E+00	-	1.15E+02	2.81E+03	-	2.08E-08	8.50E-07	U	6.38E+02
Vanadium and Compounds	7440-62-2	No	No	Inorgani	-		-		5.04E-03	U	1.00E-04	U	2.60E-02	-	1.00E+00	-	-	-	1.00E+03	-	-		3.68E+03
Xylenes	1330-20-7	No	Yes	Organics	-		-		2.00E-01	U	1.00E-01	U	1.00E+00	-	1.00E+00	2.60E+02	1.06E+02	3.83E+02	2.30E+00	6.63E-03	2.71E-01	U	4.11E+02
Zinc and Compounds	7440-66-6	No	No	Inorgani	-		-		3.00E-01	U	-		1.00E+00	-	1.00E+00	-	-	-	6.20E+01	-	-		1.18E+03

Chemical	CAS Number	BP Ref	Critical Temperature T_C (K)	T_C Ref	Chemical Type	D_{ia} (cm^2/s)	D_{iw} (cm^2/s)	D_A (cm^2/s)	Particulate Emission Factor (m^3/kg)	Volatilization Factor Unlimited Reservoir (m^3/kg)	Volatilization Factor Mass Limit (m^3/kg)	Volatilization Factor Selected (m^3/kg)	Ingestion SL TR=1E-06 (mg/kg)	Dermal SL TR=1E-06 (mg/kg)	Inhalation SL TR=1E-06 (mg/kg)	Carcinogenic SL TR=1E-06 (mg/kg)	Ingestion SL Child THQ=1 (mg/kg)	Dermal SL Child THQ=1 (mg/kg)	Inhalation SL Child THQ=1 (mg/kg)
Pyrene	129-00-0	U	9.36E+02	U	PAH	2.78E-02	7.25E-06	2.35E-09	1.56E+09	3.43E+06	0.00E+00	3.43E+06	-	-	-	-	2.35E+03	7.61E+03	-
Selenium	7782-49-2	U	1.77E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.91E+02	-	3.25E+07
Silver	7440-22-4	U	6.41E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.91E+02	-	-
Sodium	7440-23-5	U	2.57E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Styrene	100-42-5	U	6.35E+02	U	VOC	7.11E-02	8.78E-06	1.52E-04	1.56E+09	1.35E+04	0.00E+00	1.35E+04	-	-	-	-	1.56E+04	-	1.41E+04
Sulfate	14808-79-8	U	-		INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Sulfur	7704-34-9	U	1.31E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	-	-	-
Tetrachloroethylene	127-18-4	U	6.20E+02	U	VOC	5.05E-02	9.46E-06	2.41E-03	1.56E+09	3.39E+03	0.00E+00	3.39E+03	3.31E+02	-	3.66E+01	3.29E+01	4.69E+02	-	1.41E+02
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	U	8.28E+02	U	SVOC	2.56E-02	6.67E-06	-	1.56E+09	-	-	-	-	-	-	-	1.56E+02	1.01E+05	-
Thallium (Soluble Salts)	7440-28-0	U	4.65E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	7.82E-01	-	-
Tin	7440-31-5	U	4.92E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	4.69E+04	-	-
Toluene	108-88-3	U	5.92E+02	U	VOC	7.78E-02	9.20E-06	7.23E-04	1.56E+09	6.19E+03	0.00E+00	6.19E+03	-	-	-	-	6.26E+03	-	3.23E+04
Trichlorobenzene, 1,2,4-	120-82-1	U	7.25E+02	U	VOC	3.96E-02	8.40E-06	1.48E-05	1.56E+09	4.33E+04	0.00E+00	4.33E+04	2.40E+01	-	-	2.40E+01	7.82E+02	-	9.02E+01
Trichloroethane, 1,1,1-	71-55-6	U	5.45E+02	U	VOC	6.48E-02	9.60E-06	4.89E-03	1.56E+09	2.38E+03	0.00E+00	2.38E+03	-	-	-	-	1.56E+05	-	1.24E+04
Trichloroethylene	79-01-6	U	5.71E+02	U	VOC	6.87E-02	1.02E-05	2.73E-03	1.56E+09	3.19E+03	0.00E+00	3.19E+03	8.78E+00	-	1.52E+00	1.30E+00	3.91E+01	-	6.65E+00
Trichlorofluoromethane	75-69-4	U	4.71E+02	U	VOC	6.54E-02	1.00E-05	1.24E-02	1.56E+09	1.49E+03	0.00E+00	1.49E+03	-	-	-	-	2.35E+04	-	-
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	U	-		HERB	2.34E-02	5.92E-06	-	1.56E+09	-	-	-	-	-	-	-	6.26E+02	2.64E+03	-
Trimethylbenzene, 1,2,4-	95-63-6	U	6.49E+02	U	VOC	6.07E-02	7.92E-06	2.13E-04	1.56E+09	1.14E+04	0.00E+00	1.14E+04	-	-	-	-	7.82E+02	-	7.14E+02
Trimethylbenzene, 1,3,5-	108-67-8	U	6.37E+02	U	VOC	6.02E-02	7.84E-06	3.04E-04	1.56E+09	9.54E+03	0.00E+00	9.54E+03	-	-	-	-	7.82E+02	-	5.97E+02
Trinitrobenzene, 1,3,5-	99-35-4	U	8.46E+02	U	SVOC	2.90E-02	7.69E-06	-	1.56E+09	-	-	-	-	-	-	-	2.35E+03	5.20E+04	-
Trinitrotoluene, 2,4,6-	118-96-7	U	8.28E+02	U	SVOC	2.95E-02	7.92E-06	-	1.56E+09	-	-	-	2.32E+01	2.57E+02	-	2.13E+01	3.91E+01	5.15E+02	-
Vanadium and Compounds	7440-62-2	U	1.13E+04	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	3.94E+02	-	1.63E+05
Xylenes	1330-20-7	U	6.20E+02	U	VOC	6.85E-02	8.46E-06	4.04E-04	1.56E+09	8.28E+03	0.00E+00	8.28E+03	-	-	-	-	1.56E+04	-	8.64E+02
Zinc and Compounds	7440-66-6	U	3.17E+03	U	INORGANIC	-	-	-	1.56E+09	-	-	-	-	-	-	-	2.35E+04	-	-

Chemical	CAS Number	Noncarcinogenic SL Child THI=1 (mg/kg)	Ingestion SL Adult THQ=1 (mg/kg)	Dermal SL Adult THQ=1 (mg/kg)	Inhalation SL Adult THQ=1 (mg/kg)	Noncarcinogenic SL Adult THI=1 (mg/kg)	Screening Level (mg/kg)
Pyrene	129-00-0	1.79E+03	2.50E+04	4.56E+04	-	1.62E+04	1.79E+03 nc
Selenium	7782-49-2	3.91E+02	4.17E+03	-	3.25E+07	4.17E+03	3.91E+02 nc
Silver	7440-22-4	3.91E+02	4.17E+03	-	-	4.17E+03	3.91E+02 nc
Sodium	7440-23-5	-	-	-	-	-	
Styrene	100-42-5	7.41E+03	1.67E+05	-	1.41E+04	1.30E+04	7.41E+03 nc sat
Sulfate	14808-79-8	-	-	-	-	-	
Sulfur	7704-34-9	-	-	-	-	-	
Tetrachloroethylene	127-18-4	1.09E+02	5.01E+03	-	1.41E+02	1.37E+02	3.29E+01 ca
Tetryl (Trinitrophenylmethylnitramine)	479-45-8	1.56E+02	1.67E+03	6.08E+05	-	1.66E+03	1.56E+02 nc
Thallium (Soluble Salts)	7440-28-0	7.82E-01	8.34E+00	-	-	8.34E+00	7.82E-01 nc
Tin	7440-31-5	4.69E+04	5.01E+05	-	-	5.01E+05	4.69E+04 nc
Toluene	108-88-3	5.24E+03	6.67E+04	-	3.23E+04	2.18E+04	5.24E+03 nc sat
Trichlorobenzene, 1,2,4-	120-82-1	8.09E+01	8.34E+03	-	9.02E+01	8.92E+01	2.40E+01 ca
Trichloroethane, 1,1,1-	71-55-6	1.15E+04	1.67E+06	-	1.24E+04	1.23E+04	1.15E+04 nc sat
Trichloroethylene	79-01-6	5.68E+00	4.17E+02	-	6.65E+00	6.54E+00	1.30E+00 ca
Trichlorofluoromethane	75-69-4	2.35E+04	2.50E+05	-	-	2.50E+05	2.35E+04 nc sat
Trichlorophenoxypropionic acid, -2,4,5	93-72-1	5.06E+02	6.67E+03	1.58E+04	-	4.69E+03	5.06E+02 nc
Trimethylbenzene, 1,2,4-	95-63-6	3.73E+02	8.34E+03	-	7.14E+02	6.58E+02	3.73E+02 nc sat
Trimethylbenzene, 1,3,5-	108-67-8	3.39E+02	8.34E+03	-	5.97E+02	5.57E+02	3.39E+02 nc sat
Trinitrobenzene, 1,3,5-	99-35-4	2.25E+03	2.50E+04	3.12E+05	-	2.32E+04	2.25E+03 nc
Trinitrotoluene, 2,4,6-	118-96-7	3.63E+01	4.17E+02	3.09E+03	-	3.67E+02	2.13E+01 ca
Vanadium and Compounds	7440-62-2	3.93E+02	4.20E+03	-	1.63E+05	4.10E+03	3.93E+02 nc
Xylenes	1330-20-7	8.19E+02	1.67E+05	-	8.64E+02	8.59E+02	8.19E+02 nc sat
Zinc and Compounds	7440-66-6	2.35E+04	2.50E+05	-	-	2.50E+05	2.35E+04 nc