June 14, 2021

Wisconsin Department of Natural Resources
101 South Webster Street
Madison, Wisconsin 53703

Attention: Ms. Alyssa Sellwood
Telephone: (608) 622-8606
Email: Alyssa.Sellwood@wisconsin.gov

Re: **Site Investigation Work Plan**
ChemDesign Products, Inc.
2 Stanton Street
Marinette, Marinette County, Wisconsin
Terracon Project No. 58197143
BRRTS# 02-38-583852

Dear Ms. Sellwood,

Terracon Consultants, Inc. (Terracon), on behalf of ChemDesign Products, Inc., prepared a Site Investigation Work Plan (SIWP) pertaining to the above-referenced environmental repair program (ERP) case. On June 2, 2021 the SIWP was uploaded to the Wisconsin Department of Natural Resources (WDNR) submittal. portal.

On behalf of ChemDesign Products, Inc., Terracon respectfully requests WDNR review of the SIWP. A completed "Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request" (4400-237) and associated fee for review of the SIWP ($700) is enclosed.

We appreciate your assistance with this project. If you have any questions or comments regarding the attachments or require additional information, please contact us at (414) 423-0255.

Sincerely,

Edmund A. Buc, P.E., CHMM
Department Manager

Enclosures: "Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request" (4400-237)
WDNR Fee Check ($700)

EAB/:eab/N:\Projects\2019\58197143\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\SIWP cover letter\58197143 SIWP cover letter.doc

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Notice: Use this form to request **a written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

Definitions

"Property" refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

"Liability Clarification" refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

"Technical Assistance" refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

"Post-closure modification" refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

Select the Correct Form

This from should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

Do <u>not</u> use this form if one of the following applies:

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

All forms, publications and additional information are available on the internet at: dnr.wi.gov/topic/Brownfields/Pubs.html.

Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf"

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

Section 1. Contact and Recipient Information

Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name	First	MI	Organization/ Business Name		
Mielke	David		ChemDesign Products, Inc.		
Mailing Address			City	State	ZIP Code
2 Stanton Street			Marinette	WI	54143
Phone # (include area code)	Fax # (include area code)		Email		
(715) 735-8267			DMielke@chemdesign.com		

The requester listed above: (select all that apply)

- ☐ Is currently the owner
- ☒ Is renting or leasing the Property
- ☐ Is a lender with a mortgagee interest in the Property
- ☐ Other. Explain the status of the Property with respect to the applicant:
- ☐ Is considering selling the Property
- ☐ Is considering acquiring the Property

Contact Information (to be contacted with questions about this request)

☒ Select if same as requester

Contact Last Name	First	MI	Organization/ Business Name		
Mielke	David		ChemDesign Products, Inc.		
Mailing Address			City	State	ZIP Code
2 Stanton Street			Marinette	WI	54143
Phone # (include area code)	Fax # (include area code)		Email		
(715) 735-8267			DMielke@chemdesign.com		

Environmental Consultant (if applicable)

Contact Last Name	First	MI	Organization/ Business Name		
Buc	Ed		Terracon Consultants, Inc.		
Mailing Address			City	State	ZIP Code
9856 South 57th Street			Franklin	WI	53132
Phone # (include area code)	Fax # (include area code)		Email		
(414) 423-0255			eabuc@terracon.com		

Attorney (if applicable)

Contact Last Name	First	MI	Organization/ Business Name		
Wachs	Amy		Husch Blackwell LLP		
Mailing Address			City	State	ZIP Code
190 Carondelet Plaza, Suite 600			St. Louis	MO	63105
Phone # (include area code)	Fax # (include area code)		Email		
(314) 480-1840			Amy.Wachs@huschblackwell.com		

Property Owner (if different from requester)

Contact Last Name	First	MI	Organization/ Business Name		
Bretl	Eric		Tyco Fire Products LP		
Mailing Address			City	State	ZIP Code
5757 North Green Bay Avenue			Milwaukee	WI	53210
Phone # (include area code)	Fax # (include area code)		Email		
(715) 735-7411			ebretl@tycoint.com		

Section 2. Property Information

Property Name			FID No. (if known)
Chem Design Products Inc. - PFAS			438008340
BRRTS No. (if known)	Parcel Identification Number		
02-38-583852	251-4273.1, 251-4273.2, 251-4273.5, and 251-4273.8		
Street Address	City	State	ZIP Code
2 Stanton Street	Marinette	WI	54143

County	Municipality where the Property is located	Property is composed of:	Property Size Acres
Marinette	◉ City ◯ Town ◯ Village of	◯ Single tax parcel ◉ Multiple tax parcels	7

1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

◉ No ◯ Yes

Date requested by: _____

Reason:

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

◉ No. **Include the fee that is required for your request in Section 3, 4 or 5.**

◯ Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:
Section 3. Technical Assistance or Post-Closure Modifications;
Section 4. Liability Clarification; or Section 5. Specialized Agreement.

Section 3. Request for Technical Assistance or Post-Closure Modification

Select the type of technical assistance requested: [**Numbers in brackets are for WI DNR Use**]

- ☐ No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of $350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- ☒ Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of $700.**
- ☐ Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of $1050.**
- ☐ Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of $1050.**
- ☐ Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of $1050.**
- ☐ Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of $1050.**
- ☐ Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of $350**
- ☐ Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of $425.**
- ☐ Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of $425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- ☐ Schedule a Technical Assistance Meeting - **Include a fee of $700.**
- ☐ Hazardous Waste Determination - **Include a fee of $700.**
- ☐ Other Technical Assistance - **Include a fee of $700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- ☐ Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of $1050, and:**
  - ☐ Include a fee of $300 for sites with residual soil contamination; and
  - ☐ Include a fee of $350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.

Section 5. Request for a Specialized Agreement

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: dnr.wi.gov/topic/Brownfields/lgu.html#tabx4.

☐ Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

- **Include a fee of $700, and the information listed below:**

(1) Phase I and II Environmental Site Assessment Reports,
(2) a copy of the Property deed with the correct legal description.

☐ Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

- **Include a fee of $700, and the information listed below:**

(1) Phase I and II Environmental Site Assessment Reports,
(2) a copy of the Property deed with the correct legal description.

☐ Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

- **Include a fee of $1400, and the information listed below:**

(1) a draft schedule for remediation; and,
(2) the name, mailing address, phone and email for each party to the agreement.

Section 6. Other Information Submitted

Identify all materials that are included with this request.

Send both a paper copy of the signed form and all reports and supporting materials, and an electronic copy of the form and all reports, including Environmental Site Assessment Reports, and supporting materials on a compact disk.

Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.

☐ Phase I Environmental Site Assessment Report - Date: _____

☐ Phase II Environmental Site Assessment Report - Date: _____

☐ Legal Description of Property (required for all liability requests and specialized agreements)

☐ Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

☐ Groundwater ☐ Soil ☐ Sediment ☐ Other medium - Describe: _____

Date of Collection: _____

☐ A copy of the closure letter and submittal materials

☐ Draft tax cancellation agreement

☐ Draft agreement for assignment of tax foreclosure judgment

☐ Other report(s) or information - Describe: _____

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

◯ Yes - Date (if known): _____

◯ No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at: dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf.

Section 7. Certification by the Person who completed this form

☐ I am the person submitting this request (requester)

☒ I prepared this request for: David Mielke
Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

Signature	6/14/2021 Date Signed
Department Manager Title	(414) 423-0255 Telephone Number (include area code)

Section 8. DNR Contacts and Addresses for Request Submittals

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a DNR regional brownfields specialist with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.

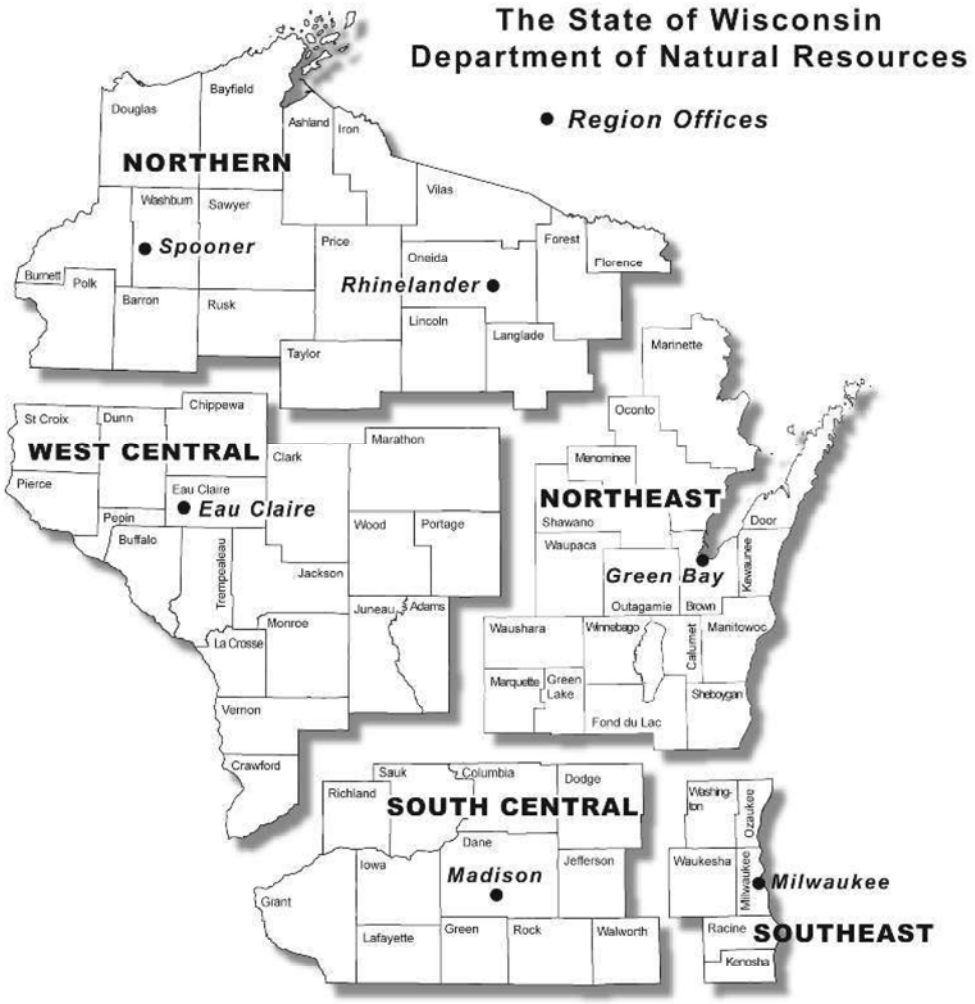
DNR NORTHERN REGION
Attn: RR Program Assistant
Department of Natural Resources
223 E Steinfest Rd Antigo, WI 54409

DNR NORTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2984 Shawano Avenue
Green Bay WI 54313

DNR SOUTH CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

DNR SOUTHEAST REGION
Attn: RR Program Assistant
Department of Natural Resources
2300 North Martin Luther King Drive
Milwaukee WI 53212

DNR WEST CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
1300 Clairemont Ave.
Eau Claire WI 54702



Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer	Comments		
Fee Enclosed? ◯ Yes ◯ No	Fee Amount $	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

Site Investigation Work Plan

ChemDesign Products, Inc.
2 Stanton Street
Marinette, Marinette County, Wisconsin

June 2, 2021
Terracon Project No. 58197142

Prepared for:

ChemDesign Products, Inc.
Marinette, Wisconsin

Prepared by:

Terracon Consultants, Inc.
Franklin, Wisconsin

June 2, 2021

Wisconsin Department of Natural Resources
101 South Webster Street
Madison, Wisconsin 53703

Attention: Ms. Alyssa Sellwood
Telephone: (608) 622-8606
Email: Alyssa.Sellwood@wisconsin.gov

Re: **Site Investigation Work Plan**
ChemDesign Products, Inc.
2 Stanton Street
Marinette, Marinette County, Wisconsin
Terracon Project No. 58197143
BRRTS# 02-38-583852

Dear Ms. Sellwood:

On behalf of ChemDesign Products, Inc. (CDPI), Terracon Consultants, Inc. (Terracon) has prepared this Site Investigation Work Plan (SIWP) for the referenced site. The SIWP was prepared in response to a July 2, 2019 letter from the Wisconsin Department of Natural Resources (WDNR) opening an environmental repair program (ERP) case for the site (BRRTS# 02-38-583852), and subsequent WDNR communications.

CDPI leases its facility from Tyco Fire Products LP (Tyco). Tyco owns the property on which CDPI is located and the property surrounding CDPI'S leasehold. The objective of the proposed site investigation activities is to evaluate soil, groundwater, and air in the vicinity of property leased by CDPI for the presence of per- and polyfluorinated alkyl substances (PFAS).

Ongoing PFAS investigation activities are being conducted by Tyco in response to a separate ERP case (BRRTS# 02-38-581955) opened by the WDNR for the Tyco facility. On behalf of CDPI, Terracon requests WDNR review and approval of this SIWP which will minimize duplicative work from Tyco and CDPI.

We appreciate your assistance with this project. If you have any questions or require additional information, please contact us at (414) 423-0255.

Sincerely,

Terracon

Timothy P. Welch, P.G
Senior Project Geologist

Edmund A. Buc, P.E.
Environmental Department Manager

TPW/DFS/EAB/eab/N:\Projects\2019\58197143\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\SIWP\CDPI SIWP.docx

APPENDICES

SITE INVESTIGATION WORK PLAN
CHEMDESIGN PRODUCTS, INC.
2 STANTON STREET
MARINETTE, MARINETTE COUNTY, WISCONSIN

JUNE 2, 2021
TERRACON PROJECT NO. 58197143

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) has prepared this Site Investigation Work Plan (SIWP) for the ChemDesign Products, Inc. (CDPI) facility (the "Site") located at 2 Stanton Street, Marinette, Marinette County, Wisconsin (Exhibit 1, Appendix A). The SIWP was prepared in response to a July 2, 2019 letter from the Wisconsin Department of Natural Resources (WDNR) opening an environmental repair program (ERP) case for the Site (Bureau of Remediation and Redevelopment [BRRTS]# 02-38-583852), and subsequent WDNR communications.

CDPI leases the Site from Tyco Fire Products LP (Tyco). Tyco owns the property on which CDPI is located and the property surrounding the Site. The objective of the proposed site investigation activities is to evaluate soil, groundwater, and air in the vicinity of the Site for the presence of per- and polyfluorinated alkyl substances (PFAS). Ongoing PFAS investigation activities are being conducted by Tyco (BRRTS# 02-38-581955).

1.1 Background Information

The Site is located at 2 Stanton Street, Marinette, Marinette County, Wisconsin. The Site consists of approximately 7.4-acres of leased property located within an approximately 65-acre industrial property (referred to as the Tyco Property) owned by Tyco Fire Products LLP.

The site and the Tyco Property are depicted on Exhibit 2, Appendix A. The Site and building numbers for the leased buildings comprising the Site are depicted on Exhibit 3, Appendix A.

Specialty Chem Products (SPC) and its parent company, ChemDesign Corporation, were formed in 1983 when Ansul sold their specialty chemical operations, Ansul Security Chemicals, which had been operating at the Tyco Property. SPC continued to manufacture specialty chemicals at the Tyco Property. ChemDesign and its subsidiary, SPC, were purchased by Bayer (which later became LANXESS) in 1994. In 2001, Bayer sold the company shares to Chestnut Acquisition Corporation and HIG Capital.

In 2006, the assets of the company were sold to Resilience Capital Partners, who purchased the company through a bankruptcy. At that time, SPC reorganized and CDPI became the operating

entity at the Site. This transition represented a consolidation between a separate CDPI plant in Fitchburg, Massachusetts and the Site facilities in Marinette, Wisconsin. In 2012 ChemDesign Holdings, Inc. purchased CDPI and remains the owning entity. CDPI is a subsidiary of ChemDesign Holdings, Inc.

1.2 Overview of Site PFAS Handling

The Site is currently occupied by CDPI, a synthetic organic chemistry toll service provider to the chemical industry. CDPI rents time on its assets, primarily reactor trains, and provides technical resources to process customer-supplied and owned reagents in accordance with the customer's recipes, procedures, and specifications, resulting in intermediates which are returned to the customer. A very small portion (less than 7%) of CDPI's business is toll manufacture of certain intermediates for Tyco.

Information regarding the limited use of PFAS at the Site was provided by CDPI in a September 13, 2019, letter to the WDNR. Beginning in 2005, CDPI provided a small amount of reactor capacity (two to six reactors out of 45 total reactors at the Site) to process a series of different perfluorinated compounds following Tyco's direction and technical recipes. Tyco provides CDPI with a complete technical package and procedure, the key reagents (including all PFAS-containing materials), and the plastic totes or 55-gallon drums to package the return material. CDPI uses Tyco's technical packages to create batch processing procedures, trains operators based on safety data sheets (SDSs) and technical information from Tyco, purchases non-key raw materials (acetic acid, caustic, water, methanol, t-butanol, and chlorine), and processes the Tyco-supplied reagents into intermediates as requested. CDPI does not take ownership of the Tyco materials or the resulting intermediates. It returns all intermediates to Tyco using the totes or drums provided by Tyco. CDPI does not own the PFAS compounds supplied by Tyco and does not sell them in the market. CDPI does not design, invent, create, sell, manufacture or market aqueous film forming foam (AFFF). CDPI does perform analytical quality testing on intermediates it processes to determine purity, pH, and percent solids, but does not test any aspect of Tyco's AFFF or other products.

Based on information provided by CDPI, the movement of materials containing PFAS at the site consists of the following:

- PFAS-containing materials bought by Tyco are staged near Building 18-AFFF.
- CDPI picks up and transports the PFAS-containing materials to one of the following buildings for storage or for heating in preparation for subsequent processing:
  - Building 84
  - Building 90
  - A 'hot box' located east of Building 52
  - A 'hot box' located southwest of Building 62
  - A 'hot box' located between Buildings 69 and 67

- CDPI transports the PFAS-containing materials from the aforementioned storage locations to reactors located in Buildings 38, 52, or 69. Currently, most PFAS-related production is limited to reactors in Buildings 52 and 69.
- Completed materials are returned by CDPI to the storage area at Building 18-AFFF for subsequent use by Tyco, or returned back to either Building 84 or 90 for storage until next step in processing.
- Empty containers are processed east of Building 83.
- As described in more detail in CDPI's Response to the WDNR's PFAS Information Request, there are no PFAS air emissions from the CDPI operations.

In addition to the use of PFAS-containing material, the site's fire suppression/fighting system utilizes AFFF. CDPI recently determined that the vendor servicing the fire suppression/fighting system would release small amounts of AFFF to the ground in an area southeast of Building 69 to test the system. The AFFF was not subsequently collected for management/disposal.

1.3 Prior Investigations and WDNR Communications

The Tyco Property (including the portion leased by CDPI) is surrounded by slurry and sheet pile containment walls, and a groundwater recovery and treatment system is operating as part of a Resource Conservation and Recovery Act (RCRA) Corrective Action managed by the United States Environmental Protection Agency (USEPA). Groundwater monitoring wells are located across the Tyco Property and are associated with the RCRA Corrective Action. The slurry wall, sheet pile wall, groundwater monitoring wells, and groundwater extraction wells are depicted on Exhibit 2, Appendix A.

Tyco is addressing the Tyco Property under BRRTS #02-38-581955. Based on data submitted by Tyco, the WDNR sent CDPI a letter dated July 2, 2019, stating that a separate ERP case was being opened for the Site, and assigned BRRTS #02-38-583852,. The WDNR recommended that CDPI retain an environmental consultant, and required preparation of a SIWP. The WDNR also requested information regarding PFAS handling at the site. CDPI subsequently retained Terracon, and Terracon submitted a letter dated July 31, 2019 to the WDNR to provide notification that an environmental consultant had been retained.

CDPI provided the WDNR-requested information in a letter dated September 13, 2019. Terracon began the scoping process for preparing a SIWP in accordance with NR 716.07, Wisconsin Administrative Code (WAC). Because CDPI leases the Site from Tyco, Terracon contacted Tyco in accordance with NR 716.07(6), WAC, to discuss access to their property to conduct the WDNR-requested site investigation. As noted above, Tyco was also conducting a PFAS-related site investigation during the same time period.

Based on subsequent discussions with Tyco and CDPI, Tyco agreed to conduct the site investigation on its entire property, including the Site. This approach will eliminate duplicating

efforts between CDPI and Tyco, allow the Tyco Property (including the Site) to be addressed as a whole, and provide the WDNR with a single point of contact for the site investigation. Tyco submitted a September 3, 2019, letter to the WDNR stating "Pursuant to the Lease Agreement between Tyco and ChemDesign, Tyco, as the owner of the Property and Lessor under the Lease Agreement, will take responsibility for completing the activities under the Site Investigation Workplan for the Property and will continue to work with WDNR with respect to such Workplan as part of Tyco's ongoing activities at the Property." Consequently, a separate SIWP is not necessary from CDPI as Tyco has agreed to conduct a site investigation at the Tyco Property and provide the results of the information related to the Site as part of their site-wide PFAS investigation.

On November 24, 2020, CDPI received a Notice of Violation (NOV) associated with the Site's open PFAS ERP case. The WDNR indicated that although Tyco stated in their September 3, 2019 letter that a site investigation would be completed by Tyco at the Site, the WDNR insisted on a separate CDPI SWIP.

Based on ongoing discussions between Tyco and the WDNR regarding the site investigation and WDNR's ongoing review of Tyco's September 2020 work plan, CDPI requested an extension for preparation of a SIWP by CDPI in letters dated February 12 and 15, 2021. The WDNR declined CDPI's extension request in an April 27, 2021, and required submittal of a SIWP.

2.0 SITE INVESTIGATION SCOPING

This site investigation scope has been prepared in accordance with NR 716, WAC.

2.1 Site Location and Contact Information

The following information is provided in accordance with NR 716.09(2)(a) and (b), WAC:

Site Name: ChemDesign Products Inc - PFAS, BRRTS #02-38-583852.

Site Location: The site is located at a street address of 2 Stanton Street, Marinette, Marinette County, Wisconsin. As described earlier, the site consists of approximately 7.4-acres of leased property located within an approximately 65-acre property owned by Tyco. Based on the Marinette County Land Information Portal, the following parcel numbers are associated with the leased property: 251-4273.1, 251-4273.2, 251-4273.5, and 251-4273.8.
NE¼ of the SW¼ of Section 05, Township 30 North, Range 24 East
WTM – X= 707,798, Y=516,510
Latitude/Longitude – 45.097946º N, 87.6140364 ºW

Responsible Party/ Property Owner Contact Information:	David Mielke ChemDesign Products, Inc. 2 Stanton Street Marinette, Wisconsin 54143 DMielke@chemdesign.com (715) 735-8267
Environmental Consultant:	Edmund A. Buc, P.E. Terracon Consultants, Inc. 9856 South 57th Street Franklin, Wisconsin 53132 eabuc@terracon.com (414) 423-0255

2.2 Site Investigation Scoping

The following relevant items were evaluated in accordance with NR 716.07, WAC.

Site History [NR 716.07(1)] – The site history was provided in Section 1.0 of this SIWP.

Contaminant Types [NR 716.07(2)] – The ERP case associated with this SIWP was opened due to the detection of PFAS in groundwater at the Tyco Property. Consequently, this SIWP was prepared to evaluate soil, groundwater, and air at the Site for PFAS.

History of Previous Hazardous Substance Discharges [NR 716.07(3)] – Based on documentation available through the WDNR's Bureau of Remediation and Redevelopment (BRRTS) website, there have been several hazardous substance discharges associated with the Site. A group of 29 spills consisting of five (5) vapor phase spills and twenty-four (24) liquid spills occurred at the CDPI leased property between 1987 and 1993. Most of the spills were assigned separate BRRTS case numbers, although seven (7) spills do not have separate BRRTS case numbers. The WDNR consolidated these 29 spill cases into a single ERP case, BRRTS# 02-38-000186. Information regarding these spills is included in Table 1, Appendix B. These spills were associated with chemical products used as raw materials in CDPI's operations (e.g., sodium hydroxide, xylene).

The following ERP cases are associated with the Tyco Property: BRRTS #02-38-581955, BRRTS #02-38-00001, and BRRTS #02-38-559214.

Environmental Media [NR 716.07(4)] – The 2018 investigation conducted by Tyco is summarized in reports submitted under the BRRTS #02-38-581955 investigation.

Site Location [NR 716.07(5)] – The Site is located within the boundaries of a larger industrial property. The Tyco Property is located along the south side of the Menominee River, and is

bordered to the east and south by undeveloped land and parks, and to the west by industrial land use. According to the City of Marinette Zoning District Map, the Tyco Property is zoned M-2, Heavy Manufacturing District.

Access [NR 716.07(6)] – The current site owner, based on the Marinette County Land Information Portal is Tyco Fire Products LP. CDPI leases the Site from Tyco. CDPI will obtain access from Tyco where appropriate.

Receptors [NR 716.07(7)] – The Site is currently used for industrial purposes, and is located within the boundaries of a larger industrial property. The soil at the Site and the Tyco Property is largely capped with buildings and pavements. Several of these areas are capped as part of the RCRA Corrective Action activities.

Groundwater at the Site is not being used as a source of potable water. Groundwater monitoring is being conducted by Tyco as part of the RCRA Corrective Action and the open PFAS ERP case for the Tyco Property. The RCRA Corrective Action includes hydraulic control of groundwater (slurry and sheet pile walls, groundwater extraction system), reducing offsite migration of PFAS-contaminated groundwater.

The constituents that are the subject of this investigation are PFAS, which are solids at standard temperature and pressure. The reactors being used by CDPI for PFAS processing are equipped with condenser and knockout systems for volatile organic compound control; these are subsequently vented to the building emission control scrubber.

The Site adjoins the Menominee River. The slurry wall and sheet pile wall associated with the RCRA Corrective Action extend along the north side of the Tyco Property, between the Tyco Property and river. The groundwater extraction system also provides hydraulic control.

Potential Impacts to Sensitive Habitat, Wetlands, Resource Waters, and Historical Sites [NR 716.07(8)] – The Site is located in an industrial area of Marinette. The Tyco Property is zoned M-2, Heavy Manufacturing District, and is bordered to the east and south by undeveloped land and parks, and to the west by industrial land use.

The WDNR's Surface Water Data View map does not depict wetlands on the Site. Two wetland class points are located along the south property boundary of the Tyco Property, and are listed as "too small to delineate." The Menominee River (WBIC 609000) is not listed as an outstanding resource water or exceptional resource water as defined in NR 102, WAC.

Interim Action [NR 716.07(9)] –Interim action associated with the Site has not been proposed.

Other Conditions [NR 716.07(10)] – The Site is not located in an area with unique climatological conditions that may affect the scope of site investigation activities.

Hydraulic Conductivity [NR 716.07(12)] – Based on investigation activities completed by Tyco, soil consists of approximately 35 to 45 feet of unconsolidated materials, comprising fill, alluvium or lakebed sediments, and till. Alluvial deposits consisting of fine to coarse-grained sand and gravel with varying amounts of silt underlie the fill layer. Underlying this alluvium is a layer of silty sand to sandy silt lacustrine deposits. This predominantly silt lacustrine layer transitions to a compacted glacial till deposit consisting of denser sandy silt and clay.

The water table in the vicinity of the Site is typically less than 5 feet below ground surface (bgs), generally occurring within the shallow fill materials. Groundwater in the fill and alluvial deposits is hydraulically connected, while the glacial till acts as an aquitard. The bedrock underlying the till appears to be semi-confined, and bedrock groundwater may be predominantly controlled by fracture flow. Some boreholes completed in the uppermost bedrock (e.g., more than 10 to 15 feet below the rock surface) encountered fractured and weathered rock with moderate permeability. Other locations attempted in shallow rock encountered no open fractures and could not be completed as wells.

Based on a slug test completed at the Tyco Property in 2002, the horizontal hydraulic conductivity of the shallow, unconsolidated materials was reported to be 2.5×10^{-3} feet per minute (1.27×10^{-3} centimeters per second). Based on data provided as part of a 2007 pre-design remedial engineering report completed at the Tyco Property, vertical gradients range from 0.04 (upward) to -0.2 (downward), although vertical gradient is generally downward across the Site.

3.0 SITE INVESTIGATION WORK PLAN

3.1 Health and Safety Plan

A site safety plan to be used by personnel during field services will be prepared, and updated, if necessary. At this time, we anticipate performing fieldwork in a United States Environmental Protection Agency (USEPA) Level D work uniform consisting of hard hats, safety glasses, protective gloves, and steel toed boots. It may become necessary to upgrade this level of protection, at additional cost, during sampling activities in the event that we encounter petroleum or chemical constituents in soils or groundwater that present an increased risk for personal exposure.

The contractor may stop work without penalty at any time if it believes it is in the best interests of its employees or subcontractors to do so in order to reduce the risk of exposure to the coronavirus. CDPI acknowledges its responsibility for notifying the contractor of any circumstances that present a risk of exposure to the coronavirus or individuals who have tested positive for COVID-19 or are self-quarantining due to exhibiting symptoms associated with the coronavirus.

3.2 Access

CDPI leases the Site from Tyco. CDPI will work with Tyco and obtain access to conduct the work described in this SIWP.

3.3 Locate Utilities in Work Area

In an effort to locate utilities in the work area, the contractor will review any site plans provided and will contact Diggers Hotline. To the extent practicable, the locations and depths of the various utilities will be identified to avoid damage to such utilities. The contractor will subcontract a private utility locating firm to mark private utilities at the Site. In addition, available Site personnel will be interviewed to help determine utility locations. The proposed boring locations may be modified based upon the presence of utilities, or if access is otherwise restricted.

3.4 Soil and Groundwater Sampling

Soil and groundwater samples will be collected from direct-push borings advanced at eleven (11) locations at the site, based on information from CDPI and the NR 716 scoping process:

- Boring P-1: This boring will be located in the area where PFAS-containing products are stored for pickup by CDPI and where CDPI returns processed material, west of Building 18-AFFF.
- Boring P-2: This boring will be located at the loading dock area south of Building 84.
- Boring P-3: This boring will be located at the entrance ramp to Building 90.
- Boring P-4: This boring will be located near the 'hot box' east of Building 52.
- Boring P-5: This boring will be located near the 'hot box' south of Building 62.
- Boring P-6: This boring will be located near the 'hot box' between Buildings 67 and 69.
- Boring P-7: This boring will be located near the entrance on the northwest side of Building 69.
- Boring P-8: This boring will be located near the entrance on the east side of Building 52.
- Boring P-9: This boring will be located near the entrance on the south side of Building 38.
- Boring P-10: This boring will be located east of Building 83, in the area used to process empty containers.
- Boring P-11: This boring will be located southeast of Building 69, in the area where foam was discharged from the testing of the building's fire suppression system.

The proposed locations are depicted on Exhibit 3, Appendix A.; however, the locations may be modified based upon the presence of utilities or if access is otherwise restricted.

3.5 Sampling and Analysis Program

Terracon reviewed a "Summary of Soil and Groundwater Sampling" letter report dated February 4, 2020, prepared for Tyco for the Tyco Property, to evaluate depth to groundwater at the Site. The depth to groundwater in shallow monitoring wells MW003S, MW013S, MW021S-R, MW102S, MW104S, based on measurements collected between December 10 and 13, 2019, ranged from approximately 2.99 to 6.46 feet below top of casing.

Based upon this review, soil borings will be advanced to a depth of approximately 10 feet bgs, to approximately 4 feet below the apparent water table, or to refusal, whichever is shallower. Soil samples will be collected continuously. Soil characteristics (e.g. texture, color) and any unusual odors or discoloration will be noted on each soil boring log. A photoionization detector (PID) will be used to field screen soil samples for volatile organic compound (VOC) vapors.

Up to two soil samples will be collected from each soil boring. One soil sample will be selected for analysis from the upper 4 feet, and a second sample will be collected from the unsaturated soil below 4 feet (if present). Soil samples will be collected from depths with the highest PID readings. Or, if PID readings are not elevated, the deeper soil sample will be collected from the soil to groundwater interface observed at the time of drilling, and the shallow soil sample will be collected from immediately below the topsoil or base course material, unless indications of impacts suggest another sample depth. If groundwater is not encountered, the deeper sample will be collected from the boring terminus. If groundwater is encountered at a depth of 4 feet or less, a deeper soil sample will not be collected.

Upon soil sampling completion, a temporary groundwater sampling point will be constructed within each soil boring by attaching a 5 to 10-foot section of 1-inch diameter polyvinyl chloride (PVC) well screen to PVC riser pipe.

Groundwater samples will be collected from the temporary groundwater sampling points with a disposable bailer or by inserting disposable tubing into the temporary groundwater sampling point and extracting water with a peristaltic pump. Prior to sample collection, groundwater will be purged from the temporary groundwater sampling points until generally sediment-free water is produced. After groundwater sampling, the borings/temporary groundwater sampling points will be abandoned per Chapter NR 141, WAC.

3.6 Soil and Groundwater Laboratory Analysis

The WDNR's default list of PFAS was recently updated in a document dated March 1, 2021, which states "After careful consideration, the Wisconsin Department of Natural Resources (DNR) will no longer expect laboratories to report 10:2 FTS, PFHxDA or PFODA, as part of the WI DNR default PFAS list, at this time. This applies to new and existing projects, unless otherwise directed by the DNR." Based on the March 1, 2021 WDNR update, the soil and groundwater samples collected

during this investigation will be analyzed for the WDNR list of 33 PFAS compounds of interest. The March 1, 2021 WDNR update and associated list of 33 PFAS is included in Appendix C.

The samples will be submitted to Eurofins TestAmerica in Sacramento, California, which has received WDNR certification to analyze drinking water, groundwater, wastewater, and soil samples for PFAS under USEPA Method 537.1 (drinking water samples) and the WDNR document "Wisconsin PFAS Aqueous (Non-Potable Water) and Non-Aqueous Matrices Method Expectations", dated December 16, 2019 (groundwater, wastewater, and soil samples). The soil and groundwater samples will be submitted for laboratory analysis of the WDNR default list of 33 PFAS using the laboratory's isotope dilution method. The soil and groundwater samples will be collected in laboratory-supplied containers, placed in an ice chest to cool to approximately 4 degrees Celsius (°C), and transferred under chain-of-custody protocol to Eurofins TestAmerica for analysis.

3.7 Air Sampling and Analysis

The March 1, 2021 WDNR PFAS update does provide specific air sampling guidance and PFAS methodology for analysis. Terracon reviewed information available from the Interstate Technology and Regulatory Council (ITRC) regarding the collection and analysis of air samples for PFAS. According to the April 2020 ITRC guidance document *Per- and Polyfluoroalkyl Substances (PFAS),*

> "There are currently no USEPA Federal Reference Methods (FRM) or Toxic Organic Methods (TO series) available specifically for the measurement of PFAS compounds in ambient air. PFAS in ambient air have been measured using both active (with actual flow) and passive (gas diffusion) sampling techniques. The majority of techniques have made use of solid sorbents such as PUF, XAD-2, and sorbent-impregnated PUF (SIP)."

Terracon also discussed the potential for PFAS related air emissions with CDPI. According to CDPI, there are no PFAS-air emissions from CDPI's operations. First, the PFAS-raw materials have extremely high boiling points under vacuum, and reactor-tempered water heating coils are incapable of heating the reactors to boiling temperatures. Therefore, with one exception noted below (mercaptan distillation), the PFAS materials are never vaporized during the process of mixing, reacting, and blending; they remain in nonvolatile liquid form. In addition, the reactors are typically operated as a closed system (non-vented conditions), meaning no air emissions leave the reactors. At times the reactors do need to be opened, especially when additional materials are added to the reactors. When this occurs, the only vapors are from solvents utilized in the process, typically butanol, that do not contain any PFAS compounds. The non-PFAS-solvent vapors are directed first to a primary chilled condenser and condensed solvents are returned to the reactor through enclosed piping. Any remaining solvent vapors after the primary condenser are directed to a secondary condenser with condensate directed to hazardous waste storage through enclosed piping. Any remaining solvent emissions from the secondary condenser are

directed to a caustic scrubber. Note that even if any PFAS salts were somehow vaporized (which is chemically impossible) any PFAS-containing vapors would be stopped by the scrubber as they are 100% water soluble and react with caustic in the form used at CDPI.

Terracon reviewed Tyco's March 22, 2021 Site Investigation Work Plan for information on how Tyco is addressing air sampling in its investigation. The March 22, 2021 work plan stated "As described in the Aerial Deposition Evaluation Report (Arcadis 2020f), there are no outdoor releases of aqueous film-forming foam at the Site. Aerial transport of PFAS is not believed to have historically occurred within the Site as no outdoor aqueous film-forming foam testing or firefighter training was conducted at the Site (Arcadis 2020f). As such, no air samples will be collected for analysis of PFAS."

Based on the absence of regulatory guidance or approved methods for the collection of air samples, the low volatility of the PFAS materials used at the Site, and the emission control systems in use, air sampling and analysis for PFAS will not be completed at this time.

3.8 Quality Control

Procedures will be implemented during field activities to reduce the potential for cross-contamination associated with PFAS. Quality control samples will also be collected. Sampling will be conducted in general accordance with Eurofins TestAmerica's "EPA 537/537.1 PFAS Sampling Instructions" (Appendix C).

3.8.1 Field Equipment and Personal Protective Equipment

The following field equipment will be used:

- High density polyethylene (HDPE) or polypropylene materials
- Silicon tubing
- Loose paper (non-water resistant)
- Aluminum field clipboards or Masonite
- Sharpies or pens
- Regular Ice

The following personal protection equipment (PPE) will be used:

- Well-laundered clothing, defined as clothing that has been washed six or more times after purchase, made of synthetic or natural fibers (preferable cotton)
- No fabric softener
- Boots made with polyurethane and polyvinyl chloride (PVC)
- Sunscreens-All Organic Natural Sunscreen, that are "free" or "natural". Insect Repellents-Various natural ones, DEET.

3.8.2 Decontamination

Where possible, dedicated, disposable sampling equipment will be used to reduce the potential for cross-contamination. Soil samples will be collected using direct-push sampling methods and disposable acetate sleeves. Groundwater samples will be collected using dedicated polyethylene tubing. We anticipate the only non-dedicated sampling equipment will be the electronic water level indicator used to verify groundwater is accumulating in the temporary sampling points.. During groundwater sampling activities, the electronic water level indicator will be decontaminated after the water level is measured by washing with an Alconox-water solution and rinsed with certified PFAS-free water obtained from the laboratory.

3.8.3 Quality Control Samples

Quality control samples will be collected as part of the field investigation. The quality control samples will be placed into laboratory-supplied containers, placed in an ice chest to cool to approximately 4 degrees °C, and transferred under chain-of-custody protocol to Eurofins TestAmerica for analysis. Each sample will be analyzed for the WDNR list of 33 PFAS as previously described.

Eleven to 22 soil samples and eleven groundwater samples will be collected. Quality control samples will be collected in accordance with the March 1, 2021, WDNR PFAS update (Appendix C) and laboratory recommendations and include:

- Two field equipment blanks (FEB1 and FEB2), one per each 10 groundwater samples, to be taken from the water level indicator rinse water;
- Two Field Reagent Blanks (FRB-1 and FRB-2; one per each 10 sample points). One will be collected at the location of soil boring P-1 and one from the location of air sample OA-1. At the laboratory, a sample bottle will be filled with reagent water and preservatives, sealed, and shipped to the site along with the sample bottles. For each FRB shipped, an empty sample bottle (no preservatives) will also be shipped. At each sampling location, the shipped FRB will be opened and the reserved reagent water poured into the empty shipped bottle and sealed;
- Two duplicate groundwater samples (DUP-1 and DUP-2, one per each 10 groundwater samples) will be collected; and

A temperature blank will not be used, as the samples will be shipped on ice.

A summary of the proposed sampling/analysis strategy is presented as follows:

Sample Locations	Matrix/Analyses	No. of Samples	Lab Method
P-1 through P-11	Soil: PFAS	Up to 22	WDNR list of 33 PFAS compounds of interest
P-1 through P-11	Groundwater: PFAS	11	WDNR list of 33 PFAS compounds of interest
FEB-1 and FEB-2	Decontamination Rinse Water: PFAS	2	WDNR list of 33 PFAS compounds of interest
FRB-1 and FRB-2	Reagent Blank: PFAS	2	WDNR list of 33 PFAS compounds of interest
DUP-1 and DUP-2	Groundwater (Duplicates): PFAS	2	WDNR list of 33 PFAS compounds of interest

3.9 Report Preparation

After receipt of the laboratory data, a report will be prepared that will include the following:

- Documentation of field activities;
- Soil boring location map;
- Soil boring logs;
- Analytical laboratory results;
- Data evaluation and presentation of pertinent findings; and
- Recommendations concerning further action, if necessary.

3.10 Schedule

Work will not commence until the WDNR has reviewed and approved this SIWP. Because Tyco is currently conducting site investigation activities at the Tyco Property for its open PFAS ERP case, CDPI will contact Tyco regarding Site access, where appropriate, after receipt of WDNR approval of the SIWP, as Tyco may wish to incorporate some or all of the proposed work into its investigation. CDPI will schedule the drilling activities within 2 weeks of receipt of access, unless there is a significant delay with drilling schedules and/or weather. We anticipate the proposed sampling activities can be completed in 1 to 2 days of onsite work. In accordance with Item #4 of the WDNR's July 2, 2019 letter, the report will be completed within 60 days of receipt of the analytical reports from the laboratory.

4.0 GENERAL COMMENTS

This report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental engineering practices. No warranties, express or implied are intended or made. In the event any changes in the nature or location of suspected sources of contamination as outlined in this report are observed, the conclusions and recommendations contained in this report shall not be valid unless these changes are reviewed and the opinions of this report are modified or verified in writing by Terracon.

5.0 CERTIFICATIONS

I, Edmund A. Buc, P.E., hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

E-32096
Signature and P.E. number

Project Engineer
Title

I, Timothy P. Welch, P.G., hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

G-558
Signature and P.G. number

Project Geologist
Title

APPENDIX A

EXHIBITS

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY

SCALE 1:24 000

KILOMETERS 1 .5 0 1 2

METERS 1000 0 1000 2000

MILES 1 .5 0 1

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

MARINETTE EAST GUADRANGLE
MARINETTE COUNTY ~ WISCONSIN
1976
7.5 MINUTE SERIES (TOPOGRAPHIC)

DIAGRAM IS FOR GENERAL LOCATION ONLY AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr: EAB	Project No. 58197143	Terracon Consulting Engineers and Scientists	TOPOGRAPHIC MAP
Drawn By: JLM (41)	Scale: AS SHOWN	9856 SOUTH 57th STREET FRANKLIN, WI 53132	CHEMDESIGN PRODUCTS, INC.
Checked By: EAB	File No. 58197143C1	PH. (414) 423-0255 FAX. (414) 423-0566	2 STANTON STREET
Approved By: BRS	Date: 8/2019		MARINETTE, WISCONSIN

EXHIBIT 1

(EX1 TOPO)

LEGEND (ARCADIS)

- EXTRACTION WELL OR TEST WELL
- MONITORING WELL - SHALLOW OR PEAT
- MONITORING WELL - MEDIUM
- MONITORING WELL - DEEP (BEDROCK)
- SHEET PILE WALL
- SLURRY WALL
- PROPERTY LEASED BY CHEMDESIGN

250 0 250

APPROXIMATE SCALE: 1" = 250'

ARCADIS SYMBOLS AND LOCATIONS ARE PROVIDED BY CLIENT
IMAGE SOURCE: GOOGLE EARTH PRO
DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

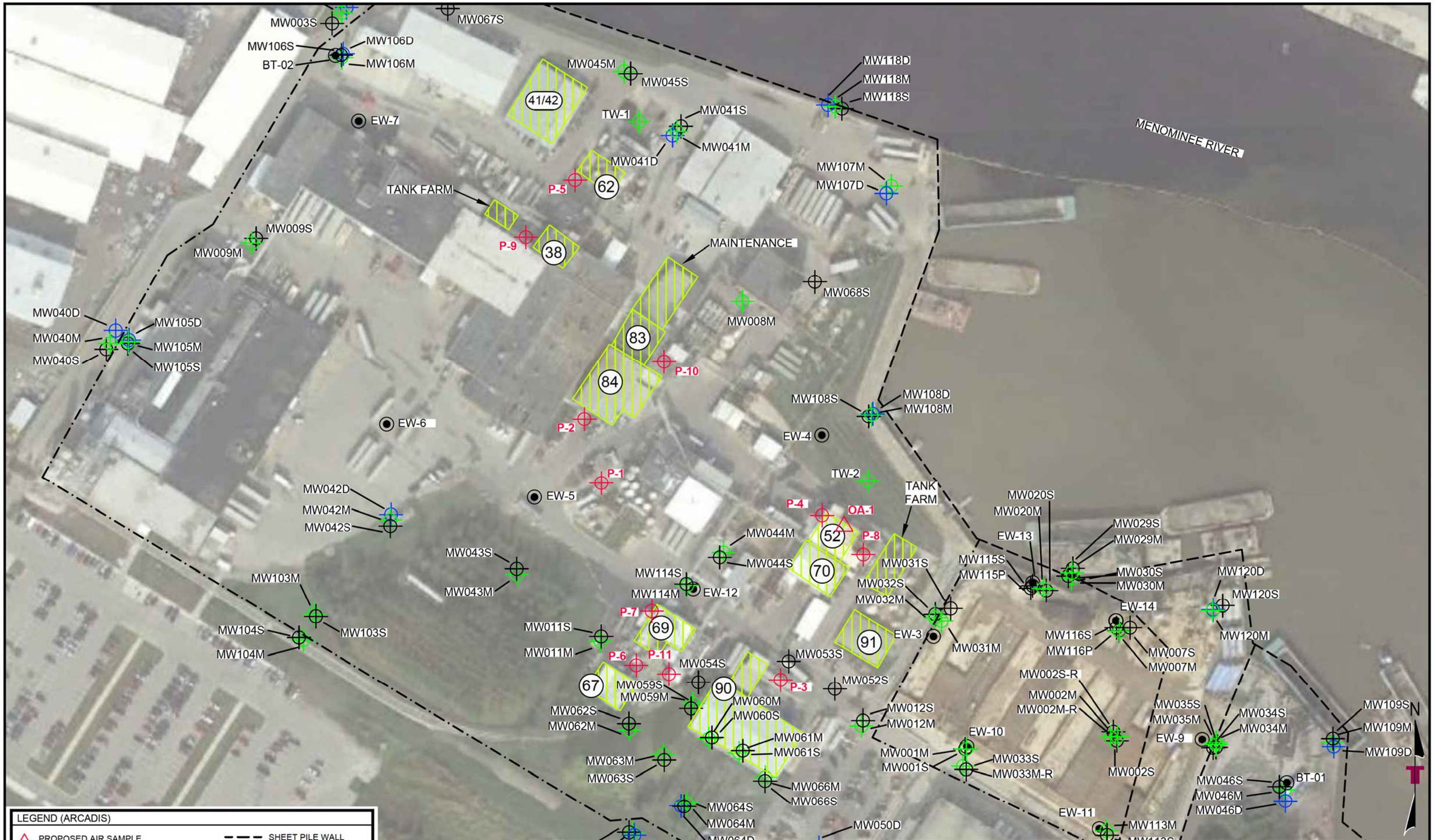
Project Mngr:	EAB
Drawn By:	JLM (41)
Checked By:	EAB
Approved By:	BRS
Project No.	58197143
Scale:	AS SHOWN
File No.	58197143C1
Date:	8/2019

Terracon
Consulting Engineers and Scientists
9856 SOUTH 57th STREET FRANKLIN, WI 53132
PH. (414) 423-0255 FAX. (414) 423-0566

SITE MAP

CHEMDESIGN PRODUCTS, INC
2 STANTON STREET
MARINETTE, WISCONSIN

EXHIBIT
2
(EX2)



LEGEND (ARCADIS)

- PROPOSED AIR SAMPLE
- PROPOSED BORING/TEMPORARY WELL
- EXTRACTION WELL OR TEST WELL
- MONITORING WELL - SHALLOW OR PEAT
- MONITORING WELL - MEDIUM
- MONITORING WELL - DEEP (BEDROCK)
- SHEET PILE WALL
- SLURRY WALL
- PROPERTY LEASED BY CHEMDESIGN
- (84) BUILDING NUMBERS

130 0 130

APPROXIMATE SCALE: 1" = 130'

ARCADIS SYMBOLS AND LOCATIONS ARE PROVIDED BY CLIENT
IMAGE SOURCE: GOOGLE EARTH PRO
DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Mngr:	EAB
Drawn By:	JLM (41)
Checked By:	EAB
Approved By:	BRS
Project No.	58197143
Scale:	AS SHOWN
File No.	58197143C1
Date:	5/2021

Terracon
Consulting Engineers and Scientists
9856 SOUTH 57th STREET FRANKLIN, WI 53132
PH. (414) 423-0255 FAX. (414) 423-0566

CHEMDESIGN - LEASED PROPERTY

CHEMDESIGN PRODUCTS, INC
2 STANTON STREET
MARINETTE, WISCONSIN

EXHIBIT 3 (EX3 EN-SM)

APPENDIX B

TABLES

Table 1
Summary of Spills, 1987 to 1993, BRRTS# 02-38-000186
ChemDesign Products, Inc.
Marinette, Wisconsin
Terracon Project No. 58197143

BRRTS #	Date	Building No./Location	Material	Vapor/Liquid	Quantity
04-38-043038	8/18/1988	Not Reported	Methylene Chloride	Vapor	200 Pounds
04-38-052133	11/9/1988	Not Reported	Hydrogen Chloride and Sulfur Dioxide	Vapor	100 Pounds each
04-38-043682	5/15/1989	Not Reported	Xylene and Sulfuric Acid	Vapor	500 Gallons
04-38-043993	8/21/1989	Not Reported	Sulfur Dioxide	Vapor	40 to 50 Pounds
04-38-044023	8/28/1989	Not Reported	Sulfur Dioxide	Vapor	2,000 Pounds
04-38-043561	4/9/1989	Drum Storage Area	Hydrochloric Acid	Liquid	400 Pounds
Not Assigned	8/23/1988	Buildings 62/38	Xylene	Liquid	Not Reported
04-38-042927	7/15/1988	Buildings 62/38	Methylene Chloride	Liquid	35 Gallons
04-38-044170	10/25/1989	Buildings 62/38	Xylene	Liquid	25 Gallons
04-38-045340	12/27/1990	Buildings 62/38	Xylene	Liquid	15 Gallons
Not Assigned	3/6/1991	Buildings 62/38	Xylene	Liquid	30 to 40 Gallons
Not Assigned	8/22/1991	Buildings 62/38	Xylene	Liquid	20 Gallons
04-38-043872	7/11/1989	Buildings 83/84	Toluene	Liquid	10 Gallons
04-38-043986	8/18/1989	Buildings 83/84	Hydrogen Peroxide	Liquid	20 Gallons
Not Assigned	7/20/1987	Buildings 83/84	Sulfuric Acid	Liquid	100 Gallons
04-38-042830	6/9/1988	Buildings 83/84	Sulfuric Acid	Liquid	Not Reported
04-38-042960	7/27/1988	Buildings 83/84	Sulfuric Acid	Liquid	Not Reported
04-38-042653	4/6/1988	Building 69	Dimethyl Formate	Liquid	15 Gallons
04-38-042923	7/4/1988	Building 69	Methylene Chloride	Liquid	60 Gallons
04-38-043130	9/21/1988	Building 69	2-Ethyl Phenol	Liquid	35 Gallons
04-38-044092	9/20/1989	Building 69	Methylene Chloride	Liquid	35 Gallons
04-38-044197	11/6/1989	Building 69	Sodium Hydroxide	Liquid	150 Gallons
04-38-045372	1/8/1991	Building 69	Sodium Hydroxide	Liquid	150 Gallons
04-38-052213	8/22/1989	Building 70	2,1,5-Diazo Salt	Liquid	700 Pounds
Not Assigned	2/2/1988	Building 52	Xylene	Liquid	100 Gallons
Not Assigned	3/9/1989	Building 52	Methyl Iosbutyl Ketone	Liquid	5 to 10 Gallons
04-38-045164	10/9/1990	Building 52	1,2-Dichlorobenzene	Liquid	50 to 100 Gallons
Not Assigned	3/8/1991	Building 52	Chloroacetaldehyde Dimethyl Acetal	Liquid	10 Gallons
04-38-046747	1/26/1992	Building 52	Butyl Alcohol	Liquid	200 to 300 Gallons

BRRTS = Bureau of Remediation and Redevelopment Tracking System

APPENDIX C

PFAS SAMPLING GUIDANCE

eurofins | Eaton Analytical

EPA 537/537.1 PFAS Sampling Instructions*

Sampling Clothing and Other Considerations

- Avoid wearing clothing or boots containing Gore-Tex or using materials containing Tyvek.
- Avoid using cosmetics, moisterizers, heavy fabric softeners on clothes the day of sampling.
- Sample PFAS first if your cooler contains other sample collection bottles! Other sample containers for other methods may have PFAS present.

Consideration of Supplies

- Do not use chemical ice packs.
- Felt-tip pens and permanent markers should not be used. Use regular ball point pens only.
- Avoid adhesive products like sticky notes.
- Avoid plastic clipboards, binders, hard covers, etc.
- Sampler must wash hands before wearing nitrile gloves in order to limit contamination during sampling.
- Only use the containers that have been provided by the laboratory.

Before Sampling

- Read all lab specific instructions before sampling.
- Plan to have samples collected just prior to the pick-up time of your overight carrier to limit potential on-site environmental contamination.
- If your sampling point has a faucet with an aerator, remove prior to collection of the samples.

Sampling Steps

- ***Caution: bottles may contain chemical preservatives. Avoid skin contact.***
- Wash hands and put on Nitrile gloves (provided). They must be worn during the sampling.
- Find the PFAS bottles in your Cooler: 2 - 250 mL (SB) or 2 - 275 mL (MON) plastic bottles pre-preserved with 1.25g Trizma.
- Flush the cold water sampling line approximately 15 minutes immediately prior to sampling. Slow the water stream before collection.
- Remove cap, fill the sample bottle to the neck, replace cap and tighten. Allow a small amount of head space for mixing the sample with preservative. Do not overfill. Do not flush away the preservative.
- Do not touch inside of the cap or around the edge of the bottle.
- Cap and invert at least 5 times to mix sample with preservative.
- Indicate sampling date, time and site on both the bottle labels and the enclosed Chain of Custody. Information on the Chain of Custody and labels must match and be complete.

PFAS Field Blank *

- Open bottle and pour field blank water (provided) into the empty bottle labeled Field Blank.

Shipping Instructions

- Place wet ice, samples and Chain of Custody into the shipping container and return to the laboratory immediately after collection. Sample bottles may be hand delivered or sent by overnight carrier. The laboratory must be notified prior to shipment of samples for Saturday delivery.
- Samples must arrive at the laboratory within 48 hours of sampling at or less than 10°C, and greater than 0°C (not frozen).
- Maximum holding time is 14 days from time of collection.
- Try to collect only on a Monday, Tuesday or Wednesday and ship no later than Thursday of each week. Try to NOT collect samples on Friday, Saturday or Sunday unless special arrangements have been made for the receipt of samples at the laboratory within 48 hours of collection.

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Please contact Eurofins Eaton Analytical at one of the locations below or visit www.eurofinsus.com/environment-testing/testing-services/pfas-analysis for more information.

* There may be altered or additional practices required by individual states or regulatory programs. We recommend www.asdwa.org/pfas or refer to your state or regulatory agency for specific guidance.

Eurofins Eaton Analytical

Monrovia Laboratory
750 Royal Oaks Drive, #100
Monrovia, CA 91016
626-386-1100

South Bend Laboratory
110 South Hill Street
South Bend, IN 46617
574-233-4777

www.EurofinsUS.com/Eaton

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Wisconsin DNR PFAS Updates - effective March 1, 2021

Update to the Wisconsin DNR PFAS list

After careful consideration, the Wisconsin Department of Natural Resources (DNR) will no longer expect laboratories to report 10:2 FTS, PFHxDA or PFODA, as part of the WI DNR default PFAS list, at this time. This applies to new and existing projects, unless otherwise directed by the DNR. The DNR will continue to evaluate which PFAS are critical for reporting in Wisconsin as PFAS analysis and science continues to evolve. This decision was based on the exclusion of these compounds in the forthcoming EPA method. Therefore, the updated DNR PFAS list now consists of 33 PFAS and is provided on the third page of this document.

The remainder of this document clarifies the administrative rule requirements and general recommendations that the DNR has for the regulated community regarding PFAS sampling. Where guidance is provided, it is done so to assist the regulated community in submitting information to the DNR that it can use to make regulatory decisions with confidence.

Reporting PFAS results based on Wisconsin DHS recommended PFAS groundwater standards

The DNR expects laboratories to have PFAS method detection limits (MDLs) equal to or below the recommended groundwater enforcement standards (ES).

The DNR does not expect laboratories to have PFAS MDLs that are below the recommended groundwater preventative action limits (PAL) for all of the PFAS on the DNR PFAS list if the laboratory's routine method procedure does not generate MDLs below the PALs. Neutral PFAS are examples of PFAS for which laboratories may not have MDLs below the recommended PALs. The recommended groundwater ESs and PALs are provided for the updated DNR PFAS list on the third page of this document.

The DNR expects all sample results to be reported to the statistical MDL.

Certification requirements and expectations

The DNR's administrative rules require the analysis of drinking water samples submitted under s. NR 716.13 or s. NR 809.73 to be performed by a Wisconsin certified laboratory if one exists.

The DNR's administrative rules require the analysis of non-drinking water samples submitted under ss. NR 200.027 (except for those tests excluded in NR 219.037), NR 507.17, NR 664.0013 or NR 716.13 to be performed by a Wisconsin certified laboratory if one exists.

For samples that do not fall under ss. NR 200.027, NR 507.17, NR 664.0013, NR 716.13 or NR 809.73, the DNR recommends the analysis to be performed by a Wisconsin certified laboratory if one exists.

If a Wisconsin certified laboratory does not exist, the DNR recommends that the samples be performed by a laboratory that has applied for Wisconsin PFAS certification. The list of laboratories that have applied for Wisconsin PFAS certification can be found at https://dnr.wisconsin.gov/topic/Contaminants/Labs.html.

Analysis requirements and expectations

Laboratories perform PFAS analysis according to the instructions provided to them by their client. If the client does not provide instructions, the DNR expects drinking water and non-drinking water samples to be performed using the laboratory's isotope dilution method that utilizes the Wisconsin PFAS Aqueous (Non-Potable Water) and Non-Aqueous Matrices Method Expectations guidance document.

In addition, unless otherwise instructed by the client, the DNR expects drinking water and non-drinking water samples to be tested for the 33 compounds on the DNR PFAS list.

Non-drinking water matrices field quality control samples requirements

For non-drinking water matrices, laboratories are not responsible for sending out instructions or supplies for collecting field quality control samples unless requested by their client.

Responsible parties as defined in ch. NR 716 and owners and operators of solid waste disposal facilities regulated under chs. NR 500 to 538 are obligated to ensure that field quality control samples (e.g. field blanks, field duplicates, equipment blanks) are collected as required by the administrative code sections presented below. These parties and agents acting on their behalf shall inform laboratories of the field quality control samples that must be collected in order for the laboratory to provide the proper sampling supplies for collection.

Groundwater: s. **NR 140.16 Monitoring and laboratory data requirements.**
(1)
(a) All groundwater quality samples collected to determine compliance with ch. 160, Stats., shall comply with this section except as noted.
(b) *Groundwater sampling requirements.* All groundwater quality samples shall be collected and handled in accordance with procedures specified by the applicable regulatory agency or, where no sampling procedures are specified by that agency, in accordance with the sampling procedures referenced in par. (c). The sampling procedures specified by a regulatory agency may include requirements for field filtration.
(c) Department groundwater sampling procedures.
1. If sampling procedures are not specified by the applicable regulatory agency pursuant to par. (b), all groundwater quality samples shall be collected and handled in accordance with the sampling procedures contained in the following publications:
a. Groundwater Sampling Desk Reference. Wisconsin Department of Natural Resources, PUBL−DG−037−96, September, 1996.
b. Groundwater Sampling Field Manual. Wisconsin Department of Natural Resources, PUBL−DG−038−96, September, 1996.

Landfills: s. **NR 507.16 Sampling plan.** The owner or operator shall submit a sampling plan for all monitoring devices at the facility for approval as part of the feasibility report. The sampling plan shall be implemented as approved in writing by the department. The sampling plan shall follow procedures and methodologies specified by the department and shall comply with the requirements in s. NR 140.16.

Site Investigations: s. **NR 716.13 Sampling and analysis requirements.**
(6)
Responsible parties shall provide for the following quality control and quality assurance procedures, at a minimum, when collecting samples for laboratory analysis for a field investigation conducted under this chapter:
(a) Chain of custody shall be documented from the time of sample collection to the receipt of the sample by the analytical laboratory. Chain of custody documentation shall be in compliance with ch. NR 149, and shall be submitted to the department with the sample results.
(b) For soil samples, one temperature blank for every shipping container of samples that require cooling for preservation, unless samples are received by the laboratory on ice, unless another temperature is required by the analytical method used.
(c) For water samples:
1. One replicate sample for every 10 or less samples.
2. One equipment blank for every 10 or less samples, unless dedicated sampling equipment is used to prevent cross−contamination.
3. One trip blank for each shipping container that contained volatile samples.
4. One temperature blank for every shipping container of samples that require cooling for preservation, unless samples are shipped on ice.
(d) Decontamination of all sampling instruments between each sampling event, unless dedicated or disposable sampling devices are used in a manner that prevents cross contamination or other unintended contamination of samples.

(10)
Responsible parties shall ensure that groundwater samples are collected and handled according to the procedures specified in s. NR 140.16 (1), unless the department approves the use of an alternative procedure.

Any questions contact Tom Trainor at tom.trainor@wisconsin.gov or 920.412.5970.

WISCONSIN DNR PFAS LIST - 1.1.21

#	Acronym (EPA)	Name [# carbons] (*trade name*)	CAS #	ES (ng/L) *	PAL (ng/L) *	Acronyms (other)
		Carboxylic Acids				
1	PFBA	Perfluorobutanoic acid [C4] (*FC 23, Fluorad FC 23*)	375-22-4	10,000	2,000	HFBA
2	PFPeA	Perfluoropentanoic acid [C5]	2706-90-3			
3	PFHxA	Perfluorohexanoic acid [C6]	307-24-4	150,000	30,000	
4	PFHpA	Perfluoroheptanoic acid [C7]	375-85-9			
5	PFOA	Perfluorooctanoic acid [C8]	335-67-1	20 [c]	2 [c]	8PF
6	PFNA	Perfluorononanoic acid [C9]	375-95-1	30	3	
7	PFDA	Perfluorodecanoic acid [C10]	335-76-2	300	60	Ndfda, PFDeA
8	PFUnA	Perfluoroundecanoic acid [C11]	2058-94-8	3,000	600	PFUdA, PFUnDA
9	PFDoA	Perfluorododecanoic acid [C12]	307-55-1	500	100	PFDoDA. PFDOA, PFDDA
10	PFTrDA	Perfluorotridecanoic acid [C13]	72629-94-8			PFTriA, PFTrA
11	PFTA	Perfluorotetradecanoic acid [C14]	376-06-7	10,000	2,000	PFTeDA, PFTDA, PFTeA, PFTetA, PFTreA
		Sulfonic Acids				
12	PFBS	Perfluorobutanesulfonic acid [C4] (*FC-98*)	375-73-5	450,000	90,000	PFBuS
13	PFPeS	Perfluoropentanesulfonic acid [C5]	2706-91-4			
14	PFHxS	Perfluorohexanesulfonic acid [C6]	355-46-4	40	4	PFHS
15	PFHpS	Perfluoroheptanesulfonic acid [C7]	375-92-8			
16	PFOS	Perfluorooctanesulfonic acid [C8] (*FC 95, Fluorad FC 95*)	1763-23-1	20 [c]	2 [c]	nPFOS, P8S
17	PFNS	Perfluorononanesulfonic acid [C9]	68259-12-1			
18	PFDS	Perfluorodecanesulfonic acid [C10]	335-77-3			
19	PFDoS	Perfluorododecanesulfonic acid [C12]	79780-39-5			PFDoDS, PFDOS
20	4:2 FTS	4:2 fluorotelomersulfonic acid [C6]	757124-72-4			4:2 FTSA, 4:2 FtS, FtS 4:2
21	6:2 FTS	6:2 fluorotelomersulfonic acid [C8]	27619-97-2			6:2 FTSA, 6:2 FtS, FtS 6:2, 6:2 PFOS, THPFOS
22	8:2 FTS	8:2 fluorotelomersulfonic acid [C10]	39108-34-4			8:2 FTSA, 8:2 FtS, FtS 8:2, 8:2 PFOS
		Sulfonamides, Sulfomidoacetic acids, Sulfonamidoethanols				
23	PFOSA	Perfluorooctanesulfonamide [C8]	754-91-6	20 [c]	2 [c]	FOSA, pfosa
24	NMeFOSA	N-Methylperfluorooctanesulfonamide [C9] (*Fluorad FX 12*)	31506-32-8			MeFOSA, N-MeFOSA, N-Me-FOSA
25	NEtFOSA	N-Ethylperfluorooctanesulfonamide [C10] (*Alstar, Finitron, Fluramin, FX 12, Mirex S, Sulfluramid, Volcano*)	4151-50-2	20 [c]	2 [c]	EtFOSA, N-EtFOSA
26	NMeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid [C11]	2355-31-9			MeFOSAA, N-MeFOSAA, NMe-PFOSA-AcOH
27	NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid [C12]	2991-50-6	20 [c]	2 [c]	EtFOSAA, N-EtFOSAA, NEt-PFOSA-AcOH
28	NMeFOSE	N-Methylperfluorooctanesulfonamidoethanol [C11]	24448-09-7			MeFOSE, N-MeFOSE, MeFOSE Alcohol
29	NEtFOSE	N-Ethylperfluorooctanesulfonamidoethanol [C12] (*FC-10, Fluorad FC 10*)	1691-99-2	20 [c]	2 [c]	EtFOSE, N-EtFOSE, N-Et-FOSE
		Replacement Chemicals				
30	HFPO-DA	Hexafluoropropylene oxide dimer acid [C6] (*FRD-903, GenX*)	13252-13-6	300	30	PFPrOPrA
31	DONA	4,8-dioxa-3H-perfluorononanoic acid [C7]	919005-14-4	3,000	600	ADONA (sodium salt of DONA)
32	9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid [C8]	756426-58-1			F-53B Major, C8 Cl-PFESA
33	11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid [C10]	763051-92-9			F-53B Minor, C10 Cl-PFESA
		No recommended standard yet from cycle 11				

c = DHS recommends a combined ES of 20 ng/L and a combined PAL of 2 ng/L for PFOS, PFOA, PFOSA, NEtFOSA, NEtFOSAA, and NEtFOSE.

* The Enforcement Standard (ES) and Preventive Action Limit (PAL) listed in this table have been recommended by the Department of Health Services to the Department of Natural Resources. The Department of Natural Resources is in the rule making process to include these values into ch. NR 140. The standards presented in this table are not required on January 1, 2021 as the rule making process has not been completed yet.