ENVIRONMENTAL TROUBLESHOOTERS, INC.

3825 GRAND AVENUE
DULUTH, MN 55807
TEL: (218) 722-6013
FAX: (218) 722-6319
TOLL FREE: 1-800-470-3536

October 17, 2016

DNR Northern Region
Attn: RR Program Assistant
Department of Natural Resources
223 E. Steinfest Road, Antigo, WI 54409

RE: Request for Technical Assistance
Fraser Shipyards Inc.
1 Clough Ave, Superior, WI 54880
Punch Shed Building Addition Spill
BRRTs 02-16-562599
ET Project No. 14-1004

To whom it may concern,

Environmental Troubleshooters, Inc. (ET) has completed three rounds of soil sampling investigation and installation and two rounds of groundwater sampling from four groundwater monitoring wells since late 2014.

The data gathered to date suggests that the Punch Shed Addition source area lies within a larger ubiquitous soil and groundwater contamination plume at the site that appears to be attributable to historic fill and not migration from the specific identified source. Figures depicting the site location, layout, contamination extents, cumulative risk index, and cross-sections are attached. Tables summarizing results of soil and groundwater sampling are also attached. Soil boring logs and laboratory reports from the supplemental soil and groundwater sampling are attached.

On behalf of Fraser Shipyards, ET would like to request a technical review by the WDNR to obtain concurrence with this conclusion, understanding that the site will require completion of the GIS Registry, as well as possibly establishing a maintenance cover plan to avoid direct contact by site personnel and contractors.

The basic delineation and risk-based decision making data is attached. We would be pleased to send your office additional information if needed for your review. If the WDNR concurs that no additional investigation is needed relative to this release, a final, detailed, inclusive investigation report will be prepared including the sampling data gathered since the former investigation report for the site. If the WDNR does not concur, ET will prepare a work plan to further delineate the degree and extent of contamination at the site.

If you have any questions, please contact me at (218) 722-6013 or by email at jmccarthy@etsmn.com.

Sincerely,

Environmental Troubleshooters, Inc.

John McCarthy, CHMM
Project Manager

Cc: Fraser Shipyards, 1 Clough Ave., Superior, WI 54880, Attn: Mr. Jordan Hafstad

Attachments:

- Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request
- Figures
  - 1 Site Location Map
  - 2 Vicinity Map
  - Douglas County Parcel Map
  - 3 Site Plan
  - 4 Soil Benzo(a)Pyrene
  - 5 Soil Napthalene
  - 5b Soil Risk Based on EPA Tables
  - 6 Groundwater Benzo(a)pyrene 4/27/16
  - 7 Groundwater Benzo(a)pyrene 7/19/16
  - 8a Groundwater Potentiometric Map 4/27/16
  - 8b Groundwater Potentiometric Map 7/19/16
  - 9a Geologic Cross Section A-A'
  - 9b Geologic Cross Section B-B'
- Tables
  - 1 PID Readings
  - 2 Soil Analytical Summary
    - EPA Soil Hazard Risk Tables
  - 3 Groundwater Analytical Summary
  - Monitoring Well Elevations
- Soil Boring Logs
- Lab Reports for Supplemental Soil and Groundwater Analyses

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

Form 4400-237 (R 9/15)

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 not 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		
Steininger	Dave		Fraser Shipyards, Inc.		
Mailing Address			City	State	ZIP Code
1 Clough Avenue			Superior	WI	54880
Phone # (include area code)	Fax # (include area code)		Email		
(715) 205-0110			jhafstad@frasershipyards.com		

The requester listed above: (select all that apply)

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

Contact Information (to be contacted with questions about this request) ☒ Select if same as requester

Contact Last Name	First	MI	Organization/ Business Name		
Steininger	Dave		Fraser Shipyards, Inc.		
Mailing Address			City	State	ZIP Code
1 Clough Avenue			Superior	WI	54880
Phone # (include area code)	Fax # (include area code)		Email		
(715) 205-0110			jhafstad@frasershipyards.com		

Environmental Consultant (if applicable)

Contact Last Name	First	MI	Organization/ Business Name		
McCarthy	John		Environmental Troubleshooters, Inc.		
Mailing Address			City	State	ZIP Code
3825 Grand Aveue			Duluth	MN	55807
Phone # (include area code)	Fax # (include area code)		Email		
(218) 722-6013	(218) 722-6319		jmccarthy@etsmn.com		

Section 2. Property Information

Property Name		FID No. (if known)	
Fraser Shipyard Punch Shed Addition			
BRRTS No. (if known)		Parcel Identification Number	
02-16-562599		03-803-02127-00	
Street Address		City	State / ZIP Code
1 Clough Avenue		Superior	WI 54880

County	Municipality where the Property is located	Property is composed of:	Property Size Acres
Douglas	◉ City ○ Town ○ Village of Superior	◉ Single tax parcel ○ Multiple tax parcels	17

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; and,
(3) a draft 75.105 agreement based on the DNR's model (dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf).

☐ 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; and,
(3) a draft 75.105 agreement based on the DNR's model (dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf).

☐ 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.

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: 07/19/2016

☐ 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: _____
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

10/10/16
Date Signed

VP Controller/Business Manager
Title

715-394-6543
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

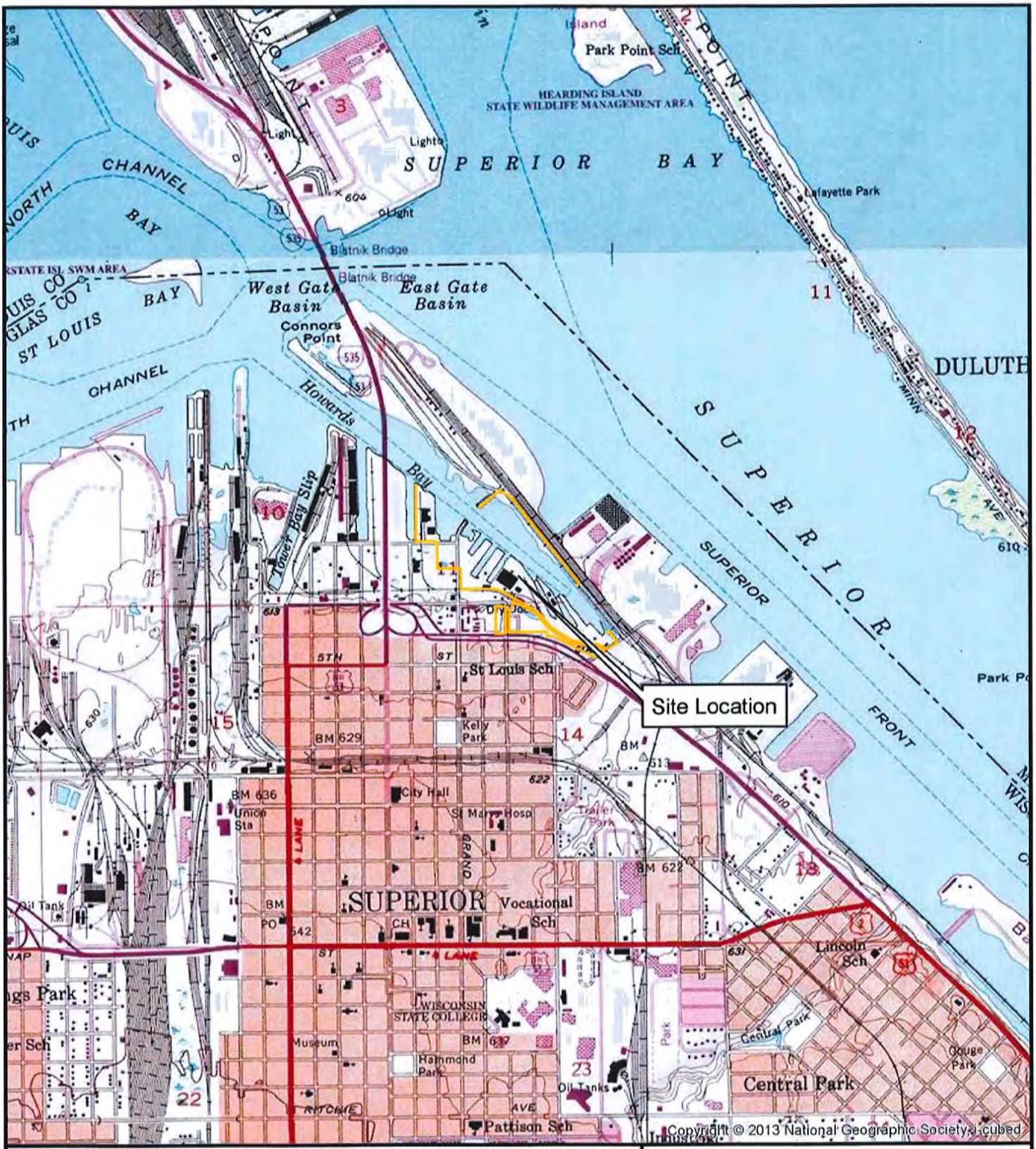
DNR SOUTH CENTRAL REGION
Attn: RR Program Assistant
Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg WI 53711

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		



Legend

Approximate Property Line

2,000 1,000 0 2,000 4,000 Feet

SCALE: 1/24000

1 inch = 2,000 feet

Source: USGS Duluth & Superior 7 1/2" Quadrangle Map

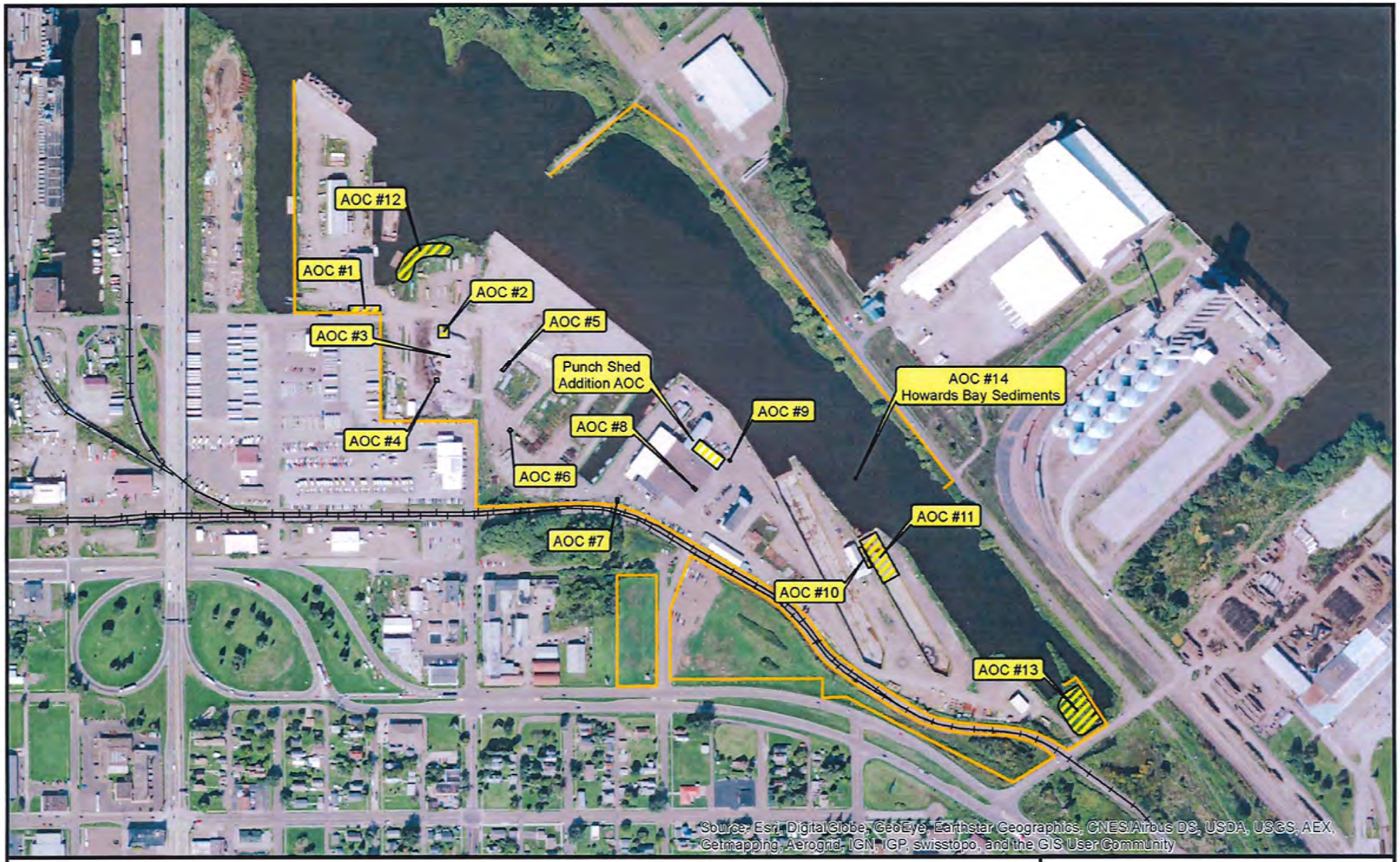
N

FIGURE 1

Site Location

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 11/20/2014	CREATED BY: CGIS
FILE NAME: //GIS/2014 Projects/14-1004 /Projects/Figure1	



Legend

- Approximate Property Line
- AOC
- Railroads

500 250 0 500 1,000 Feet

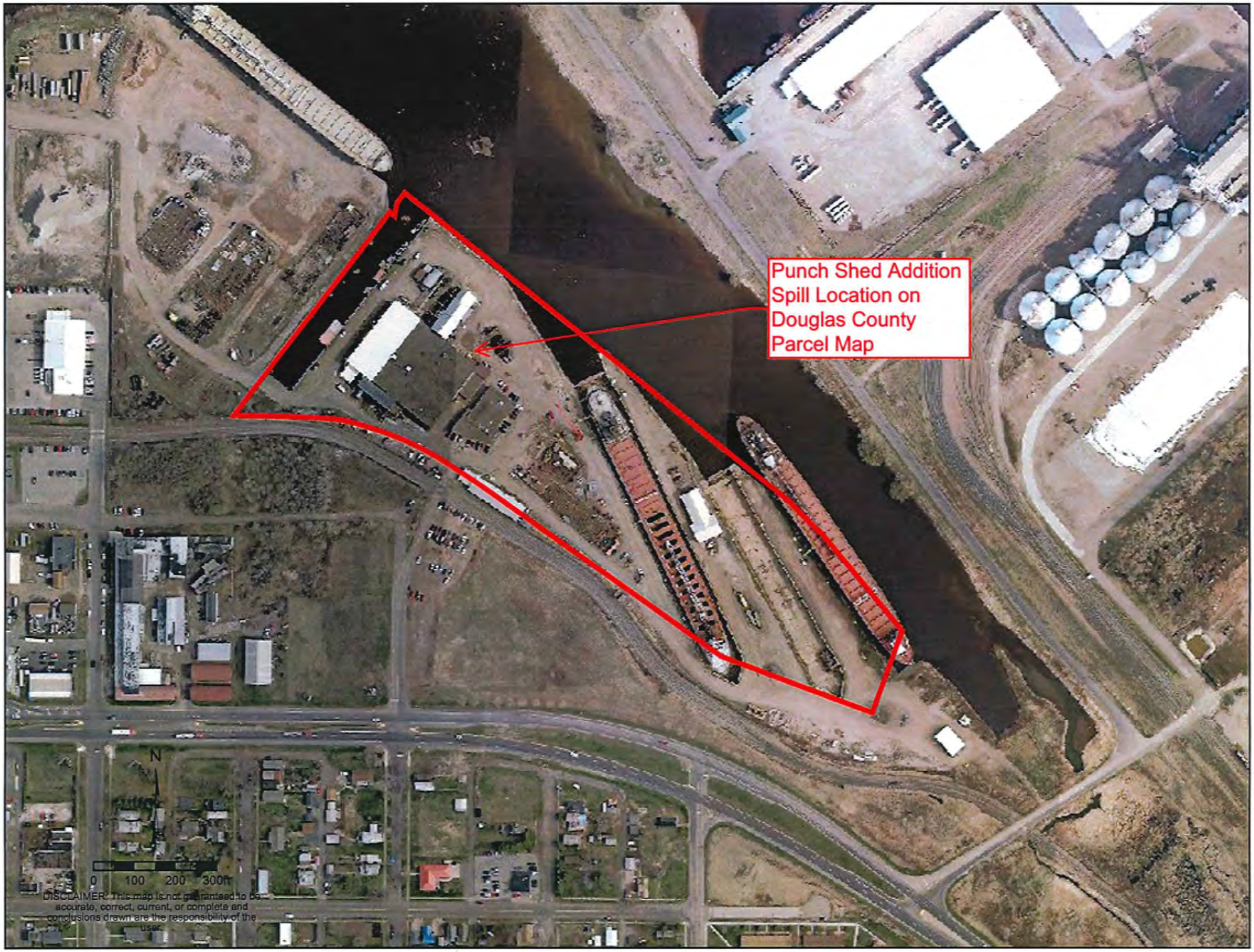
SCALE: 1/6000
1 inch = 500 feet

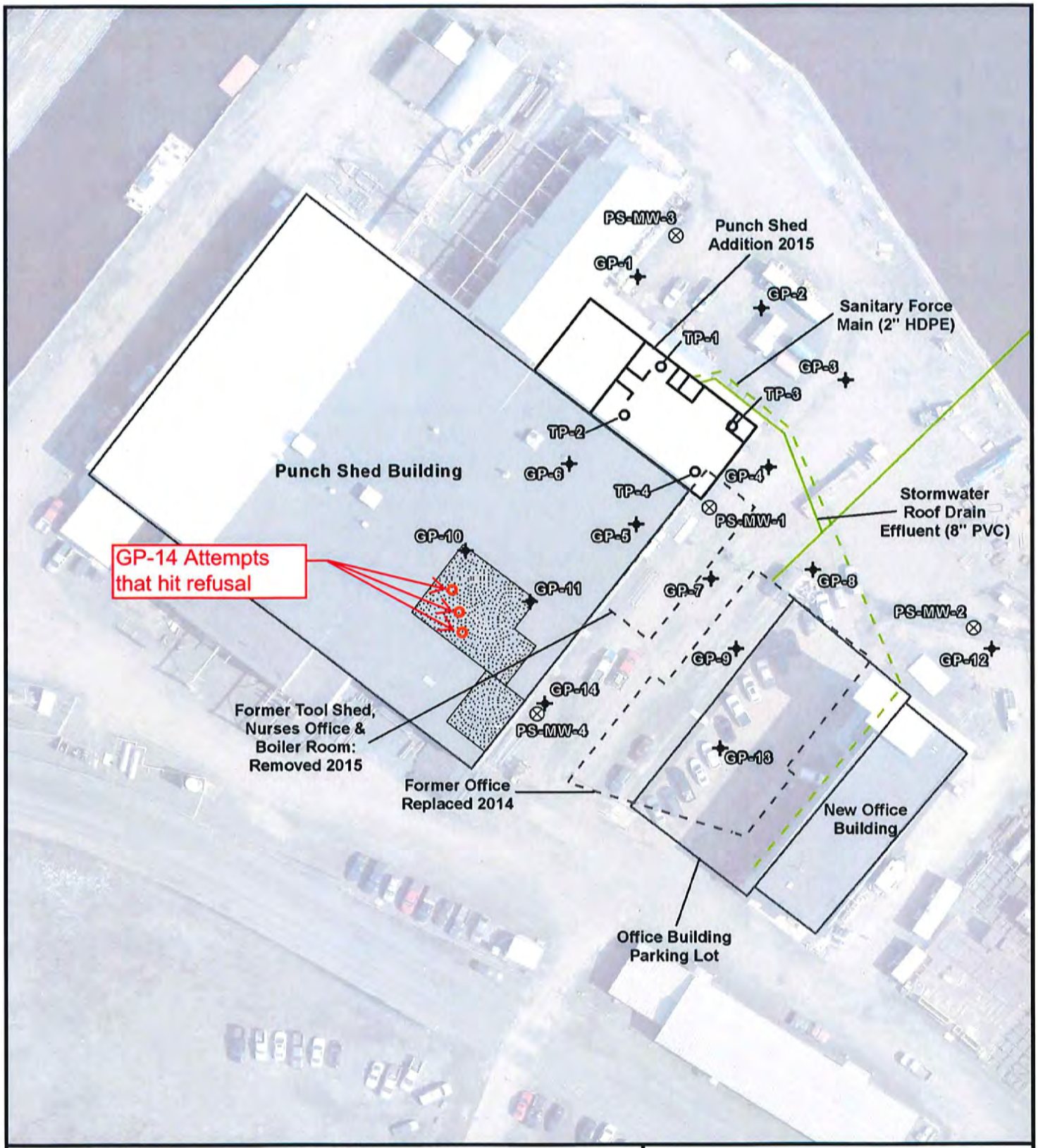
N

FIGURE 2
Vicinity Map

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004
DATE: 01/14/2016 CGIS
FILE NAME: //GIS/2014 Projects/14-1004/Projects/Figure2_r1


Punch Shed Addition
Spill Location on
Douglas County
Parcel Map
N
0 100 200 300ft
DISCLAIMER: This map is not guaranteed to be accurate, correct, current, or complete and conclusions drawn are the responsibility of the user.



Legend

- Geoprobe Borings
- Excavation Test Pits
- Groundwater Monitoring Wells
- Former Building Footprint
- Building Footprint
- Gravel

0 35 70 140 Feet

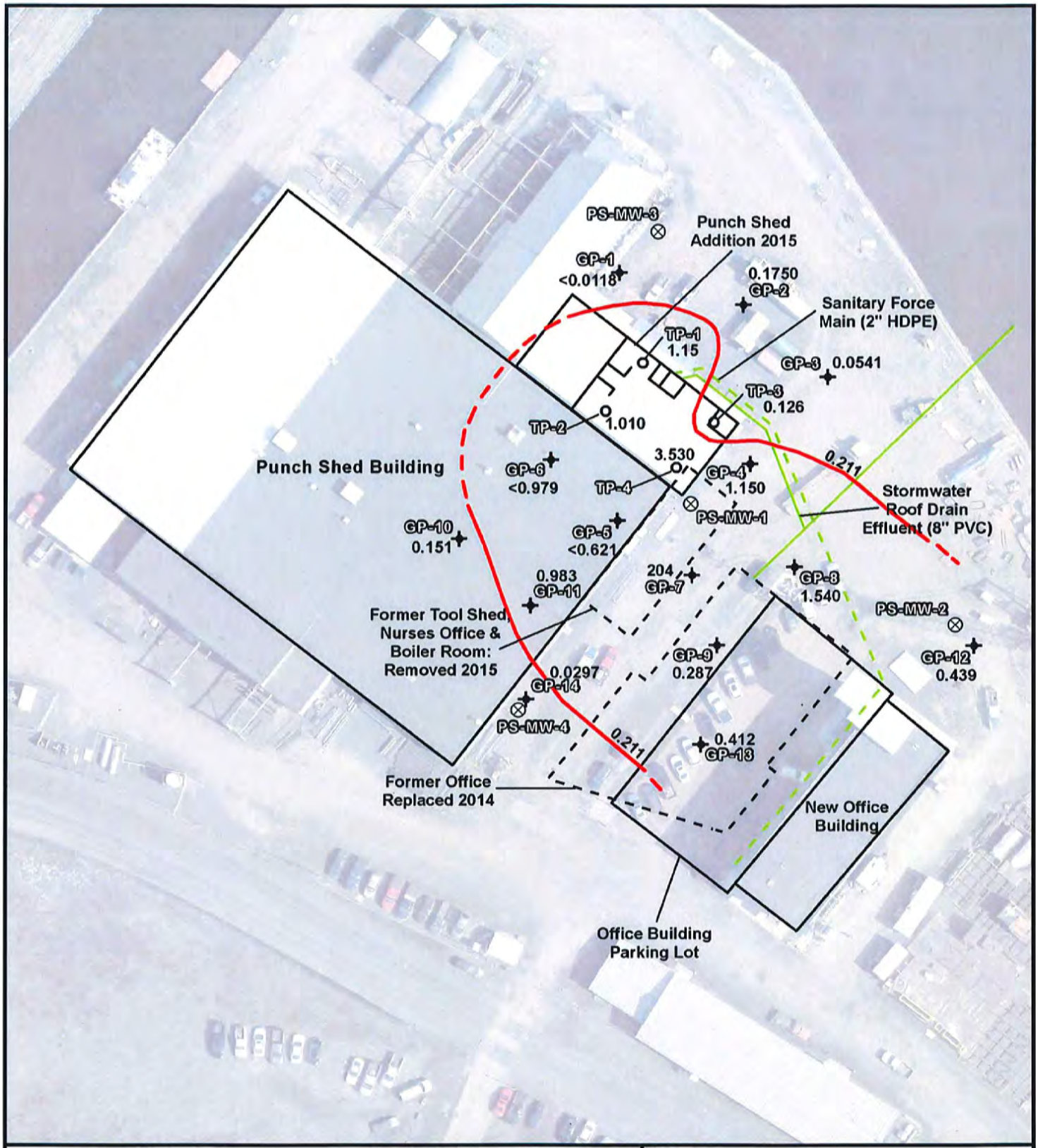
SCALE: 1:840
1 inch = 70 feet
Source: Douglas County Aerial Imagery, circa Spring 2016

N

FIGURE 3
Site Plan

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 09/27/2016	CREATED BY: CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure3



Legend

- Geoprobe Borings
- Excavation Test Pits
- Groundwater Monitoring Wells
- Former Building Footprint
- Building Footprint
- 0.211 I-RCL

Exceedances all within B(a)P extents:
- Benzo(a)anthracene
- Benzo(b)Flouranthene
- Benzo(k)flouranthene
- Dibenzo(a,h)anthracene
- Flourene
- Naphthalene

N

0 35 70 140 Feet

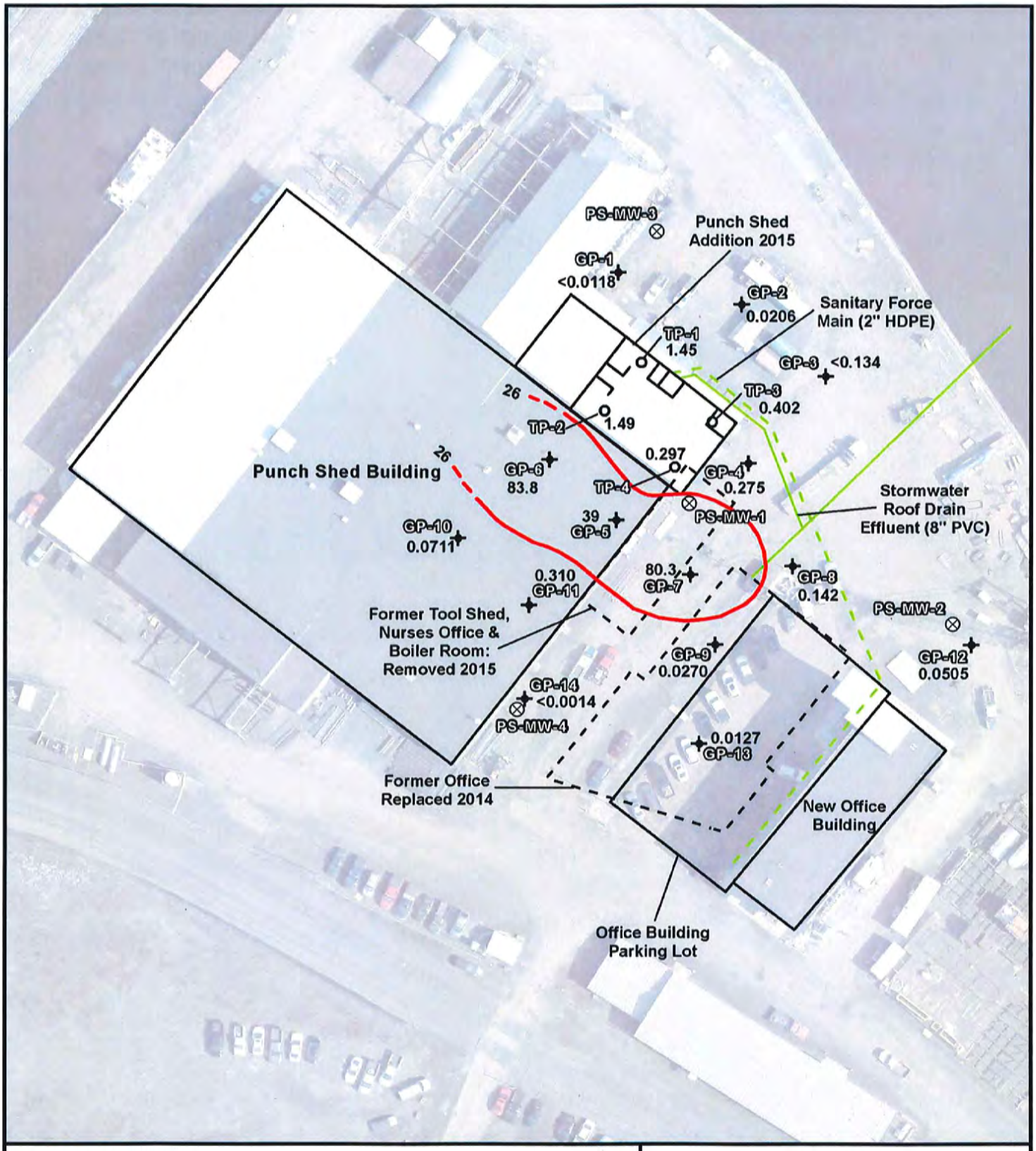
SCALE: 1:840
1 inch = 70 feet
Source: Douglas County Aerial Imagery, circa Spring 2016

FIGURE 4
Soil Benzo(a)Pyrene

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 07/26/2016	CREATED BY: CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure4

ENVIRONMENTAL TROUBLESHOOTERS



Legend

- Geoprobe Borings
- Excavation Test Pits
- Groundwater Monitoring Wells
- Former Building Footprint
- Building Footprint
- 26 mg/Kg I-RCL

0 35 70 140 Feet

SCALE: 1:840
1 inch = 70 feet

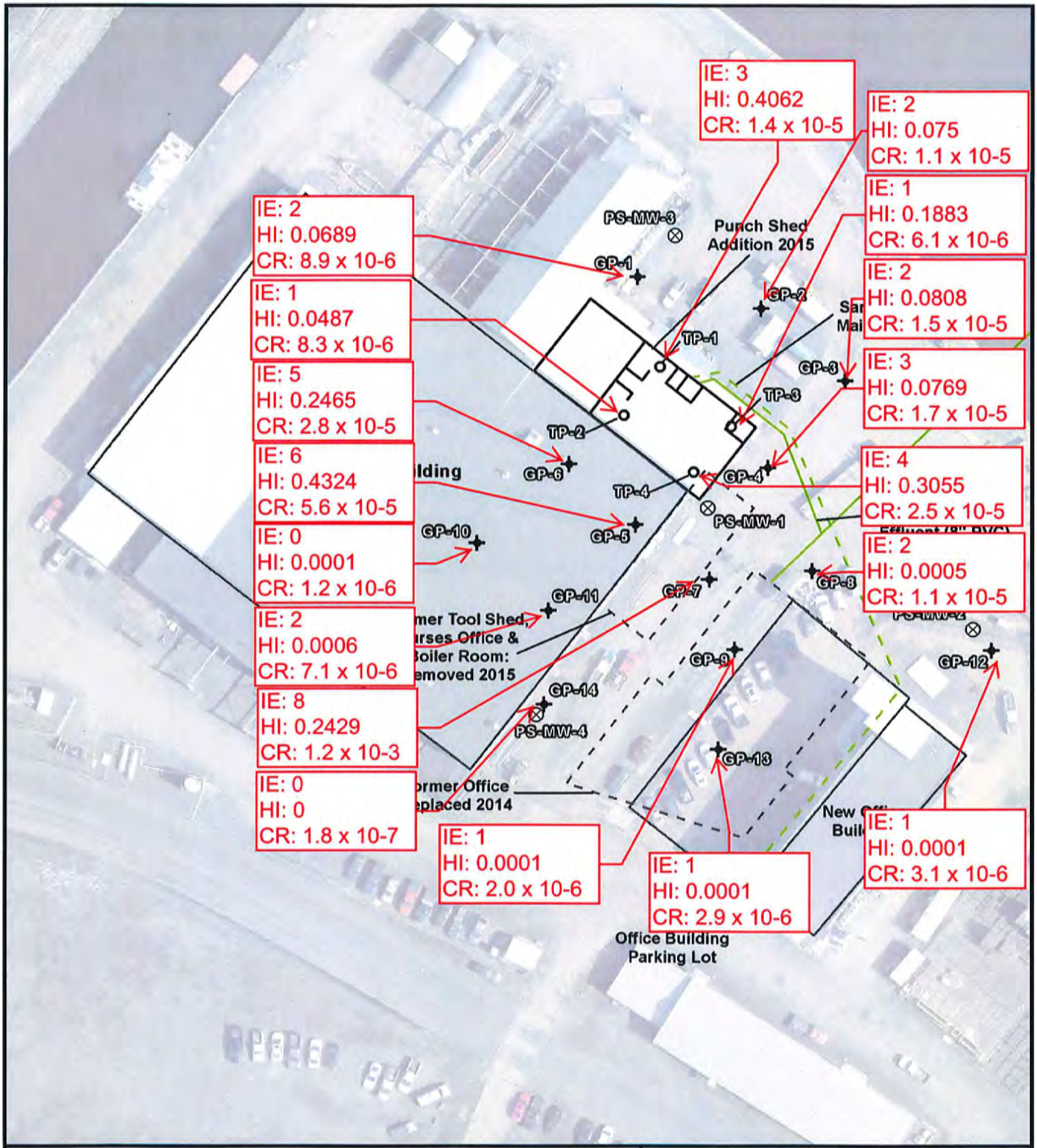
Source: Douglas County Aerial Imagery, circa Spring 2016

N

FIGURE 5
Soil Naphthalene

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 07/26/2016	CREATED BY: CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure3



Legend

- Geoprobe Borings
- Excavation Test Pits
- Groundwater Monitoring Wells
- Former Building Footprint
- Building Footprint

IE: Individual Exceedances
HI: Cumulative Hazard Index
CR: Cumulative Cancer Risk

N

0 35 70 140 Feet

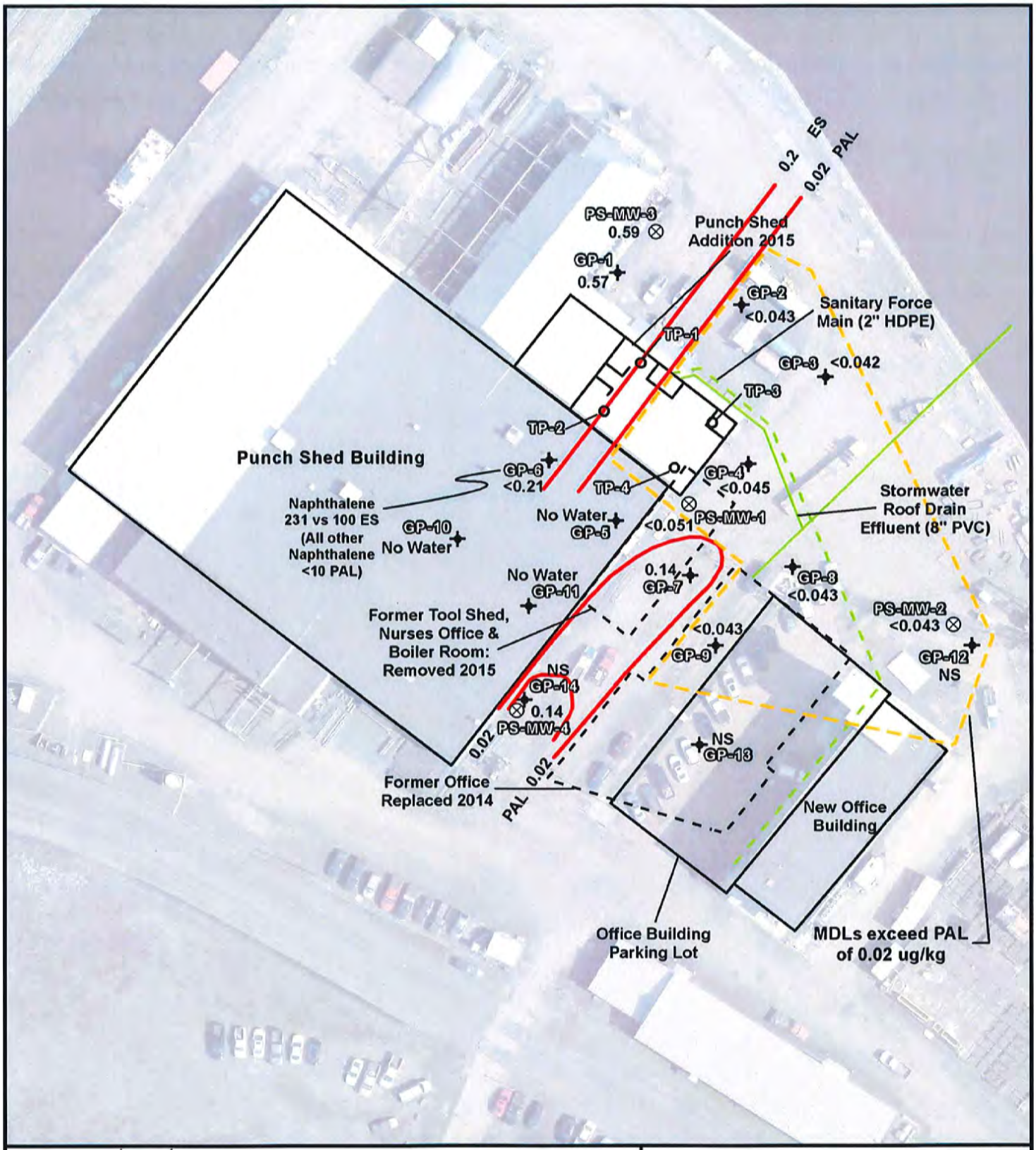
SCALE: 1:840
1 inch = 70 feet

Source: Douglas County Aerial Imagery, circa Spring 2016

Figure 5B Soil Risk Based on EPA Tables

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 06/07/2016	CREATED BY: CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure3



Legend

- Groundwater Monitoring Wells
- Geoprobe Borings
- Excavation Test Pits
- Former Building Footprint
- Building Footprint
- MDLs Exceed PAL of 0.02 ug/kg
- ES 0.2
- PAL 0.02

Borings GP-5, GP-10 & GP-11; no water encountered.
Borings GP-12, GP-13 & GP-14; soil delineation borings. No water sampled.

Exceedances of other PAHs within B(a)P extents include Benzo(b)flouranthene, Chrysene & naphthalene.

0 35 70 140 Feet

SCALE: 1:840 1 inch = 70 feet

Source: Douglas County Aerial Imagery, circa Spring 2016

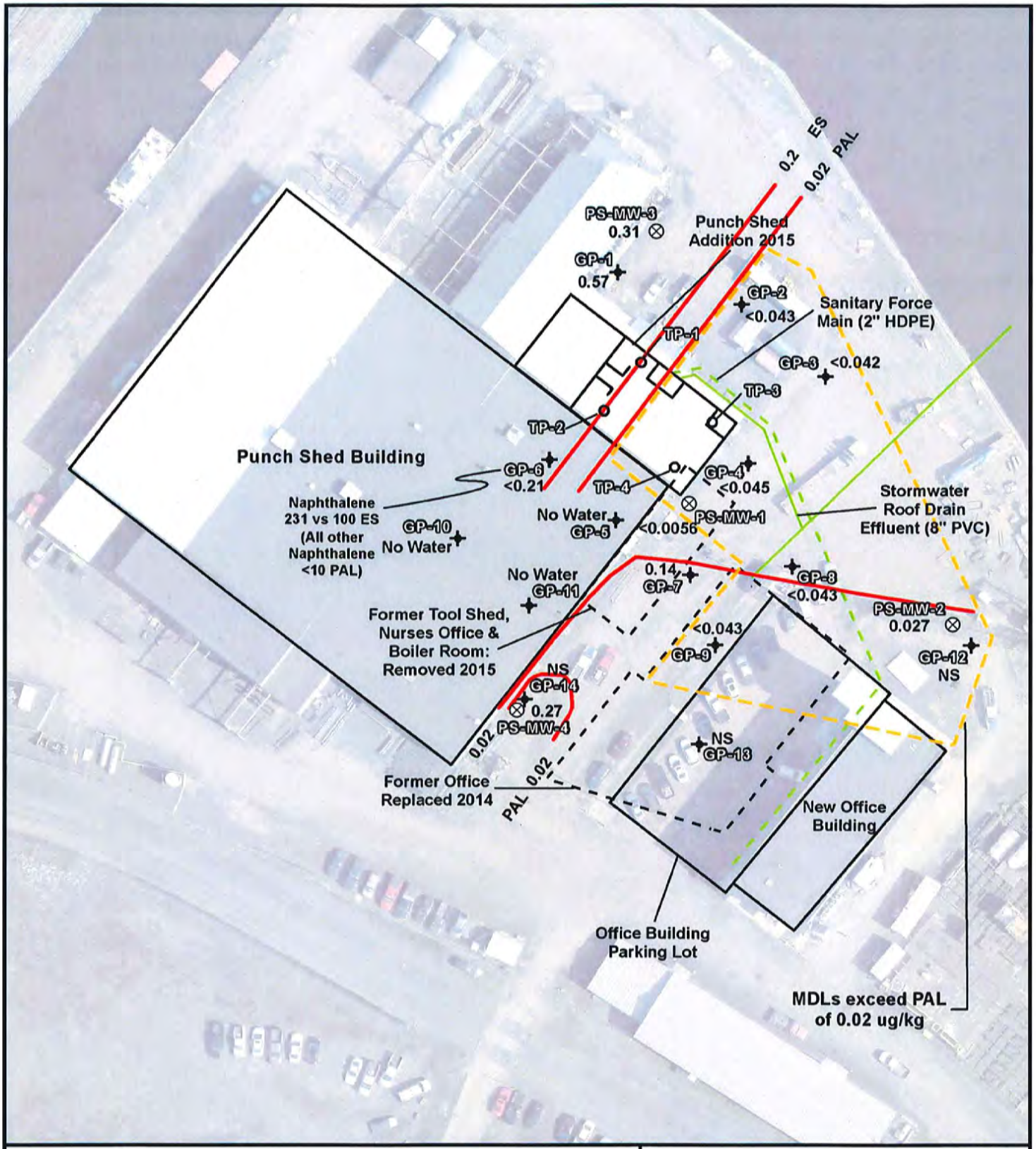
N

FIGURE 6
Groundwater Benzo(a)pyrene
Sample Date: 4/27/16

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 09/21/2016	CREATED BY: CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure6

ENVIRONMENTAL TROUBLESHOOTERS



Legend

- Groundwater Monitoring Wells
- Geoprobe Borings
- Excavation Test Pits
- Former Building Footprint
- Building Footprint
- MDLs Exceed PAL of 0.02 ug/kg
- ES 0.2
- PAL 0.02

Borings GP-5, GP-10 & GP-11; no water encountered.
Borings GP-12, GP-13 & GP-14; soil delineation borings. No water sampled.

Exceedances of other PAHs within B(a)P extents include Benzo(b)flouranthene, Chrysene & naphthalene.

0 35 70 140 Feet

SCALE: 1:840 1 inch = 70 feet

Source: Douglas County Aerial Imagery, circa Spring 2016

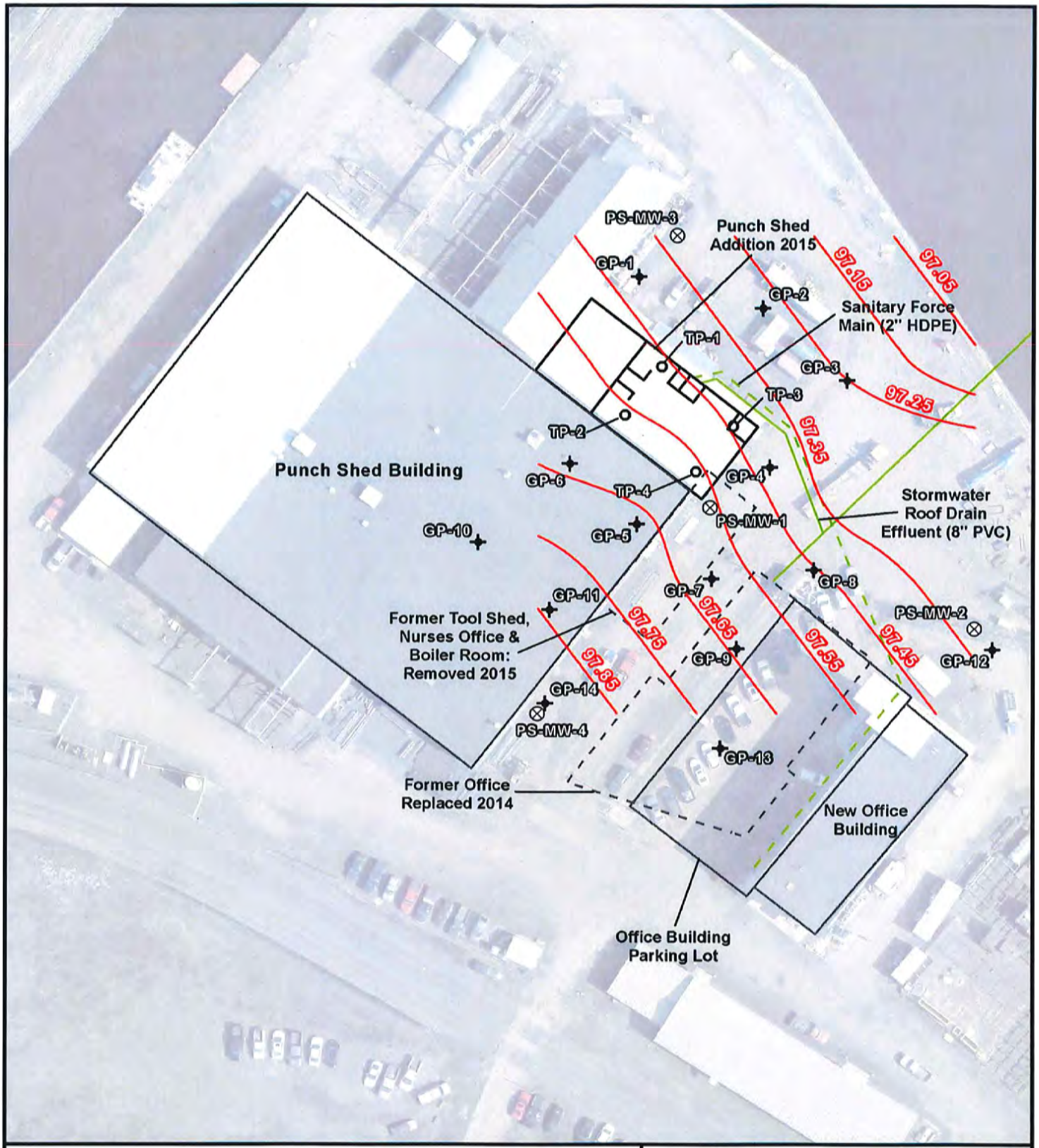
N

FIGURE 7

Groundwater Benzo(a)pyrene
Sample Date: 7/19/16

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 09/21/2016	**CREATED BY:** CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure7



Legend

- Geoprobe Borings
- Excavation Test Pits
- Groundwater Monitoring Wells
- Former Building Footprint
- Building Footprint
- 97.05 Equipotential Contour
- * PS-MW-1 data anomalous and not included

0 35 70 140 Feet

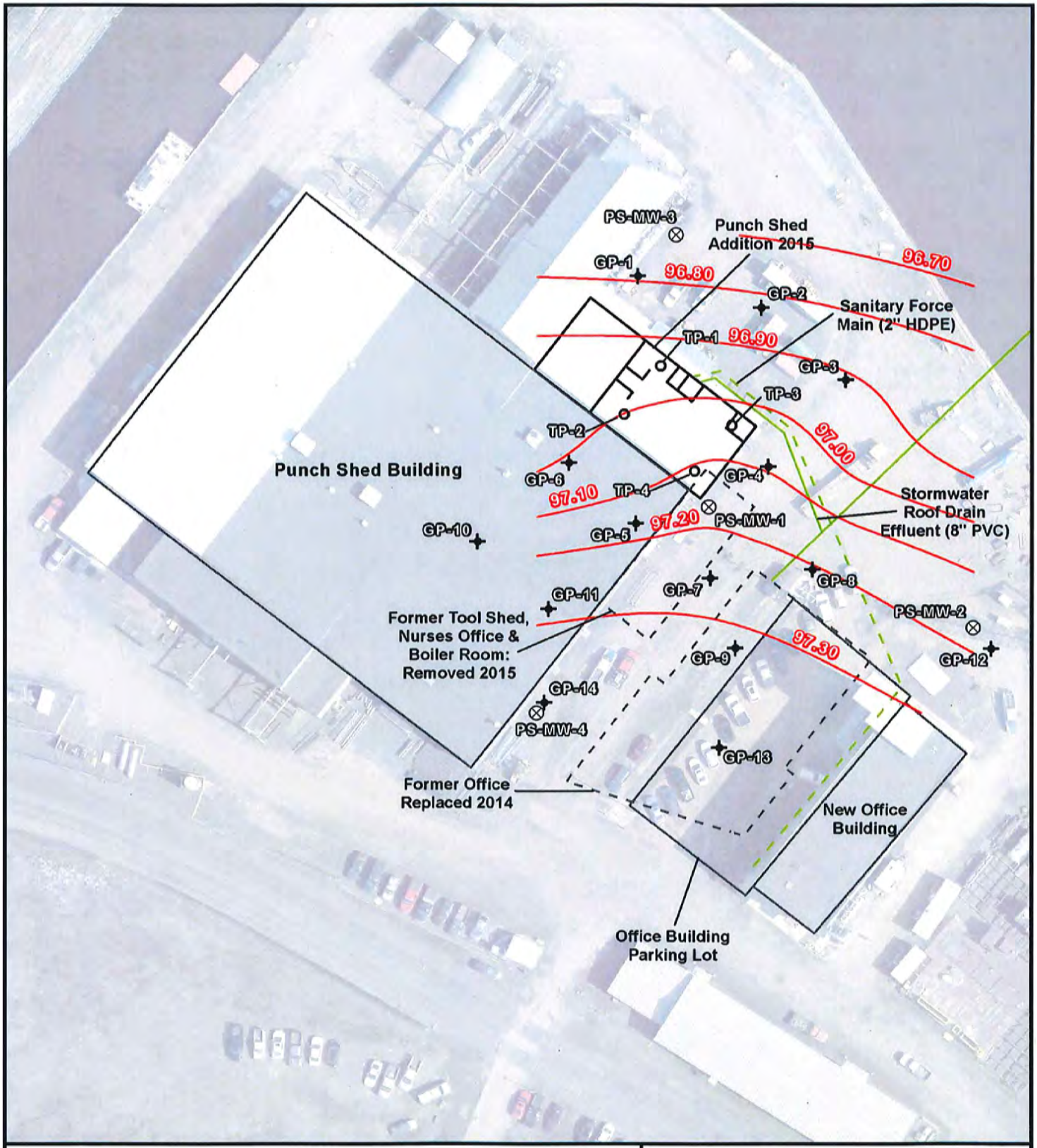
SCALE: 1:840
1 inch = 70 feet
Source: Douglas County Aerial Imagery, circa Spring 2016

N

FIGURE 8a
Groundwater Potentiometric
Sample Date: 04/27/2016

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 08/29/2016	CREATED BY: CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure 8a



Legend

- Geoprobe Borings
- Excavation Test Pits
- Groundwater Monitoring Wells
- Former Building Footprint
- Building Footprint
- 96.70 Equipotential Contour

0 35 70 140 Feet

SCALE: 1:840

1 inch = 70 feet

Source: Douglas County Aerial Imagery, circa Spring 2016

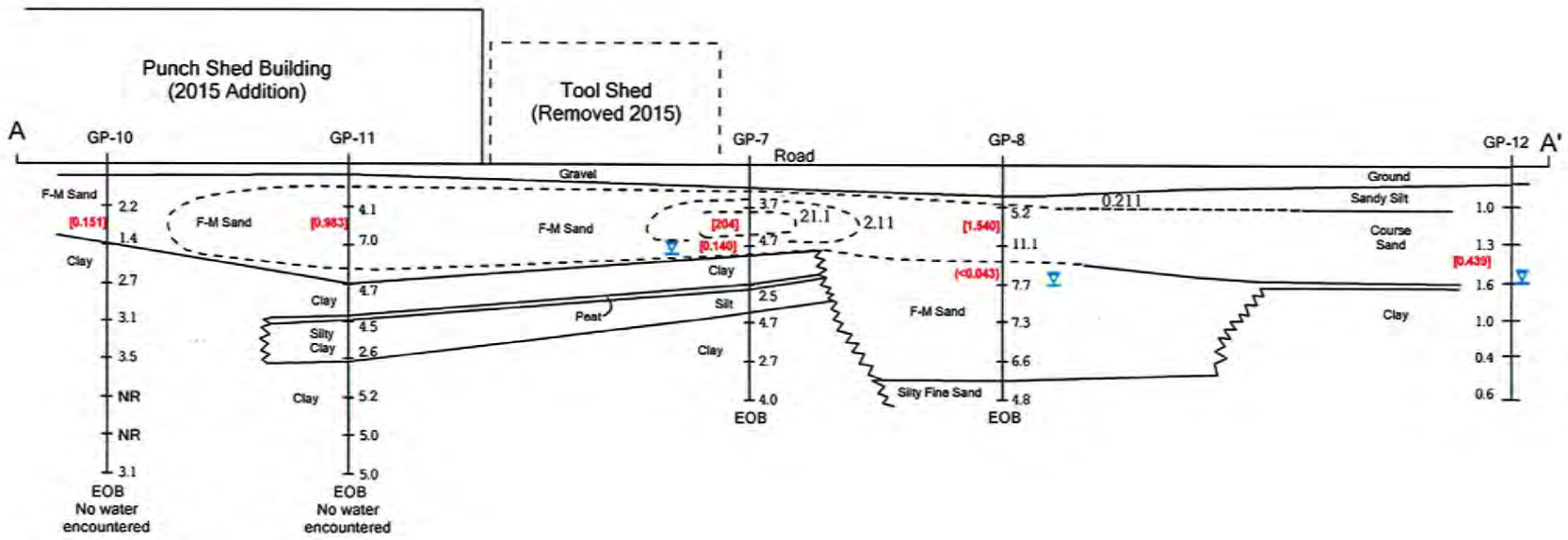
N

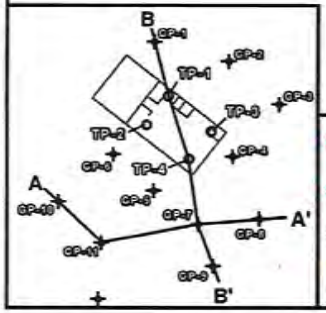
FIGURE 8b

Groundwater Potentiometric
Sample Date: 07/19/2016

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #: 14-1004	
DATE: 08/29/2016	**CREATED BY:** CGIS
FILE NAME:	//GIS/2014 Projects/14-1004 /Projects/Figure 8b





[0.246] Benzo(a)Pyrene - B(a)P - mg/kg

(0.172) B(a)P in groundwater - µg/kg

0.211 B(a)P in soil Industrial RCL isopleths

Water table depth

NR No Recovery

2.2 PID Reading

EOB End of boring

Vertical Scale 1" = 5'

Horizontal Scale 1" = 20'

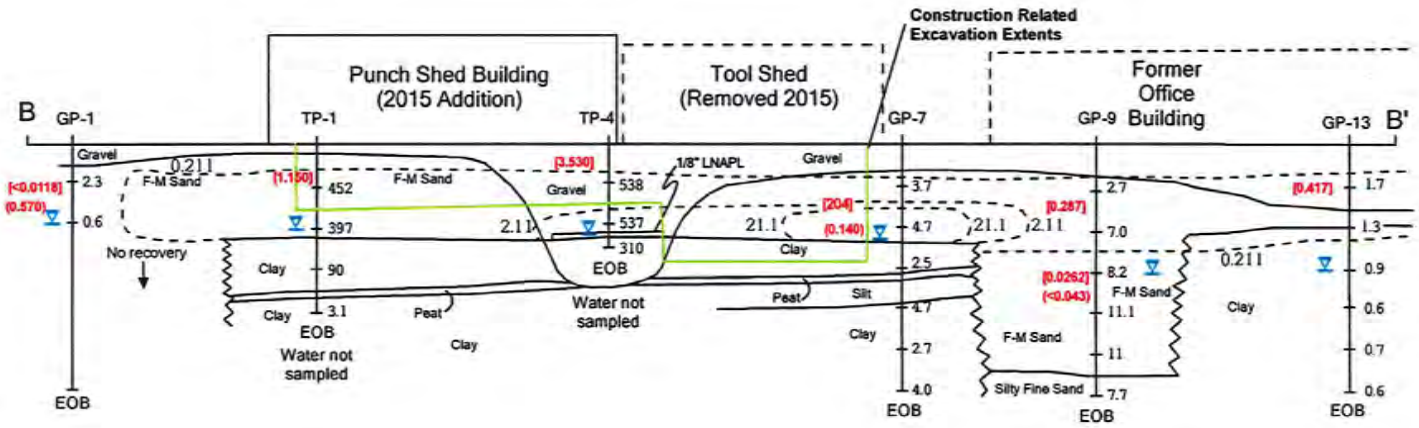
FIGURE 9A
Geologic Cross Section A-A'

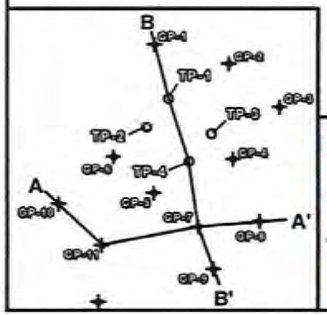
RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #:14-1004

DATE:08/25/2016 CREATED BY:CGIS

FILE NAME: //GIS/2014 Projects/14-1004 Projects/FigureSa





[0.246] Benzo(a)Pyrene - B(a)P - mg/kg

(0.172) B(a)P in groundwater - µg/kg

0.21 B(a)P in soil Industrial RCL isopleths

Water table depth

NR No Recovery

2.2 PID Reading

EOB End of boring

Vertical Scale 1" = 5'

Horizontal Scale 1" = 20'

FIGURE 9B

Geologic Cross Section B-B'

RJS Fraser Shipyard
Superior, Wisconsin

PROJECT #:14-1004

DATE:08/25/2016 CREATED BY:CGIS

FILE NAME: //GIS/2014 Projects/14-1004 Projects/FigureSb

Table 1: PID Readings
Fraser Shipyard Punch Shed Addition

Boring No.	GP-1	GP-2	GP-3	GP-4	GP-5
Date/ Depth	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015
0-2	2.3	5.4	5.1	3.8	219
2-4	0.6	9.3	4.6	3.4	556
4-6	--	5.3	4.3	1.3	265
6-8	--	7.0	4.1	3.2	468
8-10	--	4.7	5.4	3.4	3.6
10-12	--	6.6	4.1	1.7	14.3
12-14	EOB	EOB	EOB	EOB	EOB
14-16					

Boring No.	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11
Date/ Depth	3/24/2015	3/24/2015	6/29/2015	6/29/2015	6/29/2015	6/29/2015
0-2	8.2	3.7	5.2	2.7	2.2	4.1
2-4	6.1	4.7	11.1	7.0	1.4	7.0
4-6	395	2.5	7.7	8.2	2.7	4.7
6-8	386	4.7	7.3	11.1	3.1	4.5
8-10	3.2	2.7	6.6	11.0	3.5	2.6
10-12	4.0	4.0	4.8	7.7	--	5.2
12-14	EOB	EOB	EOB	EOB	EOB	--
14-16						--
16-18						EOB

Boring No.	GP-12	GP-13	GP-14
Date/ Depth	4/14/2016	4/14/2016	4/14/2016
0-2	1.0	1.7	0.7
2-4	1.3	1.3	1.2
4-6	1.6	0.9	0.5
6-8	1.0	0.6	1.0
8-10	0.4	0.7	0.5
10-12	0.6	0.6	0.5
12-14	EOB	EOB	EOB
14-16			
16-18			

--	No screening performed.
0.6	Interval collected for analysis based on PID reading, staining and recovery.
EOB	End of boring above.

Table 2: Fraser Shipyard Punch Shed Addition
Soil Analytical Summary

All results in mg/kg (ppm)		Test Pits				RI Soil Borings	
	Boring / Test Pit	TP-1	TP-2	TP-3	TP-4	GP-1	GP-2
	Sample ID	TP1 0-2'	TP2 2-4'	TP3 0-2'	TP4 0-2'	GP1 2-4'	GP2 2-4'
	Sample Depth (ft)	0-2	2-4	0-2	0-2	2-4	2-4
	Total Depth	8	6	6	5		
	Refusal?	N	N	N	N	N	N
	Date	10/27/14	10/27/14	10/27/14	10/27/14	3/24/15	3/24/15
	Ind. - RCL						
Gasoline Range Organics	NE	**837**	**572**	**72.1**	**156**	--	--
RCRA Metals (total)							
Arsenic via 6010	2.39	**7.7**	**1.2**	**7.7**	**3.9**	--	--
Arsenic via 6020	2.39	**8.5**	**2.6**	**10.6**	**5.1**	--	--
Barium	100000	**87.3**	**18.4**	**49.9**	**109**	--	--
Cadmium	799	**0.58**	**0.13**	**0.36**	**1.4**	--	--
Chromium	5.58 (VI)/100000	**12**	**5.5**	**10.1**	**42.4**	--	--
Lead	800	**296**	**41.5**	**118**	**212**	--	--
Mercury	3.13	**0.061**	**0.022**	**0.036**	**0.11**	--	--
Selenium	5110	**2.4**	**0.53**	**2.0**	**3.5**	--	--
Silver	5110	**0.065**	<0.045	<0.055	**24.5**	--	--
VOCs							
Acetone	100000	<0.594	<1.120	<0.604	<0.575	<1.150	<1.250
Allyl Chloride	4.85	<0.0078	<0.147	<0.0079	<0.0075	<0.229	<0.250
Benzene	7.41	**0.0525**	<0.0224	**0.0605**	<0.0115	<0.0229	<0.025
Bromobenzene	679	<0.0103	<0.0194	<0.0105	<0.010	<0.0573	<0.0624
Bromochloromethane	976	<0.0081	<0.0152	<0.0082	<0.0078	<0.229	<0.250
Bromodichloromethane	1.96	<0.0106	<0.0199	<0.0107	<0.0102	<0.0573	<0.0624
Bromoform	115	<0.119	<0.224	<0.121	<0.115	<0.229	<0.250
Bromomethane	46	<0.297	<0.560	<0.302	<0.288	<0.573	<0.624
2-Butanone (MEK)	28400	<0.148	<0.280	<0.151	<0.144	<0.286	<0.312
n-Butylbenzene	108	**0.426**	**0.795**	<0.0073	<0.0070	<0.0573	<0.0624
sec-Butylbenzene	145	**0.298**	**0.261**	**0.0285**	<0.0068	<0.0573	<0.0624
tert-Butylbenzene	183	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
Carbon Tetrachloride	4.25	**0.0753**	<0.0181	<0.0098	<0.0093	<0.229	<0.250
Chlorobenzene	761	<0.0091	<0.0172	<0.0093	<0.0088	<0.0573	<0.0624
Chloroethane	3.03	**3.140**	<0.0282	**0.753**	<0.0145	<0.573	<0.624
Chloroform	2.13	<0.0090	<0.0171	<0.0092	<0.0088	<0.0573	<0.0624
Chloromethane (methyl chloride)	720	<0.0108	<0.0204	<0.0110	<0.0105	<0.229	<0.250
2-Chlorotoluene	907	**0.423**	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
4-Chlorotoluene	253	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
1,2-Dibromo-3-chloropropane	0.099	<0.0315	<0.0593	<0.0320	<0.0305	<0.573	<0.624
Dibromochloromethane	34.1	<0.0128	<0.0242	<0.0130	<0.0124	<0.0573	<0.0624
1,2-Dibromoethane (EDB)	0.23	<0.0073	<0.0138	<0.0074	<0.0071	<0.0573	<0.0624
Dibromomethane	154	<0.0166	<0.0314	<0.0169	<0.0161	<0.0573	<0.0624
1,2-Dichlorobenzene	376	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
1,3-Dichlorobenzene	297	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
1,4-Dichlorobenzene	17.5	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
Dichlorodifluoromethane	571	<0.0274	<0.0517	<0.0279	<0.0266	<0.229	<0.250

NE - Not Established -- Not Analyzed
Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser Shipyard Punch Shed Addition
Soil Analytical Summary

All results in mg/kg (ppm)		Test Pits				RI Soil Borings	
	Boring / Test Pit	TP-1	TP-2	TP-3	TP-4	GP-1	GP-2
	Sample ID	TP1 0-2'	TP2 2-4'	TP3 0-2'	TP4 0-2'	GP1 2-4'	GP2 2-4'
	Sample Depth (ft)	0-2	2-4	0-2	0-2	2-4	2-4
	Total Depth	8	6	6	5		
	Refusal?	N	N	N	N	N	N
	Date	10/27/14	10/27/14	10/27/14	10/27/14	3/24/15	3/24/15
1,1-Dichloroethane (DCA)	23.7	**2.660**	**0.0766**	**0.0885**	**0.0702**	<0.0573	<0.0624
1,2-Dichloroethane	3.03	<0.0140	<0.264	<0.0142	<0.0136	<0.0573	<0.0624
1,1-Dichloroethene	1190	**0.0516**	<0.0224	<0.0121	<0.0115	<0.229	<0.250
cis-1,2-Dichloroethene (DCE)	2040	<0.0121	<0.0228	<0.0123	**0.137**	<0.0573	<0.0624
trans-1,2-Dichloroethene	1850	<0.0118	<0.0222	<0.0120	**0.0402**	<0.229	<0.250
Dichlorofluoromethane	NE	<0.297	<0.560	<0.302	<0.288	<0.573	<0.624
1,2-Dichloropropane	6.62	<0.0095	<0.0180	<0.0097	<0.0092	<0.0573	<0.0624
1,3-Dichloropropane	1490	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
2,2-Dichloropropane	191	<0.0079	<0.0150	<0.0081	<0.0077	<0.229	<0.250
1,1-Dichloropropene	NL?	<0.0097	<0.0183	<0.0099	<0.0094	<0.0573	<0.0624
cis-1,3-Dichloropropene	1210	<0.0075	<0.0141	<0.0076	<0.0072	<0.0573	<0.0624
trans-1,3-Dichloropropene	1510	<0.0084	<0.0158	<0.0085	<0.0081	<0.0573	<0.0624
Diethyl Ether (Ethyl Ether)	10100	<0.0126	<0.0237	<0.0128	<0.0122	<0.229	<0.250
Ethylbenzene	37	**0.163**	**0.0901**	**0.130**	**0.0407**	<0.0573	<0.0624
Hexachloro-1,3-butadiene	7.45	<0.148	<0.280	<0.151	<0.144	<0.286	<0.312
Isopropylbenzene (cumene)	268	0.0933	0.0845	0.0560	<0.0288	<0.0573	<0.0624
p-Isopropyltoluene	162	**0.976**	**1.57**	**0.0373**	**0.126**	<0.0573	<0.0624
Methylene Chloride	1070	<0.0119	<0.224	<0.121	<0.115	<0.229	<0.250
4-Methyl-2-pentanone (MIBK)	2450	**0.318**	<0.280	<0.151	<0.144	<0.286	<0.312
Methyl-tert-butyl-ether (MTBE)	293	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
Naphthalene	26	**2.27**	**4.39**	**0.473**	**0.641**	<0.229	<0.250
n-Propylbenzene	264	**0.181**	**0.242**	**0.0753**	<0.0070	<0.0573	<0.0624
Styrene	867	<0.0089	<0.0167	<0.0090	<0.0086	<0.0573	<0.0624
1,1,1,2-Tetrachloroethane	12.9	<0.0297	<0.0560	<0.0302	<0.0288	<0.0573	<0.0624
1,1,2,2-Tetrachloroethane	3.69	<0.0081	<0.0154	<0.0083	<0.0079	<0.0573	<0.0624
Tetrachloroethene (PCE)	153	<0.0214	<0.0404	<0.0218	**0.331**	<0.0573	<0.0624
Tetrahydrofuran (THF)	100000	<0.0759	<0.143	<0.0771	<0.0735	<2.290	<2.500
Toluene	818	**0.27**	**0.0235**	**0.306**	**0.0962**	<0.0573	<0.0624
1,2,3-Trichlorobenzene	818	<0.0141	<0.0266	<0.0144	<0.0137	<0.0573	<0.0624
1,2,4-Trichlorobenzene	98.7	<0.0108	<0.0204	<0.0110	<0.0105	<0.0573	<0.0624
1,1,1-Trichloroethane (TCA)	640	**0.472**	**0.535**	<0.0302	**0.0757**	<0.0573	<0.0624
1,1,2-Trichloroethane (TCA)	7.34	<0.0100	<0.0189	<0.0102	<0.0097	<0.0573	<0.0624
Trichloroethene (TCE)	8.81	<0.0074	<0.0139	<0.0075	**0.421**	<0.0573	<0.0624
Trichlorofluoromethane	1230	<0.0106	<0.0199	<0.0107	<0.0102	<0.229	<0.250
1,2,3-Trichloropropane	0.095	**0.369**	<0.0149	<0.0080	<0.0076	<0.229	<0.250
1,1,2-Trichlorofluoroethane	910	<0.0248	<0.0468	<0.0252	<0.0240	<0.229	<0.250
1,2,4-Trimethylbenzene	219	**3.25**	**3.67**	**0.305**	**0.138**	<0.0573	<0.0624
1,3,5-Trimethylbenzene	182	**3.88**	**1.53**	**0.124**	**0.096**	<0.0573	<0.0624
Vinyl Chloride	2.03	<0.0088	<0.0166	<0.0090	<0.0085	<0.0229	<0.0250
Xylene (total)	260	**0.937**	**0.692**	**0.814**	**0.209**	<0.172	<0.187

NE - Not Established -- Not Analyzed
Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser Shipyard Punch Shed Addition
Soil Analytical Summary

All results in mg/kg (ppm)		Test Pits				RI Soil Borings	
	Boring / Test Pit	TP-1	TP-2	TP-3	TP-4	GP-1	GP-2
	Sample ID	TP1 0-2'	TP2 2-4'	TP3 0-2'	TP4 0-2'	GP1 2-4'	GP2 2-4'
	Sample Depth (ft)	0-2	2-4	0-2	0-2	2-4	2-4
	Total Depth	8	6	6	5		
	Refusal?	N	N	N	N	N	N
	Date	10/27/14	10/27/14	10/27/14	10/27/14	3/24/15	3/24/15
PAHs							
Acenaphthene	33000	**0.589**	**0.342**	<0.0597	**0.748**	<0.0118	**0.0154**
Acenaphthylene	NE	**0.566**	**0.210**	**0.105**	<0.282	<0.0118	**0.0384**
Anthracene	100000	**0.409**	**0.468**	**0.061**	**1.490**	<0.0118	**0.0509**
Benzo(a)anthracene	2.1	**1.000**	**1.090**	**0.108**	**3.350**	<0.0118	**0.1310**
Benzo(a)pyrene [B(a)P]	0.211	**1.150**	**1.010**	**0.126**	**3.530**	<0.0118	**0.1750**
Benzo(b)fluoranthene	2.11	**2.000**	**1.250**	**0.280**	**4.400**	<0.0118	**0.2280**
Benzo(g,h,i)perylene	NE	**1.170**	**0.723**	**0.176**	**2.480**	<0.0118	**0.1280**
Benzo(k)fluoranthene	21.1	**0.935**	**0.636**	**0.128**	**2.200**	<0.0118	**0.0744**
Chrysene	211	**1.340**	**1.230**	**0.189**	**3.950**	<0.0118	**0.1770**
Dibenzo(a,h)anthracene	0.211	**0.333**	**0.193**	<0.0597	**0.666**	<0.0118	<0.0125
Fluoranthene	22000	**2.190**	**2.400**	**0.207**	**7.550**	<0.0118	**0.3280**
Fluorene	22000	**1.200**	**0.389**	<0.0597	**0.968**	<0.0118	**0.0180**
Indeno(1,2,3-cd)pyrene	2.11	**0.990**	**0.566**	**0.146**	**2.010**	<0.0118	**0.1080**
Naphthalene	26	**1.450**	**1.490**	**0.402**	**0.297**	<0.0118	**0.0206**
Phenanthrene	NE	**1.450**	**2.390**	**0.254**	**5.620**	<0.0118	**0.2480**
Pyrene	16500	**2.020**	**2.410**	**0.213**	**6.180**	<0.0118	**0.3750**

NE - Not Established -- Not Analyzed
Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser Shipyard Punch Shed Addition
Soil Analytical Summary (cont)

All results in mg/kg (ppm)		RI Soil Borings					
	Boring / Test Pit	GP-3	GP-4	GP-5	GP-50	GP-6	GP-7
	Sample ID	GP3 2-4'	GP4 2-4'	GP5 4-8'	GP-5	GP6 4-8'	GP7 2-4'
	Sample Depth (ft)	2-4	2-4	4-8	Duplicate	4-8	2-4
	Total Depth						
	Refusal?	N	N	N		N	N
	Date	3/24/15	3/24/15	3/25/15	3/25/15	3/24/15	3/24/15
	Ind. - RCL						
Gasoline Range Organics	NE	--	--	--	--	--	--
RCRA Metals (total)							
Arsenic via 6010	2.39	--	--	--	--	--	--
Arsenic via 6020	2.39	--	--	--	--	--	--
Barium	100000	--	--	--	--	--	--
Cadmium	799	--	--	--	--	--	--
Chromium	5.58 (VI)/100000	--	--	--	--	--	--
Lead	800	--	--	--	--	--	--
Mercury	3.13	--	--	--	--	--	--
Selenium	5110	--	--	--	--	--	--
Silver	5110	--	--	--	--	--	--
VOCs							
Acetone	100000	<1.350	<1.270	<6.210	<7.090	<1.900	<1.160
Allyl Chloride	4.85	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
Benzene	7.41	<0.0269	<0.0254	<0.124	<0.124	<0.0379	<0.0232
Bromobenzene	679	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Bromochloromethane	976	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
Bromodichloromethane	1.96	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Bromoform	115	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
Bromomethane	46	<0.673	<0.636	<3.100	<3.540	<0.949	<0.580
2-Butanone (MEK)	28400	<0.336	<0.318	<1.550	<1.770	<0.474	<0.290
n-Butylbenzene	108	<0.0673	<0.0636	<0.310	**1.330**	**4.980**	**0.107**
sec-Butylbenzene	145	<0.0673	<0.0636	<0.310	**0.614**	**0.320**	<0.0580
tert-Butylbenzene	183	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Carbon Tetrachloride	4.25	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
Chlorobenzene	761	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Chloroethane	3.03	<0.673	<0.636	<3.100	<3.540	<0.949	<0.580
Chloroform	2.13	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Chloromethane (methyl chloride)	720	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
2-Chlorotoluene	907	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
4-Chlorotoluene	253	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,2-Dibromo-3-chloropropane	0.099	<0.673	<0.636	<3.100	<3.540	<0.949	<0.580
Dibromochloromethane	34.1	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,2-Dibromoethane (EDB)	0.23	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Dibromomethane	154	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,2-Dichlorobenzene	376	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,3-Dichlorobenzene	297	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,4-Dichlorobenzene	17.5	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Dichlorodifluoromethane	571	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232

NE - Not Established -- Not Analyzed
Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser Shipyard Punch Shed Addition Soil Analytical Summary (cont)

All results in mg/kg (ppm)		RI Soil Borings					
	Boring / Test Pit	GP-3	GP-4	GP-5	GP-50	GP-6	GP-7
	Sample ID	GP3 2-4'	GP4 2-4'	GP5 4-8'	GP-5	GP6 4-8'	GP7 2-4'
	Sample Depth (ft)	2-4	2-4	4-8	Duplicate	4-8	2-4
	Total Depth						
	Refusal?	N	N	N		N	N
	Date	3/24/15	3/24/15	3/25/15	3/25/15	3/24/15	3/24/15
1,1-Dichloroethane (DCA)	23.7	<0.0673	**0.142**	<0.310	<0.354	<0.0949	<0.0580
1,2-Dichloroethane	3.03	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,1-Dichloroethene	1190	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
cis-1,2-Dichloroethene (DCE)	2040	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.580
trans-1,2-Dichloroethene	1850	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
Dichlorofluoromethane	NE	<0.673	<0.636	<3.100	<3.540	<0.949	<0.580
1,2-Dichloropropane	6.62	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,3-Dichloropropane	1490	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
2,2-Dichloropropane	191	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
1,1-Dichloropropene	NL?	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
cis-1,3-Dichloropropene	1210	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
trans-1,3-Dichloropropene	1510	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Diethyl Ether (Ethyl Ether)	10100	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
Ethylbenzene	37	<0.0673	<0.0636	<0.310	**0.406**	**0.301**	**0.088**
Hexachloro-1,3-butadiene	7.45	<0.336	<0.318	<1.550	<1.770	<0.474	<0.290
Isopropylbenzene (cumene)	268	<0.0673	<0.0636	<0.310	<0.354	**0.268**	<0.0580
p-Isopropyltoluene	162	<0.0673	<0.0636	**1.88**	**3.180**	**1.680**	<0.0580
Methylene Chloride	1070	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
4-Methyl-2-pentanone (MIBK)	2450	<0.336	<0.318	<1.550	<1.770	<0.474	<0.290
Methyl-tert-butyl-ether (MTBE)	293	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Naphthalene	26	<0.269	<0.254	**18.80**	**33.700**	**67.500**	**10.300**
n-Propylbenzene	264	<0.0673	<0.0636	<0.310	**0.527**	**0.553**	<0.0580
Styrene	867	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,1,1,2-Tetrachloroethane	12.9	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,1,2,2-Tetrachloroethane	3.69	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Tetrachloroethene (PCE)	153	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Tetrahydrofuran (THF)	100000	<2.690	<2.540	<12.400	<14.200	<3.790	<2.320
Toluene	818	<0.0673	<0.0636	<0.310	<0.354	<0.0949	**0.224**
1,2,3-Trichlorobenzene	818	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,2,4-Trichlorobenzene	98.7	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
1,1,1-Trichloroethane (TCA)	640	<0.0673	<0.0636	<0.310	<0.354	<0.0949	**0.460**
1,1,2-Trichloroethane (TCA)	7.34	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Trichloroethene (TCE)	8.81	<0.0673	<0.0636	<0.310	<0.354	<0.0949	<0.0580
Trichlorofluoromethane	1230	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
1,2,3-Trichloropropane	0.095	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
1,1,2-Trichlorofluoroethane	910	<0.269	<0.254	<1.240	<1.420	<0.379	<0.232
1,2,4-Trimethylbenzene	219	<0.0673	**0.142**	**6.390**	**11.200**	**13.100**	**0.200**
1,3,5-Trimethylbenzene	182	<0.0673	**0.103**	**3.000**	**3.720**	**4.720**	**0.0712**
Vinyl Chloride	2.03	<0.0269	<0.0254	<0.124	<0.142	<0.0379	<0.0232
Xylene (total)	260	<0.202	<0.191	<0.931	**3.280**	**4.570**	**0.749**

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Table 2: Fraser Shipyard Punch Shed Addition Soil Analytical Summary (cont)

All results in mg/kg (ppm)		RI Soil Borings					
	Boring / Test Pit	GP-3	GP-4	GP-5	GP-50	GP-6	GP-7
	Sample ID	GP3 2-4'	GP4 2-4'	GP5 4-8'	GP-5	GP6 4-8'	GP7 2-4'
	Sample Depth (ft)	2-4	2-4	4-8	Duplicate	4-8	2-4
	Total Depth						
	Refusal?	N	N	N		N	N
	Date	3/24/15	3/24/15	3/25/15	3/25/15	3/24/15	3/24/15
PAHs							
Acenaphthene	33000	<0.0134	**0.246**	**3.080**	**2.240**	**6.970**	**121.0**
Acenaphthylene	NE	<0.0134	**0.163**	<0.621	<0.673	<0.979	**1.1**
Anthracene	100000	**0.0180**	**0.406**	<0.621	<0.673	<0.979	**182.0**
Benzo(a)anthracene	2.1	**0.0470**	**0.980**	<0.621	<0.673	<0.979	**215.0**
Benzo(a)pyrene [B(a)P]	0.211	**0.0541**	**1.150**	<0.621	<0.673	<0.979	**204.0**
Benzo(b)fluoranthene	2.11	**0.0705**	**1.500**	<0.621	<0.673	<0.979	**237.0**
Benzo(g,h,i)perylene	NE	**0.0402**	**0.751**	<0.621	<0.673	<0.979	**113.0**
Benzo(k)fluoranthene	21.1	**0.0282**	**0.601**	<0.621	<0.673	<0.979	**101.0**
Chrysene	211	**0.0616**	**1.250**	<0.621	<0.673	<0.979	**207.0**
Dibenzo(a,h)anthracene	0.211	<0.0134	<0.0132	<0.621	<0.673	<0.979	<0.0573
Fluoranthene	22000	**0.1220**	**2.800**	<0.621	<0.673	<0.979	**645.0**
Fluorene	22000	<0.0134	**0.268**	**2.190**	**1.690**	**3.640**	**112.0**
Indeno(1,2,3-cd)pyrene	2.11	**0.0333**	**0.648**	<0.621	<0.673	<0.979	**105.0**
Naphthalene	26	<0.0134	**0.275**	**39.000**	**20.000**	**83.800**	**80.2**
Phenanthrene	NE	**0.0959**	**2.660**	**3.560**	**2.290**	**2.470**	**838.0**
Pyrene	16500	**0.1510**	**3.870**	**1.730**	**1.190**	**2.800**	**684.0**

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Table 2: Fraser Shipyard Punch Shed Soil Analytical Summary (cont)

All results in mg/kg (ppm)		Supplemental RI Borings				
	Boring / Test Pit	GP-8	GP-9		GP-10	GP-11
	Sample ID	GP8 2-4	GP9 2-4'	GP9 6-8'	GP10 2-4	GP11 2-4'
	Sample Depth (ft)	2-4	2-4	6-8	2-4	2-4
	Total Depth					
	Refusal?	N	N	N	N	N
	Date	3/24/15	3/24/15	3/24/15	3/24/15	3/24/15
	Ind. - RCL					
Gasoline Range Organics	NE	--	--	--	--	--
RCRA Metals (total)						
Arsenic via 6010	2.39	--	--	--	--	--
Arsenic via 6020	2.39	--	--	--	--	--
Barium	100000	--	--	--	--	--
Cadmium	799	--	--	--	--	--
Chromium	5.58 (VI)/100000	--	--	--	--	--
Lead	800	--	--	--	--	--
Mercury	3.13	--	--	--	--	--
Selenium	5110	--	--	--	--	--
Silver	5110	--	--	--	--	--
VOCs						
Acetone	100000	--	--	--	--	--
Allyl Chloride	4.85	--	--	--	--	--
Benzene	7.41	--	--	--	--	--
Bromobenzene	679	--	--	--	--	--
Bromochloromethane	976	--	--	--	--	--
Bromodichloromethane	1.96	--	--	--	--	--
Bromoform	115	--	--	--	--	--
Bromomethane	46	--	--	--	--	--
2-Butanone (MEK)	28400	--	--	--	--	--
n-Butylbenzene	108	--	--	--	--	--
sec-Butylbenzene	145	--	--	--	--	--
tert-Butylbenzene	183	--	--	--	--	--
Carbon Tetrachloride	4.25	--	--	--	--	--
Chlorobenzene	761	--	--	--	--	--
Chloroethane	3.03	--	--	--	--	--
Chloroform	2.13	--	--	--	--	--
Chloromethane (methyl chloride)	720	--	--	--	--	--
2-Chlorotoluene	907	--	--	--	--	--
4-Chlorotoluene	253	--	--	--	--	--
1,2-Dibromo-3-chloropropane	0.099	--	--	--	--	--
Dibromochloromethane	34.1	--	--	--	--	--
1,2-Dibromoethane (EDB)	0.23	--	--	--	--	--
Dibromomethane	154	--	--	--	--	--
1,2-Dichlorobenzene	376	--	--	--	--	--
1,3-Dichlorobenzene	297	--	--	--	--	--
1,4-Dichlorobenzene	17.5	--	--	--	--	--
Dichlorodifluoromethane	571	--	--	--	--	--

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Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser Shipyard Punch Shed Soil Analytical Summary (cont)

All results in mg/kg (ppm)		Supplemental RI Borings				
	Boring / Test Pit	GP-8	GP-9		GP-10	GP-11
	Sample ID	GP8 2-4	GP9 2-4'	GP9 6-8'	GP10 2-4'	GP11 2-4'
	Sample Depth (ft)	2-4	2-4	6-8	2-4	2-4
	Total Depth					
	Refusal?	N	N	N	N	N
	Date	3/24/15	3/24/15	3/24/15	3/24/15	3/24/15
1,1-Dichloroethane (DCA)	23.7	--	--	--	--	--
1,2-Dichloroethane	3.03	--	--	--	--	--
1,1-Dichloroethene	1190	--	--	--	--	--
cis-1,2-Dichloroethene (DCE)	2040	--	--	--	--	--
trans-1,2-Dichloroethene	1850	--	--	--	--	--
Dichlorofluoromethane	NE	--	--	--	--	--
1,2-Dichloropropane	6.62	--	--	--	--	--
1,3-Dichloropropane	1490	--	--	--	--	--
2,2-Dichloropropane	191	--	--	--	--	--
1,1-Dichloropropene	NL?	--	--	--	--	--
cis-1,3-Dichloropropene	1210	--	--	--	--	--
trans-1,3-Dichloropropene	1510	--	--	--	--	--
Diethyl Ether (Ethyl Ether)	10100	--	--	--	--	--
Ethylbenzene	37	--	--	--	--	--
Hexachloro-1,3-butadiene	7.45	--	--	--	--	--
Isopropylbenzene (cumene)	268	--	--	--	--	--
p-Isopropyltoluene	162	--	--	--	--	--
Methylene Chloride	1070	--	--	--	--	--
4-Methyl-2-pentanone (MIBK)	2450	--	--	--	--	--
Methyl-tert-butyl-ether (MTBE)	293	--	--	--	--	--
Naphthalene	26	--	--	--	--	--
n-Propylbenzene	264	--	--	--	--	--
Styrene	867	--	--	--	--	--
1,1,1,2-Tetrachloroethane	12.9	--	--	--	--	--
1,1,2,2-Tetrachloroethane	3.69	--	--	--	--	--
Tetrachloroethene (PCE)	153	--	--	--	--	--
Tetrahydrofuran (THF)	100000	--	--	--	--	--
Toluene	818	--	--	--	--	--
1,2,3-Trichlorobenzene	818	--	--	--	--	--
1,2,4-Trichlorobenzene	98.7	--	--	--	--	--
1,1,1-Trichloroethane (TCA)	640	--	--	--	--	--
1,1,2-Trichloroethane (TCA)	7.34	--	--	--	--	--
Trichloroethene (TCE)	8.81	--	--	--	--	--
Trichlorofluoromethane	1230	--	--	--	--	--
1,2,3-Trichloropropane	0.095	--	--	--	--	--
1,1,2-Trichlorofluoroethane	910	--	--	--	--	--
1,2,4-Trimethylbenzene	219	--	--	--	--	--
1,3,5-Trimethylbenzene	182	--	--	--	--	--
Vinyl Chloride	2.03	--	--	--	--	--
Xylene (total)	260	--	--	--	--	--

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Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser Shipyard Punch Shed Soil Analytical Summary (cont)

All results in mg/kg (ppm)		Supplemental RI Borings				
	Boring / Test Pit	GP-8	GP-9		GP-10	GP-11
	Sample ID	GP8 2-4	GP9 2-4'	GP9 6-8'	GP10 2-4	GP11 2-4'
	Sample Depth (ft)	2-4	2-4	6-8	2-4	2-4
	Total Depth					
	Refusal?	N	N	N	N	N
	Date	3/24/15	3/24/15	3/24/15	3/24/15	3/24/15
PAHs						
Acenaphthene	33000	**0.268**	**0.0359**	<0.0125	**0.0156**	**0.081**
Acenaphthylene	NE	**0.120**	**0.0135**	<0.0125	**0.0304**	**0.0582**
Anthracene	100000	**0.544**	**0.0785**	<0.0125	**0.0643**	**0.362**
Benzo(a)anthracene	2.1	**1.340**	**0.272**	**0.0183**	**0.185**	**0.980**
Benzo(a)pyrene [B(a)P]	0.211	**1.540**	**0.287**	**0.0262**	**0.151**	**0.983**
Benzo(b)fluoranthene	2.11	**1.760**	**0.339**	**0.0352**	**0.206**	**1.260**
Benzo(g,h,i)perylene	NE	**1.080**	**0.181**	**0.0194**	**0.120**	**0.763**
Benzo(k)fluoranthene	21.1	**0.674**	**0.137**	**0.0131**	**0.0633**	**0.494**
Chrysene	211	**1.560**	**0.309**	**0.0316**	**0.243**	**1.570**
Dibenzo(a,h)anthracene	0.211	**0.320**	**0.0591**	<0.0125	**0.0458**	**0.213**
Fluoranthene	22000	**3.110**	**0.608**	**0.0983**	**0.267**	**1.790**
Fluorene	22000	**0.274**	**0.0344**	<0.0125	**0.0288**	**0.173**
Indeno(1,2,3-cd)pyrene	2.11	**0.878**	**0.162**	**0.0153**	**0.0911**	**0.611**
Naphthalene	26	**0.142**	**0.0270**	<0.0125	**0.0711**	**0.310**
Phenanthrene	NE	**2.940**	**0.462**	**0.0948**	**0.365**	**1.500**
Pyrene	16500	**3.120**	**0.576**	**0.0822**	**0.299**	**1.920**

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Table 2: Fraser (cont)
Soil Analytical

All results in mg/kg (ppm)		Supplemental RI Borings		
	Boring / Test Pit	GP-12	GP-13	GP-14
	Sample ID	GP12 4-6	GP13 0-2	GP14 2-4
	Sample Depth (ft)	4-6	0-2	2-4
	Total Depth			
	Refusal?	N	N	N
	Date	4/14/16	4/14/16	4/14/16
	Ind. - RCL			
Gasoline Range Organics	NE	--	--	--
RCRA Metals (total)				
Arsenic via 6010	2.39	--	--	--
Arsenic via 6020	2.39	--	--	--
Barium	100000	--	--	--
Cadmium	799	--	--	--
Chromium	5.58 (VI)/100000	--	--	--
Lead	800	--	--	--
Mercury	3.13	--	--	--
Selenium	5110	--	--	--
Silver	5110	--	--	--
VOCs				
Acetone	100000	--	--	--
Allyl Chloride	4.85	--	--	--
Benzene	7.41	--	--	--
Bromobenzene	679	--	--	--
Bromochloromethane	976	--	--	--
Bromodichloromethane	1.96	--	--	--
Bromoform	115	--	--	--
Bromomethane	46	--	--	--
2-Butanone (MEK)	28400	--	--	--
n-Butylbenzene	108	--	--	--
sec-Butylbenzene	145	--	--	--
tert-Butylbenzene	183	--	--	--
Carbon Tetrachloride	4.25	--	--	--
Chlorobenzene	761	--	--	--
Chloroethane	3.03	--	--	--
Chloroform	2.13	--	--	--
Chloromethane (methyl chloride)	720	--	--	--
2-Chlorotoluene	907	--	--	--
4-Chlorotoluene	253	--	--	--
1,2-Dibromo-3-chloropropane	0.099	--	--	--
Dibromochloromethane	34.1	--	--	--
1,2-Dibromoethane (EDB)	0.23	--	--	--
Dibromomethane	154	--	--	--
1,2-Dichlorobenzene	376	--	--	--
1,3-Dichlorobenzene	297	--	--	--
1,4-Dichlorobenzene	17.5	--	--	--
Dichlorodifluoromethane	571	--	--	--

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Bold Text - Reported above detection limit.
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Table 2: Fraser (cont)
Soil Analytical

All results in mg/kg (ppm)		Supplemental RI Borings		
	Boring / Test Pit	GP-12	GP-13	GP-14
	Sample ID	GP12 4-6	GP13 0-2	GP14 2-4
	Sample Depth (ft)	4-6	0-2	2-4
	Total Depth			
	Refusal?	N	N	N
	Date	4/14/16	4/14/16	4/14/16
1,1-Dichloroethane (DCA)	23.7	--	--	--
1,2-Dichloroethane	3.03	--	--	--
1,1-Dichloroethene	1190	--	--	--
cis-1,2-Dichloroethene (DCE)	2040	--	--	--
trans-1,2-Dichloroethene	1850	--	--	--
Dichlorofluoromethane	NE	--	--	--
1,2-Dichloropropane	6.62	--	--	--
1,3-Dichloropropane	1490	--	--	--
2,2-Dichloropropane	191	--	--	--
1,1-Dichloropropene	NL?	--	--	--
cis-1,3-Dichloropropene	1210	--	--	--
trans-1,3-Dichloropropene	1510	--	--	--
Diethyl Ether (Ethyl Ether)	10100	--	--	--
Ethylbenzene	37	--	--	--
Hexachloro-1,3-butadiene	7.45	--	--	--
Isopropylbenzene (cumene)	268	--	--	--
p-Isopropyltoluene	162	--	--	--
Methylene Chloride	1070	--	--	--
4-Methyl-2-pentanone (MIBK)	2450	--	--	--
Methyl-tert-butyl-ether (MTBE)	293	--	--	--
Naphthalene	26	--	--	--
n-Propylbenzene	264	--	--	--
Styrene	867	--	--	--
1,1,1,2-Tetrachloroethane	12.9	--	--	--
1,1,2,2-Tetrachloroethane	3.69	--	--	--
Tetrachloroethene (PCE)	153	--	--	--
Tetrahydrofuran (THF)	100000	--	--	--
Toluene	818	--	--	--
1,2,3-Trichlorobenzene	818	--	--	--
1,2,4-Trichlorobenzene	98.7	--	--	--
1,1,1-Trichloroethane (TCA)	640	--	--	--
1,1,2-Trichloroethane (TCA)	7.34	--	--	--
Trichloroethene (TCE)	8.81	--	--	--
Trichlorofluoromethane	1230	--	--	--
1,2,3-Trichloropropane	0.095	--	--	--
1,1,2-Trichlorofluoroethane	910	--	--	--
1,2,4-Trimethylbenzene	219	--	--	--
1,3,5-Trimethylbenzene	182	--	--	--
Vinyl Chloride	2.03	--	--	--
Xylene (total)	260	--	--	--

NE - Not Established -- Not Analyzed
Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Table 2: Fraser (cont)
Soil Analytical

All results in mg/kg (ppm)		Supplemental RI Borings		
	Boring / Test Pit	GP-12	GP-13	GP-14
	Sample ID	GP12 4-6	GP13 0-2	GP14 2-4
	Sample Depth (ft)	4-6	0-2	2-4
	Total Depth			
	Refusal?	N	N	N
	Date	4/14/16	4/14/16	4/14/16
PAHs				
Acenaphthene	33000	**0.0148**	**0.0668**	<0.0015
Acenaphthylene	NE	**0.0244**	**0.0109**	<0.0011
Anthracene	100000	**0.0775**	**0.246**	**0.0118**
Benzo(a)anthracene	2.1	**0.401**	**0.422**	**0.0269**
Benzo(a)pyrene [B(a)P]	0.211	**0.439**	**0.417**	**0.0297**
Benzo(b)fluoranthene	2.11	**0.637**	**0.602**	**0.038**
Benzo(g,h,i)perylene	NE	**0.189**	**0.157**	**0.0136**
Benzo(k)fluoranthene	21.1	**0.218**	**0.224**	**0.0171**
Chrysene	211	**0.463**	**0.458**	**0.033**
Dibenzo(a,h)anthracene	0.211	**0.0805**	**0.0633**	<0.0013
Fluoranthene	22000	**0.726**	**1.08**	**0.0675**
Fluorene	22000	**0.0176**	**0.12**	<0.0015
Indeno(1,2,3-cd)pyrene	2.11	**0.192**	**0.164**	**0.0109**
Naphthalene	26	**0.0505**	**0.0127**	<0.0014
Phenanthrene	NE	**0.222**	**0.805**	**0.0592**
Pyrene	16500	**0.68**	**0.891**	**0.0634**

NE - Not Established -- Not Analyzed
Bold Text - Reported above detection limit.
Bold Text and Box - Exceeds regulatory limit.

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

Note: This Summary is OLD. Update with 'Get Summary' in Row 924 of the applicable *_DC_RCLs tab.

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.4062	1.4E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.525		0.0009	7.1E-08
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.163		0.	4.4E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.27		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.937		0.0002	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0297		0.	1.0E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.014		0.0001	4.6E-09
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0073		0.	3.2E-08
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0074		0.0003	8.4E-10
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0214		0.	1.4E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0088		0.	4.3E-09
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.0516		0.	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.0118		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.0121		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.472		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.0753		0.0001	1.8E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		3.25		0.0086	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		3.88		0.0004	
Naphthalene	91-20-3	871.	26.	26.	ca		2.27		0.0026	8.7E-08
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		1.15	E		5.5E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.589		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.4062	1.4E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.566			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.409		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		1.			4.8E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		2.			9.5E-07
Benzo[g,h,i]perylene	191-24-2	-	-				1.17			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.935			4.4E-08
Chrysene	218-01-9	-	211.	211.	ca		1.34			6.4E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.333	E		1.6E-06
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		2.19		0.0001	
Fluorene	86-73-7	22,000.	-	22,000.	nc		1.2		0.0001	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.99			4.7E-07
Phenanthrene	85-01-8	-	-				1.45			
Pyrene	129-00-0	16,500.	-	16,500.	nc		2.02		0.0001	
Arsenic, Inorganic	7440-38-2	383.	2.39	2.39	ca	8.	7.7			
Barium	7440-39-3	193,000.	-	100,000.	ceiling	364.	87.3			
Cadmium (Diet)	7440-43-9	799.	10,600.	799.	nc	1.	0.58			
Chromium, Total	7440-47-3	-	-			44.	0.58			
Mercury (elemental)	7439-97-6	70.9	-	3.13	Csat		0.061		0.0009	
Lead and Compounds	7439-92-1	800.	-	800.	nc	52.	296.		0.37	
Selenium	7782-49-2	5,110.	-	5,110.	nc		2.4		0.0005	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		0.594		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.0078		0.0007	1.6E-09
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0103		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.0081		0.	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0106		0.	5.4E-09
Bromoform	75-25-2	20,400.	115.	115.	ca		0.119		0.	1.0E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.297		0.0065	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.426		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.298		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.4062	1.4E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0297		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0091		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.009		0.	4.2E-09
Chloromethane	74-87-3	720.	-	720.	nc		0.0108		0.	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.423		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0297		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0933		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.0315		0.0009	3.2E-07
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0128		0.	3.8E-10
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0166		0.0001	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0297		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0297			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0297		0.	1.7E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.0274		0.	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		2.66		0.	1.1E-07
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0095		0.0001	1.4E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0297		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.0079			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0075			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0084			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		3.14		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.0126		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.148		0.0001	2.0E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.976			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.148		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.318			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.0119		0.	1.1E-11
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.181		0.	
Silver	7440-22-4	5,110.	-	5,110.	nc		0.065		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.4062	1.4E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Styrene	100-42-5	48,500.	-	867.	Csat		0.0089		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0297		0.	2.3E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0081		0.	2.2E-09
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		0.0759		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0141		0.	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0108		0.	1.1E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.01		0.001	1.4E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.0106		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.369	E	0.0116	3.9E-06
Trichlorofluoroethane, 1,1,2							0.0248			
Test2Chem(GRO)	Wis. GRO						837.			
Dichlorofluoromethane							0.297			
Dichloropropene, 1,1							0.0097			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0487	8.3E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0224		0.	3.0E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.0901		0.	2.4E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0235		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.692		0.0002	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.056		0.	1.9E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.264		0.0013	8.7E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0139		0.	6.0E-08
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0139		0.0005	1.6E-09
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0404		0.0001	2.6E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0166		0.	8.2E-09
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.0224		0.	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.0228		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.0222		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.535		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.0181		0.	4.3E-09
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		3.67		0.0097	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		1.53		0.0002	
Naphthalene	91-20-3	871.	26.	26.	ca		4.39		0.005	1.7E-07
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		1.01	E		4.8E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.342		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

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Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0487	8.3E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.21			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.468		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		1.09			5.2E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		1.25			5.9E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.723			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.636			3.0E-08
Chrysene	218-01-9	-	211.	211.	ca		1.23			5.8E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.193			9.1E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		2.4		0.0001	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.389		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.566			2.7E-07
Phenanthrene	85-01-8	-	-				2.39			
Pyrene	129-00-0	16,500.	-	16,500.	nc		2.41		0.0001	
Arsenic, Inorganic	7440-38-2	383.	2.39	2.39	ca	8.	2.6			
Barium	7440-39-3	193,000.	-	100,000.	ceiling	364.	18.4			
Cadmium (Diet)	7440-43-9	799.	10,600.	799.	nc	1.	0.13			
Chromium, Total	7440-47-3	-	-			44.	5.5			
Mercury (elemental)	7439-97-6	70.9	-	3.13	Csat		0.022		0.0003	
Lead and Compounds	7439-92-1	800.	-	800.	nc	52.	41.5			
Selenium	7782-49-2	5,110.	-	5,110.	nc		0.53		0.0001	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.12		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.147		0.0136	3.0E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0194		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.0152		0.	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0199		0.	1.0E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.244		0.	2.1E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.56		0.0122	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.795		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.261		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0487	8.3E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.056		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0172		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0171		0.	8.0E-09
Chloromethane	74-87-3	720.	-	720.	nc		0.0204		0.	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.056		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.056		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0845		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.0593		0.0017	6.0E-07
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0242		0.	7.1E-10
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0314		0.0002	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.056		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.056			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.056		0.	3.2E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.0517		0.0001	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0766		0.	3.2E-09
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.018		0.0002	2.7E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.056		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.015			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0141			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0158			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.0282		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.0237		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.28		0.0003	3.8E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		1.57			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.28		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.28			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.224		0.0001	2.1E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.242		0.	
Silver	7440-22-4	5,110.	-	5,110.	nc		0.045		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0487	8.3E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Styrene	100-42-5	48,500.	-	867.	Csat		0.0167		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.056		0.	4.3E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0154		0.	4.2E-09
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		0.143		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0266		0.	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0204		0.0001	2.1E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0189		0.0019	2.6E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.0199		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.0149		0.0005	1.6E-07
Trichlorofluoroethane 1,1,2							0.0468			
Test2Chem(GRO)	Wis. GRO						572.			
Dichlorofluoromethane							0.56			
Dichloropropene, 1,1							0.0183			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

Note: This Summary is OLD. Update with 'Get Summary' in Row 924 of the applicable *_DC_RCLs tab.

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.1883	6.1E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0605		0.0001	8.2E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.13		0.	3.5E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.306		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.814		0.0002	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0302		0.	1.0E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0142		0.0001	4.7E-09
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0074		0.	3.2E-08
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0075		0.0003	8.5E-10
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0218		0.	1.4E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.009		0.	4.4E-09
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.0121		0.	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.0123		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.012		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.472		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.0098		0.	2.3E-09
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.305		0.0008	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.124		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		0.473		0.0005	1.8E-08
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.126			6.0E-07
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0597		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.1883	6.1E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.105			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.061		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.108			5.1E-08
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.28			1.3E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.176			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.128			6.1E-09
Chrysene	218-01-9	-	211.	211.	ca		0.189			9.0E-10
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0597			2.8E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.207		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0597		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.146			6.9E-08
Phenanthrene	85-01-8	-	-				0.254			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.213		0.	
Arsenic, Inorganic	7440-38-2	383.	2.39	2.39	ca	8.	10.6	E	0.0277	4.4E-06
Barium	7440-39-3	193,000.	-	100,000.	ceiling	364.	49.9			
Cadmium (Diet)	7440-43-9	799.	10,600.	799.	nc	1.	0.36			
Chromium, Total	7440-47-3	-	-			44.	10.1			
Mercury (elemental)	7439-97-6	70.9	-	3.13	Csat		0.036		0.0005	
Lead and Compounds	7439-92-1	800.	-	800.	nc	52.	118.		0.1475	
Selenium	7782-49-2	5,110.	-	5,110.	nc		2.		0.0004	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		0.604		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.0079		0.0007	1.6E-09
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0105		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.0082		0.	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0107		0.	5.5E-09
Bromoform	75-25-2	20,400.	115.	115.	ca		0.121		0.	1.1E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.302		0.0066	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.0073		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.0285		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.1883	6.1E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0302		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0093		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0092		0.	4.3E-09
Chloromethane	74-87-3	720.	-	720.	nc		0.011		0.	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0302		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0302		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.056		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.032		0.0009	3.2E-07
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0128		0.	3.8E-10
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0166		0.0001	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0297		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0297			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0297		0.	1.7E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.0279		0.	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0885		0.	3.7E-09
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0097		0.0001	1.5E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0297		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.0079			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0076			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0085			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.753		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.0126		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.151		0.0001	2.0E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.0373			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.151		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.151			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.121		0.	1.1E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.0753		0.	
Silver	7440-22-4	5,110.	-	5,110.	nc		0.055		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.1883	6.1E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Styrene	100-42-5	48,500.	-	867.	Csat		0.009		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0302		0.	2.3E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0081		0.	2.2E-09
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		0.0771		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0144		0.	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.011		0.	1.1E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0102		0.001	1.4E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.0107		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.008		0.0003	8.4E-08
Trichlorofluoroethane, 1,1,2							0.0252			
Test2Chem(GRO)	Wis. GRO						72.1			
Dichlorofluoromethane							0.302			
Dichloropropene, 1-1							0.0099			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
4	0.3055	2.5E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0115		0.	1.6E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.0407		0.	1.1E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0962		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.209		0.0001	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0288		0.	9.8E-11
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0702		0.0003	2.3E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0071		0.	3.1E-08
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.421		0.0148	4.8E-08
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.331		0.0006	2.2E-09
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0085		0.	4.2E-09
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.0115		0.	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.0402		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.137		0.0001	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.0757		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.0093		0.	2.2E-09
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.138		0.0004	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.096		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		4.39		0.005	1.7E-07
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		3.53	E		1.7E-05
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.748		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
4	0.3055	2.5E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.282			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		1.49		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		3.35	E		1.6E-06
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		4.4	E		2.1E-06
Benzo[g,h,i]perylene	191-24-2	-	-				2.48			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		2.2			1.0E-07
Chrysene	218-01-9	-	211.	211.	ca		3.95			1.9E-08
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.666	E		3.2E-06
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		7.55		0.0003	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.968		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		2.01			9.5E-07
Phenanthrene	85-01-8	-	-				5.62			
Pyrene	129-00-0	16,500.	-	16,500.	nc		6.18		0.0004	
Arsenic, Inorganic	7440-38-2	383.	2.39	2.39	ca	8.	5.1			
Barium	7440-39-3	193,000.	-	100,000.	ceiling	364.	109.			
Cadmium (Diet)	7440-43-9	799.	10,600.	799.	nc	1.	1.4		0.0018	1.3E-10
Chromium, Total	7440-47-3	-	-			44.	42.4			
Mercury (elemental)	7439-97-6	70.9	-	3.13	Csat		0.11		0.0016	
Lead and Compounds	7439-92-1	800.	-	800.	nc	52.	212.		0.265	
Selenium	7782-49-2	5,110.	-	5,110.	nc		3.5		0.0007	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		0.575		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.0075		0.0007	1.5E-09
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.01		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.0078		0.	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0102		0.	5.2E-09
Bromoform	75-25-2	20,400.	115.	115.	ca		0.115		0.	1.0E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.288		0.0063	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.007		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.0068		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0288		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0088		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0088		0.	4.1E-09
Chloromethane	74-87-3	720.	-	720.	nc		0.0105		0.	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0288		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0288		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0288		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.0305		0.0008	3.1E-07

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 91

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
4	0.3055	2.5E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0124		0.	3.6E-10
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0161		0.0001	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0288		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0288			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0288		0.	1.6E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.0266		0.	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0702		0.	3.0E-09
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0092		0.0001	1.4E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0288		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.0077			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0072			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0081			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.0145		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.0122		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.144		0.0001	1.9E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.126			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.144		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.144			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.115		0.	1.1E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.007		0.	
Silver	7440-22-4	5,110.	-	5,110.	nc		24.5		0.0048	
Styrene	100-42-5	48,500.	-	867.	Csat		0.0086		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0288		0.	2.2E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0079		0.	2.1E-09
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		0.0735		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0137		0.	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0105		0.	1.1E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0097		0.001	1.3E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.0102		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.0076		0.0002	8.0E-08
Trichlorofluoroethane 1,1,2							0.024			
Test2Chem(GRO)	Wis. GRO						156.			
Dichlorofluoromethane							0.288			
Dichloropropene, 1,1							0.0094			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0689	8.9E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0229		0.	3.1E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.0573		0.	1.5E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0573		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.172		0.	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0573		0.	2.0E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0573		0.0003	1.9E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0573		0.0001	2.5E-07
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0573		0.002	6.5E-09
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0573		0.0001	3.7E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0229		0.	1.1E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.229		0.0001	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.0573		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.229		0.0001	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.0573		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.229		0.0003	5.4E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.0573		0.0002	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.0573		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		0.229		0.0003	8.8E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.0118			5.6E-08
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0118		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0689	8.9E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.0118			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.0118		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.0118			5.6E-09
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.0118			5.6E-09
Benzo[g,h,i]perylene	191-24-2	-	-				0.0118			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.0118			5.6E-10
Chrysene	218-01-9	-	211.	211.	ca		0.0118			5.6E-11
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0118			5.6E-08
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.0118		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0118		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.0118			5.6E-09
Phenanthrene	85-01-8	-	-				0.0118			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.0118		0.	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.15		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.229		0.0212	4.7E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0573		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.229		0.0002	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0573		0.	2.9E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.229		0.	2.0E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.573		0.0125	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.0573		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.0573		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0573		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0573		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0573		0.	2.7E-08
Chloromethane	74-87-3	720.	-	720.	nc		0.229		0.0003	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0573		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0573		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0573		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.573	E	0.016	5.8E-06
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0573		0.	1.7E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0573		0.0004	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0573		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0573			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0573		0.	3.3E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.229		0.0004	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0573		0.	2.4E-09

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0689	8.9E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0573		0.0006	8.7E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0573		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.229			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0573			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0573			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.573		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.229		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.286		0.0003	3.8E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.0573			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.286		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.286			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.229		0.0001	2.1E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.0573		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.0573		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0573		0.	4.4E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0573		0.	1.6E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		2.29		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0573		0.0001	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0573		0.0001	5.8E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0573		0.0058	7.8E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.229		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.229	E	0.0072	2.4E-06
Trichlorofluoroethane 1,1,2							0.229			
Dichlorofluoromethane							0.573			
Dichloropropene, 1,1							0.0573			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.075	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.025		0.	3.4E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.0624		0.	1.7E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0624		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.187		0.	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0624		0.	2.1E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0624		0.0003	2.1E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0624		0.0001	2.7E-07
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0624		0.0022	7.1E-09
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0624		0.0001	4.1E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.025		0.	1.2E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.25		0.0002	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.25		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.0624		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.0624		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.25		0.0003	5.9E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.0624		0.0002	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.0624		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		0.25		0.0003	9.6E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.175			8.3E-07
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0154		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.075	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.0384			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.0509		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.131			6.2E-08
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.228			1.1E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.128			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.0744			3.5E-09
Chrysene	218-01-9	-	211.	211.	ca		0.177			8.4E-10
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0125			5.9E-08
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.328		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.018		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.108			5.1E-08
Phenanthrene	85-01-8	-	-				0.248			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.375		0.	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.25		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.25		0.0231	5.2E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0624		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.25		0.0003	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0624		0.	3.2E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.25		0.	2.2E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.624		0.0136	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.0624		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.0624		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0624		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0624		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0624		0.	2.9E-08
Chloromethane	74-87-3	720.	-	720.	nc		0.25		0.0003	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0624		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0624		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0624		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.624	E	0.0174	6.3E-06
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0624		0.	1.8E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0624		0.0004	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0624		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0624			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0624		0.	3.6E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.25		0.0004	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0624		0.	2.6E-09

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.075	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0624		0.0006	9.4E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0624		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.25			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0624			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0624			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.624		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.25		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.312		0.0003	4.2E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.0624			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.312		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.312			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.25		0.0001	2.3E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.0624		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.0624		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0624		0.	4.8E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0624		0.	1.7E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		2.5		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0624		0.0001	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0624		0.0002	6.3E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0624		0.0064	8.5E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.25		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.25	E	0.0079	2.6E-06
Trichlorofluoroethane 1,1,2							0.25			
Dichlorofluoromethane							0.624			
Dichloropropene, 1,1							0.0624			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0808	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0269		0.	3.6E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.0687		0.	1.9E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0673		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.202		0.0001	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0673		0.	2.3E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0673		0.0003	2.2E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0673		0.0001	2.9E-07
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0673		0.0024	7.6E-09
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0673		0.0001	4.4E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0269		0.0001	1.3E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.269		0.0002	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.269		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.0673		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.0673		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.269		0.0003	6.3E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.0673		0.0002	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.0673		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		0.269		0.0003	1.0E-08
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.0541			2.6E-07
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0134		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0808	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.0134			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.018		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.047			2.2E-08
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.0705			3.3E-08
Benzo[g,h,i]perylene	191-24-2	-	-				0.0402			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.0282			1.3E-09
Chrysene	218-01-9	-	211.	211.	ca		0.0616			2.9E-10
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0134			6.4E-08
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.122		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0134		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.0333			1.6E-08
Phenanthrene	85-01-8	-	-				0.0959			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.151		0.	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.35		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.269		0.0249	5.5E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0673		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.269		0.0003	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0673		0.	3.4E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.269		0.	2.3E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.673		0.0146	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.0673		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.0673		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0673		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0673		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0673		0.	3.2E-08
Chloromethane	74-87-3	720.	-	720.	nc		0.269		0.0004	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0673		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0673		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0673		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.673	E	0.0187	6.8E-06
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0673		0.	2.0E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0673		0.0004	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0673		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0673			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0673		0.	3.8E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.269		0.0005	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0673		0.	2.8E-09

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0808	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0673		0.0007	1.0E-08
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0673		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.269			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0673			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0673			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.673		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.269		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.336		0.0003	4.5E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.0673			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.336		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.336			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.269		0.0001	2.5E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.0673		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.0673		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0673		0.	5.2E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0673		0.	1.8E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		2.69		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0673		0.0001	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0673		0.0002	6.8E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0673		0.0069	9.2E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.269		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.269	E	0.0085	2.8E-06
Trichlorofluoroethane 1,1,2							0.269			
Dichlorofluoromethane							0.673			
Dichloropropene, 1,1							0.0673			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.0769	1.7E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0254		0.	3.4E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.0636		0.	1.7E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0636		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.191		0.	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0636		0.	2.2E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0636		0.0003	2.1E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0636		0.0001	2.8E-07
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0636		0.0022	7.2E-09
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0636		0.0001	4.2E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0254		0.	1.3E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.254		0.0002	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.2564		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.0636		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.0636		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.254		0.0003	6.0E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.142		0.0004	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.103		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		0.254		0.0003	9.8E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		1.15	E		5.5E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.246		0.	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.0769	1.7E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.163			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.406		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.98			4.7E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		1.5			7.1E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.751			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.601			2.8E-08
Chrysene	218-01-9	-	211.	211.	ca		1.25			5.9E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0132			6.3E-08
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		2.8		0.0001	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.268		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.648			3.1E-07
Phenanthrene	85-01-8	-	-				2.66			
Pyrene	129-00-0	16,500.	-	16,500.	nc		3.87		0.0002	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.27		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.254		0.0235	5.2E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0636		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.254		0.0003	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0636		0.	3.2E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.254		0.	2.2E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.636		0.0138	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.0636		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.0636		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0636		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0636		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0636		0.	3.0E-08
Chloromethane	74-87-3	720.	-	720.	nc		0.254		0.0004	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0636		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0636		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.0636		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.636	E	0.0177	6.4E-06
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0636		0.	1.9E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0636		0.0004	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0636		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0636			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0636		0.	3.6E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.254		0.0004	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.142		0.	6.0E-09

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
3	0.0769	1.7E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0636		0.0006	9.6E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0636		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.254			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0636			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0636			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.636		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.254		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.318		0.0003	4.3E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.0636			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.318		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.318			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.254		0.0001	2.4E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.0636		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.0636		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0636		0.	4.9E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0636		0.	1.7E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		2.54		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0636		0.0001	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0636		0.0002	6.4E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0636		0.0065	8.7E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.254		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.254	E	0.008	2.7E-06
Trichlorofluoroethane 1,1,2							0.254			
Dichlorofluoromethane							0.636			
Dichloropropene, 1,1							0.0636			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
6	0.4324	5.6E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.124		0.0002	1.7E-08
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.31		0.	8.4E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.31		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.931		0.0002	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.31		0.	1.1E-09
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.31		0.0015	1.0E-07
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.31	E	0.0006	1.3E-06
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.31		0.0109	3.5E-08
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.31		0.0005	2.0E-09
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.124		0.0002	6.1E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		1.24		0.0008	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		1.24		0.0001	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.31		0.0002	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.31		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		1.24		0.0015	2.9E-07
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		6.39		0.0169	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		3.		0.0003	
Naphthalene	91-20-3	871.	26.	26.	ca		39.	E	0.0448	1.5E-06
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.621	E		2.9E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		3.08		0.0001	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

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Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
6	0.4324	5.6E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.621			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.621		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.621			3.0E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.621			2.9E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.621			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.621			2.9E-08
Chrysene	218-01-9	-	211.	211.	ca		0.621			2.9E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.621	E		2.9E-06
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.621		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		2.19		0.0001	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.621			2.9E-07
Phenanthrene	85-01-8	-	-				3.56			
Pyrene	129-00-0	16,500.	-	16,500.	nc		1.73		0.0001	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		6.21		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		1.24		0.1148	2.6E-07
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.31		0.0001	
Bromochloromethane	74-97-5	976.	-	976.	nc		1.24		0.0013	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.31		0.	1.6E-07
Bromoform	75-25-2	20,400.	115.	115.	ca		1.24		0.0001	1.1E-08
Bromomethane	74-83-9	46.	-	46.	nc		3.1		0.0674	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.31		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.31		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.31		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.31		0.0002	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.31		0.0002	1.5E-07
Chloromethane	74-87-3	720.	-	720.	nc		1.24		0.0017	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.31		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.31		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.31		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		3.1	E	0.0864	3.1E-05
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.31		0.	9.1E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.31		0.002	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.31		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.31			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.31		0.	1.8E-08
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		1.24		0.0022	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.31		0.	1.3E-08

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
6	0.4324	5.6E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.31		0.003	4.7E-08
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.31		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		1.24			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.31			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.31			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		3.1		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		1.24		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		1.55		0.0015	2.1E-07
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		1.88			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		1.55		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		1.55			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		1.24		0.0003	1.2E-09
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.31		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.31		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.31		0.	2.4E-08
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.31		0.	8.4E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		12.4		0.0001	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.31		0.0004	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.31		0.0008	3.1E-09
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.31		0.0316	4.2E-08
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		1.24		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		1.24	E	0.039	1.3E-05
Trichlorofluoroethane 1,1,2							1.24			
Dichlorofluoromethane							3.1			
Dichloropropene, 1,1							0.31			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
5	0.2465	2.8E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0379		0.0001	5.1E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.301		0.	8.1E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.0949		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		4.57		0.0012	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.0949		0.	3.2E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.0949		0.0005	3.1E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.0949		0.0002	4.1E-07
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.0949		0.0033	1.1E-08
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.0949		0.0002	6.2E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0379		0.0001	1.9E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.379		0.0002	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.379		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.0949		0.	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.0949		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.379		0.0005	8.9E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		13.1		0.0347	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		4.72		0.0005	
Naphthalene	91-20-3	871.	26.	26.	ca		83.8	E	0.0962	3.2E-06
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.979	E		4.6E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		6.97		0.0002	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
5	0.2465	2.8E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				0.979			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.979		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.979			4.7E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.979			4.6E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.979			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.979			4.6E-08
Chrysene	218-01-9	-	211.	211.	ca		0.979			4.6E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.979	E		4.6E-06
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.979		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		3.64		0.0002	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.979			4.6E-07
Phenanthrene	85-01-8	-	-				2.47			
Pyrene	129-00-0	16,500.	-	16,500.	nc		2.8		0.0002	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.9		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.379		0.0351	7.8E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.0949		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.379		0.0004	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.0949		0.	4.8E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.379		0.	3.3E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.949		0.0206	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		4.98		0.0001	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.32		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.0949		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.0949		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.0949		0.0001	4.5E-08
Chloromethane	74-87-3	720.	-	720.	nc		0.379		0.0005	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.0949		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.0949		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.268		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.949	E	0.0264	9.6E-06
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.0949		0.	2.8E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.0949		0.0006	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.0949		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.0949			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.0949		0.	5.4E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.379		0.0007	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.0949		0.	4.0E-09

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
5	0.2465	2.8E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.0949		0.0009	1.4E-08
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.0949		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.379			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.0949			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.0949			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.949		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.379		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.474		0.0005	6.4E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		1.68			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.474		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.474			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.379		0.0001	3.5E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.553		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.0949		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.0949		0.	7.4E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.0949		0.	2.6E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		3.79		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.0949		0.0001	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.0949		0.0002	9.6E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.0949		0.0097	1.3E-08
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.379		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.379	E	0.0119	4.0E-06
Trichlorofluoroethane 1,1,2							0.379			
Dichlorofluoromethane							0.949			
Dichloropropene, 1,1							0.0949			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
8	0.2429	1.2E-03

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Benzene	71-43-2	614.	7.41	7.41	ca		0.0232		0.	3.1E-09
Ethylbenzene	100-41-4	28,000.	37.	37.	ca		0.088		0.	2.4E-09
Toluene	108-88-3	52,400.	-	818.	Csat		0.224		0.	
Xylenes	1330-20-7	3,830.	-	260.	Csat		0.749		0.0002	
Methyl tert-Butyl Ether (MTBE)	1634-04-4	100,000.	293.	293.	ca		0.058		0.	2.0E-10
Dichloroethane, 1,2-	107-06-2	210.	3.03	3.03	ca		0.058		0.0003	1.9E-08
Dibromoethane, 1,2-	106-93-4	501.	0.23	0.23	ca		0.058		0.0001	2.5E-07
Trichloroethylene	79-01-6	28.4	8.81	8.81	ca		0.058		0.002	6.6E-09
Tetrachloroethylene	127-18-4	579.	153.	153.	ca		0.058		0.0001	3.8E-10
Vinyl Chloride	75-01-4	537.	2.03	2.03	ca		0.0232		0.	1.1E-08
Dichloroethylene, 1,1-	75-35-4	1,530.	-	1,190.	Csat		0.232		0.0002	
Dichloroethylene, 1,2-trans-	156-60-5	20,400.	-	1,850.	Csat		0.232		0.	
Dichloroethylene, 1,2-cis-	156-59-2	2,040.	-	2,040.	nc		0.58		0.0003	
Trichloroethane, 1,1,1-	71-55-6	54,600.	-	640.	Csat		0.46		0.	
Carbon Tetrachloride	56-23-5	815.	4.25	4.25	ca		0.232		0.0003	5.5E-08
Trimethylbenzene, 1,2,4-	95-63-6	377.	-	219.	Csat		0.2		0.0005	
Trimethylbenzene, 1,3,5-	108-67-8	10,200.	-	182.	Csat		0.0712		0.	
Naphthalene	91-20-3	871.	26.	26.	ca		80.2	E	0.0921	3.1E-06
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		204.	E		9.7E-04
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		121.		0.0037	

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
8	0.2429	1.2E-03

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Acenaphthylene	208-96-8	-	-				1.1			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		182.		0.0011	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		215.	E		1.0E-04
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		237.	E		1.1E-04
Benzo[g,h,i]perylene	191-24-2	-	-				113.			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		101.	E		4.8E-06
Chrysene	218-01-9	-	211.	211.	ca		207.			9.8E-07
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0573			2.7E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		645.		0.0293	
Fluorene	86-73-7	22,000.	-	22,000.	nc		112.		0.0051	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		105.	E		5.0E-05
Phenanthrene	85-01-8	-	-				838.			
Pyrene	129-00-0	16,500.	-	16,500.	nc		684.		0.0415	
Acetone	67-64-1	697,000.	-	100,000.	ceiling		1.16		0.	
Allyl Chloride	107-05-1	10.8	4.85	4.85	ca		0.232		0.0215	4.8E-08
Bromobenzene	108-86-1	2,410.	-	679.	Csat		0.058		0.	
Bromochloromethane	74-97-5	976.	-	976.	nc		0.232		0.0002	
Bromodichloromethane	75-27-4	20,400.	1.96	1.96	ca		0.058		0.	3.0E-08
Bromoform	75-25-2	20,400.	115.	115.	ca		0.232		0.	2.0E-09
Bromomethane	74-83-9	46.	-	46.	nc		0.58		0.0126	
Butylbenzene, n-	104-51-8	51,100.	-	108.	Csat		0.107		0.	
Butylbenzene, sec-	135-98-8	102,000.	-	145.	Csat		0.058		0.	
Butylbenzene, tert-	98-06-6	102,000.	-	183.	Csat		0.058		0.	
Chlorobenzene	108-90-7	1,980.	-	761.	Csat		0.058		0.	
Chloroform	67-66-3	1,490.	2.13	2.13	ca		0.058		0.	2.7E-08
Chloromethane	74-87-3	720.	-	720.	nc		0.232		0.0003	
Chlorotoluene, o-	95-49-8	20,400.	-	907.	Csat		0.058		0.	
Chlorotoluene, p-	106-43-4	20,400.	-	253.	Csat		0.058		0.	
Cumene	98-82-8	14,500.	-	268.	Csat		0.058		0.	
Dibromo-3-chloropropane, 1,2-	96-12-8	35.9	0.099	0.099	ca		0.58	E	0.0162	5.9E-06
Dibromochloromethane	124-48-1	20,400.	34.1	34.1	ca		0.058		0.	1.7E-09
Dibromomethane (Methylene Bromide)	74-95-3	154.	-	154.	nc		0.058		0.0004	
Dichlorobenzene, 1,2-	95-50-1	13,600.	-	376.	Csat		0.058		0.	
Dichlorobenzene, 1,3-	541-73-1	-	-	297.	Csat		0.058			
Dichlorobenzene, 1,4-	106-46-7	31,700.	17.5	17.5	ca		0.058		0.	3.3E-09
Dichlorodifluoromethane	75-71-8	571.	-	571.	nc		0.232		0.0004	
Dichloroethane, 1,1-	75-34-3	204,000.	23.7	23.7	ca		0.058		0.	2.4E-09

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 82

Please do not enter anything in this summary!

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
8	0.2429	1.2E-03

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Dichloropropane, 1,2-	78-87-5	103.	6.62	6.62	ca		0.058		0.0006	8.8E-09
Dichloropropane, 1,3-	142-28-9	20,400.	-	1,490.	Csat		0.058		0.	
Dichloropropane, 2,2-	594-20-7	-	-	191.	Csat		0.232			
Dichloropropene, cis-1,3-	10061-01-5	-	-	1,210.	Csat		0.058			
Dichloropropene, trans-1,3-	10061-02-6	-	-	1,510.	Csat		0.058			
Ethyl Chloride	75-00-3	88,100.	-	2,120.	Csat		0.58		0.	
Ethyl Ether	60-29-7	204,000.	-	10,100.	Csat		0.232		0.	
Hexachlorobutadiene	87-68-3	1,020.	7.45	7.45	ca		0.29		0.0003	3.9E-08
Isopropyltoluene, p-	99-87-6	-	-	162.	Csat		0.058			
Methyl Ethyl Ketone (2-Butanone)	78-93-3	248,000.	-	28,400.	Csat		0.29		0.	
Methyl-2-Pentanol, 4-	108-11-2	-	-	2,450.	Csat		0.29			
Methylene Chloride	75-09-2	3,640.	1,070.	1,070.	ca		0.232		0.0001	2.2E-10
Propyl benzene	103-65-1	32,500.	-	264.	Csat		0.058		0.	
Styrene	100-42-5	48,500.	-	867.	Csat		0.058		0.	
Tetrachloroethane, 1,1,1,2-	630-20-6	30,700.	12.9	12.9	ca		0.058		0.	4.5E-09
Tetrachloroethane, 1,1,2,2-	79-34-5	20,400.	3.69	3.69	ca		0.058		0.	1.6E-08
Tetrahydrofuran	109-99-9	137,000.	-	100,000.	ceiling		2.32		0.	
Trichlorobenzene, 1,2,3-	87-61-6	818.	-	818.	nc		0.058		0.0001	
Trichlorobenzene, 1,2,4-	120-82-1	392.	98.7	98.7	ca		0.058		0.0001	5.9E-10
Trichloroethane, 1,1,2-	79-00-5	9.8	7.34	7.34	ca		0.058		0.0059	7.9E-09
Trichlorofluoromethane	75-69-4	307,000.	-	1,230.	Csat		0.232		0.	
Trichloropropane, 1,2,3-	96-18-4	31.8	0.095	0.095	ca		0.232	E	0.0073	2.4E-06
Trichlorofluoroethane 1,1,2							0.232			
Dichlorofluoromethane							0.58			
Dichloropropene, 1,1							0.058			

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0005	1.1E-05

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.142		0.0002	5.5E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		1.54	E		7.3E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.268		0.	
Acenaphthylene	208-96-8	-	-				0.12			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.544		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		1.34			6.4E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		1.76			8.3E-07
Benzo[g,h,i]perylene	191-24-2	-	-				1.08			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.674			3.2E-08
Chrysene	218-01-9	-	211.	211.	ca		1.56			7.4E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.32	E		1.5E-06
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		3.11		0.0001	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.274		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.878			4.2E-07
Phenanthrene	85-01-8	-	-				2.94			
Pyrene	129-00-0	16,500.	-	16,500.	nc		3.12		0.0002	

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0001	2.0E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.027		0.	1.0E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.287	E		1.4E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0359		0.	
Acenaphthylene	208-96-8	-	-				0.0135			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.0785		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.272			1.3E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.339			1.6E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.181			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.137			6.5E-09
Chrysene	218-01-9	-	211.	211.	ca		0.309			1.5E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0591			2.8E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.608		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0344		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.162			7.7E-08
Phenanthrene	85-01-8	-	-				0.462			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.576		0.	

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
0	0.0001	1.2E-06

Bottom-Line: Yes, levels are below INDUSTRIAL direct-contact concern.

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.0711		0.0001	2.7E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.151			7.2E-07
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0156		0.	
Acenaphthylene	208-96-8	-	-				0.0304			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.0643		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.185			8.8E-08
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.206			9.8E-08
Benzo[g,h,i]perylene	191-24-2	-	-				0.12			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.0633			3.0E-09
Chrysene	218-01-9	-	211.	211.	ca		0.243			1.2E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0458			2.2E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.267		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0288		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.0911			4.3E-08
Phenanthrene	85-01-8	-	-				0.365			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.299		0.	

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
2	0.0006	7.1E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.31		0.0004	1.2E-08
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.983	E		4.7E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.081		0.	
Acenaphthylene	208-96-8	-	-				0.0582			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.362		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.98			4.7E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		1.26			6.0E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.763			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.494			2.3E-08
Chrysene	218-01-9	-	211.	211.	ca		1.57			7.4E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.213	E		1.0E-06
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		1.79		0.0001	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.173		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.611			2.9E-07
Phenanthrene	85-01-8	-	-				1.5			
Pyrene	129-00-0	16,500.	-	16,500.	nc		1.92		0.0001	

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0001	3.1E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.0505		0.0001	1.9E-09
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.439	E		2.1E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0148		0.	
Acenaphthylene	208-96-8	-	-				0.0244			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.0775		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.401			1.9E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.637			3.0E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.189			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.218			1.0E-08
Chrysene	218-01-9	-	211.	211.	ca		0.463			2.2E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0805			3.8E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.726		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0176		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.192			9.1E-08
Phenanthrene	85-01-8	-	-				0.222			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.68		0.	

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
1	0.0001	2.9E-06

Bottom-Line: **NO! This INDUSTRIAL site sampling location will need either further cleanup to lower contaminant levels or the construction of a cap/cover to address the direct-contact pathway.**

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.0127		0.	4.9E-10
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.417	E		2.0E-06
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0668		0.	
Acenaphthylene	208-96-8	-	-				0.0109			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.246		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.422			2.0E-07
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.602			2.9E-07
Benzo[g,h,i]perylene	191-24-2	-	-				0.157			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.224			1.1E-08
Chrysene	218-01-9	-	211.	211.	ca		0.458			2.2E-09
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0633			3.0E-07
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		1.08		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.12		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.164			7.8E-08
Phenanthrene	85-01-8	-	-				0.805			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.891		0.0001	

Direct-Contact ***Exceedance*** - ***Hazard*** - ***Risk*** Calculation Summary from Soil Data

BRRTS # :
02-16-562599

# of Soil-Concentration Entries: 16

Number of Individual Exceedance	(Cumulative) Hazard Index	(Cumulative) Cancer Risk
0	0.	1.8E-07

Bottom-Line: Yes, levels are below INDUSTRIAL direct-contact concern.

Date of Entry: 6/2/2016.
Date of Worksheet Used: 12/11/2015.

List below only has contaminants with data.

Contaminant	CAS Number	NC RCL (mg/kg)	C RCL (mg/kg)	Not-To-Exceed D-C RCL (mg/kg)	Basis	BTV (mg/kg)	INPUTTED Site Data (mg/kg)	Flag E = Individual Exceedance!	Hazard Quotient (HQ) from Data	Cancer Risk (CR) from Data
Naphthalene	91-20-3	871.	26.	26.	ca		0.0014		0.	5.4E-11
Benzo[a]pyrene	50-32-8	-	0.211	0.211	ca		0.0297			1.4E-07
Acenaphthene	83-32-9	33,000.	-	33,000.	nc		0.0015		0.	
Acenaphthylene	208-96-8	-	-				0.0011			
Anthracene	120-12-7	165,000.	-	100,000.	ceiling		0.0118		0.	
Benz[a]anthracene	56-55-3	-	2.1	2.1	ca		0.0269			1.3E-08
Benzo[b]fluoranthene	205-99-2	-	2.11	2.11	ca		0.038			1.8E-08
Benzo[g,h,i]perylene	191-24-2	-	-				0.0136			
Benzo[k]fluoranthene	207-08-9	-	21.1	21.1	ca		0.0171			8.1E-10
Chrysene	218-01-9	-	211.	211.	ca		0.033			1.6E-10
Dibenz[a,h]anthracene	53-70-3	-	0.211	0.211	ca		0.0013			6.2E-09
Fluoranthene	206-44-0	22,000.	-	22,000.	nc		0.0675		0.	
Fluorene	86-73-7	22,000.	-	22,000.	nc		0.0015		0.	
Indeno[1,2,3-cd]pyrene	193-39-5	-	2.11	2.11	ca		0.0109			5.2E-09
Phenanthrene	85-01-8	-	-				0.0592			
Pyrene	129-00-0	16,500.	-	16,500.	nc		0.0634		0.	

Table 3: Groundwater Analytical Summary
Fraser Shipyards - Punch Shed Addition

All results in ug/L		Sample ID	GP-1	GP-2	GP-3	GP-4	GP-6	GP-7	GP-8	GP-81
		Sample Date								Dup
VOCs	ES	PAL								
Acetone	9000	1800	<20.0	<20.0	<20.0	**33.5**	**60.5**	<20.0	--	--
Allyl Chloride	NP	NP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
Benzene	5	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Bromobenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Bromochloromethane	NP	NP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
Bromodichloromethane	0.6	0.06	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Bromoform	4.4	0.44	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
Bromomethane	10	1	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
2-Butanone (MEK)	4000	800	<5.0	<5.0	<5.0	<5.0	**14.5**	<5.0	--	--
n-Butylbenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	**2.7**	<1.0	--	--
sec-Butylbenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	**1.6**	<1.0	--	--
tert-Butylbenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Carbon Tetrachloride	5	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Chlorobenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Chloroethane	400	80	<1.0	**3.4**	<1.0	<1.0	<1.0	<1.0	--	--
Chloroform	6	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Chloromethane	30	3	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
2-Chlorotoluene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
4-Chlorotoluene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2-Dibromo-3-chloropropane	0.2	0.02	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
Dibromochloromethane	60	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2-Dibromoethane (EDB)	0.05	0.005	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Dibromomethane	NP	NP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
1,2-Dichlorobenzene	600	60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,3-Dichlorobenzene	600	120	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,4-Dichlorobenzene	75	15	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Dichlorodifluoromethane	1000	200	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
1,1-Dichloroethane (DCA)	850	85	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2-Dichloroethane	5	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,1-Dichloroethene	7	0.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
cis-1,2-Dichloroethene (DCE)	70	7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
trans-1,2-Dichloroethene	100	20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Dichlorofluoromethane	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2-Dichloropropane	5	0.5	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
1,3-Dichloropropane	0.4	0.04	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
2,2-Dichloropropane	NP	NP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
1,1-Dichloropropene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
cis-1,3-Dichloropropene	NP	NP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
trans-1,3-Dichloropropene	NP	NP	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
Diethyl Ether (Ethyl Ether)	1000	100	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
Ethylbenzene	700	140	<1.0	<1.0	<1.0	<1.0	**4.6**	<1.0	--	--

29.5	Exceeds WDNR PAL & ES
0.081	Exceeds WDNR PAL, but not ES
<0.081	MDL exceeds WDNR PAL, but not ES
0.35	Detected above reporting limit
--	Not analyzed
NP	Not published

Table 3: Groundwater Analytical Summary
Fraser Shipyards - Punch Shed Addition

All results in ug/L	Sample ID		GP-1	GP-2	GP-3	GP-4	GP-6	GP-7	GP-8	GP-81
	Sample Date									Dup
Hexachloro-1,3-butadiene	NP	NP	<1.0	**1.0**	<1.0	<1.0	<1.0	<1.0	--	--
Isopropylbenzene (cumene)	NP	NP	<1.0	<1.0	<1.0	<1.0	**2.1**	<1.0	--	--
p-Isopropyltoluene	NP	NP	**4.8**	<1.0	<1.0	<1.0	**12.1**	<1.0	--	--
Methylene Chloride	5	0.5	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
4-Methyl-2-pentanone (MIBK)	500	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	--
Methyl-tert-butyl-ether (MTBE)	60	12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Naphthalene	100	10	<4.0	<4.0	<4.0	<4.0	***228***	<4.0	--	--
n-Propylbenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	**2.8**	<1.0	--	--
Styrene	100	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,1,1,2-Tetrachloroethane	70	7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,1,2,2-Tetrachloroethane	0.2	0.02	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Tetrachloroethene (PCE)	5	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Tetrahydrofuran (THF)	50	10	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	--	--
Toluene	800	160	<1.0	<1.0	<1.0	<1.0	**1.8**	<1.0	--	--
1,2,3-Trichlorobenzene	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2,4-Trichlorobenzene	70	14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,1,1-Trichloroethane (TCA)	200	40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,1,2-Trichloroethane (TCA)	5	0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
Trichloroethene (TCE)	5	0.5	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	--	--
Trichlorofluoromethane	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2,3-Trichloropropane*	60	12	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	--	--
1,1,2-Trichlorofluoroethane	NP	NP	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	--	--
1,2,4-Trimethylbenzene	480	96	<1.0	<1.0	<1.0	<1.0	**96.4**	<1.0	--	--
1,3,5-Trimethylbenzene			<1.0	<1.0	<1.0	<1.0	**32.6**	<1.0	--	--
Vinyl Chloride	0.2	0.02	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	--	--
Xylene (total)	2000	400	<3.0	<3.0	<3.0	<3.0	**49.7**	<3.0	--	--
PAHs										
Acenaphthene	NP	NP	**1.2**	**0.19**	**0.15**	<0.045	**4.4**	**3.0**	**0.78**	**0.71**
Acenaphthylene	NP	NP	**0.17**	<0.043	<0.042	<0.045	<0.21	<0.043	<0.043	**0.092**
Anthracene	3000	600	**0.18**	<0.043	<0.042	<0.045	<0.21	**1.1**	**0.079**	**0.073**
Benzo(a)anthracene	NP	NP	**0.43**	<0.043	<0.042	<0.045	<0.21	**0.15**	<0.043	<0.042
Benzo(a)pyrene	0.2	0.02	***0.57***	<0.043	<0.042	<0.045	<0.21	**0.14**	<0.043	<0.042
Benzo(b)fluoranthene	0.2	0.02	***0.84***	<0.043	<0.042	<0.045	<0.21	**0.16**	<0.043	<0.042
Benzo(g,h,i)perylene	NP	NP	**0.52**	<0.043	<0.042	<0.045	<0.21	<0.043	<0.043	<0.042
Benzo(k)fluoranthene	NP	NP	**0.27**	<0.043	<0.042	<0.045	<0.21	**0.068**	<0.043	<0.042
Chrysene	0.2	0.02	***0.63***	<0.043	<0.042	<0.045	<0.21	**0.16**	<0.043	<0.042
Dibenzo(a,h)anthracene	NP	NP	<0.041	<0.043	<0.042	<0.045	<0.21	<0.043	<0.043	<0.042
Fluoranthene	400	80	**1.4**	**0.078**	<0.042	<0.045	<0.21	**0.9**	**0.087**	**0.086**
Fluorene	400	80	**0.35**	**0.17**	<0.042	<0.045	**2.3**	**1.6**	**0.56**	**0.51**
Indeno(1,2,3-cd)pyrene	NP	NP	**0.45**	<0.043	<0.042	<0.045	<0.21	<0.043	<0.043	<0.042
Naphthalene	100	10	<0.041	<0.043	<0.042	<0.045	***231***	**2.1**	**0.056**	**0.064**
Phenanthrene	NP	NP	**0.89**	**0.11**	**0.083**	<0.045	**0.92**	**4.2**	<0.043	<0.042
Pyrene	250	50	**1.2**	**0.07**	<0.042	<0.045	<0.21	**0.7**	**0.063**	**0.068**

29.5	Exceeds WDNR PAL & ES
0.081	Exceeds WDNR PAL, but not ES
<0.081	MDL exceeds WDNR PAL, but not ES
0.35	Detected above reporting limit
--	Not analyzed
NP	Not published

Table 3: Groundwater Analytical Summary
Fraser Shipyards - Punch Shed Addition

All results in ug/L			Sample ID	GP-9	PS-MW-1	PS-MW-1	PS-MW-2	PS-MW-2.1	PS-MW-2
			Sample Date		4/27/2016	7/19/2016	4/27/2016	4/27/2016	7/19/2016
VOCs	ES	PAL						MW-2 Dup	
Acetone	9000	1800	--		**73.7**	**6.4J**	**93.9**	**88.5**	**2.7J**
Allyl Chloride	NP	NP	--		<4.0	<0.25	<4.0	<4.0	<0.25
Benzene	5	0.5	--		<1.0	<0.16	<1.0	<1.0	<0.16
Bromobenzene	NP	NP	--		<1.0	<0.34	<1.0	<1.0	<0.34
Bromochloromethane	NP	NP	--		<4.0	<0.19	<4.0	<4.0	<0.19
Bromodichloromethane	0.6	0.06	--		<1.0	<0.24	<1.0	<1.0	<0.24
Bromoform	4.4	0.44	--		<4.0	<0.27	<4.0	<4.0	<0.27
Bromomethane	10	1	--		<4.0	<0.44	<4.0	<4.0	<0.44
2-Butanone (MEK)	4000	800	--		<5.0	<1.1	<5.0	<5.0	<1.1
n-Butylbenzene	NP	NP	--		<1.0	<0.16	<1.0	<1.0	<0.16
sec-Butylbenzene	NP	NP	--		<1.0	<0.19	<1.0	<1.0	<0.19
tert-Butylbenzene	NP	NP	--		<1.0	<0.22	<1.0	<1.0	<0.22
Carbon Tetrachloride	5	0.5	--		<1.0	<0.20	<1.0	<1.0	<0.20
Chlorobenzene	NP	NP	--		<1.0	<0.11	<1.0	<1.0	<0.11
Chloroethane	400	80	--		<1.0	<0.34	<1.0	<1.0	<0.34
Chloroform	6	0.6	--		<1.0	<0.21	<1.0	<1.0	<0.21
Chloromethane	30	3	--		<4.0	<0.25	<4.0	<4.0	<0.25
2-Chlorotoluene	NP	NP	--		<1.0	<0.30	<1.0	<1.0	<0.30
4-Chlorotoluene	NP	NP	--		<1.0	<0.26	<1.0	<1.0	<0.26
1,2-Dibromo-3-chloropropane	0.2	0.02	--		<4.0	<0.60	<4.0	<4.0	<0.60
Dibromochloromethane	60	6	--		<1.0	<0.16	<1.0	<1.0	<0.16
1,2-Dibromoethane (EDB)	0.05	0.005	--		<1.0	<0.20	<1.0	<1.0	<0.20
Dibromomethane	NP	NP	--		<4.0	<0.19	<4.0	<4.0	<0.19
1,2-Dichlorobenzene	600	60	--		<1.0	<0.17	<1.0	<1.0	<0.17
1,3-Dichlorobenzene	600	120	--		<1.0	<0.12	<1.0	<1.0	<0.12
1,4-Dichlorobenzene	75	15	--		<1.0	<0.21	<1.0	<1.0	<0.21
Dichlorodifluoromethane	1000	200	--		<4.0	<0.23	<4.0	<4.0	<0.23
1,1-Dichloroethane (DCA)	850	85	--		<1.0	<0.17	<1.0	<1.0	<0.17
1,2-Dichloroethane	5	0.5	--		<1.0	<0.17	<1.0	<1.0	<0.17
1,1-Dichloroethene	7	0.7	--		<1.0	<0.28	<1.0	<1.0	<0.28
cis-1,2-Dichloroethene (DCE)	70	7	--		<1.0	<0.12	<1.0	<1.0	<0.12
trans-1,2-Dichloroethene	100	20	--		<1.0	<0.16	<1.0	<1.0	<0.16
Dichlorofluoromethane	NP	NP	--		<1.0	<0.21	<1.0	<1.0	<0.21
1,2-Dichloropropane	5	0.5	--		<4.0	<0.22	<4.0	<4.0	<0.22
1,3-Dichloropropane	0.4	0.04	--		<1.0	<0.096	<1.0	<1.0	<0.096
2,2-Dichloropropane	NP	NP	--		<4.0	<0.13	<4.0	<4.0	<0.13
1,1-Dichloropropene	NP	NP	--		<1.0	<0.23	<1.0	<1.0	<0.23
cis-1,3-Dichloropropene	NP	NP	--		<4.0	<0.15	<4.0	<4.0	<0.15
trans-1,3-Dichloropropene	NP	NP	--		<4.0	<0.15	<4.0	<4.0	<0.15
Diethyl Ether (Ethyl Ether)	1000	100	--		<4.0	<0.19	<4.0	<4.0	<0.19
Ethylbenzene	700	140	--		<1.0	**0.24J**	<1.0	<1.0	**0.24J**

29.5	Exceeds WDNR PAL & ES
0.081	Exceeds WDNR PAL, but not ES
<0.081	MDL exceeds WDNR PAL, but not ES
0.35	Detected above reporting limit
--	Not analyzed
NP	Not published

Table 3: Groundwater Analytical Summary
Fraser Shipyards - Punch Shed Addition

All results in ug/L		Sample ID	GP-9	PS-MW-1	PS-MW-1	PS-MW-2	PS-MW-2.1	PS-MW-2
		Sample Date		4/27/2016	7/19/2016	4/27/2016	4/27/2016	7/19/2016
Hexachloro-1,3-butadiene	NP	NP	--	<1.0	<0.18	<1.0	<1.0	<0.18
Isopropylbenzene (cumene)	NP	NP	--	<1.0	<0.25	<1.0	<1.0	<0.25
p-Isopropyltoluene	NP	NP	--	**6.6**	**0.93J**	**2.8**	**2.9**	<0.19
Methylene Chloride	5	0.5	--	<4.0	<0.29	<4.0	<4.0	<0.29
4-Methyl-2-pentanone (MIBK)	500	50	--	**8.4**	**0.69J**	<5.0	<5.0	<0.43
Methyl-tert-butyl-ether (MTBE)	60	12	--	<1.0	<0.15	<1.0	<1.0	<0.15
Naphthalene	100	10	--	<4.0	**0.21J**	<4.0	<4.0	<0.20
n-Propylbenzene	NP	NP	--	<1.0	<0.23	<1.0	<1.0	<0.23
Styrene	100	10	--	<1.0	<0.29	<1.0	<1.0	<0.29
1,1,1,2-Tetrachloroethane	70	7	--	<1.0	<0.17	<1.0	<1.0	<0.17
1,1,2,2-Tetrachloroethane	0.2	0.02	--	<1.0	<0.22	<1.0	<1.0	<0.22
Tetrachloroethene (PCE)	5	0.5	--	<1.0	<0.25	<1.0	<1.0	<0.25
Tetrahydrofuran (THF)	50	10	--	<10.0	<1.5	<10.0	<10.0	<1.5
Toluene	800	160	--	**1.0**	**0.58J**	**1.4**	**1.2**	<0.14
1,2,3-Trichlorobenzene	NP	NP	--	<1.0	<0.21	<1.0	<1.0	<0.21
1,2,4-Trichlorobenzene	70	14	--	<1.0	<0.21	<1.0	<1.0	<0.21
1,1,1-Trichloroethane (TCA)	200	40	--	<1.0	<0.17	<1.0	<1.0	<0.17
1,1,2-Trichloroethane (TCA)	5	0.5	--	<1.0	<0.15	<1.0	<1.0	<0.15
Trichloroethene (TCE)	5	0.5	--	<0.40	<0.20	<0.40	<0.40	<0.20
Trichlorofluoromethane	NP	NP	--	<1.0	<0.33	<1.0	<1.0	<0.33
1,2,3-Trichloropropane*	60	12	--	<4.0	<0.28	<4.0	<4.0	<0.28
1,1,2-Trichlorofluoroethane	NP	NP	--	<1.0	<0.32	<1.0	<1.0	<0.32
1,2,4-Trimethylbenzene	480	96	--	**3.1**	**0.55J**	**2.1**	**2.2**	**0.35J**
1,3,5-Trimethylbenzene			--	**2.0**	<0.27	<1.0	<1.0	<0.27
Vinyl Chloride	0.2	0.02	--	<0.40	<0.29	<0.40	<0.40	<0.29
Xylene (total)	2000	400	--	**5.6**	<0.32	**4.2**	**3.9**	<0.32
PAHs								
Acenaphthene	NP	NP	1.4	<0.051	**0.069**	<0.043	<0.044	**0.0017J**
Acenaphthylene	NP	NP	<0.043	<0.051	**0.011J**	<0.043	<0.044	<0.0075
Anthracene	3000	600	0.17	<0.051	**0.0066J**	<0.043	<0.044	**0.011J**
Benzo(a)anthracene	NP	NP	<0.043	<0.051	**0.011**	<0.043	<0.044	**0.031**
Benzo(a)pyrene	0.2	0.02	<0.043	<0.051	<0.0056	<0.043	<0.044	**0.027**
Benzo(b)fluoranthene	0.2	0.02	<0.043	<0.051	**0.0083J**	<0.043	<0.044	**0.038**
Benzo(g,h,i)perylene	NP	NP	<0.043	<0.051	**0.0063J**	<0.043	<0.044	**0.022**
Benzo(k)fluoranthene	NP	NP	<0.043	<0.051	<0.0043	<0.043	<0.044	**0.017**
Chrysene	0.2	0.02	<0.043	<0.051	**0.0068J**	<0.043	<0.044	**0.029**
Dibenzo(a,h)anthracene	NP	NP	<0.043	<0.051	<0.0040	<0.043	<0.044	**0.0051J**
Fluoranthene	400	80	0.17	**0.058**	**0.016J**	<0.043	<0.044	**0.066**
Fluorene	400	80	0.46	<0.051	**0.0094J**	**0.063**	**0.064**	**0.019J**
Indeno(1,2,3-cd)pyrene	NP	NP	<0.043	<0.051	<0.0042	<0.043	<0.044	**0.017J**
Naphthalene	100	10	0.29	**0.061**	**0.013J**	**0.11**	**0.093**	**0.077**
Phenanthrene	NP	NP	1.5	**0.071**	**0.019J**	**0.15**	**0.14**	**0.096**
Pyrene	250	50	0.14	<0.051	**0.027**	<0.043	<0.044	**0.059**

29.5	Exceeds WDNR PAL & ES
0.081	Exceeds WDNR PAL, but not ES
<0.081	MDL exceeds WDNR PAL, but not ES
0.35	Detected above reporting limit
--	Not analyzed
NP	Not published

Table 3: Groundwater Analytical Summary
Fraser Shipyards - Punch Shed Addition

All results in ug/L			Sample ID	PS-MW-3	PS-MW-3	PS-MW-3.1	PS-MW-4	PS-MW-4	HCL Trip
			Sample Date	4/27/2016	7/19/2016	7/19/2016	4/27/2016	7/19/2016	7/19/2016
VOCs	ES	PAL				MW-3 Dup			
Acetone	9000	1800		<20.0	**5.9J**	**4.1J**	<20.0	**5.4J**	**6.8J**
Allyl Chloride	NP	NP		<4.0	<0.25	<0.25	<4.0	<0.25	<0.25
Benzene	5	0.5		<1.0	<0.16	<0.16	<1.0	<0.16	<0.16
Bromobenzene	NP	NP		<1.0	<0.34	<0.34	<1.0	<0.34	<0.34
Bromochloromethane	NP	NP		<4.0	<0.19	<0.19	<4.0	<0.19	<0.19
Bromodichloromethane	0.6	0.06		<1.0	<0.24	<0.24	<1.0	<0.24	<0.24
Bromoform	4.4	0.44		<4.0	<0.27	<0.27	<4.0	<0.27	<0.27
Bromomethane	10	1		<4.0	<0.44	<0.44	<4.0	<0.44	<0.44
2-Butanone (MEK)	4000	800		<5.0	<1.1	<1.1	<5.0	<1.1	<1.1
n-Butylbenzene	NP	NP		<1.0	<0.16	<0.16	<1.0	<0.16	<0.16
sec-Butylbenzene	NP	NP		<1.0	<0.19	<0.19	<1.0	<0.19	<0.19
tert-Butylbenzene	NP	NP		<1.0	<0.22	<0.22	<1.0	<0.22	<0.22
Carbon Tetrachloride	5	0.5		<1.0	<0.20	<0.20	<1.0	<0.20	<0.20
Chlorobenzene	NP	NP		<1.0	<0.11	<0.11	<1.0	<0.11	<0.11
Chloroethane	400	80		<1.0	<0.34	<0.34	<1.0	<0.34	<0.34
Chloroform	6	0.6		<1.0	<0.21	<0.21	<1.0	<0.21	<0.21
Chloromethane	30	3		<4.0	<0.25	<0.25	<4.0	<0.25	<0.25
2-Chlorotoluene	NP	NP		<1.0	<0.30	<0.30	<1.0	<0.30	<0.30
4-Chlorotoluene	NP	NP		<1.0	<0.26	<0.26	<1.0	<0.26	<0.26
1,2-Dibromo-3-chloropropane	0.2	0.02		<4.0	<0.60	<0.60	<4.0	<0.60	<0.60
Dibromochloromethane	60	6		<1.0	<0.16	<0.16	<1.0	<0.16	<0.16
1,2-Dibromoethane (EDB)	0.05	0.005		<1.0	<0.20	<0.20	<1.0	<0.20	<0.20
Dibromomethane	NP	NP		<4.0	<0.19	<0.19	<4.0	<0.19	<0.19
1,2-Dichlorobenzene	600	60		<1.0	<0.17	<0.17	<1.0	<0.17	<0.17
1,3-Dichlorobenzene	600	120		<1.0	<0.12	<0.12	<1.0	<0.12	<0.12
1,4-Dichlorobenzene	75	15		<1.0	<0.21	<0.21	<1.0	<0.21	<0.21
Dichlorodifluoromethane	1000	200		<4.0	<0.23	<0.23	<4.0	<0.23	<0.23
1,1-Dichloroethane (DCA)	850	85		<1.0	**0.76J**	**0.93J**	<1.0	<0.17	<0.17
1,2-Dichloroethane	5	0.5		<1.0	<0.17	<0.17	<1.0	<0.17	<0.17
1,1-Dichloroethene	7	0.7		<1.0	<0.28	<0.28	<1.0	<0.28	<0.28
cis-1,2-Dichloroethene (DCE)	70	7		<1.0	<0.12	<0.12	<1.0	<0.12	<0.12
trans-1,2-Dichloroethene	100	20		<1.0	<0.16	<0.16	<1.0	<0.16	<0.16
Dichlorofluoromethane	NP	NP		<1.0	<0.21	<0.21	<1.0	<0.21	<0.21
1,2-Dichloropropane	5	0.5		<4.0	<0.22	<0.22	<4.0	<0.22	<0.22
1,3-Dichloropropane	0.4	0.04		<1.0	<0.096	<0.096	<1.0	<0.096	<0.096
2,2-Dichloropropane	NP	NP		<4.0	<0.13	<0.13	<4.0	<0.13	<0.13
1,1-Dichloropropene	NP	NP		<1.0	<0.23	<0.23	<1.0	<0.23	<0.23
cis-1,3-Dichloropropene	NP	NP		<4.0	<0.15	<0.15	<4.0	<0.15	<0.15
trans-1,3-Dichloropropene	NP	NP		<4.0	<0.15	<0.15	<4.0	<0.15	<0.15
Diethyl Ether (Ethyl Ether)	1000	100		<4.0	<0.19	<0.19	<4.0	<0.19	<0.19
Ethylbenzene	700	140		<1.0	<0.15	<0.15	<1.0	<0.15	<0.15

29.5	Exceeds WDNR PAL & ES
0.081	Exceeds WDNR PAL, but not ES
<0.081	MDL exceeds WDNR PAL, but not ES
0.35	Detected above reporting limit
--	Not analyzed
NP	Not published

Table 3: Groundwater Analytical Summary
Fraser Shipyards - Punch Shed Addition

All results in ug/L		Sample ID	PS-MW-3	PS-MW-3	PS-MW-3.1	PS-MW-4	PS-MW-4	HCL Trip
		Sample Date	4/27/2016	7/19/2016	7/19/2016	4/27/2016	7/19/2016	7/19/2016
Hexachloro-1,3-butadiene	NP	NP	<1.0	<0.18	<0.18	<1.0	<0.18	<0.18
Isopropylbenzene (cumene)	NP	NP	<1.0	<0.25	<0.25	<1.0	<0.25	<0.25
p-Isopropyltoluene	NP	NP	<1.0	<0.19	<0.19	**1.9**	**0.48J**	<0.19
Methylene Chloride	5	0.5	<4.0	<0.29	<0.29	<4.0	<0.29	**0.37J**
4-Methyl-2-pentanone (MIBK)	500	50	<5.0	<0.43	<0.43	<5.0	<0.43	<0.43
Methyl-tert-butyl-ether (MTBE)	60	12	<1.0	<0.15	<0.15	<1.0	<0.15	<0.15
Naphthalene	100	10	<4.0	**1.9J**	**1.2J**	<4.0	<0.20	<0.20
n-Propylbenzene	NP	NP	<1.0	<0.23	<0.23	<1.0	<0.23	<0.23
Styrene	100	10	<1.0	<0.29	<0.29	<1.0	<0.29	<0.29
1,1,1,2-Tetrachloroethane	70	7	<1.0	<0.17	<0.17	<1.0	<0.17	<0.17
1,1,2,2-Tetrachloroethane	0.2	0.02	<1.0	<0.22	<0.22	<1.0	<0.22	<0.22
Tetrachloroethene (PCE)	5	0.5	<1.0	<0.25	<0.25	<1.0	<0.25	<0.25
Tetrahydrofuran (THF)	50	10	**24.2**	<1.5	**4.3J**	<10.0	<1.5	<1.5
Toluene	800	160	<1.0	<0.14	<0.14	<1.0	<0.14	<0.14
1,2,3-Trichlorobenzene	NP	NP	<1.0	<0.21	<0.21	<1.0	<0.21	<0.21
1,2,4-Trichlorobenzene	70	14	<1.0	<0.21	<0.21	<1.0	<0.21	<0.21
1,1,1-Trichloroethane (TCA)	200	40	<1.0	<0.17	<0.17	<1.0	**0.30J**	<0.17
1,1,2-Trichloroethane (TCA)	5	0.5	<1.0	<0.15	<0.15	<1.0	<0.15	<0.15
Trichloroethene (TCE)	5	0.5	<0.40	<0.20	<0.20	<0.40	<0.20	<0.20
Trichlorofluoromethane	NP	NP	<1.0	<0.33	<0.33	<1.0	<0.33	<0.33
1,2,3-Trichloropropane*	60	12	<4.0	<0.28	<0.28	<4.0	<0.28	<0.28
1,1,2-Trichlorofluoroethane	NP	NP	<1.0	<0.32	<0.32	<1.0	<0.32	<0.32
1,2,4-Trimethylbenzene	480	96	<1.0	**0.38J**	**0.21J**	**1.6**	**0.21J**	<0.18
1,3,5-Trimethylbenzene			<1.0	<0.27	<0.27	<1.0	<0.27	<0.27
Vinyl Chloride	0.2	0.02	<0.40	<0.29	<0.29	<0.40	<0.29	<0.29
Xylene (total)	2000	400	<3.0	<0.32	<0.32	<3.0	<0.32	<0.32
PAHs								
Acenaphthene	NP	NP	**0.51**	**1.3**	**1.1**	**0.26**	**0.047**	
Acenaphthylene	NP	NP	**0.10**	**0.078**	**0.051**	<0.041	**0.031**	
Anthracene	3000	600	**0.44**	**0.28**	**0.24**	**0.058**	**0.071**	
Benzo(a)anthracene	NP	NP	**0.54**	**0.28**	**0.21**	**0.14**	**0.23**	
Benzo(a)pyrene	0.2	0.02	**0.59**	**0.31**	**0.24**	**0.14**	**0.27**	
Benzo(b)fluoranthene	0.2	0.02	**0.69**	**0.37**	**0.29**	**0.20**	**0.36**	
Benzo(g,h,i)perylene	NP	NP	**0.36**	**0.19**	**0.15**	**0.11**	**0.19**	
Benzo(k)fluoranthene	NP	NP	**0.25**	**0.14**	**0.11**	**0.074**	**0.130**	
Chrysene	0.2	0.02	**0.55**	**0.31**	**0.24**	**0.14**	**0.27**	
Dibenzo(a,h)anthracene	NP	NP	**0.083**	**0.040**	**0.032J**	<0.041	**0.040**	
Fluoranthene	400	80	**1.50**	**0.83**	**0.69**	**0.39**	**0.58**	
Fluorene	400	80	**0.31**	**0.46**	**0.41**	**0.065**	**0.027**	
Indeno(1,2,3-cd)pyrene	NP	NP	**0.30**	**0.16**	**0.13**	**0.088**	**0.16**	
Naphthalene	100	10	**0.41**	**0.97**	**0.79**	**0.11**	**0.055**	
Phenanthrene	NP	NP	**2.1**	**1.7**	**1.4**	**0.34**	**0.30**	
Pyrene	250	50	**1.40**	**0.82**	**0.65**	**0.32**	**0.56**	

29.5	Exceeds WDNR PAL & ES
0.081	Exceeds WDNR PAL, but not ES
<0.081	MDL exceeds WDNR PAL, but not ES
0.35	Detected above reporting limit
--	Not analyzed
NP	Not published

ations

st	Rod Reading	MW Elevation	4/27/2016 DTW	4/27/2016 GW Elev.	7/19/2016 DTW	7/19/2016 GW Elev.
04.08	4.08	100.00				
04.08	1.10	102.98	10.47	92.51	5.81	97.17
04.08	2.09	101.99	4.67	97.32	4.82	97.17
04.08	2.19	101.89	4.57	97.32	5.18	96.71
04.08	0.98	103.10	5.15	97.95	5.71	97.39

is anomalous. Well did not recharge or develop after initial installation.

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-1

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/24/2015

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'		0'	18" Black/brown sandy gravel fill, minor staining.		
	24"/24"	- 1'	6" Brown fine sand, moderate moisture.	SW	2.3
2'-4'		2'	Same as previous interval, saturated.		
	24"/24"	- 3'		SW	0.6
4'-6'		4'	No recovery		
	0"/24"	- 5'			-
6'-8'		6'	No recovery		
	0"/24"	- 7'			-
8'-10'		8'	No recovery		
	0"/24"	- 9'			-
10'-12'		10'	No recovery		
	0"/24"	- 11'			-

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.
Chief Driller: Joe Fye
Scientist: John McCarthy

Boring Number: PSA GP-2
Well Number (If Applicable):

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/24/2015

Boring Location:

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	24"/24"	0' - 1'	Brown sandy gravel with black staining at 18"-24", moderate moisture.	GW	5.4
2'-4'	24"/24"	2' - 3'	Brown fine sand, saturated at 3 - 4'.	SP	9.3
4'-6'	24"/24"	4' - 5'	6" Same as previous interval (saturated); 18" Fatty red clay, high plasticity, low density, moist	SP CH	5.3
6'-8'	24"/24"	6' - 7'	Same as previous interval	CH	7.0
8'-10'	24"/24"	8' - 9'	6" Fine sand with gravel; saturated. 6" Reddish brown silt, dense, low plasticity. Grades to dense, low plasticity clay to 12'.	SP ML/CL	4.7
10'-12'	24"/24"	10' - 11'	See above interval	CL	6.6

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-3

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/24/2015

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'		0'	6" Brown sandy gravel		
	24"/24"	- 1' -	18" Brown fine sand, unconsolidated, intermittent black staining. Moderate moisture.	SW SP	5.1
2'-4'		2'	Same as previous interval		
	24"/24"	- 3' -		SP	4.6
4'-6'		4'	12" same as previous interval, 4" dimensional lumber,		
	24"/24"	- 5' -	8" same as previous interval	SP	4.3
6'-8'		6'	Same as previous interval		
	24"/24"	- 7' -		SP	4.1
8'-10'		8'	3" Black / brown peat.		
	24"/24"	- 9' -	3" Grayish brown silt, dense 18" Red clay with reduction spots	PT ML CL	5.4
10'-12'		10'	Same as last 18" in previous interval		
	24"/24"	- 11' -		CL	4.1

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-4
Well Number (If Applicable):

Chief Driller: Joe Fye
Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/24/2015

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'		0'	6" Reddish brown fine - medium sand.	SP	
		-	6" Brown sandy gravel with black staining.	GW	
	24"/24"	1'	12" Brown fine sand, moderate moisture	SP	3.8
		-			
2'-4'		2'	15" Same as previous interval.		
		-	9" Black stained sand with gravel, unconsalidated,		
	24"/24"	3'	saturated	GW	3.4
		-			
4'-6'		4'	Red silty clay, dense, saturated		
		-			
	24"/24"	5'		CL	1.3
		-			
6'-8'		6'	6" Same as previous interval		
		-	2" Black peat	CL	
	24"/24"	7'	16" Red silty clay, moderate dense and plasticity,	PT	3.2
		-	moderate moisture	CL	
8'-10'		8'	Red silty clay increases in density and decreases in		
		-	plasticity to 12'.		
	24"/24"	9'		CL	3.4
		-			
10'-12'		10'	See prior interval.		
		-			
	24"/24"	11'		CL	1.7
		-			

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.
Chief Driller: Joe Fye
Scientist: John McCarthy

Boring Number: PSA GP-5
Well Number (If Applicable):

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/25/2015

Boring Location:

Depth of Boring (ft): 12
Screen Interval (ft): n/a
Water Sample Depth (ft): n/a
Soil Sample Interval (ft): 4-8
Water Table Depth (ft): n/a
Boring Elevation: n/a

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'		0'	6" Concrete		
	12"/24"	-	6" Tan brick and sand	SW	219
		1'			
		-			
2'-4'		2'	Red gravelly clay, dense, low plasticity		
	6"/24"	-		GC	556
		3'			
		-			
4'-6'		4'	Same as previous interval		
	24"/24"	-		GC	265
		5'			
		-			
6'-8'		6'	12" same as previous interval		
		-	5" peat, strong petroleum odor (degraded)	GC	
	24"/24"	7'	7" red clay, moderate plasticity, low density	PT	468
		-		CL	
8'-10'		8'	Red clay increases in density and decreases in plasticity		
		-	to 12'. Reduction spots present.		
	24"/24"	9'		CL	3.6
		-			
10'-12'		10'	See prior interval.		
		-			
	24"/24"	11'		CL	14.3
		-			

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-6

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/24/2015

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 4-8
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'		0'	6" Concrete		
	8"/24"	- 1' -	2" Brown fine-course sand (sub-base material), low moisture.	Fill	8.2
2'-4'		2'	4" Buff brick		
	8"/24"	- 3' -	4" Red brick, low moisture.	Fill	6.1
4'-6'		4'	3" Black sand with gravel, petroleum odor (degraded) moderate moisture.	SP	
	24"/24"	- 5' -	15" Red clay, dense, low plasticity, low moisture 6" Black peat, strong petroleum odor (degraded), moderate moisture	CL PT	395
6'-8'		6'	20" Red clay, dense, low moisture.		
	24"/24"	- 7' -	4" Black sand, petroleum odor, unconsolidated, moderate moisture.	CL	386
8'-10'		8'	Red clay, dense, low moisture		
	24"/24"	- 9' -		CL	3.2
10'-12'		10'	Same as previous interval		
	24"/24"	- 11' -		CL	4.0

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-7

Well Number (If Applicable):

Chief Driller: Joe Fye
Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 3/24/2015

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	14"/24"	0' - 1' -	12" Brown gravelly sand fill, unconsolidated, includes black staining (8-12"). Saturated after 6" depth. 2" Brown fine sand.	GW SP	3.7
2'-4'	14"/24"	2' - 3' -	Brown fine sand.	SP	4.7
4'-6'	24"/24"	4' - 5' -	4" Same as previous interval. 20" Red silty clay, dense, low moisture.	SP CL	2.5
6'-8'	24"/24"	6' - 7' -	6" Blackish brown peat 3" Gray brown silt 15" Red clay, grading from high moist plastic to low moist dense, red, moderate moisture.	PT ML CL	4.7
8'-10'	24"/24"	8' - 9' -	Clay, red, dense, low plasticity, low moisture	CL	2.7
10'-12'	24"/24"	10' - 11' -	Same as prior interval.	CL	4.0

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-8

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 6/29/2015

Boring Location:

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	12"/24"	0' - 1' -	8" Brown gravelly sand fill, unconsolidated. 4" Dark brown sandy gravel, staining, low moisture	SW GW	5.2
2'-4'	12"/24"	2' - 3' -	4" Same as previous interval 8" Reddish brown fine - medium sand, moderate moisture.	GW SP	11.1
4'-6'	20"/24"	4' - 5' -	Brown fine - medium sand, very moist.	SP	7.7
6'-8'	20"/24"	6' - 7' -	Same as previous interval, saturated	SP	7.3
8'-10'	24"/24"	8' - 9' -	Same as previous interval	SP	6.6
10'-12'	24"/24"	10' - 11' -	12" Same as previous interval. 12" Brown silty fine sand, saturated.	SP SM	4.8

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-9

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 6/29/2015

Depth of Boring (ft): 12
Screen Interval (ft): 1.5-11.5
Water Sample Depth (ft): 1.5-11.5
Soil Sample Interval (ft): 2-4, 6-8
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	12"/24"	0' - 1' -	12" Dark brown sandy gravel, staining, low moisture	SW GW	2.7
2'-4'	12"/24"	2' - 3' -	4" Same as previous interval 8" Reddish brown fine - medium sand, moderate moisture.	GW SP	7.0
4'-6'	20"/24"	4' - 5' -	Brown fine - medium sand, very moist.	SP	8.2
6'-8'	20"/24"	6' - 7' -	Same as previous interval, saturated	SP	11.1
8'-10'	24"/24"	8' - 9' -	Same as previous interval	SP	11.0
10'-12'	24"/24"	10' - 11' -	12" Same as previous interval. 12" Brown silty fine sand, saturated.	SP SM	7.7

End of Boring: 12.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-10

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 6/29/2015

Depth of Boring (ft): 12
Screen Interval (ft): n/a
Water Sample Depth (ft): n/a
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): 4
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'		0' -	6" Brown sandy gravel. 6" Reddish brown fine - medium sand.	GW	
	16"/24"	1' -	4" Black stained fine to medium sand, low moisture.	SP	2.2
2'-4'		2' -	Brown fine - medium sand, moderate moisture.		
	16"/24"	3' -		SP	1.4
4'-6'		4' -	Red fatty clay, medium dense, high plasticity, moderate moisture.		
	16"/24"	5' -		CH	2.7
6'-8'		6' -	Same as previous interval, moderate high moisture		
	16"/24"	7' -		CH	3.1
8'-10'		8' -	Same as previous interval, low moisture		
	24"/24"	9' -		CH	3.5
10'-12'		10' -	Same as previous interval		
	24"/24"	11' -		CH	No reading
12'-14		12' -	Same as previous interval		
	24"/24"	13' -		CH	No reading
14'-16'		14' -	Same as previous interval		
	24"/24"	15' -		CH	3.1

End of Boring: 16.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-11

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: John McCarthy

Drilling Method Used: Geoprobe

Date Drilling Occurred: 6/29/2015

Depth of Boring (ft): 16
Screen Interval (ft): n/a
Water Sample Depth (ft): n/a
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): n/a
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	16"/24"	0' - 1' -	4" Black / dark brown sandy gravel. 4" Class V. 8" Black / dark brown fine to medium sand, low moisture.	GW SP	4.1
2'-4'	16"/24"	2' - 3' -	10" Red fine sand. 6" Light grayish brown fine sand, low moisture.	SP	7.0
4'-6'	24"/24"	4' - 5' -	Red clay, medium dense, high plasticity, low moisture	CH	4.7
6'-8'	24"/24"	6' - 7' -	20" same as previous interval. 4" Peat, low moisture.	CH PT	4.5
8'-10'	24"/24"	8' - 9' -	Reddish black, organic stained, silty clay, low moisture.	ML/CL	2.6
10'-12'	24"/24"	10' - 11' -	6" Same as previous interval. 18" Red fatty clay, low density, high plasticity, low moisture	CL CH	5.2
12'-14	24"/24"	12' - 13' -	Same as previous interval,	CH	No reading
14'-16'	24"/24"	14' - 15' -	Same as previous interval	CH	No reading

End of Boring: 16.0 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-12

Well Number (If Applicable):

Chief Driller: Joe Fye
Scientist: Nicole Torgerson

Drilling Method Used: Geoprobe

Date Drilling Occurred: 4/14/2016

Boring Location:

Depth of Boring (ft): 12
Screen Interval (ft): n/a
Water Sample Depth (ft): n/a
Soil Sample Interval (ft): 4-6
Water Table Depth (ft): ~6
Boring Elevation: n/a

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	12"/24"	0' - 1' -	9" Dark brown sandy gravel. 3" Dark brown sandy silt with clay. Low plasticity. No odor. Low moisture.	GW ML	1.0
2'-4'	12"/24"	2' - 3' -	Same as previous interval.	ML	1.3
4'-6'	10"/24"	4' - 5' -	Angular coarse sand. Unconsolidated. Low odor. Moderate moisture.	GP	1.6
6'-8'	10"/24"	6' - 7' -	Same as previous interval, but saturated.	GP	1.0
8'-10'	24"/24"	8' - 9' -	Reddish brown fatty clay. Low density / high plasticity. Moderate moisture.	CH	0.4
10'-12'	24"/24"	10' - 11' -	Same as previous interval.	CH	0.6

End of Boring: 12 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-13

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: Nicole Torgerson

Drilling Method Used: Geoprobe

Date Drilling Occurred: 4/14/2016

Depth of Boring (ft): 12
Screen Interval (ft): n/a
Water Sample Depth (ft): n/a
Soil Sample Interval (ft): 0-2
Water Table Depth (ft): ~2
Boring Elevation: n/a

Boring Location:

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	12"/24"	0' - 1'	8" Brown sandy gravel. Unconsolidated. No odor. 4" Rust colored coarse sand. Saturated.	GW SP	1.7
2'-4'	12"/24"	2' - 3'	4": Same as previous interval. 8": Balck/Dark Brown fine - coarse sand, saturated.	SP	1.3
4'-6'	22"/24"	4' - 5'	Red fatty clay. Medium dense. High plasticity. Saturated.	CH	0.9
6'-8'	22"/24"	6' - 7'	Same as previous interval with decreasing moisture.	CH	0.6
8'-10'	5"/24"	8' - 9'	Same as previous interval, low moisture	CH	0.7
10'-12'	5"/24"	10' - 11'	Same as previous interval	CH	0.6

End of Boring: 12 ft

SOIL BORING LOG INFORMATION

Facility/Project Name:
Fraser Shipyard LSI

Project Number: 14-1004

Boring Drilled By (Firm Name and crew Chief):
Environmental Troubleshooters, Inc.

Boring Number: PSA GP-14

Well Number (If Applicable):

Chief Driller: Joe Fye

Scientist: Nicole Torgerson

Drilling Method Used: Geoprobe

Date Drilling Occurred: 4/14/2016

Boring Location:

Depth of Boring (ft): 12
Screen Interval (ft): n/a
Water Sample Depth (ft): n/a
Soil Sample Interval (ft): 2-4
Water Table Depth (ft): ~4
Boring Elevation: n/a

Interval	*Length Recovered and Attempted*	*Depth in Feet*	*Soil/Rock Description*	*USCS*	*PID (ppm)*
0'-2'	12"/24"	0' - 1'	2": Black / dark brown sandy gravel. 10": Reddish brown fine sand. Low moisture.	GW SP	0.7
2'-4'	12"/24"	2' - 3'	Same as previous interval.	SP	1.2
4'-6'	16"/24"	4' - 5'	8": Dark brown silty sand. No plasticity. No odor. Saturated. 8": Reddish brown silty clay. Low density. High plasticity. No odor. Saturated.	CH	0.5
6'-8'	16"/24"	6' - 7'	12": Same as previous interval. 4" Peat. Saturated.	CH PT	1.0
8'-10'	22"/24"	8' - 9'	Red fatty clay, low density, high plasticity, low moisture.	CH	0.5
10'-12'	22"/24"	10' - 11'	6" Same as previous interval. 18" Blackish orange/brown fatty clay, low density, high plasticity, low moisture	CH	0.5

End of Boring: 12 ft

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July 15, 2015

Mr. John McCarthy
Environmental Troubleshooters
3825 Grand Avenue
Duluth, MN 55807

RE: Project: 141004 Fraser
Pace Project No.: 10312785

Dear Mr. McCarthy:
Enclosed are the analytical results for sample(s) received by the laboratory on July 01, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Lori Castille
lori.castille@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 141004 Fraser
Pace Project No.: 10312785

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 141004 Fraser
Pace Project No.: 10312785

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10312785001	PSA-GP-8W	Water	06/29/15 13:50	07/01/15 10:05
10312785002	PSA-GP-81W	Water	06/29/15 13:45	07/01/15 10:05
10312785003	PSA-GP-9W	Water	06/29/15 14:00	07/01/15 10:05
10312785004	PSA-GP-8 2-4	Solid	06/29/15 10:30	07/01/15 10:05
10312785005	PSA-GP-9 2-4	Solid	06/29/15 11:00	07/01/15 10:05
10312785006	PSA-GP-9 6-3	Solid	06/29/15 11:05	07/01/15 10:05
10312785007	PSA-GP-10 2-4	Solid	06/29/15 12:30	07/01/15 10:05
10312785008	PSA-GP-11 2-4	Solid	06/29/15 13:00	07/01/15 10:05

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SAMPLE ANALYTE COUNT

Project: 141004 Fraser
Pace Project No.: 10312785

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10312785001	PSA-GP-8W	EPA 8270D by SIM	LT	18
10312785002	PSA-GP-81W	EPA 8270D by SIM	LT	18
10312785003	PSA-GP-9W	EPA 8270D by SIM	LT	18
10312785004	PSA-GP-8 2-4	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18
10312785005	PSA-GP-9 2-4	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18
10312785006	PSA-GP-9 6-3	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18
10312785007	PSA-GP-10 2-4	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18
10312785008	PSA-GP-11 2-4	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18

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ANALYTICAL RESULTS

Project: 141004 Fraser
Pace Project No.: 10312785

Sample: PSA-GP-8W **Lab ID: 10312785001** Collected: 06/29/15 13:50 Received: 07/01/15 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.78**	ug/L	0.043	0.0035	1	07/06/15 23:44	07/09/15 08:31	83-32-9	
Acenaphthylene	ND	ug/L	0.043	0.0043	1	07/06/15 23:44	07/09/15 08:31	208-96-8	
Anthracene	**0.079**	ug/L	0.043	0.0048	1	07/06/15 23:44	07/09/15 08:31	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.043	0.0032	1	07/06/15 23:44	07/09/15 08:31	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.043	0.0033	1	07/06/15 23:44	07/09/15 08:31	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.043	0.0083	1	07/06/15 23:44	07/09/15 08:31	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.043	0.0059	1	07/06/15 23:44	07/09/15 08:31	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.043	0.0041	1	07/06/15 23:44	07/09/15 08:31	207-08-9	
Chrysene	ND	ug/L	0.043	0.0057	1	07/06/15 23:44	07/09/15 08:31	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.043	0.010	1	07/06/15 23:44	07/09/15 08:31	53-70-3	
Fluoranthene	**0.087**	ug/L	0.043	0.0062	1	07/06/15 23:44	07/09/15 08:31	206-44-0	
Fluorene	**0.56**	ug/L	0.043	0.0061	1	07/06/15 23:44	07/09/15 08:31	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.043	0.0060	1	07/06/15 23:44	07/09/15 08:31	193-39-5	
Naphthalene	**0.056**	ug/L	0.043	0.0099	1	07/06/15 23:44	07/09/15 08:31	91-20-3	
Phenanthrene	ND	ug/L	0.043	0.013	1	07/06/15 23:44	07/09/15 08:31	85-01-8	
Pyrene	**0.063**	ug/L	0.043	0.0069	1	07/06/15 23:44	07/09/15 08:31	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	74	%.	52-125		1	07/06/15 23:44	07/09/15 08:31	321-60-8	
p-Terphenyl-d14 (S)	84	%.	62-125		1	07/06/15 23:44	07/09/15 08:31	1718-51-0	

Sample: PSA-GP-81W **Lab ID: 10312785002** Collected: 06/29/15 13:45 Received: 07/01/15 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510								
Acenaphthene	**0.71**	ug/L	0.042	0.0034	1	07/06/15 23:44	07/09/15 08:53	83-32-9	
Acenaphthylene	**0.092**	ug/L	0.042	0.0041	1	07/06/15 23:44	07/09/15 08:53	208-96-8	
Anthracene	**0.073**	ug/L	0.042	0.0046	1	07/06/15 23:44	07/09/15 08:53	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.042	0.0031	1	07/06/15 23:44	07/09/15 08:53	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.042	0.0031	1	07/06/15 23:44	07/09/15 08:53	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.042	0.0080	1	07/06/15 23:44	07/09/15 08:53	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.042	0.0056	1	07/06/15 23:44	07/09/15 08:53	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.042	0.0039	1	07/06/15 23:44	07/09/15 08:53	207-08-9	
Chrysene	ND	ug/L	0.042	0.0055	1	07/06/15 23:44	07/09/15 08:53	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.042	0.010	1	07/06/15 23:44	07/09/15 08:53	53-70-3	
Fluoranthene	**0.086**	ug/L	0.042	0.0059	1	07/06/15 23:44	07/09/15 08:53	206-44-0	
Fluorene	**0.51**	ug/L	0.042	0.0059	1	07/06/15 23:44	07/09/15 08:53	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.042	0.0058	1	07/06/15 23:44	07/09/15 08:53	193-39-5	
Naphthalene	**0.064**	ug/L	0.042	0.0095	1	07/06/15 23:44	07/09/15 08:53	91-20-3	
Phenanthrene	ND	ug/L	0.042	0.013	1	07/06/15 23:44	07/09/15 08:53	85-01-8	
Pyrene	**0.068**	ug/L	0.042	0.0067	1	07/06/15 23:44	07/09/15 08:53	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	70	%.	52-125		1	07/06/15 23:44	07/09/15 08:53	321-60-8	
p-Terphenyl-d14 (S)	73	%.	62-125		1	07/06/15 23:44	07/09/15 08:53	1718-51-0	

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ANALYTICAL RESULTS

Project: 141004 Fraser
Pace Project No.: 10312785

Sample: PSA-GP-9W Lab ID: **10312785003** Collected: 06/29/15 14:00 Received: 07/01/15 10:05 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510								
Acenaphthene	1.4	ug/L	0.043	0.0035	1	07/06/15 23:44	07/09/15 09:15	83-32-9	
Acenaphthylene	ND	ug/L	0.043	0.0043	1	07/06/15 23:44	07/09/15 09:15	208-96-8	
Anthracene	0.17	ug/L	0.043	0.0047	1	07/06/15 23:44	07/09/15 09:15	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.043	0.0032	1	07/06/15 23:44	07/09/15 09:15	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.043	0.0032	1	07/06/15 23:44	07/09/15 09:15	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.043	0.0082	1	07/06/15 23:44	07/09/15 09:15	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.043	0.0058	1	07/06/15 23:44	07/09/15 09:15	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.043	0.0041	1	07/06/15 23:44	07/09/15 09:15	207-08-9	
Chrysene	ND	ug/L	0.043	0.0057	1	07/06/15 23:44	07/09/15 09:15	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.043	0.010	1	07/06/15 23:44	07/09/15 09:15	53-70-3	
Fluoranthene	0.17	ug/L	0.043	0.0061	1	07/06/15 23:44	07/09/15 09:15	206-44-0	
Fluorene	0.46	ug/L	0.043	0.0061	1	07/06/15 23:44	07/09/15 09:15	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.043	0.0060	1	07/06/15 23:44	07/09/15 09:15	193-39-5	
Naphthalene	0.29	ug/L	0.043	0.0098	1	07/06/15 23:44	07/09/15 09:15	91-20-3	
Phenanthrene	1.5	ug/L	0.043	0.013	1	07/06/15 23:44	07/09/15 09:15	85-01-8	
Pyrene	0.14	ug/L	0.043	0.0069	1	07/06/15 23:44	07/09/15 09:15	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	76	%.	52-125		1	07/06/15 23:44	07/09/15 09:15	321-60-8	
p-Terphenyl-d14 (S)	83	%.	62-125		1	07/06/15 23:44	07/09/15 09:15	1718-51-0	

Sample: PSA-GP-8 2-4 Lab ID: **10312785004** Collected: 06/29/15 10:30 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	22.3	%	0.10	0.10	1		07/14/15 11:28		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	268	ug/kg	12.8	0.46	1	07/02/15 17:57	07/05/15 16:45	83-32-9	M1
Acenaphthylene	120	ug/kg	12.8	0.44	1	07/02/15 17:57	07/05/15 16:45	208-96-8	M1
Anthracene	544	ug/kg	257	7.9	20	07/02/15 17:57	07/06/15 14:27	120-12-7	M1
Benzo(a)anthracene	1340	ug/kg	257	4.7	20	07/02/15 17:57	07/06/15 14:27	56-55-3	M1
Benzo(a)pyrene	1540	ug/kg	257	5.1	20	07/02/15 17:57	07/06/15 14:27	50-32-8	M1,R1
Benzo(b)fluoranthene	1760	ug/kg	257	9.0	20	07/02/15 17:57	07/06/15 14:27	205-99-2	M1,R1
Benzo(g,h,i)perylene	1080	ug/kg	257	9.1	20	07/02/15 17:57	07/06/15 14:27	191-24-2	M1,R1
Benzo(k)fluoranthene	674	ug/kg	257	10.3	20	07/02/15 17:57	07/06/15 14:27	207-08-9	M1,R1
Chrysene	1560	ug/kg	257	6.3	20	07/02/15 17:57	07/06/15 14:27	218-01-9	M1,R1
Dibenz(a,h)anthracene	320	ug/kg	12.8	0.55	1	07/02/15 17:57	07/05/15 16:45	53-70-3	M1
Fluoranthene	3110	ug/kg	257	5.6	20	07/02/15 17:57	07/06/15 14:27	206-44-0	M1,R1
Fluorene	274	ug/kg	12.8	0.40	1	07/02/15 17:57	07/05/15 16:45	86-73-7	M1
Indeno(1,2,3-cd)pyrene	878	ug/kg	257	9.9	20	07/02/15 17:57	07/06/15 14:27	193-39-5	M1,R1
Naphthalene	142	ug/kg	12.8	0.48	1	07/02/15 17:57	07/05/15 16:45	91-20-3	M1
Phenanthrene	2940	ug/kg	257	6.4	20	07/02/15 17:57	07/06/15 14:27	85-01-8	M1,R1

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ANALYTICAL RESULTS

Project: 141004 Fraser
Pace Project No.: 10312785

Sample: PSA-GP-8 2-4 **Lab ID: 10312785004** Collected: 06/29/15 10:30 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Pyrene	**3120**	ug/kg	257	6.2	20	07/02/15 17:57	07/06/15 14:27	129-00-0	M1,R1
Surrogates									
2-Fluorobiphenyl (S)	73	%.	55-125		1	07/02/15 17:57	07/05/15 16:45	321-60-8	
p-Terphenyl-d14 (S)	76	%.	30-150		1	07/02/15 17:57	07/05/15 16:45	1718-51-0	

Sample: PSA-GP-9 2-4 **Lab ID: 10312785005** Collected: 06/29/15 11:00 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**13.8**	%	0.10	0.10	1		07/14/15 11:28		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	**35.9**	ug/kg	11.6	0.42	1	07/02/15 17:57	07/05/15 15:20	83-32-9	
Acenaphthylene	**13.5**	ug/kg	11.6	0.39	1	07/02/15 17:57	07/05/15 15:20	208-96-8	
Anthracene	**78.5**	ug/kg	11.6	0.35	1	07/02/15 17:57	07/05/15 15:20	120-12-7	
Benzo(a)anthracene	**272**	ug/kg	11.6	0.21	1	07/02/15 17:57	07/05/15 15:20	56-55-3	
Benzo(a)pyrene	**287**	ug/kg	11.6	0.23	1	07/02/15 17:57	07/05/15 15:20	50-32-8	
Benzo(b)fluoranthene	**339**	ug/kg	11.6	0.40	1	07/02/15 17:57	07/05/15 15:20	205-99-2	
Benzo(g,h,i)perylene	**181**	ug/kg	11.6	0.41	1	07/02/15 17:57	07/05/15 15:20	191-24-2	
Benzo(k)fluoranthene	**137**	ug/kg	11.6	0.46	1	07/02/15 17:57	07/05/15 15:20	207-08-9	
Chrysene	**309**	ug/kg	11.6	0.28	1	07/02/15 17:57	07/05/15 15:20	218-01-9	
Dibenz(a,h)anthracene	**59.1**	ug/kg	11.6	0.50	1	07/02/15 17:57	07/05/15 15:20	53-70-3	
Fluoranthene	**608**	ug/kg	57.8	1.3	5	07/02/15 17:57	07/06/15 14:50	206-44-0	
Fluorene	**34.4**	ug/kg	11.6	0.36	1	07/02/15 17:57	07/05/15 15:20	86-73-7	
Indeno(1,2,3-cd)pyrene	**162**	ug/kg	11.6	0.44	1	07/02/15 17:57	07/05/15 15:20	193-39-5	
Naphthalene	**27.0**	ug/kg	11.6	0.43	1	07/02/15 17:57	07/05/15 15:20	91-20-3	
Phenanthrene	**462**	ug/kg	57.8	1.4	5	07/02/15 17:57	07/06/15 14:50	85-01-8	
Pyrene	**576**	ug/kg	57.8	1.4	5	07/02/15 17:57	07/06/15 14:50	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	76	%.	55-125		1	07/02/15 17:57	07/05/15 15:20	321-60-8	
p-Terphenyl-d14 (S)	89	%.	30-150		1	07/02/15 17:57	07/05/15 15:20	1718-51-0	

Sample: PSA-GP-9 6-3 **Lab ID: 10312785006** Collected: 06/29/15 11:05 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**20.3**	%	0.10	0.10	1		07/14/15 11:28		

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ANALYTICAL RESULTS

Project: 141004 Fraser
Pace Project No.: 10312785

Sample: PSA-GP-9 6-3 **Lab ID: 10312785006** Collected: 06/29/15 11:05 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	12.5	0.45	1	07/02/15 17:57	07/05/15 14:59	83-32-9	
Acenaphthylene	ND	ug/kg	12.5	0.42	1	07/02/15 17:57	07/05/15 14:59	208-96-8	
Anthracene	ND	ug/kg	12.5	0.38	1	07/02/15 17:57	07/05/15 14:59	120-12-7	
Benzo(a)anthracene	**18.3**	ug/kg	12.5	0.23	1	07/02/15 17:57	07/05/15 14:59	56-55-3	
Benzo(a)pyrene	**26.2**	ug/kg	12.5	0.25	1	07/02/15 17:57	07/05/15 14:59	50-32-8	
Benzo(b)fluoranthene	**35.2**	ug/kg	12.5	0.44	1	07/02/15 17:57	07/05/15 14:59	205-99-2	
Benzo(g,h,i)perylene	**19.4**	ug/kg	12.5	0.44	1	07/02/15 17:57	07/05/15 14:59	191-24-2	
Benzo(k)fluoranthene	**13.1**	ug/kg	12.5	0.50	1	07/02/15 17:57	07/05/15 14:59	207-08-9	
Chrysene	**31.6**	ug/kg	12.5	0.31	1	07/02/15 17:57	07/05/15 14:59	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	12.5	0.54	1	07/02/15 17:57	07/05/15 14:59	53-70-3	
Fluoranthene	**98.3**	ug/kg	12.5	0.27	1	07/02/15 17:57	07/05/15 14:59	206-44-0	
Fluorene	ND	ug/kg	12.5	0.39	1	07/02/15 17:57	07/05/15 14:59	86-73-7	
Indeno(1,2,3-cd)pyrene	**15.3**	ug/kg	12.5	0.48	1	07/02/15 17:57	07/05/15 14:59	193-39-5	
Naphthalene	ND	ug/kg	12.5	0.46	1	07/02/15 17:57	07/05/15 14:59	91-20-3	
Phenanthrene	**94.8**	ug/kg	12.5	0.31	1	07/02/15 17:57	07/05/15 14:59	85-01-8	
Pyrene	**82.2**	ug/kg	12.5	0.30	1	07/02/15 17:57	07/05/15 14:59	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	74	%.	55-125		1	07/02/15 17:57	07/05/15 14:59	321-60-8	
p-Terphenyl-d14 (S)	85	%.	30-150		1	07/02/15 17:57	07/05/15 14:59	1718-51-0	

Sample: PSA-GP-10 2-4 **Lab ID: 10312785007** Collected: 06/29/15 12:30 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**10.0**	%	0.10	0.10	1		07/14/15 11:29		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	**15.6**	ug/kg	11.1	0.40	1	07/02/15 17:57	07/05/15 15:42	83-32-9	
Acenaphthylene	**30.4**	ug/kg	11.1	0.38	1	07/02/15 17:57	07/05/15 15:42	208-96-8	
Anthracene	**64.3**	ug/kg	11.1	0.34	1	07/02/15 17:57	07/05/15 15:42	120-12-7	
Benzo(a)anthracene	**185**	ug/kg	11.1	0.20	1	07/02/15 17:57	07/05/15 15:42	56-55-3	
Benzo(a)pyrene	**151**	ug/kg	11.1	0.22	1	07/02/15 17:57	07/05/15 15:42	50-32-8	
Benzo(b)fluoranthene	**206**	ug/kg	11.1	0.39	1	07/02/15 17:57	07/05/15 15:42	205-99-2	
Benzo(g,h,i)perylene	**120**	ug/kg	11.1	0.39	1	07/02/15 17:57	07/05/15 15:42	191-24-2	
Benzo(k)fluoranthene	**63.3**	ug/kg	11.1	0.45	1	07/02/15 17:57	07/05/15 15:42	207-08-9	
Chrysene	**243**	ug/kg	11.1	0.27	1	07/02/15 17:57	07/05/15 15:42	218-01-9	
Dibenz(a,h)anthracene	**45.8**	ug/kg	11.1	0.48	1	07/02/15 17:57	07/05/15 15:42	53-70-3	
Fluoranthene	**267**	ug/kg	11.1	0.24	1	07/02/15 17:57	07/05/15 15:42	206-44-0	
Fluorene	**28.8**	ug/kg	11.1	0.34	1	07/02/15 17:57	07/05/15 15:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**91.1**	ug/kg	11.1	0.43	1	07/02/15 17:57	07/05/15 15:42	193-39-5	
Naphthalene	**71.1**	ug/kg	11.1	0.41	1	07/02/15 17:57	07/05/15 15:42	91-20-3	

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ANALYTICAL RESULTS

Project: 141004 Fraser
Pace Project No.: 10312785

Sample: PSA-GP-10 2-4 **Lab ID: 10312785007** Collected: 06/29/15 12:30 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Phenanthrene	**365**	ug/kg	11.1	0.28	1	07/02/15 17:57	07/05/15 15:42	85-01-8	
Pyrene	**299**	ug/kg	11.1	0.27	1	07/02/15 17:57	07/05/15 15:42	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	76	%.	55-125		1	07/02/15 17:57	07/05/15 15:42	321-60-8	
p-Terphenyl-d14 (S)	89	%.	30-150		1	07/02/15 17:57	07/05/15 15:42	1718-51-0	

Sample: PSA-GP-11 2-4 **Lab ID: 10312785008** Collected: 06/29/15 13:00 Received: 07/01/15 10:05 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**12.8**	%	0.10	0.10	1		07/14/15 11:29		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	**81.0**	ug/kg	11.5	0.41	1	07/02/15 17:57	07/05/15 16:24	83-32-9	
Acenaphthylene	**58.2**	ug/kg	11.5	0.39	1	07/02/15 17:57	07/05/15 16:24	208-96-8	
Anthracene	**362**	ug/kg	11.5	0.35	1	07/02/15 17:57	07/05/15 16:24	120-12-7	
Benzo(a)anthracene	**980**	ug/kg	115	2.1	10	07/02/15 17:57	07/06/15 15:12	56-55-3	
Benzo(a)pyrene	**983**	ug/kg	115	2.3	10	07/02/15 17:57	07/06/15 15:12	50-32-8	
Benzo(b)fluoranthene	**1260**	ug/kg	115	4.0	10	07/02/15 17:57	07/06/15 15:12	205-99-2	
Benzo(g,h,i)perylene	**763**	ug/kg	115	4.1	10	07/02/15 17:57	07/06/15 15:12	191-24-2	
Benzo(k)fluoranthene	**494**	ug/kg	115	4.6	10	07/02/15 17:57	07/06/15 15:12	207-08-9	
Chrysene	**1570**	ug/kg	115	2.8	10	07/02/15 17:57	07/06/15 15:12	218-01-9	
Dibenz(a,h)anthracene	**213**	ug/kg	11.5	0.49	1	07/02/15 17:57	07/05/15 16:24	53-70-3	
Fluoranthene	**1790**	ug/kg	115	2.5	10	07/02/15 17:57	07/06/15 15:12	206-44-0	
Fluorene	**173**	ug/kg	11.5	0.35	1	07/02/15 17:57	07/05/15 16:24	86-73-7	
Indeno(1,2,3-cd)pyrene	**611**	ug/kg	115	4.4	10	07/02/15 17:57	07/06/15 15:12	193-39-5	
Naphthalene	**310**	ug/kg	11.5	0.43	1	07/02/15 17:57	07/05/15 16:24	91-20-3	
Phenanthrene	**1500**	ug/kg	115	2.8	10	07/02/15 17:57	07/06/15 15:12	85-01-8	
Pyrene	**1920**	ug/kg	115	2.8	10	07/02/15 17:57	07/06/15 15:12	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%.	55-125		1	07/02/15 17:57	07/05/15 16:24	321-60-8	
p-Terphenyl-d14 (S)	72	%.	30-150		1	07/02/15 17:57	07/05/15 16:24	1718-51-0	

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QUALITY CONTROL DATA

Project: 141004 Fraser
Pace Project No.: 10312785

QC Batch: MPRP/56041
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 10312785004, 10312785005, 10312785006, 10312785007, 10312785008

SAMPLE DUPLICATE: 2021616

Parameter	Units	10312785004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	22.3	22.5	1	30	

SAMPLE DUPLICATE: 2021617

Parameter	Units	10313338017 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.3	14.6	2	30	

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QUALITY CONTROL DATA

Project: 141004 Fraser
Pace Project No.: 10312785

QC Batch: OEXT/29868 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3550 Analysis Description: 8270D Solid PAH by SIM MSSV
Associated Lab Samples: 10312785004, 10312785005, 10312785006, 10312785007, 10312785008

METHOD BLANK: 2013035 Matrix: Solid
Associated Lab Samples: 10312785004, 10312785005, 10312785006, 10312785007, 10312785008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	10.0	07/05/15 13:34	
Acenaphthylene	ug/kg	ND	10.0	07/05/15 13:34	
Anthracene	ug/kg	ND	10.0	07/05/15 13:34	
Benzo(a)anthracene	ug/kg	ND	10.0	07/05/15 13:34	
Benzo(a)pyrene	ug/kg	ND	10.0	07/05/15 13:34	
Benzo(b)fluoranthene	ug/kg	ND	10.0	07/05/15 13:34	
Benzo(g,h,i)perylene	ug/kg	ND	10.0	07/05/15 13:34	
Benzo(k)fluoranthene	ug/kg	ND	10.0	07/05/15 13:34	
Chrysene	ug/kg	ND	10.0	07/05/15 13:34	
Dibenz(a,h)anthracene	ug/kg	ND	10.0	07/05/15 13:34	
Fluoranthene	ug/kg	ND	10.0	07/05/15 13:34	
Fluorene	ug/kg	ND	10.0	07/05/15 13:34	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.0	07/05/15 13:34	
Naphthalene	ug/kg	ND	10.0	07/05/15 13:34	
Phenanthrene	ug/kg	ND	10.0	07/05/15 13:34	
Pyrene	ug/kg	ND	10.0	07/05/15 13:34	
2-Fluorobiphenyl (S)	%.	82	55-125	07/05/15 13:34	
p-Terphenyl-d14 (S)	%.	88	30-150	07/05/15 13:34	

LABORATORY CONTROL SAMPLE: 2013036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	33.3	27.0	81	53-125	
Acenaphthylene	ug/kg	33.3	26.8	80	53-125	
Anthracene	ug/kg	33.3	29.4	88	61-125	
Benzo(a)anthracene	ug/kg	33.3	28.9	87	62-125	
Benzo(a)pyrene	ug/kg	33.3	29.8	89	64-125	
Benzo(b)fluoranthene	ug/kg	33.3	31.3	94	66-125	
Benzo(g,h,i)perylene	ug/kg	33.3	30.2	91	59-125	
Benzo(k)fluoranthene	ug/kg	33.3	30.0	90	61-125	
Chrysene	ug/kg	33.3	27.8	83	63-125	
Dibenz(a,h)anthracene	ug/kg	33.3	30.4	91	59-125	
Fluoranthene	ug/kg	33.3	33.5	100	64-125	
Fluorene	ug/kg	33.3	28.0	84	57-125	
Indeno(1,2,3-cd)pyrene	ug/kg	33.3	29.7	89	58-125	
Naphthalene	ug/kg	33.3	25.9	78	52-125	
Phenanthrene	ug/kg	33.3	27.0	81	60-125	
Pyrene	ug/kg	33.3	31.8	95	63-125	
2-Fluorobiphenyl (S)	%.			84	55-125	
p-Terphenyl-d14 (S)	%.			91	30-150	

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QUALITY CONTROL DATA

Project: 141004 Fraser
Pace Project No.: 10312785

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2013037 2013038

Parameter	Units	10312785004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/kg	268	42.9	42.9	85.5	68.9	-426	-465	39-125	22	30	M1
Acenaphthylene	ug/kg	120	42.9	42.9	81.6	62.4	-90	-135	30-150	27	30	M1
Anthracene	ug/kg	544	42.9	42.9	187	140	-832	-941	30-150	29	30	M1
Benzo(a)anthracene	ug/kg	1340	42.9	42.9	532	392	-1870	-2200	30-150	30	30	E,M1
Benzo(a)pyrene	ug/kg	1540	42.9	42.9	624	442	-2140	-2570	30-150	34	30	E,M1, R1
Benzo(b)fluoranthene	ug/kg	1760	42.9	42.9	806	571	-2230	-2780	30-150	34	30	E,M1, R1
Benzo(g,h,i)perylene	ug/kg	1080	42.9	42.9	473	329	-1420	-1750	30-150	36	30	E,M1, R1
Benzo(k)fluoranthene	ug/kg	674	42.9	42.9	273	200	-934	-1110	30-150	31	30	M1,R1
Chrysene	ug/kg	1560	42.9	42.9	592	404	-2250	-2690	30-150	38	30	E,M1, R1
Dibenz(a,h)anthracene	ug/kg	320	42.9	42.9	167	124	-356	-458	30-150	30	30	M1
Fluoranthene	ug/kg	3110	42.9	42.9	1210	859	-4410	-5240	30-150	34	30	E,M1, R1
Fluorene	ug/kg	274	42.9	42.9	87.2	69.7	-435	-476	30-146	22	30	M1
Indeno(1,2,3-cd)pyrene	ug/kg	878	42.9	42.9	392	284	-1130	-1390	30-150	32	30	M1,R1
Naphthalene	ug/kg	142	42.9	42.9	71.3	66.1	-165	-177	30-131	8	30	M1
Phenanthrene	ug/kg	2940	42.9	42.9	745	496	-5110	-5690	30-150	40	30	E,M1, R1
Pyrene	ug/kg	3120	42.9	42.9	1160	786	-4560	-5430	30-150	38	30	E,M1, R1
2-Fluorobiphenyl (S)	%.						79	80	55-125			
p-Terphenyl-d14 (S)	%.						82	85	30-150			

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QUALITY CONTROL DATA

Project: 141004 Fraser
Pace Project No.: 10312785

QC Batch: OEXT/29909 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270D PAH by SIM MSSV
Associated Lab Samples: 10312785001, 10312785002, 10312785003

METHOD BLANK: 2014899 Matrix: Water
Associated Lab Samples: 10312785001, 10312785002, 10312785003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	0.040	07/09/15 07:26	
Acenaphthylene	ug/L	ND	0.040	07/09/15 07:26	
Anthracene	ug/L	ND	0.040	07/09/15 07:26	
Benzo(a)anthracene	ug/L	ND	0.040	07/09/15 07:26	
Benzo(a)pyrene	ug/L	ND	0.040	07/09/15 07:26	
Benzo(b)fluoranthene	ug/L	ND	0.040	07/09/15 07:26	
Benzo(g,h,i)perylene	ug/L	ND	0.040	07/09/15 07:26	
Benzo(k)fluoranthene	ug/L	ND	0.040	07/09/15 07:26	
Chrysene	ug/L	ND	0.040	07/09/15 07:26	
Dibenz(a,h)anthracene	ug/L	ND	0.040	07/09/15 07:26	
Fluoranthene	ug/L	ND	0.040	07/09/15 07:26	
Fluorene	ug/L	ND	0.040	07/09/15 07:26	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.040	07/09/15 07:26	
Naphthalene	ug/L	ND	0.040	07/09/15 07:26	
Phenanthrene	ug/L	ND	0.040	07/09/15 07:26	
Pyrene	ug/L	ND	0.040	07/09/15 07:26	
2-Fluorobiphenyl (S)	%.	74	52-125	07/09/15 07:26	
p-Terphenyl-d14 (S)	%.	92	62-125	07/09/15 07:26	

LABORATORY CONTROL SAMPLE & LCSD: 2014900 2014901

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acenaphthene	ug/L	1	0.87	0.76	87	76	44-125	13	20	
Acenaphthylene	ug/L	1	0.91	0.80	91	80	44-125	12	20	
Anthracene	ug/L	1	1.1	1.0	112	102	55-125	9	20	
Benzo(a)anthracene	ug/L	1	0.92	0.89	92	89	56-125	3	20	
Benzo(a)pyrene	ug/L	1	1.0	1.0	100	100	61-125	0	20	
Benzo(b)fluoranthene	ug/L	1	1.0	0.91	105	91	60-125	14	20	
Benzo(g,h,i)perylene	ug/L	1	0.70	0.71	70	71	53-125	1	20	
Benzo(k)fluoranthene	ug/L	1	0.92	0.85	92	85	59-125	7	20	
Chrysene	ug/L	1	0.95	0.93	95	93	61-125	2	20	
Dibenz(a,h)anthracene	ug/L	1	0.59	0.62	59	62	51-125	5	20	
Fluoranthene	ug/L	1	0.97	0.94	97	94	64-125	3	20	
Fluorene	ug/L	1	0.95	0.86	95	86	52-125	9	20	
Indeno(1,2,3-cd)pyrene	ug/L	1	0.80	0.79	80	79	54-125	1	20	
Naphthalene	ug/L	1	0.86	0.75	86	75	35-125	14	20	
Phenanthrene	ug/L	1	0.88	0.80	88	80	55-125	10	20	
Pyrene	ug/L	1	0.98	0.97	98	97	59-125	1	20	
2-Fluorobiphenyl (S)	%.				77	66	52-125			
p-Terphenyl-d14 (S)	%.				87	84	62-125			

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(612)607-1700

QUALIFIERS

Project: 141004 Fraser
Pace Project No.: 10312785

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSSV/12712

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 141004 Fraser
Pace Project No.: 10312785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10312785004	PSA-GP-8 2-4	ASTM D2974	MPRP/56041		
10312785005	PSA-GP-9 2-4	ASTM D2974	MPRP/56041		
10312785006	PSA-GP-9 6-3	ASTM D2974	MPRP/56041		
10312785007	PSA-GP-10 2-4	ASTM D2974	MPRP/56041		
10312785008	PSA-GP-11 2-4	ASTM D2974	MPRP/56041		
10312785004	PSA-GP-8 2-4	EPA 3550	OEXT/29868	EPA 8270D by SIM	MSSV/12687
10312785005	PSA-GP-9 2-4	EPA 3550	OEXT/29868	EPA 8270D by SIM	MSSV/12687
10312785006	PSA-GP-9 6-3	EPA 3550	OEXT/29868	EPA 8270D by SIM	MSSV/12687
10312785007	PSA-GP-10 2-4	EPA 3550	OEXT/29868	EPA 8270D by SIM	MSSV/12687
10312785008	PSA-GP-11 2-4	EPA 3550	OEXT/29868	EPA 8270D by SIM	MSSV/12687
10312785001	PSA-GP-8W	EPA 3510	OEXT/29909	EPA 8270D by SIM	MSSV/12712
10312785002	PSA-GP-81W	EPA 3510	OEXT/29909	EPA 8270D by SIM	MSSV/12712
10312785003	PSA-GP-9W	EPA 3510	OEXT/29909	EPA 8270D by SIM	MSSV/12712

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

Page: of

Section A Required Client Information:

Company:	Env. Troubleshooters
Address:	2825 Grand Ave
	Duluth MN 55807
Email To:	jmccarthy@etsmn.com
Phone:	218-722-1013 Fax: -1319
Requested Due Date/TAT:	STD 10 days

Section B Required Project Information:

Report To:	
Copy To:	Same
Purchase Order No.:	
Project Name:	Fraser
Project Number:	141004

Section C Invoice Information:

Attention:	
Company Name:	Same
Address:	
Pace Quote Reference:	ETS
Pace Project Manager:	Lon Cottle
Pace Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: MN

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PSA-GP-3W	WT		6/29/15	1350				2	2								X		
2	PSA-GP-8W	WT		6/29/15	1345				2	2								X		
3	PSA-GP-9W	WT		6/29/15	1400				2	2								X		
4																				
5	PSA-GP-8 2-4	SL	G	6/29/15	1030				3	3								X		
6	PSA-GP-9 2-4	SL	G	6/29/15	1100				3	3								X		
7	PSA-GP-9 6-8	SL	G	6/29/15	1105				3	3								X		
8	PSA-GP-10 2-4	SL	G	6/29/15	1230				3	3								X		
9	PSA-GP-11 2-4	SL	G	6/29/15	1300				3	3								X		
10																				
11																				
12																				

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	John McCarthy / ET	6/30/15	1445		6/30/15	1445	Y
		6/30/15	1730				

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: John McCarthy

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 6/30/15

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07 15-May-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 23Feb2015 Page 1 of 1
	Document No.: F-MN-L-213-rev.13	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: [illegible]

Project #: WO#: 10312785

10312785

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client

☐ Commercial ☐ Pace ☐ SpeeDee ☐ Other:

Tracking Number: [illegible]

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other: Temp Blank? ☑ Yes ☐ No

Thermometer Used: ☐ B88A9130516413 ☑ B88A912167504 ☐ B88A0143310098 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 5.0 Cooler Temp Corrected (°C): 5.1 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: +0.1 Date and Initials of Person Examining Contents: [illegible]

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

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☑ No

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	12.
-Includes Date/Time/ID/Analysis Matrix: WA, SL				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased):				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: [signature] Date: 7/6/15

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

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April 28, 2016

Mr. John McCarthy
Environmental Troubleshooters
3825 Grand Avenue
Duluth, MN 55807

RE: Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Dear Mr. McCarthy:
Enclosed are the analytical results for sample(s) received by the laboratory on April 15, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Lori Castille
lori.castille@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10345030001	GP-12 (4-6)	Solid	04/14/16 14:25	04/15/16 17:40
10345030002	GP-13 (0-2)	Solid	04/14/16 13:55	04/15/16 17:40
10345030003	GP-14 (2-4)	Solid	04/14/16 13:30	04/15/16 17:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10345030001	GP-12 (4-6)	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18
10345030002	GP-13 (0-2)	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18
10345030003	GP-14 (2-4)	ASTM D2974	JDL	1
		EPA 8270D by SIM	AS1	18

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Sample: GP-12 (4-6) **Lab ID: 10345030001** Collected: 04/14/16 14:25 Received: 04/15/16 17:40 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**9.7**	%	0.10	0.10	1		04/26/16 16:07		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	**14.8**	ug/kg	1.4	0.43	1	04/21/16 11:33	04/22/16 17:16	83-32-9	
Acenaphthylene	**24.4**	ug/kg	1.0	0.30	1	04/21/16 11:33	04/22/16 17:16	208-96-8	
Anthracene	**77.5**	ug/kg	1.7	0.50	1	04/21/16 11:33	04/22/16 17:16	120-12-7	
Benzo(a)anthracene	**401**	ug/kg	8.6	2.6	5	04/21/16 11:33	04/22/16 23:16	56-55-3	
Benzo(a)pyrene	**439**	ug/kg	6.4	1.9	5	04/21/16 11:33	04/22/16 23:16	50-32-8	
Benzo(b)fluoranthene	**637**	ug/kg	10.5	3.2	5	04/21/16 11:33	04/22/16 23:16	205-99-2	
Benzo(g,h,i)perylene	**189**	ug/kg	1.7	0.51	1	04/21/16 11:33	04/22/16 17:16	191-24-2	
Benzo(k)fluoranthene	**218**	ug/kg	1.8	0.54	1	04/21/16 11:33	04/22/16 17:16	207-08-9	
Chrysene	**463**	ug/kg	10.2	3.1	5	04/21/16 11:33	04/22/16 23:16	218-01-9	
Dibenz(a,h)anthracene	**80.5**	ug/kg	1.2	0.36	1	04/21/16 11:33	04/22/16 17:16	53-70-3	
Fluoranthene	**726**	ug/kg	14.4	4.3	5	04/21/16 11:33	04/22/16 23:16	206-44-0	
Fluorene	**17.6**	ug/kg	1.4	0.42	1	04/21/16 11:33	04/22/16 17:16	86-73-7	
Indeno(1,2,3-cd)pyrene	**192**	ug/kg	1.7	0.83	1	04/21/16 11:33	04/22/16 17:16	193-39-5	
Naphthalene	**50.5**	ug/kg	1.3	0.39	1	04/21/16 11:33	04/22/16 17:16	91-20-3	
Phenanthrene	**222**	ug/kg	1.5	0.44	1	04/21/16 11:33	04/22/16 17:16	85-01-8	
Pyrene	**680**	ug/kg	15.2	4.6	5	04/21/16 11:33	04/22/16 23:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%.	41-125		1	04/21/16 11:33	04/22/16 17:16	321-60-8	
p-Terphenyl-d14 (S)	79	%.	39-125		1	04/21/16 11:33	04/22/16 17:16	1718-51-0	

Sample: GP-13 (0-2) **Lab ID: 10345030002** Collected: 04/14/16 13:55 Received: 04/15/16 17:40 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**9.9**	%	0.10	0.10	1		04/26/16 16:07		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	**66.8**	ug/kg	1.4	0.43	1	04/21/16 11:33	04/22/16 17:58	83-32-9	
Acenaphthylene	**10.9**	ug/kg	1.0	0.30	1	04/21/16 11:33	04/22/16 17:58	208-96-8	
Anthracene	**246**	ug/kg	1.7	0.50	1	04/21/16 11:33	04/22/16 17:58	120-12-7	
Benzo(a)anthracene	**422**	ug/kg	8.7	2.6	5	04/21/16 11:33	04/22/16 23:37	56-55-3	
Benzo(a)pyrene	**417**	ug/kg	6.4	1.9	5	04/21/16 11:33	04/22/16 23:37	50-32-8	
Benzo(b)fluoranthene	**602**	ug/kg	10.6	3.2	5	04/21/16 11:33	04/22/16 23:37	205-99-2	
Benzo(g,h,i)perylene	**157**	ug/kg	1.7	0.51	1	04/21/16 11:33	04/22/16 17:58	191-24-2	
Benzo(k)fluoranthene	**224**	ug/kg	1.8	0.55	1	04/21/16 11:33	04/22/16 17:58	207-08-9	
Chrysene	**458**	ug/kg	10.3	3.1	5	04/21/16 11:33	04/22/16 23:37	218-01-9	
Dibenz(a,h)anthracene	**63.3**	ug/kg	1.2	0.36	1	04/21/16 11:33	04/22/16 17:58	53-70-3	
Fluoranthene	**1080**	ug/kg	14.5	4.3	5	04/21/16 11:33	04/22/16 23:37	206-44-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Sample: GP-13 (0-2) **Lab ID: 10345030002** Collected: 04/14/16 13:55 Received: 04/15/16 17:40 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Fluorene	**120**	ug/kg	1.4	0.43	1	04/21/16 11:33	04/22/16 17:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**164**	ug/kg	1.8	0.83	1	04/21/16 11:33	04/22/16 17:58	193-39-5	
Naphthalene	**12.7**	ug/kg	1.3	0.40	1	04/21/16 11:33	04/22/16 17:58	91-20-3	
Phenanthrene	**805**	ug/kg	7.4	2.2	5	04/21/16 11:33	04/22/16 23:37	85-01-8	
Pyrene	**891**	ug/kg	15.3	4.6	5	04/21/16 11:33	04/22/16 23:37	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	57	%.	41-125		1	04/21/16 11:33	04/22/16 17:58	321-60-8	
p-Terphenyl-d14 (S)	79	%.	39-125		1	04/21/16 11:33	04/22/16 17:58	1718-51-0	

Sample: GP-14 (2-4) **Lab ID: 10345030003** Collected: 04/14/16 13:30 Received: 04/15/16 17:40 Matrix: Solid

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

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Dry Weight	Analytical Method: ASTM D2974								
Percent Moisture	**15.4**	%	0.10	0.10	1		04/26/16 16:07		
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3550								
Acenaphthene	ND	ug/kg	1.5	0.46	1	04/21/16 11:33	04/22/16 18:19	83-32-9	
Acenaphthylene	ND	ug/kg	1.1	0.32	1	04/21/16 11:33	04/22/16 18:19	208-96-8	
Anthracene	**11.8**	ug/kg	1.8	0.54	1	04/21/16 11:33	04/22/16 18:19	120-12-7	
Benzo(a)anthracene	**26.9**	ug/kg	1.8	0.55	1	04/21/16 11:33	04/22/16 18:19	56-55-3	
Benzo(a)pyrene	**29.7**	ug/kg	1.4	0.41	1	04/21/16 11:33	04/22/16 18:19	50-32-8	
Benzo(b)fluoranthene	**38.1**	ug/kg	2.3	0.68	1	04/21/16 11:33	04/22/16 18:19	205-99-2	
Benzo(g,h,i)perylene	**13.6**	ug/kg	1.8	0.54	1	04/21/16 11:33	04/22/16 18:19	191-24-2	
Benzo(k)fluoranthene	**17.1**	ug/kg	1.9	0.58	1	04/21/16 11:33	04/22/16 18:19	207-08-9	
Chrysene	**33.1**	ug/kg	2.2	0.66	1	04/21/16 11:33	04/22/16 18:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	1.3	0.39	1	04/21/16 11:33	04/22/16 18:19	53-70-3	
Fluoranthene	**67.5**	ug/kg	3.1	0.93	1	04/21/16 11:33	04/22/16 18:19	206-44-0	
Fluorene	ND	ug/kg	1.5	0.45	1	04/21/16 11:33	04/22/16 18:19	86-73-7	
Indeno(1,2,3-cd)pyrene	**10.9**	ug/kg	1.9	0.89	1	04/21/16 11:33	04/22/16 18:19	193-39-5	
Naphthalene	ND	ug/kg	1.4	0.42	1	04/21/16 11:33	04/22/16 18:19	91-20-3	
Phenanthrene	**59.2**	ug/kg	1.6	0.48	1	04/21/16 11:33	04/22/16 18:19	85-01-8	
Pyrene	**63.4**	ug/kg	3.3	0.98	1	04/21/16 11:33	04/22/16 18:19	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%.	41-125		1	04/21/16 11:33	04/22/16 18:19	321-60-8	
p-Terphenyl-d14 (S)	79	%.	39-125		1	04/21/16 11:33	04/22/16 18:19	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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(612)607-1700

QUALITY CONTROL DATA

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

QC Batch: MPRP/62887 Analysis Method: ASTM D2974
QC Batch Method: ASTM D2974 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 10345030001, 10345030002, 10345030003

SAMPLE DUPLICATE: 2241165

Parameter	Units	10345106001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	13.9	13.8	1	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

QC Batch: OEXT/33218 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3550 Analysis Description: 8270D Solid PAH by SIM MSSV
Associated Lab Samples: 10345030001, 10345030002, 10345030003

METHOD BLANK: 2237630 Matrix: Solid
Associated Lab Samples: 10345030001, 10345030002, 10345030003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	1.3	04/22/16 14:05	
Acenaphthylene	ug/kg	ND	0.91	04/22/16 14:05	
Anthracene	ug/kg	ND	1.5	04/22/16 14:05	
Benzo(a)anthracene	ug/kg	ND	1.6	04/22/16 14:05	
Benzo(a)pyrene	ug/kg	ND	1.2	04/22/16 14:05	
Benzo(b)fluoranthene	ug/kg	ND	1.9	04/22/16 14:05	
Benzo(g,h,i)perylene	ug/kg	ND	1.5	04/22/16 14:05	
Benzo(k)fluoranthene	ug/kg	ND	1.6	04/22/16 14:05	
Chrysene	ug/kg	ND	1.8	04/22/16 14:05	
Dibenz(a,h)anthracene	ug/kg	ND	1.1	04/22/16 14:05	
Fluoranthene	ug/kg	ND	2.6	04/22/16 14:05	
Fluorene	ug/kg	ND	1.3	04/22/16 14:05	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	1.6	04/22/16 14:05	
Naphthalene	ug/kg	ND	1.2	04/22/16 14:05	
Phenanthrene	ug/kg	ND	1.3	04/22/16 14:05	
Pyrene	ug/kg	ND	2.8	04/22/16 14:05	
2-Fluorobiphenyl (S)	%.	80	41-125	04/22/16 14:05	
p-Terphenyl-d14 (S)	%.	99	39-125	04/22/16 14:05	

LABORATORY CONTROL SAMPLE: 2237631

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	33.3	23.5	70	53-125	
Acenaphthylene	ug/kg	33.3	24.8	74	50-125	
Anthracene	ug/kg	33.3	28.0	84	60-125	
Benzo(a)anthracene	ug/kg	33.3	28.0	84	63-125	
Benzo(a)pyrene	ug/kg	33.3	30.1	90	65-125	
Benzo(b)fluoranthene	ug/kg	33.3	29.1	87	61-125	
Benzo(g,h,i)perylene	ug/kg	33.3	30.1	90	62-125	
Benzo(k)fluoranthene	ug/kg	33.3	31.1	93	65-125	
Chrysene	ug/kg	33.3	28.6	86	62-125	
Dibenz(a,h)anthracene	ug/kg	33.3	31.9	96	61-125	
Fluoranthene	ug/kg	33.3	28.5	85	64-125	
Fluorene	ug/kg	33.3	25.4	76	57-125	
Indeno(1,2,3-cd)pyrene	ug/kg	33.3	30.0	90	61-125	
Naphthalene	ug/kg	33.3	23.5	70	52-125	
Phenanthrene	ug/kg	33.3	25.0	75	58-125	
Pyrene	ug/kg	33.3	29.1	87	65-125	
2-Fluorobiphenyl (S)	%.			75	41-125	
p-Terphenyl-d14 (S)	%.			90	39-125	

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QUALITY CONTROL DATA

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2237632 2237633

Parameter	Units	10344970001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/kg	ND	43.8	44	29.9	29.8	68	68	37-125	0	30	
Acenaphthylene	ug/kg	ND	43.8	44	30.9	31.6	70	72	30-132	2	30	
Anthracene	ug/kg	ND	43.8	44	32.0	29.2	73	66	30-150	9	30	
Benzo(a)anthracene	ug/kg	ND	43.8	44	39.1	39.3	89	89	30-144	0	30	
Benzo(a)pyrene	ug/kg	ND	43.8	44	43.6	47.1	99	107	30-150	8	30	
Benzo(b)fluoranthene	ug/kg	ND	43.8	44	47.5	54.1	108	123	30-150	13	30	
Benzo(g,h,i)perylene	ug/kg	ND	43.8	44	42.3	30.3	96	69	30-150	33	30	R1
Benzo(k)fluoranthene	ug/kg	ND	43.8	44	42.4	47.5	97	108	30-150	11	30	
Chrysene	ug/kg	ND	43.8	44	43.9	50.6	100	115	30-129	14	30	
Dibenz(a,h)anthracene	ug/kg	ND	43.8	44	39.3	28.7	89	65	30-150	31	30	R1
Fluoranthene	ug/kg	ND	43.8	44	46.0	45.2	105	103	30-150	2	30	
Fluorene	ug/kg	ND	43.8	44	32.2	32.7	73	74	30-136	2	30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	43.8	44	39.5	28.4	90	65	30-143	33	30	R1
Naphthalene	ug/kg	ND	43.8	44	27.7	28.2	63	64	30-125	2	30	
Phenanthrene	ug/kg	ND	43.8	44	33.6	32.9	77	75	30-129	2	30	
Pyrene	ug/kg	ND	43.8	44	49.7	77.2	88	150	30-150	43	30	R1
2-Fluorobiphenyl (S)	%.						69	70	41-125			
p-Terphenyl-d14 (S)	%.						79	84	39-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-1004 Fraser Shipyard
Pace Project No.: 10345030

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10345030001	GP-12 (4-6)	ASTM D2974	MPRP/62887		
10345030002	GP-13 (0-2)	ASTM D2974	MPRP/62887		
10345030003	GP-14 (2-4)	ASTM D2974	MPRP/62887		
10345030001	GP-12 (4-6)	EPA 3550	OEXT/33218	EPA 8270D by SIM	MSSV/14157
10345030002	GP-13 (0-2)	EPA 3550	OEXT/33218	EPA 8270D by SIM	MSSV/14157
10345030003	GP-14 (2-4)	EPA 3550	OEXT/33218	EPA 8270D by SIM	MSSV/14157

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CHAIN-OF-CUSTODY / Analytical Request Document

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

60345030

Page: 1 of 1

2025333

Section A Required Client Information:

Company: Environmental Troubleshooters Inc.
Address: 3825 Grand Ave
Duluth MN 55807
Email To: jmccarthy@etsmn.com
Phone: 2187226013 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: John McCarthy
Copy To:
Purchase Order No.:
Project Name: Fraser Shipyard
Project Number:

Section C Invoice Information:

Attention: Same-client info
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 22491

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☒ RCRA ☐ OTHER

Site Location STATE: WI

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: PAH	Dry weight	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	GP-12 (4-6)			4/14	1425				2	2								X	X		001
2	GP-13 (0-2)			↓	1355				2	2								X	X		002
3	GP-14 (2-4)			↓	1330				2	2								X	X		003
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		15:34 4/14		Karolina Polson	4/14	1534	5.1	Y	N	Y
				CWS iPace	4/15/16	1740	1.0	Y	Y	Y

Page 12 of 13

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nicole Tarjerson

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 4/14/16

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®	Document Name: Sample Condition Upon Receipt Form	Document Revised: 05Jan2016 Page 1 of 1
	Document No.: F-MN-L-213-rev.15	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Environmental Troubleshooters

Project #: **WO# : 10345030**

10345030

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Commercial ☑ Pace ☐ SpeeDee ☐ Other: _____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: _____ Temp Blank? ☑ Yes ☐ No

Thermometer Used: ☑ 151401163 ☐ 151401164 ☐ 888A912167504 ☐ 888A0143310098 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 1.0 Cooler Temp Corrected (°C): 1.0 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: TRUE Date and Initials of Person Examining Contents: CMB 4/15/16

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

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☑ No

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: Soil	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm)?	☐ Yes	☐ No	☑ N/A	14.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if purchased): _____				

CLIENT NOTIFICATION/RESOLUTION Field Data Required? ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: _____ Date: 4/18/16

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

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May 11, 2016

Mr. John McCarthy
Environmental Troubleshooters
3825 Grand Avenue
Duluth, MN 55807

RE: Project: 14-1004 Fraser
Pace Project No.: 10346509

Dear Mr. McCarthy:
Enclosed are the analytical results for sample(s) received by the laboratory on April 28, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Lori Castille
lori.castille@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Minnesota Certification IDs
1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 14-1004 Fraser
Pace Project No.: 10346509

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10346509001	PS-MW-4 VT910	Water	04/27/16 12:15	04/28/16 17:00
10346509002	PS-MW-3 VT912	Water	04/27/16 13:45	04/28/16 17:00
10346509003	PS-MW-2 VT911	Water	04/27/16 15:40	04/28/16 17:00
10346509004	PS-MW-2.1 VT911	Water	04/27/16 15:45	04/28/16 17:00
10346509005	PS-MW-1 VT908	Water	04/27/16 16:30	04/28/16 17:00
10346509006	VOC Trip Blank	Water	04/27/16 00:00	04/28/16 17:00

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SAMPLE ANALYTE COUNT

Project: 14-1004 Fraser
Pace Project No.: 10346509

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10346509001	PS-MW-4 VT910	EPA 8270D by SIM	AS1	18
		EPA 8260B	PRD	70
10346509002	PS-MW-3 VT912	EPA 8270D by SIM	AS1	18
		EPA 8260B	PRD	70
10346509003	PS-MW-2 VT911	EPA 8270D by SIM	AS1	18
		EPA 8260B	PRD	70
10346509004	PS-MW-2.1 VT911	EPA 8270D by SIM	AS1	18
		EPA 8260B	PRD	70
10346509005	PS-MW-1 VT908	EPA 8270D by SIM	AS1	18
		EPA 8260B	PRD	70
10346509006	VOC Trip Blank	EPA 8260B	PRD	70

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-4 VT910 **Lab ID: 10346509001** Collected: 04/27/16 12:15 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	**0.26**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	83-32-9	
Acenaphthylene	ND	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	208-96-8	
Anthracene	**0.058**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	120-12-7	
Benzo(a)anthracene	**0.14**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	56-55-3	
Benzo(a)pyrene	**0.14**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	50-32-8	
Benzo(b)fluoranthene	**0.20**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	205-99-2	
Benzo(g,h,i)perylene	**0.11**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	191-24-2	
Benzo(k)fluoranthene	**0.074**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	207-08-9	
Chrysene	**0.14**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	53-70-3	
Fluoranthene	**0.39**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	206-44-0	
Fluorene	**0.065**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.088**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	193-39-5	
Naphthalene	**0.11**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	91-20-3	
Phenanthrene	**0.34**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	85-01-8	
Pyrene	**0.32**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:33	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	66	%.	53-125	1	04/29/16 12:31	05/02/16 20:33	321-60-8	
p-Terphenyl-d14 (S)	82	%.	57-125	1	04/29/16 12:31	05/02/16 20:33	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		05/10/16 01:38	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		05/10/16 01:38	107-05-1	
Benzene	ND	ug/L	1.0	1		05/10/16 01:38	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/10/16 01:38	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/10/16 01:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/10/16 01:38	75-27-4	
Bromoform	ND	ug/L	4.0	1		05/10/16 01:38	75-25-2	
Bromomethane	ND	ug/L	4.0	1		05/10/16 01:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		05/10/16 01:38	78-93-3	
n-Butylbenzene	ND	ug/L	4.0	1		05/10/16 01:38	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/10/16 01:38	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/10/16 01:38	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		05/10/16 01:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/10/16 01:38	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/10/16 01:38	75-00-3	
Chloroform	ND	ug/L	4.0	1		05/10/16 01:38	67-66-3	
Chloromethane	ND	ug/L	4.0	1		05/10/16 01:38	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 01:38	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 01:38	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		05/10/16 01:38	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/10/16 01:38	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/10/16 01:38	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		05/10/16 01:38	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:38	106-46-7	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-4 VT910 **Lab ID: 10346509001** Collected: 04/27/16 12:15 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/10/16 01:38	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/10/16 01:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/10/16 01:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/10/16 01:38	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 01:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 01:38	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 01:38	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 01:38	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/10/16 01:38	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 01:38	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/10/16 01:38	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 01:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 01:38	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		05/10/16 01:38	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		05/10/16 01:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/10/16 01:38	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1		05/10/16 01:38	98-82-8	
p-Isopropyltoluene	1.9	ug/L	1.0	1		05/10/16 01:38	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		05/10/16 01:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/10/16 01:38	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/10/16 01:38	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		05/10/16 01:38	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/10/16 01:38	103-65-1	
Styrene	ND	ug/L	1.0	1		05/10/16 01:38	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 01:38	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 01:38	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/10/16 01:38	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		05/10/16 01:38	109-99-9	
Toluene	ND	ug/L	1.0	1		05/10/16 01:38	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:38	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:38	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/10/16 01:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/10/16 01:38	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		05/10/16 01:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 01:38	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		05/10/16 01:38	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		05/10/16 01:38	76-13-1	
1,2,4-Trimethylbenzene	1.6	ug/L	1.0	1		05/10/16 01:38	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 01:38	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		05/10/16 01:38	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/10/16 01:38	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		05/10/16 01:38	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		05/10/16 01:38	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	75-125	1		05/10/16 01:38	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-3 VT912 **Lab ID: 10346509002** Collected: 04/27/16 13:45 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	**0.51**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	83-32-9	
Acenaphthylene	**0.10**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	208-96-8	
Anthracene	**0.44**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	120-12-7	
Benzo(a)anthracene	**0.54**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	56-55-3	
Benzo(a)pyrene	**0.59**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	50-32-8	
Benzo(b)fluoranthene	**0.69**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	205-99-2	
Benzo(g,h,i)perylene	**0.36**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	191-24-2	
Benzo(k)fluoranthene	**0.25**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	207-08-9	
Chrysene	**0.55**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	218-01-9	
Dibenz(a,h)anthracene	**0.083**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	53-70-3	
Fluoranthene	**1.5**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	206-44-0	
Fluorene	**0.31**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.30**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	193-39-5	
Naphthalene	**0.41**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	91-20-3	
Phenanthrene	**2.1**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	85-01-8	
Pyrene	**1.4**	ug/L	0.041	1	04/29/16 12:31	05/02/16 20:54	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	70	%.	53-125	1	04/29/16 12:31	05/02/16 20:54	321-60-8	
p-Terphenyl-d14 (S)	80	%.	57-125	1	04/29/16 12:31	05/02/16 20:54	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		05/10/16 01:54	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		05/10/16 01:54	107-05-1	
Benzene	ND	ug/L	1.0	1		05/10/16 01:54	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/10/16 01:54	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/10/16 01:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/10/16 01:54	75-27-4	
Bromoform	ND	ug/L	4.0	1		05/10/16 01:54	75-25-2	
Bromomethane	ND	ug/L	4.0	1		05/10/16 01:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		05/10/16 01:54	78-93-3	
n-Butylbenzene	ND	ug/L	4.0	1		05/10/16 01:54	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/10/16 01:54	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/10/16 01:54	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		05/10/16 01:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/10/16 01:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/10/16 01:54	75-00-3	
Chloroform	ND	ug/L	4.0	1		05/10/16 01:54	67-66-3	
Chloromethane	ND	ug/L	4.0	1		05/10/16 01:54	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 01:54	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 01:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		05/10/16 01:54	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/10/16 01:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/10/16 01:54	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		05/10/16 01:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:54	106-46-7	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-3 VT912 **Lab ID: 10346509002** Collected: 04/27/16 13:45 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/10/16 01:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/10/16 01:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/10/16 01:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/10/16 01:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 01:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 01:54	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 01:54	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 01:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/10/16 01:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 01:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/10/16 01:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 01:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 01:54	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		05/10/16 01:54	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		05/10/16 01:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/10/16 01:54	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1		05/10/16 01:54	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/10/16 01:54	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		05/10/16 01:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/10/16 01:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/10/16 01:54	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		05/10/16 01:54	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/10/16 01:54	103-65-1	
Styrene	ND	ug/L	1.0	1		05/10/16 01:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 01:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 01:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/10/16 01:54	127-18-4	
Tetrahydrofuran	**24.2**	ug/L	10.0	1		05/10/16 01:54	109-99-9	
Toluene	ND	ug/L	1.0	1		05/10/16 01:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 01:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/10/16 01:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/10/16 01:54	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		05/10/16 01:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 01:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		05/10/16 01:54	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		05/10/16 01:54	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 01:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 01:54	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		05/10/16 01:54	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/10/16 01:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		05/10/16 01:54	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		05/10/16 01:54	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1		05/10/16 01:54	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-2 VT911 Lab ID: 10346509003 Collected: 04/27/16 15:40 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	83-32-9	
Acenaphthylene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	208-96-8	
Anthracene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	207-08-9	
Chrysene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	53-70-3	
Fluoranthene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	206-44-0	
Fluorene	0.063	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	193-39-5	
Naphthalene	0.11	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	91-20-3	
Phenanthrene	0.15	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	85-01-8	
Pyrene	ND	ug/L	0.043	1	04/29/16 12:31	05/02/16 21:14	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	70	%.	53-125	1	04/29/16 12:31	05/02/16 21:14	321-60-8	
p-Terphenyl-d14 (S)	81	%.	57-125	1	04/29/16 12:31	05/02/16 21:14	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B							
Acetone	93.9	ug/L	20.0	1		05/10/16 02:09	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		05/10/16 02:09	107-05-1	
Benzene	ND	ug/L	1.0	1		05/10/16 02:09	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/10/16 02:09	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/10/16 02:09	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/10/16 02:09	75-27-4	
Bromoform	ND	ug/L	4.0	1		05/10/16 02:09	75-25-2	
Bromomethane	ND	ug/L	4.0	1		05/10/16 02:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		05/10/16 02:09	78-93-3	
n-Butylbenzene	ND	ug/L	4.0	1		05/10/16 02:09	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/10/16 02:09	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/10/16 02:09	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		05/10/16 02:09	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/10/16 02:09	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/10/16 02:09	75-00-3	
Chloroform	ND	ug/L	4.0	1		05/10/16 02:09	67-66-3	
Chloromethane	ND	ug/L	4.0	1		05/10/16 02:09	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 02:09	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 02:09	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		05/10/16 02:09	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/10/16 02:09	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/10/16 02:09	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		05/10/16 02:09	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:09	106-46-7	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-2 VT911 **Lab ID: 10346509003** Collected: 04/27/16 15:40 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/10/16 02:09	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/10/16 02:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/10/16 02:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:09	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 02:09	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 02:09	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/10/16 02:09	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 02:09	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/10/16 02:09	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 02:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 02:09	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		05/10/16 02:09	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		05/10/16 02:09	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/10/16 02:09	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1		05/10/16 02:09	98-82-8	
p-Isopropyltoluene	**2.8**	ug/L	1.0	1		05/10/16 02:09	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		05/10/16 02:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/10/16 02:09	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/10/16 02:09	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		05/10/16 02:09	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/10/16 02:09	103-65-1	
Styrene	ND	ug/L	1.0	1		05/10/16 02:09	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 02:09	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 02:09	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/10/16 02:09	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		05/10/16 02:09	109-99-9	
Toluene	**1.4**	ug/L	1.0	1		05/10/16 02:09	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:09	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:09	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/10/16 02:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/10/16 02:09	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		05/10/16 02:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 02:09	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		05/10/16 02:09	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		05/10/16 02:09	76-13-1	
1,2,4-Trimethylbenzene	**2.1**	ug/L	1.0	1		05/10/16 02:09	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 02:09	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		05/10/16 02:09	75-01-4	
Xylene (Total)	**4.2**	ug/L	3.0	1		05/10/16 02:09	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%.	75-125	1		05/10/16 02:09	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		05/10/16 02:09	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	75-125	1		05/10/16 02:09	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-2.1 VT911 **Lab ID: 10346509004** Collected: 04/27/16 15:45 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	83-32-9	
Acenaphthylene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	208-96-8	
Anthracene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	207-08-9	
Chrysene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	53-70-3	
Fluoranthene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	206-44-0	
Fluorene	0.064	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	193-39-5	
Naphthalene	0.093	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	91-20-3	
Phenanthrene	0.14	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	85-01-8	
Pyrene	ND	ug/L	0.044	1	04/29/16 12:31	05/02/16 21:35	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	64	%.	53-125	1	04/29/16 12:31	05/02/16 21:35	321-60-8	
p-Terphenyl-d14 (S)	81	%.	57-125	1	04/29/16 12:31	05/02/16 21:35	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B							
Acetone	88.5	ug/L	20.0	1		05/10/16 02:25	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		05/10/16 02:25	107-05-1	
Benzene	ND	ug/L	1.0	1		05/10/16 02:25	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/10/16 02:25	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/10/16 02:25	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/10/16 02:25	75-27-4	
Bromoform	ND	ug/L	4.0	1		05/10/16 02:25	75-25-2	
Bromomethane	ND	ug/L	4.0	1		05/10/16 02:25	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		05/10/16 02:25	78-93-3	
n-Butylbenzene	ND	ug/L	4.0	1		05/10/16 02:25	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/10/16 02:25	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/10/16 02:25	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		05/10/16 02:25	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/10/16 02:25	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/10/16 02:25	75-00-3	
Chloroform	ND	ug/L	4.0	1		05/10/16 02:25	67-66-3	
Chloromethane	ND	ug/L	4.0	1		05/10/16 02:25	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 02:25	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 02:25	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		05/10/16 02:25	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/10/16 02:25	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/10/16 02:25	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		05/10/16 02:25	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:25	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:25	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:25	106-46-7	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-2.1 VT911 **Lab ID: 10346509004** Collected: 04/27/16 15:45 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/10/16 02:25	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/10/16 02:25	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/10/16 02:25	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:25	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 02:25	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 02:25	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/10/16 02:25	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 02:25	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/10/16 02:25	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 02:25	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 02:25	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		05/10/16 02:25	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		05/10/16 02:25	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/10/16 02:25	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1		05/10/16 02:25	98-82-8	
p-Isopropyltoluene	**2.9**	ug/L	1.0	1		05/10/16 02:25	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		05/10/16 02:25	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/10/16 02:25	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/10/16 02:25	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		05/10/16 02:25	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/10/16 02:25	103-65-1	
Styrene	ND	ug/L	1.0	1		05/10/16 02:25	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 02:25	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 02:25	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/10/16 02:25	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		05/10/16 02:25	109-99-9	
Toluene	**1.2**	ug/L	1.0	1		05/10/16 02:25	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:25	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:25	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/10/16 02:25	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/10/16 02:25	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		05/10/16 02:25	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 02:25	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		05/10/16 02:25	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		05/10/16 02:25	76-13-1	
1,2,4-Trimethylbenzene	**2.2**	ug/L	1.0	1		05/10/16 02:25	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 02:25	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		05/10/16 02:25	75-01-4	
Xylene (Total)	**3.9**	ug/L	3.0	1		05/10/16 02:25	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	101	%.	75-125	1		05/10/16 02:25	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		05/10/16 02:25	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	75-125	1		05/10/16 02:25	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: **PS-MW-1 VT908** Lab ID: **10346509005** Collected: 04/27/16 16:30 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C							
Acenaphthene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	83-32-9	
Acenaphthylene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	208-96-8	
Anthracene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	207-08-9	
Chrysene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	53-70-3	
Fluoranthene	0.058	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	206-44-0	
Fluorene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	193-39-5	
Naphthalene	0.061	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	91-20-3	
Phenanthrene	0.071	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	85-01-8	
Pyrene	ND	ug/L	0.051	1	04/29/16 12:31	05/02/16 21:56	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	68	%.	53-125	1	04/29/16 12:31	05/02/16 21:56	321-60-8	
p-Terphenyl-d14 (S)	81	%.	57-125	1	04/29/16 12:31	05/02/16 21:56	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B							
Acetone	73.7	ug/L	20.0	1		05/10/16 02:41	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		05/10/16 02:41	107-05-1	
Benzene	ND	ug/L	1.0	1		05/10/16 02:41	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/10/16 02:41	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/10/16 02:41	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/10/16 02:41	75-27-4	
Bromoform	ND	ug/L	4.0	1		05/10/16 02:41	75-25-2	
Bromomethane	ND	ug/L	4.0	1		05/10/16 02:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		05/10/16 02:41	78-93-3	
n-Butylbenzene	ND	ug/L	4.0	1		05/10/16 02:41	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/10/16 02:41	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/10/16 02:41	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		05/10/16 02:41	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/10/16 02:41	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/10/16 02:41	75-00-3	
Chloroform	ND	ug/L	4.0	1		05/10/16 02:41	67-66-3	
Chloromethane	ND	ug/L	4.0	1		05/10/16 02:41	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 02:41	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 02:41	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		05/10/16 02:41	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/10/16 02:41	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/10/16 02:41	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		05/10/16 02:41	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:41	106-46-7	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: PS-MW-1 VT908 **Lab ID: 10346509005** Collected: 04/27/16 16:30 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/10/16 02:41	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/10/16 02:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/10/16 02:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 02:41	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 02:41	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 02:41	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/10/16 02:41	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 02:41	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/10/16 02:41	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 02:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 02:41	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		05/10/16 02:41	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		05/10/16 02:41	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/10/16 02:41	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1		05/10/16 02:41	98-82-8	
p-Isopropyltoluene	**6.6**	ug/L	1.0	1		05/10/16 02:41	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		05/10/16 02:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	**8.4**	ug/L	5.0	1		05/10/16 02:41	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/10/16 02:41	1634-04-4	
Naphthalene	ND	ug/L	4.0	1		05/10/16 02:41	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/10/16 02:41	103-65-1	
Styrene	ND	ug/L	1.0	1		05/10/16 02:41	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 02:41	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 02:41	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/10/16 02:41	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		05/10/16 02:41	109-99-9	
Toluene	**1.0**	ug/L	1.0	1		05/10/16 02:41	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:41	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 02:41	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/10/16 02:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/10/16 02:41	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		05/10/16 02:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 02:41	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		05/10/16 02:41	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		05/10/16 02:41	76-13-1	
1,2,4-Trimethylbenzene	**3.1**	ug/L	1.0	1		05/10/16 02:41	95-63-6	
1,3,5-Trimethylbenzene	**2.0**	ug/L	1.0	1		05/10/16 02:41	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		05/10/16 02:41	75-01-4	
Xylene (Total)	**5.6**	ug/L	3.0	1		05/10/16 02:41	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		05/10/16 02:41	17060-07-0	
Toluene-d8 (S)	97	%.	75-125	1		05/10/16 02:41	2037-26-5	
4-Bromofluorobenzene (S)	97	%.	75-125	1		05/10/16 02:41	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: VOC Trip Blank **Lab ID: 10346509006** Collected: 04/27/16 00:00 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Acetone	ND	ug/L	20.0	1		05/10/16 13:54	67-64-1	
Allyl chloride	ND	ug/L	4.0	1		05/10/16 13:54	107-05-1	
Benzene	ND	ug/L	1.0	1		05/10/16 13:54	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		05/10/16 13:54	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		05/10/16 13:54	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		05/10/16 13:54	75-27-4	
Bromoform	ND	ug/L	4.0	1		05/10/16 13:54	75-25-2	
Bromomethane	ND	ug/L	4.0	1		05/10/16 13:54	74-83-9	
2-Butanone (MEK)	ND	ug/L	5.0	1		05/10/16 13:54	78-93-3	
n-Butylbenzene	ND	ug/L	4.0	1		05/10/16 13:54	104-51-8	
sec-Butylbenzene	ND	ug/L	1.0	1		05/10/16 13:54	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		05/10/16 13:54	98-06-6	
Carbon tetrachloride	ND	ug/L	1.0	1		05/10/16 13:54	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		05/10/16 13:54	108-90-7	
Chloroethane	ND	ug/L	1.0	1		05/10/16 13:54	75-00-3	
Chloroform	ND	ug/L	4.0	1		05/10/16 13:54	67-66-3	
Chloromethane	ND	ug/L	4.0	1		05/10/16 13:54	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 13:54	95-49-8	
4-Chlorotoluene	ND	ug/L	1.0	1		05/10/16 13:54	106-43-4	
1,2-Dibromo-3-chloropropane	ND	ug/L	4.0	1		05/10/16 13:54	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		05/10/16 13:54	124-48-1	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		05/10/16 13:54	106-93-4	
Dibromomethane	ND	ug/L	4.0	1		05/10/16 13:54	74-95-3	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 13:54	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 13:54	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		05/10/16 13:54	106-46-7	
Dichlorodifluoromethane	ND	ug/L	1.0	1		05/10/16 13:54	75-71-8	
1,1-Dichloroethane	ND	ug/L	1.0	1		05/10/16 13:54	75-34-3	
1,2-Dichloroethane	ND	ug/L	1.0	1		05/10/16 13:54	107-06-2	
1,1-Dichloroethene	ND	ug/L	1.0	1		05/10/16 13:54	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 13:54	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		05/10/16 13:54	156-60-5	
Dichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 13:54	75-43-4	
1,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 13:54	78-87-5	
1,3-Dichloropropane	ND	ug/L	1.0	1		05/10/16 13:54	142-28-9	
2,2-Dichloropropane	ND	ug/L	4.0	1		05/10/16 13:54	594-20-7	
1,1-Dichloropropene	ND	ug/L	1.0	1		05/10/16 13:54	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 13:54	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	4.0	1		05/10/16 13:54	10061-02-6	
Diethyl ether (Ethyl ether)	ND	ug/L	4.0	1		05/10/16 13:54	60-29-7	
Ethylbenzene	ND	ug/L	1.0	1		05/10/16 13:54	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		05/10/16 13:54	87-68-3	
Isopropylbenzene (Cumene)	ND	ug/L	4.0	1		05/10/16 13:54	98-82-8	
p-Isopropyltoluene	ND	ug/L	1.0	1		05/10/16 13:54	99-87-6	
Methylene Chloride	ND	ug/L	4.0	1		05/10/16 13:54	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		05/10/16 13:54	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		05/10/16 13:54	1634-04-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 Fraser
Pace Project No.: 10346509

Sample: VOC Trip Blank Lab ID: 10346509006 Collected: 04/27/16 00:00 Received: 04/28/16 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B							
Naphthalene	ND	ug/L	4.0	1		05/10/16 13:54	91-20-3	
n-Propylbenzene	ND	ug/L	1.0	1		05/10/16 13:54	103-65-1	
Styrene	ND	ug/L	1.0	1		05/10/16 13:54	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 13:54	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		05/10/16 13:54	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		05/10/16 13:54	127-18-4	
Tetrahydrofuran	ND	ug/L	10.0	1		05/10/16 13:54	109-99-9	
Toluene	ND	ug/L	1.0	1		05/10/16 13:54	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 13:54	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		05/10/16 13:54	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		05/10/16 13:54	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		05/10/16 13:54	79-00-5	
Trichloroethene	ND	ug/L	0.40	1		05/10/16 13:54	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		05/10/16 13:54	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	4.0	1		05/10/16 13:54	96-18-4	
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0	1		05/10/16 13:54	76-13-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 13:54	95-63-6	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		05/10/16 13:54	108-67-8	
Vinyl chloride	ND	ug/L	0.40	1		05/10/16 13:54	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		05/10/16 13:54	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%.	75-125	1		05/10/16 13:54	17060-07-0	
Toluene-d8 (S)	98	%.	75-125	1		05/10/16 13:54	2037-26-5	
4-Bromofluorobenzene (S)	98	%.	75-125	1		05/10/16 13:54	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

QC Batch: MSV/35498 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10346509001, 10346509002, 10346509003, 10346509004, 10346509005

METHOD BLANK: 2253258 Matrix: Water
Associated Lab Samples: 10346509001, 10346509002, 10346509003, 10346509004, 10346509005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/09/16 21:58	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/09/16 21:58	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/09/16 21:58	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/09/16 21:58	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	05/09/16 21:58	
1,1-Dichloroethane	ug/L	ND	1.0	05/09/16 21:58	
1,1-Dichloroethene	ug/L	ND	1.0	05/09/16 21:58	
1,1-Dichloropropene	ug/L	ND	1.0	05/09/16 21:58	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/09/16 21:58	
1,2,3-Trichloropropane	ug/L	ND	4.0	05/09/16 21:58	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/09/16 21:58	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	05/09/16 21:58	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	05/09/16 21:58	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/09/16 21:58	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/09/16 21:58	
1,2-Dichloroethane	ug/L	ND	1.0	05/09/16 21:58	
1,2-Dichloropropane	ug/L	ND	4.0	05/09/16 21:58	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	05/09/16 21:58	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/09/16 21:58	
1,3-Dichloropropane	ug/L	ND	1.0	05/09/16 21:58	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/09/16 21:58	
2,2-Dichloropropane	ug/L	ND	4.0	05/09/16 21:58	
2-Butanone (MEK)	ug/L	ND	5.0	05/09/16 21:58	
2-Chlorotoluene	ug/L	ND	1.0	05/09/16 21:58	
4-Chlorotoluene	ug/L	ND	1.0	05/09/16 21:58	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/09/16 21:58	
Acetone	ug/L	ND	20.0	05/09/16 21:58	
Allyl chloride	ug/L	ND	4.0	05/09/16 21:58	
Benzene	ug/L	ND	1.0	05/09/16 21:58	
Bromobenzene	ug/L	ND	1.0	05/09/16 21:58	
Bromochloromethane	ug/L	ND	1.0	05/09/16 21:58	
Bromodichloromethane	ug/L	ND	1.0	05/09/16 21:58	
Bromoform	ug/L	ND	4.0	05/09/16 21:58	
Bromomethane	ug/L	ND	4.0	05/09/16 21:58	
Carbon tetrachloride	ug/L	ND	1.0	05/09/16 21:58	
Chlorobenzene	ug/L	ND	1.0	05/09/16 21:58	
Chloroethane	ug/L	ND	1.0	05/09/16 21:58	
Chloroform	ug/L	ND	4.0	05/09/16 21:58	
Chloromethane	ug/L	ND	4.0	05/09/16 21:58	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/09/16 21:58	
cis-1,3-Dichloropropene	ug/L	ND	4.0	05/09/16 21:58	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

METHOD BLANK: 2253258 Matrix: Water
Associated Lab Samples: 10346509001, 10346509002, 10346509003, 10346509004, 10346509005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	ND	1.0	05/09/16 21:58	
Dibromomethane	ug/L	ND	4.0	05/09/16 21:58	
Dichlorodifluoromethane	ug/L	ND	1.0	05/09/16 21:58	
Dichlorofluoromethane	ug/L	ND	1.0	05/09/16 21:58	
Diethyl ether (Ethyl ether)	ug/L	ND	4.0	05/09/16 21:58	
Ethylbenzene	ug/L	ND	1.0	05/09/16 21:58	
Hexachloro-1,3-butadiene	ug/L	1.8	1.0	05/09/16 21:58	P8
Isopropylbenzene (Cumene)	ug/L	ND	4.0	05/09/16 21:58	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/09/16 21:58	
Methylene Chloride	ug/L	ND	4.0	05/09/16 21:58	
n-Butylbenzene	ug/L	ND	4.0	05/09/16 21:58	
n-Propylbenzene	ug/L	ND	1.0	05/09/16 21:58	
Naphthalene	ug/L	ND	4.0	05/09/16 21:58	
p-Isopropyltoluene	ug/L	ND	1.0	05/09/16 21:58	
sec-Butylbenzene	ug/L	ND	1.0	05/09/16 21:58	
Styrene	ug/L	ND	1.0	05/09/16 21:58	
tert-Butylbenzene	ug/L	ND	1.0	05/09/16 21:58	
Tetrachloroethene	ug/L	ND	1.0	05/09/16 21:58	
Tetrahydrofuran	ug/L	ND	10.0	05/09/16 21:58	
Toluene	ug/L	ND	1.0	05/09/16 21:58	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/09/16 21:58	
trans-1,3-Dichloropropene	ug/L	ND	4.0	05/09/16 21:58	
Trichloroethene	ug/L	ND	0.40	05/09/16 21:58	
Trichlorofluoromethane	ug/L	ND	1.0	05/09/16 21:58	
Vinyl chloride	ug/L	ND	0.40	05/09/16 21:58	
Xylene (Total)	ug/L	ND	3.0	05/09/16 21:58	
1,2-Dichloroethane-d4 (S)	%.	104	75-125	05/09/16 21:58	
4-Bromofluorobenzene (S)	%.	97	75-125	05/09/16 21:58	
Toluene-d8 (S)	%.	99	75-125	05/09/16 21:58	

LABORATORY CONTROL SAMPLE & LCSD: 2253259 2254010

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.8	50.3	104	101	75-125	3	20	
1,1,1-Trichloroethane	ug/L	50	47.8	49.0	96	98	73-125	2	20	
1,1,2,2-Tetrachloroethane	ug/L	50	43.6	42.2	87	84	75-128	3	20	
1,1,2-Trichloroethane	ug/L	50	53.4	51.2	107	102	75-129	4	20	
1,1,2-Trichlorotrifluoroethane	ug/L	50	55.9	54.6	112	109	69-125	2	20	
1,1-Dichloroethane	ug/L	50	45.1	48.1	90	96	75-131	6	20	
1,1-Dichloroethene	ug/L	50	47.1	47.9	94	96	72-125	2	20	
1,1-Dichloropropene	ug/L	50	50.1	51.0	100	102	74-125	2	20	
1,2,3-Trichlorobenzene	ug/L	50	52.1	48.4	104	97	68-127	7	20	
1,2,3-Trichloropropane	ug/L	50	48.1	45.9	96	92	75-125	5	20	
1,2,4-Trichlorobenzene	ug/L	50	52.1	51.0	104	102	70-125	2	20	

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

LABORATORY CONTROL SAMPLE & LCSD: 2253259 2254010

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	50	48.5	50.5	97	101	75-130	4	20	
1,2-Dibromo-3-chloropropane	ug/L	125	109	92.5	87	74	74-125	16	20	
1,2-Dibromoethane (EDB)	ug/L	50	53.7	50.3	107	101	75-125	7	20	
1,2-Dichlorobenzene	ug/L	50	49.1	51.4	98	103	75-125	5	20	
1,2-Dichloroethane	ug/L	50	46.6	46.3	93	93	72-129	1	20	
1,2-Dichloropropane	ug/L	50	50.9	51.7	102	103	71-129	2	20	
1,3,5-Trimethylbenzene	ug/L	50	47.4	49.4	95	99	75-127	4	20	
1,3-Dichlorobenzene	ug/L	50	48.4	50.6	97	101	75-125	4	20	
1,3-Dichloropropane	ug/L	50	51.8	49.9	104	100	75-125	4	20	
1,4-Dichlorobenzene	ug/L	50	46.6	47.9	93	96	75-125	3	20	
2,2-Dichloropropane	ug/L	50	52.3	46.8	105	94	71-125	11	20	
2-Butanone (MEK)	ug/L	250	228	201	91	81	58-150	13	20	
2-Chlorotoluene	ug/L	50	46.7	49.6	93	99	75-125	6	20	
4-Chlorotoluene	ug/L	50	45.6	47.8	91	96	75-130	5	20	
4-Methyl-2-pentanone (MIBK)	ug/L	250	244	235	98	94	72-140	4	20	
Acetone	ug/L	250	270	281	108	112	69-137	4	20	
Allyl chloride	ug/L	50	46.3	43.8	93	88	68-132	6	20	
Benzene	ug/L	50	47.8	49.3	96	99	75-125	3	20	
Bromobenzene	ug/L	50	51.6	53.5	103	107	75-125	4	20	
Bromochloromethane	ug/L	50	52.7	53.7	105	107	75-125	2	20	
Bromodichloromethane	ug/L	50	50.0	50.1	100	100	69-128	0	20	
Bromoform	ug/L	50	47.4	39.1	95	78	75-125	19	20	
Bromomethane	ug/L	50	45.8	32.2	92	64	30-150	35	20	R1
Carbon tetrachloride	ug/L	50	51.3	51.8	103	104	74-125	1	20	
Chlorobenzene	ug/L	50	51.3	51.4	103	103	75-125	0	20	
Chloroethane	ug/L	50	46.9	47.7	94	95	60-150	2	20	
Chloroform	ug/L	50	45.6	46.4	91	93	75-126	2	20	
Chloromethane	ug/L	50	44.0	35.1	88	70	46-150	23	20	R1
cis-1,2-Dichloroethene	ug/L	50	47.8	49.0	96	98	75-126	3	20	
cis-1,3-Dichloropropene	ug/L	50	51.9	49.6	104	99	75-125	5	20	
Dibromochloromethane	ug/L	50	55.0	49.8	110	100	75-125	10	20	
Dibromomethane	ug/L	50	56.9	57.0	114	114	72-127	0	20	
Dichlorodifluoromethane	ug/L	50	52.1	50.8	104	102	58-135	3	20	
Dichlorofluoromethane	ug/L	50	48.4	50.0	97	100	68-149	3	20	
Diethyl ether (Ethyl ether)	ug/L	50	49.5	48.3	99	97	66-144	2	20	
Ethylbenzene	ug/L	50	46.5	46.6	93	93	75-125	0	20	
Hexachloro-1,3-butadiene	ug/L	50	50.3	47.3	101	95	73-125	6	20	
Isopropylbenzene (Cumene)	ug/L	50	44.8	44.7	90	89	69-140	0	20	
Methyl-tert-butyl ether	ug/L	50	51.3	50.1	103	100	75-126	2	20	
Methylene Chloride	ug/L	50	45.7	46.3	91	93	71-130	1	20	
n-Butylbenzene	ug/L	50	44.5	46.0	89	92	71-129	3	20	
n-Propylbenzene	ug/L	50	46.9	49.1	94	98	71-133	5	20	
Naphthalene	ug/L	50	45.3	40.5	91	81	59-137	11	20	
p-Isopropyltoluene	ug/L	50	50.6	53.1	101	106	74-127	5	20	
sec-Butylbenzene	ug/L	50	46.6	47.4	93	95	66-140	2	20	
Styrene	ug/L	50	51.2	50.6	102	101	75-125	1	20	
tert-Butylbenzene	ug/L	50	46.8	48.0	94	96	73-129	3	20	

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

LABORATORY CONTROL SAMPLE & LCSD: 2253259 2254010

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Tetrachloroethene	ug/L	50	52.0	52.4	104	105	75-125	1	20	
Tetrahydrofuran	ug/L	500	561	586	112	117	71-129	4	20	
Toluene	ug/L	50	50.1	50.0	100	100	75-125	0	20	
trans-1,2-Dichloroethene	ug/L	50	45.9	46.8	92	94	75-125	2	20	
trans-1,3-Dichloropropene	ug/L	50	53.9	48.8	108	98	75-125	10	20	
Trichloroethene	ug/L	50	54.9	56.6	110	113	75-125	3	20	
Trichlorofluoromethane	ug/L	50	52.6	53.2	105	106	74-128	1	20	
Vinyl chloride	ug/L	50	46.1	44.7	92	89	71-131	3	20	
Xylene (Total)	ug/L	150	150	151	100	101	75-125	1	20	
1,2-Dichloroethane-d4 (S)	%.				105	102	75-125			
4-Bromofluorobenzene (S)	%.				97	98	75-125			
Toluene-d8 (S)	%.				103	99	75-125			

MATRIX SPIKE SAMPLE: 2254016

Parameter	Units	10346505003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	23.1	115	75-125	
1,1,1-Trichloroethane	ug/L	ND	20	28.0	140	71-144	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	21.6	108	75-131	
1,1,2-Trichloroethane	ug/L	ND	20	23.6	118	75-125	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	29.8	149	75-150	
1,1-Dichloroethane	ug/L	ND	20	26.7	134	64-150	
1,1-Dichloroethene	ug/L	ND	20	26.6	133	68-150	
1,1-Dichloropropene	ug/L	ND	20	28.7	143	68-145	
1,2,3-Trichlorobenzene	ug/L	ND	20	25.7	128	57-142	
1,2,3-Trichloropropane	ug/L	ND	20	23.6	118	75-125	
1,2,4-Trichlorobenzene	ug/L	ND	20	25.8	129	60-135	
1,2,4-Trimethylbenzene	ug/L	ND	20	23.5	118	67-148	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	51.9	104	32-137	
1,2-Dibromoethane (EDB)	ug/L	ND	20	23.5	117	75-125	
1,2-Dichlorobenzene	ug/L	ND	20	24.2	121	75-125	
1,2-Dichloroethane	ug/L	ND	20	23.3	116	62-138	
1,2-Dichloropropane	ug/L	ND	20	25.4	127	62-144	
1,3,5-Trimethylbenzene	ug/L	ND	20	23.8	119	67-148	
1,3-Dichlorobenzene	ug/L	ND	20	24.0	120	74-131	
1,3-Dichloropropane	ug/L	ND	20	23.2	116	75-127	
1,4-Dichlorobenzene	ug/L	ND	20	23.0	115	74-126	
2,2-Dichloropropane	ug/L	ND	20	29.3	146	56-146	
2-Butanone (MEK)	ug/L	ND	100	111	111	47-150	
2-Chlorotoluene	ug/L	ND	20	23.8	119	74-137	
4-Chlorotoluene	ug/L	ND	20	23.3	116	72-138	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	107	107	60-147	
Acetone	ug/L	ND	100	121	121	61-150	
Allyl chloride	ug/L	ND	20	25.3	126	53-150	
Benzene	ug/L	ND	20	24.4	122	52-147	

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

MATRIX SPIKE SAMPLE: 2254016

Parameter	Units	10346505003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Bromobenzene	ug/L	ND	20	25.5	127	75-129	
Bromochloromethane	ug/L	ND	20	27.4	137	72-128	M1
Bromodichloromethane	ug/L	ND	20	24.9	125	65-137	
Bromoform	ug/L	ND	20	20.5	102	59-133	
Bromomethane	ug/L	ND	20	25.3	126	30-150	
Carbon tetrachloride	ug/L	ND	20	27.6	138	73-144	
Chlorobenzene	ug/L	ND	20	22.9	115	75-126	
Chloroethane	ug/L	ND	20	22.7	114	55-150	
Chloroform	ug/L	ND	20	22.8	114	66-143	
Chloromethane	ug/L	ND	20	20.7	104	42-150	
cis-1,2-Dichloroethene	ug/L	ND	20	25.5	128	65-143	
cis-1,3-Dichloropropene	ug/L	ND	20	26.4	132	75-125	M1
Dibromochloromethane	ug/L	ND	20	23.2	116	75-125	
Dibromomethane	ug/L	ND	20	28.3	142	66-133	M1
Dichlorodifluoromethane	ug/L	ND	20	23.8	119	74-150	
Dichlorofluoromethane	ug/L	ND	20	24.3	122	68-150	
Diethyl ether (Ethyl ether)	ug/L	ND	20	24.1	120	57-148	
Ethylbenzene	ug/L	ND	20	21.0	105	67-149	
Hexachloro-1,3-butadiene	ug/L	ND	20	28.8	144	65-143	M1
Isopropylbenzene (Cumene)	ug/L	ND	20	20.7	103	64-150	
Methyl-tert-butyl ether	ug/L	ND	20	24.8	124	71-130	
Methylene Chloride	ug/L	ND	20	23.4	117	67-137	
n-Butylbenzene	ug/L	ND	20	24.0	120	70-138	
n-Propylbenzene	ug/L	ND	20	24.8	124	70-148	
Naphthalene	ug/L	ND	20	20.7	104	39-150	
p-Isopropyltoluene	ug/L	ND	20	24.6	123	74-138	
sec-Butylbenzene	ug/L	ND	20	24.7	123	64-150	
Styrene	ug/L	ND	20	21.6	108	75-132	
tert-Butylbenzene	ug/L	ND	20	24.8	124	75-138	
Tetrachloroethene	ug/L	2.5	20	27.7	126	73-136	
Tetrahydrofuran	ug/L	ND	200	248	124	68-142	
Toluene	ug/L	ND	20	23.0	115	69-139	
trans-1,2-Dichloroethene	ug/L	ND	20	25.6	128	75-135	
trans-1,3-Dichloropropene	ug/L	ND	20	23.6	118	66-136	
Trichloroethene	ug/L	ND	20	30.0	150	74-135	M1
Trichlorofluoromethane	ug/L	ND	20	28.0	140	75-150	
Vinyl chloride	ug/L	ND	20	24.4	122	69-150	
Xylene (Total)	ug/L	ND	60	68.2	114	70-147	
1,2-Dichloroethane-d4 (S)	%.				103	75-125	
4-Bromofluorobenzene (S)	%.				97	75-125	
Toluene-d8 (S)	%.				89	75-125	

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

SAMPLE DUPLICATE: 2254017

Parameter	Units	10346505004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2,4-Trimethylbenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3,5-Trimethylbenzene	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	
Allyl chloride	ug/L	ND	ND		30	
Benzene	ug/L	ND	ND		30	
Bromobenzene	ug/L	ND	ND		30	
Bromochloromethane	ug/L	ND	ND		30	
Bromodichloromethane	ug/L	ND	ND		30	
Bromoform	ug/L	ND	ND		30	
Bromomethane	ug/L	ND	ND		30	
Carbon tetrachloride	ug/L	ND	ND		30	
Chlorobenzene	ug/L	ND	ND		30	
Chloroethane	ug/L	ND	ND		30	
Chloroform	ug/L	ND	ND		30	
Chloromethane	ug/L	ND	ND		30	
cis-1,2-Dichloroethene	ug/L	ND	ND		30	
cis-1,3-Dichloropropene	ug/L	ND	ND		30	
Dibromochloromethane	ug/L	ND	ND		30	
Dibromomethane	ug/L	ND	ND		30	
Dichlorodifluoromethane	ug/L	ND	ND		30	
Dichlorofluoromethane	ug/L	ND	ND		30	
Diethyl ether (Ethyl ether)	ug/L	ND	ND		30	
Ethylbenzene	ug/L	ND	ND		30	

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

SAMPLE DUPLICATE: 2254017

Parameter	Units	10346505004 Result	Dup Result	RPD	Max RPD	Qualifiers
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	
Isopropylbenzene (Cumene)	ug/L	ND	ND		30	
Methyl-tert-butyl ether	ug/L	ND	ND		30	
Methylene Chloride	ug/L	ND	ND		30	
n-Butylbenzene	ug/L	ND	ND		30	
n-Propylbenzene	ug/L	ND	ND		30	
Naphthalene	ug/L	ND	ND		30	
p-Isopropyltoluene	ug/L	ND	ND		30	
sec-Butylbenzene	ug/L	ND	ND		30	
Styrene	ug/L	ND	ND		30	
tert-Butylbenzene	ug/L	ND	ND		30	
Tetrachloroethene	ug/L	4.7	4.9	2	30	
Tetrahydrofuran	ug/L	ND	ND		30	
Toluene	ug/L	ND	ND		30	
trans-1,2-Dichloroethene	ug/L	ND	ND		30	
trans-1,3-Dichloropropene	ug/L	ND	ND		30	
Trichloroethene	ug/L	ND	ND		30	
Trichlorofluoromethane	ug/L	ND	ND		30	
Vinyl chloride	ug/L	ND	ND		30	
Xylene (Total)	ug/L	ND	ND		30	
1,2-Dichloroethane-d4 (S)	%.	101	101	0		
4-Bromofluorobenzene (S)	%.	98	98	0		
Toluene-d8 (S)	%.	98	99	1		

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

QC Batch: MSV/35508
QC Batch Method: EPA 8260B
Analysis Method: EPA 8260B
Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10346509006

METHOD BLANK: 2254131
Matrix: Water
Associated Lab Samples: 10346509006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	05/10/16 13:15	
1,1,1-Trichloroethane	ug/L	ND	1.0	05/10/16 13:15	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	05/10/16 13:15	
1,1,2-Trichloroethane	ug/L	ND	1.0	05/10/16 13:15	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	1.0	05/10/16 13:15	
1,1-Dichloroethane	ug/L	ND	1.0	05/10/16 13:15	
1,1-Dichloroethene	ug/L	ND	1.0	05/10/16 13:15	
1,1-Dichloropropene	ug/L	ND	1.0	05/10/16 13:15	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	05/10/16 13:15	
1,2,3-Trichloropropane	ug/L	ND	4.0	05/10/16 13:15	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	05/10/16 13:15	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	05/10/16 13:15	
1,2-Dibromo-3-chloropropane	ug/L	ND	4.0	05/10/16 13:15	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	05/10/16 13:15	
1,2-Dichlorobenzene	ug/L	ND	1.0	05/10/16 13:15	
1,2-Dichloroethane	ug/L	ND	1.0	05/10/16 13:15	
1,2-Dichloropropane	ug/L	ND	4.0	05/10/16 13:15	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	05/10/16 13:15	
1,3-Dichlorobenzene	ug/L	ND	1.0	05/10/16 13:15	
1,3-Dichloropropane	ug/L	ND	1.0	05/10/16 13:15	
1,4-Dichlorobenzene	ug/L	ND	1.0	05/10/16 13:15	
2,2-Dichloropropane	ug/L	ND	4.0	05/10/16 13:15	
2-Butanone (MEK)	ug/L	ND	5.0	05/10/16 13:15	
2-Chlorotoluene	ug/L	ND	1.0	05/10/16 13:15	
4-Chlorotoluene	ug/L	ND	1.0	05/10/16 13:15	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	05/10/16 13:15	
Acetone	ug/L	ND	20.0	05/10/16 13:15	
Allyl chloride	ug/L	ND	4.0	05/10/16 13:15	
Benzene	ug/L	ND	1.0	05/10/16 13:15	
Bromobenzene	ug/L	ND	1.0	05/10/16 13:15	
Bromochloromethane	ug/L	ND	1.0	05/10/16 13:15	
Bromodichloromethane	ug/L	ND	1.0	05/10/16 13:15	
Bromoform	ug/L	ND	4.0	05/10/16 13:15	
Bromomethane	ug/L	ND	4.0	05/10/16 13:15	
Carbon tetrachloride	ug/L	ND	1.0	05/10/16 13:15	
Chlorobenzene	ug/L	ND	1.0	05/10/16 13:15	
Chloroethane	ug/L	ND	1.0	05/10/16 13:15	
Chloroform	ug/L	ND	4.0	05/10/16 13:15	
Chloromethane	ug/L	ND	4.0	05/10/16 13:15	
cis-1,2-Dichloroethene	ug/L	ND	1.0	05/10/16 13:15	
cis-1,3-Dichloropropene	ug/L	ND	4.0	05/10/16 13:15	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

METHOD BLANK: 2254131 Matrix: Water
Associated Lab Samples: 10346509006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	ND	1.0	05/10/16 13:15	
Dibromomethane	ug/L	ND	4.0	05/10/16 13:15	
Dichlorodifluoromethane	ug/L	ND	1.0	05/10/16 13:15	
Dichlorofluoromethane	ug/L	ND	1.0	05/10/16 13:15	
Diethyl ether (Ethyl ether)	ug/L	ND	4.0	05/10/16 13:15	
Ethylbenzene	ug/L	ND	1.0	05/10/16 13:15	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	05/10/16 13:15	
Isopropylbenzene (Cumene)	ug/L	ND	4.0	05/10/16 13:15	
Methyl-tert-butyl ether	ug/L	ND	1.0	05/10/16 13:15	
Methylene Chloride	ug/L	ND	4.0	05/10/16 13:15	
n-Butylbenzene	ug/L	ND	4.0	05/10/16 13:15	
n-Propylbenzene	ug/L	ND	1.0	05/10/16 13:15	
Naphthalene	ug/L	ND	4.0	05/10/16 13:15	
p-Isopropyltoluene	ug/L	ND	1.0	05/10/16 13:15	
sec-Butylbenzene	ug/L	ND	1.0	05/10/16 13:15	
Styrene	ug/L	ND	1.0	05/10/16 13:15	
tert-Butylbenzene	ug/L	ND	1.0	05/10/16 13:15	
Tetrachloroethene	ug/L	ND	1.0	05/10/16 13:15	
Tetrahydrofuran	ug/L	ND	10.0	05/10/16 13:15	
Toluene	ug/L	ND	1.0	05/10/16 13:15	
trans-1,2-Dichloroethene	ug/L	ND	1.0	05/10/16 13:15	
trans-1,3-Dichloropropene	ug/L	ND	4.0	05/10/16 13:15	
Trichloroethene	ug/L	ND	0.40	05/10/16 13:15	
Trichlorofluoromethane	ug/L	ND	1.0	05/10/16 13:15	
Vinyl chloride	ug/L	ND	0.40	05/10/16 13:15	
Xylene (Total)	ug/L	ND	3.0	05/10/16 13:15	
1,2-Dichloroethane-d4 (S)	%.	100	75-125	05/10/16 13:15	
4-Bromofluorobenzene (S)	%.	99	75-125	05/10/16 13:15	
Toluene-d8 (S)	%.	98	75-125	05/10/16 13:15	

LABORATORY CONTROL SAMPLE: 2254132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	18.4	92	75-125	
1,1,1-Trichloroethane	ug/L	20	19.1	96	73-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.4	87	75-128	
1,1,2-Trichloroethane	ug/L	20	19.1	95	75-129	
1,1,2-Trichlorotrifluoroethane	ug/L	20	20.5	103	69-125	
1,1-Dichloroethane	ug/L	20	18.3	91	75-131	
1,1-Dichloroethene	ug/L	20	18.4	92	72-125	
1,1-Dichloropropene	ug/L	20	19.8	99	74-125	
1,2,3-Trichlorobenzene	ug/L	20	19.9	99	68-127	
1,2,3-Trichloropropane	ug/L	20	18.9	95	75-125	
1,2,4-Trichlorobenzene	ug/L	20	21.0	105	70-125	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

LABORATORY CONTROL SAMPLE: 2254132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.6	98	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	41.6	83	74-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.0	95	75-125	
1,2-Dichlorobenzene	ug/L	20	20.0	100	75-125	
1,2-Dichloroethane	ug/L	20	18.4	92	72-129	
1,2-Dichloropropane	ug/L	20	20.1	100	71-129	
1,3,5-Trimethylbenzene	ug/L	20	19.5	97	75-127	
1,3-Dichlorobenzene	ug/L	20	19.8	99	75-125	
1,3-Dichloropropane	ug/L	20	18.5	93	75-125	
1,4-Dichlorobenzene	ug/L	20	18.8	94	75-125	
2,2-Dichloropropane	ug/L	20	21.5	107	71-125	
2-Butanone (MEK)	ug/L	100	85.6	86	58-150	
2-Chlorotoluene	ug/L	20	18.9	94	75-125	
4-Chlorotoluene	ug/L	20	18.8	94	75-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	86.3	86	72-140	
Acetone	ug/L	100	99.7	100	69-137	
Allyl chloride	ug/L	20	18.5	93	68-132	
Benzene	ug/L	20	19.4	97	75-125	
Bromobenzene	ug/L	20	21.2	106	75-125	
Bromochloromethane	ug/L	20	21.2	106	75-125	
Bromodichloromethane	ug/L	20	20.1	101	69-128	
Bromoform	ug/L	20	16.9	84	75-125	
Bromomethane	ug/L	20	17.7	88	30-150	
Carbon tetrachloride	ug/L	20	19.7	98	74-125	
Chlorobenzene	ug/L	20	18.4	92	75-125	
Chloroethane	ug/L	20	19.2	96	60-150	
Chloroform	ug/L	20	17.7	89	75-126	
Chloromethane	ug/L	20	15.4	77	46-150	
cis-1,2-Dichloroethene	ug/L	20	17.8	89	75-126	
cis-1,3-Dichloropropene	ug/L	20	20.9	104	75-125	
Dibromochloromethane	ug/L	20	19.4	97	75-125	
Dibromomethane	ug/L	20	23.0	115	72-127	
Dichlorodifluoromethane	ug/L	20	18.8	94	58-135	
Dichlorofluoromethane	ug/L	20	19.4	97	68-149	
Diethyl ether (Ethyl ether)	ug/L	20	19.5	97	66-144	
Ethylbenzene	ug/L	20	16.3	81	75-125	
Hexachloro-1,3-butadiene	ug/L	20	21.7	109	73-125	
Isopropylbenzene (Cumene)	ug/L	20	16.3	82	69-140	
Methyl-tert-butyl ether	ug/L	20	19.5	97	75-126	
Methylene Chloride	ug/L	20	18.6	93	71-130	
n-Butylbenzene	ug/L	20	19.2	96	71-129	
n-Propylbenzene	ug/L	20	19.2	96	71-133	
Naphthalene	ug/L	20	17.0	85	59-137	
p-Isopropyltoluene	ug/L	20	20.3	102	74-127	
sec-Butylbenzene	ug/L	20	18.8	94	66-140	
Styrene	ug/L	20	18.1	91	75-125	
tert-Butylbenzene	ug/L	20	19.3	96	73-129	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

LABORATORY CONTROL SAMPLE: 2254132

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	20	18.8	94	75-125	
Tetrahydrofuran	ug/L	200	223	112	71-129	
Toluene	ug/L	20	18.1	91	75-125	
trans-1,2-Dichloroethene	ug/L	20	18.9	94	75-125	
trans-1,3-Dichloropropene	ug/L	20	19.1	96	75-125	
Trichloroethene	ug/L	20	21.6	108	75-125	
Trichlorofluoromethane	ug/L	20	19.7	99	74-128	
Vinyl chloride	ug/L	20	17.5	88	71-131	
Xylene (Total)	ug/L	60	53.2	89	75-125	
1,2-Dichloroethane-d4 (S)	%.			100	75-125	
4-Bromofluorobenzene (S)	%.			98	75-125	
Toluene-d8 (S)	%.			91	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2255380 2255381

Parameter	Units	10346828004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	21.1	21.8	105	109	75-125	3	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	23.3	23.3	117	116	71-144	0	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.8	18.9	99	94	75-131	5	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	21.4	23.7	107	118	75-125	10	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	20	23.8	25.9	119	130	75-150	8	30	
1,1-Dichloroethane	ug/L	ND	20	20	22.8	22.9	114	115	64-150	1	30	
1,1-Dichloroethene	ug/L	ND	20	20	22.7	24.3	114	122	68-150	7	30	
1,1-Dichloropropene	ug/L	ND	20	20	25.2	25.0	126	125	68-145	1	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	22.4	24.0	112	120	57-142	7	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	21.8	21.0	109	105	75-125	4	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	23.1	24.5	116	123	60-135	6	30	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	22.1	23.1	111	115	67-148	4	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	50	47.3	43.2	95	86	32-137	9	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	21.4	22.1	107	111	75-125	4	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	22.3	23.0	111	115	75-125	3	30	
1,2-Dichloroethane	ug/L	ND	20	20	21.3	21.1	106	105	62-138	1	30	
1,2-Dichloropropane	ug/L	ND	20	20	23.3	23.3	117	116	62-144	0	30	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	22.0	23.7	110	119	67-148	8	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	22.7	22.9	113	115	74-131	1	30	
1,3-Dichloropropane	ug/L	ND	20	20	21.2	22.0	106	110	75-127	4	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	22.0	21.8	110	109	74-126	1	30	
2,2-Dichloropropane	ug/L	ND	20	20	27.0	24.6	135	123	56-146	9	30	
2-Butanone (MEK)	ug/L	ND	100	100	97.2	98.2	97	98	47-150	1	30	
2-Chlorotoluene	ug/L	ND	20	20	22.0	22.3	110	111	74-137	1	30	
4-Chlorotoluene	ug/L	ND	20	20	21.8	21.6	109	108	72-138	1	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	96.7	103	97	103	60-147	6	30	
Acetone	ug/L	ND	100	100	113	199	109	195	61-150	55	30	M1,R1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2255380 2255381

Parameter	Units	10346828004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Allyl chloride	ug/L	ND	20	20	23.0	20.6	115	103	53-150	11	30	
Benzene	ug/L	ND	20	20	22.1	21.9	110	109	52-147	1	30	
Bromobenzene	ug/L	ND	20	20	23.9	23.3	120	117	75-129	3	30	
Bromochloromethane	ug/L	ND	20	20	24.4	21.0	122	105	72-128	15	30	
Bromodichloromethane	ug/L	ND	20	20	22.4	21.8	112	109	65-137	3	30	
Bromoform	ug/L	ND	20	20	18.6	18.8	93	94	59-133	1	30	
Bromomethane	ug/L	ND	20	20	20.1	17.3	101	86	30-150	15	30	
Carbon tetrachloride	ug/L	ND	20	20	23.9	22.6	119	113	73-144	5	30	
Chlorobenzene	ug/L	ND	20	20	20.9	22.8	105	114	75-126	9	30	
Chloroethane	ug/L	ND	20	20	21.9	22.6	109	113	55-150	3	30	
Chloroform	ug/L	ND	20	20	19.4	20.3	97	102	66-143	5	30	
Chloromethane	ug/L	ND	20	20	17.5	19.3	88	97	42-150	10	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	22.5	21.9	113	109	65-143	3	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	23.9	21.5	120	107	75-125	11	30	
Dibromochloromethane	ug/L	ND	20	20	21.0	21.8	105	109	75-125	4	30	
Dibromomethane	ug/L	ND	20	20	26.4	26.0	132	130	66-133	1	30	
Dichlorodifluoromethane	ug/L	ND	20	20	22.6	28.3	113	141	74-150	22	30	
Dichlorofluoromethane	ug/L	ND	20	20	22.0	24.1	110	121	68-150	9	30	
Diethyl ether (Ethyl ether)	ug/L	ND	20	20	22.2	22.3	111	112	57-148	1	30	
Ethylbenzene	ug/L	ND	20	20	19.1	21.2	95	106	67-149	10	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	22.0	32.9	110	164	65-143	40	30	M1,R1
Isopropylbenzene (Cumene)	ug/L	ND	20	20	18.9	22.2	94	111	64-150	16	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.0	21.8	110	109	71-130	1	30	
Methylene Chloride	ug/L	ND	20	20	20.7	21.4	103	107	67-137	4	30	
n-Butylbenzene	ug/L	ND	20	20	21.6	24.2	108	121	70-138	11	30	
n-Propylbenzene	ug/L	ND	20	20	23.1	23.9	115	119	70-148	3	30	
Naphthalene	ug/L	ND	20	20	19.1	18.7	95	94	39-150	2	30	
p-Isopropyltoluene	ug/L	ND	20	20	22.3	25.1	111	126	74-138	12	30	
sec-Butylbenzene	ug/L	ND	20	20	22.1	26.0	111	130	64-150	16	30	
Styrene	ug/L	ND	20	20	20.2	22.0	101	110	75-132	9	30	
tert-Butylbenzene	ug/L	ND	20	20	22.4	27.3	112	137	75-138	20	30	
Tetrachloroethene	ug/L	ND	20	20	23.0	25.5	115	127	73-136	10	30	
Tetrahydrofuran	ug/L	ND	200	200	228	313	114	157	68-142	32	30	M1,R1
Toluene	ug/L	ND	20	20	20.9	22.7	104	113	69-139	9	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.9	23.2	110	116	75-135	6	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	22.0	21.0	110	105	66-136	5	30	
Trichloroethene	ug/L	ND	20	20	26.4	26.9	132	134	74-135	2	30	
Trichlorofluoromethane	ug/L	ND	20	20	24.3	27.3	122	136	75-150	11	30	
Vinyl chloride	ug/L	ND	20	20	21.8	24.1	109	121	69-150	10	30	
Xylene (Total)	ug/L	ND	60	60	62.1	69.8	104	116	70-147	12	30	
1,2-Dichloroethane-d4 (S)	%.						102	100	75-125			HS,pH
4-Bromofluorobenzene (S)	%.						100	97	75-125			
Toluene-d8 (S)	%.						89	99	75-125			

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 Fraser
Pace Project No.: 10346509

QC Batch: OEXT/33320 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270D PAH by SIM MSSV
Associated Lab Samples: 10346509001, 10346509002, 10346509003, 10346509004, 10346509005

METHOD BLANK: 2244558 Matrix: Water
Associated Lab Samples: 10346509001, 10346509002, 10346509003, 10346509004, 10346509005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/L	ND	0.040	05/02/16 10:23	
Acenaphthylene	ug/L	ND	0.040	05/02/16 10:23	
Anthracene	ug/L	ND	0.040	05/02/16 10:23	
Benzo(a)anthracene	ug/L	ND	0.040	05/02/16 10:23	
Benzo(a)pyrene	ug/L	ND	0.040	05/02/16 10:23	
Benzo(b)fluoranthene	ug/L	ND	0.040	05/02/16 10:23	
Benzo(g,h,i)perylene	ug/L	ND	0.040	05/02/16 10:23	
Benzo(k)fluoranthene	ug/L	ND	0.040	05/02/16 10:23	
Chrysene	ug/L	ND	0.040	05/02/16 10:23	
Dibenz(a,h)anthracene	ug/L	ND	0.040	05/02/16 10:23	
Fluoranthene	ug/L	ND	0.040	05/02/16 10:23	
Fluorene	ug/L	ND	0.040	05/02/16 10:23	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.040	05/02/16 10:23	
Naphthalene	ug/L	ND	0.040	05/02/16 10:23	
Phenanthrene	ug/L	ND	0.040	05/02/16 10:23	
Pyrene	ug/L	ND	0.040	05/02/16 10:23	
2-Fluorobiphenyl (S)	%.	71	53-125	05/02/16 10:23	
p-Terphenyl-d14 (S)	%.	90	57-125	05/02/16 10:23	

LABORATORY CONTROL SAMPLE & LCSD: 2244559 2244560

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acenaphthene	ug/L	1	0.63	0.75	63	75	55-125	17	20	
Acenaphthylene	ug/L	1	0.62	0.72	62	72	55-125	14	20	
Anthracene	ug/L	1	0.77	0.82	77	82	66-125	6	20	
Benzo(a)anthracene	ug/L	1	0.76	0.79	76	79	66-125	3	20	
Benzo(a)pyrene	ug/L	1	0.82	0.85	82	85	74-125	3	20	
Benzo(b)fluoranthene	ug/L	1	0.81	0.83	81	83	65-125	3	20	
Benzo(g,h,i)perylene	ug/L	1	0.78	0.81	78	81	68-125	3	20	
Benzo(k)fluoranthene	ug/L	1	0.78	0.79	78	79	72-125	1	20	
Chrysene	ug/L	1	0.79	0.80	79	80	69-125	1	20	
Dibenz(a,h)anthracene	ug/L	1	0.76	0.78	76	78	61-125	2	20	
Fluoranthene	ug/L	1	0.81	0.84	81	84	75-125	3	20	
Fluorene	ug/L	1	0.70	0.80	70	80	63-125	14	20	
Indeno(1,2,3-cd)pyrene	ug/L	1	0.78	0.81	78	81	66-125	4	20	
Naphthalene	ug/L	1	0.66	0.77	66	77	51-125	15	20	
Phenanthrene	ug/L	1	0.75	0.79	75	79	64-125	6	20	
Pyrene	ug/L	1	0.78	0.81	78	81	72-125	4	20	
2-Fluorobiphenyl (S)	%.				62	71	53-125			
p-Terphenyl-d14 (S)	%.				85	86	57-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 14-1004 Fraser
Pace Project No.: 10346509

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: MSSV/14187

[M5]	A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P8	Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.
R1	RPD value was outside control limits.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-1004 Fraser
Pace Project No.: 10346509

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10346509001	PS-MW-4 VT910	EPA 3510C	OEXT/33320	EPA 8270D by SIM	MSSV/14187
10346509002	PS-MW-3 VT912	EPA 3510C	OEXT/33320	EPA 8270D by SIM	MSSV/14187
10346509003	PS-MW-2 VT911	EPA 3510C	OEXT/33320	EPA 8270D by SIM	MSSV/14187
10346509004	PS-MW-2.1 VT911	EPA 3510C	OEXT/33320	EPA 8270D by SIM	MSSV/14187
10346509005	PS-MW-1 VT908	EPA 3510C	OEXT/33320	EPA 8270D by SIM	MSSV/14187
10346509001	PS-MW-4 VT910	EPA 8260B	MSV/35498		
10346509002	PS-MW-3 VT912	EPA 8260B	MSV/35498		
10346509003	PS-MW-2 VT911	EPA 8260B	MSV/35498		
10346509004	PS-MW-2.1 VT911	EPA 8260B	MSV/35498		
10346509005	PS-MW-1 VT908	EPA 8260B	MSV/35498		
10346509006	VOC Trip Blank	EPA 8260B	MSV/35508		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

10346509

Page: 1 of 1

2034608

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: Environmental Trouble Shooters	Report To: Jmccarthy@ets-mn.com	Attention:
Address: 3825 Gond Avenue	Copy To: gand	Company Name: Same
Duluth, MN		Address:
Email To: Jmccarthy@ets-mn.com	Purchase Order No.:	Pace Quote Reference:
Phone: 218-722-6013 Fax: -	Project Name: Fraser	Pace Project Manager: Lori Castille
Requested Due Date/TAT: Standard	Project Number: 14-1004	Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER

☐ UST ☒ RCRA ☐ OTHER _____

Site Location STATE: WI

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: VOC	PAH	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PS-MW-4 VT910	WT	G			4/27/16	1215		5	2			3				X	X			-001
2	PS-MW-3 VT912	"	"			"	1345		5	2			3				X	X			-002
3	PS-MW-2 VT911	"	"			"	1540		5	2			3				X	X			-003
4	PS-MW-2.1 VT911	"	"			"	1545		5	2			3				X	X			-004
5	PS-MW-1 VT908	"	"			"	1630		5	2			3				X	X			-005
6	VOC Trip Blank	"							2				2				X				-006
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
For samples PS-MW-2, PS-MW-2.1, & PS-MW-1 - Each have 1 PAH sample taken 4/28 due to slow recharge rates.	Brice Wizner	4/28/16	1224	~~Kristina~~ Polson (Pace)	4/28/16	1224				
					4/28/16	1700	3.3	Y	Y	Y

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brice Wizner

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 04/28/16

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-C-020rev.07, 15-May-2007

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 05Jan2016 Page 1 of 1
	Document No.: F-MN-L-213-rev.15	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Environmental Troubleshooters

Project #: WO#: 10346509

10346509

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☑ Pace ☐ SpeeDee ☐ Other:

Tracking Number:

Custody Seal on Cooler/Box Present? ☑ Yes ☐ No Seals Intact? ☑ Yes ☐ No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other: Temp Blank? ☑ Yes ☐ No

Thermometer Used: ☐ 151401163 ☐ 151401164 ☑ B88A912167504 ☐ B88A0143310098 Type of Ice: ☑ Wet ☐ Blue ☐ None ☐ Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.3 Cooler Temp Corrected (°C): 3.3 Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Temp should be above freezing to 6°C Correction Factor: TRUE Date and Initials of Person Examining Contents: CMB 4/28/16

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

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA. MS, NC, NM, NY, OK, OR, SC, TN, TX or WA (check maps)? ☐ Yes ☐ No

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Chain of Custody Filled Out?	☑ Yes	☐ No	☐ N/A	2.
Chain of Custody Relinquished?	☑ Yes	☐ No	☐ N/A	3.
Sampler Name and/or Signature on COC?	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	5.
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No	☐ N/A	6.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	7.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	8.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	9.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	10.
Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: water	☑ Yes	☐ No	☐ N/A	12.
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide) Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐ Yes	☐ No	☑ N/A	Initial when completed: Lot # of added preservative:
	☑ Yes	☐ No	☐ N/A	
Headspace in VOA Vials (>6mm)?	☐ Yes	☑ No	☐ N/A	14.
Trip Blank Present?	☑ Yes	☐ No	☐ N/A	15.
Trip Blank Custody Seals Present?	☑ Yes	☐ No	☐ N/A	
Pace Trip Blank Lot # (if purchased): 022216-3BZA				

CLIENT NOTIFICATION/RESOLUTION

Field Data Required? ☐ Yes ☐ No

Person Contacted: Date/Time:

Comments/Resolution:

Project Manager Review: Date: 4/29/16

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

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July 28, 2016

Mr. John McCarthy
Environmental Troubleshooters
3825 Grand Avenue
Duluth, MN 55807

RE: Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Dear Mr. McCarthy:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Lori Castille
lori.castille@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Minnesota Certification IDs

1700 Elm Street SE Suite 200, Minneapolis, MN 55414
525 N 8th Street, Salina, KS 67401
A2LA Certification #: 2926.01
Alaska Certification #: UST-078
Alaska Certification #MN00064
Alabama Certification #40770
Arizona Certification #: AZ-0014
Arkansas Certification #: 88-0680
California Certification #: 01155CA
Colorado Certification #Pace
Connecticut Certification #: PH-0256
EPA Region 8 Certification #: 8TMS-L
Florida/NELAP Certification #: E87605
Guam Certification #:14-008r
Georgia Certification #: 959
Georgia EPD #: Pace
Idaho Certification #: MN00064
Hawaii Certification #MN00064
Illinois Certification #: 200011
Indiana Certification#C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky Dept of Envi. Protection - DW #90062
Kentucky Dept of Envi. Protection - WW #:90062
Louisiana DEQ Certification #: 3086
Louisiana DHH #: LA140001
Maine Certification #: 2013011
Maryland Certification #: 322
Michigan DEPH Certification #: 9909
Minnesota Certification #: 027-053-137
Mississippi Certification #: Pace
Montana Certification #: MT0092
Nevada Certification #: MN_00064
Nebraska Certification #: Pace
New Jersey Certification #: MN-002
New York Certification #: 11647
North Carolina Certification #: 530
North Carolina State Public Health #: 27700
North Dakota Certification #: R-036
Ohio EPA #: 4150
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Certification #: MN200001
Oregon Certification #: MN300001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification
Saipan (CNMI) #:MP0003
South Carolina #:74003001
Texas Certification #: T104704192
Tennessee Certification #: 02818
Utah Certification #: MN000642013-4
Virginia DGS Certification #: 251
Virginia/VELAP Certification #: Pace
Washington Certification #: C486
West Virginia Certification #: 382
West Virginia DHHR #:9952C
Wisconsin Certification #: 999407970

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SAMPLE SUMMARY

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10356146001	PS MW -2	Water	07/19/16 09:30	07/20/16 18:15
10356146002	PS MW -1	Water	07/19/16 10:15	07/20/16 18:15
10356146003	PS MW -3	Water	07/19/16 12:10	07/20/16 18:15
10356146004	PS MW -3.1	Water	07/19/16 12:15	07/20/16 18:15
10356146005	PS MW -4	Water	07/19/16 13:45	07/20/16 18:15
10356146006	HCL TRIP BLANK	Water	07/19/16 14:00	07/20/16 18:15

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SAMPLE ANALYTE COUNT

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Lab ID	Sample ID	Method	Analysts	Analytes Reported
10356146001	PS MW -2	EPA 8270D by SIM	AS1	18
		EPA 8260B	DJB	70
10356146002	PS MW -1	EPA 8270D by SIM	AS1	18
		EPA 8260B	DJB	70
10356146003	PS MW -3	EPA 8270D by SIM	AS1	18
		EPA 8260B	DJB	70
10356146004	PS MW -3.1	EPA 8270D by SIM	AS1	18
		EPA 8260B	DJB	70
10356146005	PS MW -4	EPA 8270D by SIM	AS1	18
		EPA 8260B	DJB	70
10356146006	HCL TRIP BLANK	EPA 8260B	DJB	70

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -2 **Lab ID: 10356146001** Collected: 07/19/16 09:30 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
Acenaphthene	**0.0071J**	ug/L	0.011	0.0038	1	07/22/16 08:52	07/25/16 16:43	83-32-9	
Acenaphthylene	**<0.0075**	ug/L	0.014	0.0075	1	07/22/16 08:52	07/25/16 16:43	208-96-8	
Anthracene	**0.011J**	ug/L	0.015	0.0044	1	07/22/16 08:52	07/25/16 16:43	120-12-7	
Benzo(a)anthracene	**0.031**	ug/L	0.010	0.0039	1	07/22/16 08:52	07/25/16 16:43	56-55-3	B
Benzo(a)pyrene	**0.027**	ug/L	0.010	0.0054	1	07/22/16 08:52	07/25/16 16:43	50-32-8	
Benzo(b)fluoranthene	**0.038**	ug/L	0.026	0.0046	1	07/22/16 08:52	07/25/16 16:43	205-99-2	
Benzo(g,h,i)perylene	**0.022**	ug/L	0.019	0.0038	1	07/22/16 08:52	07/25/16 16:43	191-24-2	
Benzo(k)fluoranthene	**0.017**	ug/L	0.013	0.0041	1	07/22/16 08:52	07/25/16 16:43	207-08-9	
Chrysene	**0.029**	ug/L	0.018	0.0039	1	07/22/16 08:52	07/25/16 16:43	218-01-9	
Dibenz(a,h)anthracene	**0.0051J**	ug/L	0.033	0.0039	1	07/22/16 08:52	07/25/16 16:43	53-70-3	
Fluoranthene	**0.066**	ug/L	0.019	0.0060	1	07/22/16 08:52	07/25/16 16:43	206-44-0	
Fluorene	**0.019J**	ug/L	0.019	0.0046	1	07/22/16 08:52	07/25/16 16:43	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.017J**	ug/L	0.019	0.0040	1	07/22/16 08:52	07/25/16 16:43	193-39-5	
Naphthalene	**0.077**	ug/L	0.031	0.0050	1	07/22/16 08:52	07/25/16 16:43	91-20-3	
Phenanthrene	**0.096**	ug/L	0.043	0.0065	1	07/22/16 08:52	07/25/16 16:43	85-01-8	B
Pyrene	**0.059**	ug/L	0.022	0.0055	1	07/22/16 08:52	07/25/16 16:43	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	70	%.	53-125		1	07/22/16 08:52	07/25/16 16:43	321-60-8	
p-Terphenyl-d14 (S)	83	%.	57-125		1	07/22/16 08:52	07/25/16 16:43	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B								
Acetone	**2.7J**	ug/L	20.0	0.64	1		07/21/16 15:23	67-64-1	
Allyl chloride	**<0.25**	ug/L	4.0	0.25	1		07/21/16 15:23	107-05-1	
Benzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 15:23	71-43-2	
Bromobenzene	**<0.34**	ug/L	1.0	0.34	1		07/21/16 15:23	108-86-1	
Bromochloromethane	**<0.19**	ug/L	1.0	0.19	1		07/21/16 15:23	74-97-5	
Bromodichloromethane	**<0.24**	ug/L	1.0	0.24	1		07/21/16 15:23	75-27-4	
Bromoform	**<0.27**	ug/L	4.0	0.27	1		07/21/16 15:23	75-25-2	
Bromomethane	**<0.44**	ug/L	4.0	0.44	1		07/21/16 15:23	74-83-9	
2-Butanone (MEK)	**<1.1**	ug/L	5.0	1.1	1		07/21/16 15:23	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 15:23	104-51-8	
sec-Butylbenzene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 15:23	135-98-8	
tert-Butylbenzene	**<0.22**	ug/L	1.0	0.22	1		07/21/16 15:23	98-06-6	
Carbon tetrachloride	**<0.20**	ug/L	4.0	0.20	1		07/21/16 15:23	56-23-5	
Chlorobenzene	**<0.11**	ug/L	1.0	0.11	1		07/21/16 15:23	108-90-7	
Chloroethane	**<0.34**	ug/L	1.0	0.34	1		07/21/16 15:23	75-00-3	
Chloroform	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:23	67-66-3	
Chloromethane	**<0.25**	ug/L	4.0	0.25	1		07/21/16 15:23	74-87-3	
2-Chlorotoluene	**<0.30**	ug/L	1.0	0.30	1		07/21/16 15:23	95-49-8	
4-Chlorotoluene	**<0.26**	ug/L	1.0	0.26	1		07/21/16 15:23	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.60**	ug/L	10.0	0.60	1		07/21/16 15:23	96-12-8	
Dibromochloromethane	**<0.16**	ug/L	4.0	0.16	1		07/21/16 15:23	124-48-1	
1,2-Dibromoethane (EDB)	**<0.20**	ug/L	1.0	0.20	1		07/21/16 15:23	106-93-4	
Dibromomethane	**<0.19**	ug/L	4.0	0.19	1		07/21/16 15:23	74-95-3	
1,2-Dichlorobenzene	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:23	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 15:23	541-73-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW-2 **Lab ID: 10356146001** Collected: 07/19/16 09:30 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
1,4-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:23	106-46-7	
Dichlorodifluoromethane	**<0.23**	ug/L	1.0	0.23	1		07/21/16 15:23	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:23	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:23	107-06-2	
1,1-Dichloroethene	**<0.28**	ug/L	1.0	0.28	1		07/21/16 15:23	75-35-4	
cis-1,2-Dichloroethene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 15:23	156-59-2	
trans-1,2-Dichloroethene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 15:23	156-60-5	
Dichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:23	75-43-4	
1,2-Dichloropropane	**<0.22**	ug/L	4.0	0.22	1		07/21/16 15:23	78-87-5	
1,3-Dichloropropane	**<0.096**	ug/L	1.0	0.096	1		07/21/16 15:23	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	4.0	0.13	1		07/21/16 15:23	594-20-7	
1,1-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 15:23	563-58-6	
cis-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 15:23	10061-01-5	
trans-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 15:23	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.19**	ug/L	4.0	0.19	1		07/21/16 15:23	60-29-7	
Ethylbenzene	**0.24J**	ug/L	1.0	0.15	1		07/21/16 15:23	100-41-4	
Hexachloro-1,3-butadiene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 15:23	87-68-3	
Isopropylbenzene (Cumene)	**<0.25**	ug/L	1.0	0.25	1		07/21/16 15:23	98-82-8	
p-Isopropyltoluene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 15:23	99-87-6	
Methylene Chloride	**<0.29**	ug/L	4.0	0.29	1		07/21/16 15:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.43**	ug/L	5.0	0.43	1		07/21/16 15:23	108-10-1	
Methyl-tert-butyl ether	**<0.15**	ug/L	1.0	0.15	1		07/21/16 15:23	1634-04-4	
Naphthalene	**<0.20**	ug/L	4.0	0.20	1		07/21/16 15:23	91-20-3	
n-Propylbenzene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 15:23	103-65-1	
Styrene	**<0.29**	ug/L	1.0	0.29	1		07/21/16 15:23	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.17**	ug/L	4.0	0.17	1		07/21/16 15:23	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.22**	ug/L	1.0	0.22	1		07/21/16 15:23	79-34-5	
Tetrachloroethene	**<0.25**	ug/L	1.0	0.25	1		07/21/16 15:23	127-18-4	
Tetrahydrofuran	**<1.5**	ug/L	10.0	1.5	1		07/21/16 15:23	109-99-9	
Toluene	**<0.14**	ug/L	1.0	0.14	1		07/21/16 15:23	108-88-3	
1,2,3-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:23	87-61-6	
1,2,4-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:23	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:23	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		07/21/16 15:23	79-00-5	
Trichloroethene	**<0.20**	ug/L	0.40	0.20	1		07/21/16 15:23	79-01-6	
Trichlorofluoromethane	**<0.33**	ug/L	1.0	0.33	1		07/21/16 15:23	75-69-4	
1,2,3-Trichloropropane	**<0.28**	ug/L	4.0	0.28	1		07/21/16 15:23	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.32**	ug/L	1.0	0.32	1		07/21/16 15:23	76-13-1	
1,2,4-Trimethylbenzene	**0.35J**	ug/L	1.0	0.18	1		07/21/16 15:23	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/L	1.0	0.27	1		07/21/16 15:23	108-67-8	
Vinyl chloride	**<0.29**	ug/L	0.40	0.29	1		07/21/16 15:23	75-01-4	
Xylene (Total)	**<0.32**	ug/L	3.0	0.32	1		07/21/16 15:23	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%.	75-125		1		07/21/16 15:23	17060-07-0	
Toluene-d8 (S)	91	%.	75-125		1		07/21/16 15:23	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	75-125		1		07/21/16 15:23	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -1 **Lab ID: 10356146002** Collected: 07/19/16 10:15 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
Acenaphthene	**0.069**	ug/L	0.012	0.0040	1	07/22/16 08:52	07/25/16 17:05	83-32-9	
Acenaphthylene	**0.011J**	ug/L	0.014	0.0078	1	07/22/16 08:52	07/25/16 17:05	208-96-8	
Anthracene	**0.0066J**	ug/L	0.016	0.0046	1	07/22/16 08:52	07/25/16 17:05	120-12-7	
Benzo(a)anthracene	**0.011**	ug/L	0.011	0.0041	1	07/22/16 08:52	07/25/16 17:05	56-55-3	B
Benzo(a)pyrene	**<0.0056**	ug/L	0.011	0.0056	1	07/22/16 08:52	07/25/16 17:05	50-32-8	
Benzo(b)fluoranthene	**0.0083J**	ug/L	0.027	0.0048	1	07/22/16 08:52	07/25/16 17:05	205-99-2	
Benzo(g,h,i)perylene	**0.0063J**	ug/L	0.019	0.0039	1	07/22/16 08:52	07/25/16 17:05	191-24-2	
Benzo(k)fluoranthene	**<0.0043**	ug/L	0.014	0.0043	1	07/22/16 08:52	07/25/16 17:05	207-08-9	
Chrysene	**0.0068J**	ug/L	0.019	0.0041	1	07/22/16 08:52	07/25/16 17:05	218-01-9	
Dibenz(a,h)anthracene	**<0.0040**	ug/L	0.034	0.0040	1	07/22/16 08:52	07/25/16 17:05	53-70-3	
Fluoranthene	**0.016J**	ug/L	0.020	0.0063	1	07/22/16 08:52	07/25/16 17:05	206-44-0	B
Fluorene	**0.0094J**	ug/L	0.020	0.0048	1	07/22/16 08:52	07/25/16 17:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0042**	ug/L	0.020	0.0042	1	07/22/16 08:52	07/25/16 17:05	193-39-5	
Naphthalene	**0.013J**	ug/L	0.033	0.0052	1	07/22/16 08:52	07/25/16 17:05	91-20-3	
Phenanthrene	**0.019J**	ug/L	0.044	0.0068	1	07/22/16 08:52	07/25/16 17:05	85-01-8	B
Pyrene	**0.027**	ug/L	0.023	0.0057	1	07/22/16 08:52	07/25/16 17:05	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%.	53-125		1	07/22/16 08:52	07/25/16 17:05	321-60-8	
p-Terphenyl-d14 (S)	83	%.	57-125		1	07/22/16 08:52	07/25/16 17:05	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B								
Acetone	**6.4J**	ug/L	20.0	0.64	1		07/21/16 15:45	67-64-1	
Allyl chloride	**<0.25**	ug/L	4.0	0.25	1		07/21/16 15:45	107-05-1	
Benzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 15:45	71-43-2	
Bromobenzene	**<0.34**	ug/L	1.0	0.34	1		07/21/16 15:45	108-86-1	
Bromochloromethane	**<0.19**	ug/L	1.0	0.19	1		07/21/16 15:45	74-97-5	
Bromodichloromethane	**<0.24**	ug/L	1.0	0.24	1		07/21/16 15:45	75-27-4	
Bromoform	**<0.27**	ug/L	4.0	0.27	1		07/21/16 15:45	75-25-2	
Bromomethane	**<0.44**	ug/L	4.0	0.44	1		07/21/16 15:45	74-83-9	
2-Butanone (MEK)	**<1.1**	ug/L	5.0	1.1	1		07/21/16 15:45	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 15:45	104-51-8	
sec-Butylbenzene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 15:45	135-98-8	
tert-Butylbenzene	**<0.22**	ug/L	1.0	0.22	1		07/21/16 15:45	98-06-6	
Carbon tetrachloride	**<0.20**	ug/L	4.0	0.20	1		07/21/16 15:45	56-23-5	
Chlorobenzene	**<0.11**	ug/L	1.0	0.11	1		07/21/16 15:45	108-90-7	
Chloroethane	**<0.34**	ug/L	1.0	0.34	1		07/21/16 15:45	75-00-3	
Chloroform	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:45	67-66-3	
Chloromethane	**<0.25**	ug/L	4.0	0.25	1		07/21/16 15:45	74-87-3	
2-Chlorotoluene	**<0.30**	ug/L	1.0	0.30	1		07/21/16 15:45	95-49-8	
4-Chlorotoluene	**<0.26**	ug/L	1.0	0.26	1		07/21/16 15:45	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.60**	ug/L	10.0	0.60	1		07/21/16 15:45	96-12-8	
Dibromochloromethane	**<0.16**	ug/L	4.0	0.16	1		07/21/16 15:45	124-48-1	
1,2-Dibromoethane (EDB)	**<0.20**	ug/L	1.0	0.20	1		07/21/16 15:45	106-93-4	
Dibromomethane	**<0.19**	ug/L	4.0	0.19	1		07/21/16 15:45	74-95-3	
1,2-Dichlorobenzene	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:45	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 15:45	541-73-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW-1 **Lab ID: 10356146002** Collected: 07/19/16 10:15 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
1,4-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:45	106-46-7	
Dichlorodifluoromethane	**<0.23**	ug/L	1.0	0.23	1		07/21/16 15:45	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:45	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:45	107-06-2	
1,1-Dichloroethene	**<0.28**	ug/L	1.0	0.28	1		07/21/16 15:45	75-35-4	
cis-1,2-Dichloroethene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 15:45	156-59-2	
trans-1,2-Dichloroethene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 15:45	156-60-5	
Dichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:45	75-43-4	
1,2-Dichloropropane	**<0.22**	ug/L	4.0	0.22	1		07/21/16 15:45	78-87-5	
1,3-Dichloropropane	**<0.096**	ug/L	1.0	0.096	1		07/21/16 15:45	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	4.0	0.13	1		07/21/16 15:45	594-20-7	
1,1-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 15:45	563-58-6	
cis-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 15:45	10061-01-5	
trans-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 15:45	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.19**	ug/L	4.0	0.19	1		07/21/16 15:45	60-29-7	
Ethylbenzene	**0.24J**	ug/L	1.0	0.15	1		07/21/16 15:45	100-41-4	
Hexachloro-1,3-butadiene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 15:45	87-68-3	
Isopropylbenzene (Cumene)	**<0.25**	ug/L	1.0	0.25	1		07/21/16 15:45	98-82-8	
p-Isopropyltoluene	**0.93J**	ug/L	1.0	0.19	1		07/21/16 15:45	99-87-6	
Methylene Chloride	**<0.29**	ug/L	4.0	0.29	1		07/21/16 15:45	75-09-2	
4-Methyl-2-pentanone (MIBK)	**0.69J**	ug/L	5.0	0.43	1		07/21/16 15:45	108-10-1	
Methyl-tert-butyl ether	**<0.15**	ug/L	1.0	0.15	1		07/21/16 15:45	1634-04-4	
Naphthalene	**0.21J**	ug/L	4.0	0.20	1		07/21/16 15:45	91-20-3	
n-Propylbenzene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 15:45	103-65-1	
Styrene	**<0.29**	ug/L	1.0	0.29	1		07/21/16 15:45	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.17**	ug/L	4.0	0.17	1		07/21/16 15:45	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.22**	ug/L	1.0	0.22	1		07/21/16 15:45	79-34-5	
Tetrachloroethene	**<0.25**	ug/L	1.0	0.25	1		07/21/16 15:45	127-18-4	
Tetrahydrofuran	**<1.5**	ug/L	10.0	1.5	1		07/21/16 15:45	109-99-9	
Toluene	**0.58J**	ug/L	1.0	0.14	1		07/21/16 15:45	108-88-3	
1,2,3-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:45	87-61-6	
1,2,4-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 15:45	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 15:45	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		07/21/16 15:45	79-00-5	
Trichloroethene	**<0.20**	ug/L	0.40	0.20	1		07/21/16 15:45	79-01-6	
Trichlorofluoromethane	**<0.33**	ug/L	1.0	0.33	1		07/21/16 15:45	75-69-4	
1,2,3-Trichloropropane	**<0.28**	ug/L	4.0	0.28	1		07/21/16 15:45	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.32**	ug/L	1.0	0.32	1		07/21/16 15:45	76-13-1	
1,2,4-Trimethylbenzene	**0.55J**	ug/L	1.0	0.18	1		07/21/16 15:45	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/L	1.0	0.27	1		07/21/16 15:45	108-67-8	
Vinyl chloride	**<0.29**	ug/L	0.40	0.29	1		07/21/16 15:45	75-01-4	
Xylene (Total)	**<0.32**	ug/L	3.0	0.32	1		07/21/16 15:45	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	100	%.	75-125		1		07/21/16 15:45	17060-07-0	
Toluene-d8 (S)	92	%.	75-125		1		07/21/16 15:45	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	75-125		1		07/21/16 15:45	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -3 **Lab ID: 10356146003** Collected: 07/19/16 12:10 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
Acenaphthene	1.3	ug/L	0.011	0.0038	1	07/22/16 08:52	07/25/16 17:26	83-32-9	
Acenaphthylene	0.078	ug/L	0.014	0.0075	1	07/22/16 08:52	07/25/16 17:26	208-96-8	
Anthracene	0.28	ug/L	0.015	0.0044	1	07/22/16 08:52	07/25/16 17:26	120-12-7	
Benzo(a)anthracene	0.28	ug/L	0.010	0.0040	1	07/22/16 08:52	07/25/16 17:26	56-55-3	
Benzo(a)pyrene	0.31	ug/L	0.010	0.0054	1	07/22/16 08:52	07/25/16 17:26	50-32-8	
Benzo(b)fluoranthene	0.37	ug/L	0.026	0.0047	1	07/22/16 08:52	07/25/16 17:26	205-99-2	
Benzo(g,h,i)perylene	0.19	ug/L	0.019	0.0038	1	07/22/16 08:52	07/25/16 17:26	191-24-2	
Benzo(k)fluoranthene	0.14	ug/L	0.013	0.0041	1	07/22/16 08:52	07/25/16 17:26	207-08-9	
Chrysene	0.31	ug/L	0.018	0.0039	1	07/22/16 08:52	07/25/16 17:26	218-01-9	
Dibenz(a,h)anthracene	0.040	ug/L	0.033	0.0039	1	07/22/16 08:52	07/25/16 17:26	53-70-3	
Fluoranthene	0.83	ug/L	0.020	0.0060	1	07/22/16 08:52	07/25/16 17:26	206-44-0	
Fluorene	0.46	ug/L	0.019	0.0046	1	07/22/16 08:52	07/25/16 17:26	86-73-7	
Indeno(1,2,3-cd)pyrene	0.16	ug/L	0.019	0.0041	1	07/22/16 08:52	07/25/16 17:26	193-39-5	
Naphthalene	0.97	ug/L	0.031	0.0050	1	07/22/16 08:52	07/25/16 17:26	91-20-3	
Phenanthrene	1.7	ug/L	0.043	0.0065	1	07/22/16 08:52	07/25/16 17:26	85-01-8	
Pyrene	0.82	ug/L	0.022	0.0055	1	07/22/16 08:52	07/25/16 17:26	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	81	%.	53-125		1	07/22/16 08:52	07/25/16 17:26	321-60-8	
p-Terphenyl-d14 (S)	90	%.	57-125		1	07/22/16 08:52	07/25/16 17:26	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B								
Acetone	5.9J	ug/L	20.0	0.64	1		07/21/16 16:07	67-64-1	
Allyl chloride	<0.25	ug/L	4.0	0.25	1		07/21/16 16:07	107-05-1	
Benzene	<0.16	ug/L	1.0	0.16	1		07/21/16 16:07	71-43-2	
Bromobenzene	<0.34	ug/L	1.0	0.34	1		07/21/16 16:07	108-86-1	
Bromochloromethane	<0.19	ug/L	1.0	0.19	1		07/21/16 16:07	74-97-5	
Bromodichloromethane	<0.24	ug/L	1.0	0.24	1		07/21/16 16:07	75-27-4	
Bromoform	<0.27	ug/L	4.0	0.27	1		07/21/16 16:07	75-25-2	
Bromomethane	<0.44	ug/L	4.0	0.44	1		07/21/16 16:07	74-83-9	
2-Butanone (MEK)	<1.1	ug/L	5.0	1.1	1		07/21/16 16:07	78-93-3	
n-Butylbenzene	<0.16	ug/L	1.0	0.16	1		07/21/16 16:07	104-51-8	
sec-Butylbenzene	<0.19	ug/L	1.0	0.19	1		07/21/16 16:07	135-98-8	
tert-Butylbenzene	<0.22	ug/L	1.0	0.22	1		07/21/16 16:07	98-06-6	
Carbon tetrachloride	<0.20	ug/L	4.0	0.20	1		07/21/16 16:07	56-23-5	
Chlorobenzene	<0.11	ug/L	1.0	0.11	1		07/21/16 16:07	108-90-7	
Chloroethane	<0.34	ug/L	1.0	0.34	1		07/21/16 16:07	75-00-3	
Chloroform	<0.21	ug/L	1.0	0.21	1		07/21/16 16:07	67-66-3	
Chloromethane	<0.25	ug/L	4.0	0.25	1		07/21/16 16:07	74-87-3	
2-Chlorotoluene	<0.30	ug/L	1.0	0.30	1		07/21/16 16:07	95-49-8	
4-Chlorotoluene	<0.26	ug/L	1.0	0.26	1		07/21/16 16:07	106-43-4	
1,2-Dibromo-3-chloropropane	<0.60	ug/L	10.0	0.60	1		07/21/16 16:07	96-12-8	
Dibromochloromethane	<0.16	ug/L	4.0	0.16	1		07/21/16 16:07	124-48-1	
1,2-Dibromoethane (EDB)	<0.20	ug/L	1.0	0.20	1		07/21/16 16:07	106-93-4	
Dibromomethane	<0.19	ug/L	4.0	0.19	1		07/21/16 16:07	74-95-3	
1,2-Dichlorobenzene	<0.17	ug/L	1.0	0.17	1		07/21/16 16:07	95-50-1	
1,3-Dichlorobenzene	<0.12	ug/L	1.0	0.12	1		07/21/16 16:07	541-73-1	

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -3 **Lab ID: 10356146003** Collected: 07/19/16 12:10 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
1,4-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:07	106-46-7	
Dichlorodifluoromethane	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:07	75-71-8	
1,1-Dichloroethane	**0.76J**	ug/L	1.0	0.17	1		07/21/16 16:07	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:07	107-06-2	
1,1-Dichloroethene	**<0.28**	ug/L	1.0	0.28	1		07/21/16 16:07	75-35-4	
cis-1,2-Dichloroethene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 16:07	156-59-2	
trans-1,2-Dichloroethene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:07	156-60-5	
Dichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:07	75-43-4	
1,2-Dichloropropane	**<0.22**	ug/L	4.0	0.22	1		07/21/16 16:07	78-87-5	
1,3-Dichloropropane	**<0.096**	ug/L	1.0	0.096	1		07/21/16 16:07	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	4.0	0.13	1		07/21/16 16:07	594-20-7	
1,1-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:07	563-58-6	
cis-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 16:07	10061-01-5	
trans-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 16:07	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.19**	ug/L	4.0	0.19	1		07/21/16 16:07	60-29-7	
Ethylbenzene	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:07	100-41-4	
Hexachloro-1,3-butadiene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 16:07	87-68-3	
Isopropylbenzene (Cumene)	**<0.25**	ug/L	1.0	0.25	1		07/21/16 16:07	98-82-8	
p-Isopropyltoluene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 16:07	99-87-6	
Methylene Chloride	**<0.29**	ug/L	4.0	0.29	1		07/21/16 16:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.43**	ug/L	5.0	0.43	1		07/21/16 16:07	108-10-1	
Methyl-tert-butyl ether	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:07	1634-04-4	
Naphthalene	**1.9J**	ug/L	4.0	0.20	1		07/21/16 16:07	91-20-3	
n-Propylbenzene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:07	103-65-1	
Styrene	**<0.29**	ug/L	1.0	0.29	1		07/21/16 16:07	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.17**	ug/L	4.0	0.17	1		07/21/16 16:07	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.22**	ug/L	1.0	0.22	1		07/21/16 16:07	79-34-5	
Tetrachloroethene	**<0.25**	ug/L	1.0	0.25	1		07/21/16 16:07	127-18-4	
Tetrahydrofuran	**<1.5**	ug/L	10.0	1.5	1		07/21/16 16:07	109-99-9	
Toluene	**<0.14**	ug/L	1.0	0.14	1		07/21/16 16:07	108-88-3	
1,2,3-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:07	87-61-6	
1,2,4-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:07	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:07	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:07	79-00-5	
Trichloroethene	**<0.20**	ug/L	0.40	0.20	1		07/21/16 16:07	79-01-6	
Trichlorofluoromethane	**<0.33**	ug/L	1.0	0.33	1		07/21/16 16:07	75-69-4	
1,2,3-Trichloropropane	**<0.28**	ug/L	4.0	0.28	1		07/21/16 16:07	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.32**	ug/L	1.0	0.32	1		07/21/16 16:07	76-13-1	
1,2,4-Trimethylbenzene	**0.38J**	ug/L	1.0	0.18	1		07/21/16 16:07	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/L	1.0	0.27	1		07/21/16 16:07	108-67-8	
Vinyl chloride	**<0.29**	ug/L	0.40	0.29	1		07/21/16 16:07	75-01-4	
Xylene (Total)	**<0.32**	ug/L	3.0	0.32	1		07/21/16 16:07	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	98	%.	75-125		1		07/21/16 16:07	17060-07-0	
Toluene-d8 (S)	93	%.	75-125		1		07/21/16 16:07	2037-26-5	
4-Bromofluorobenzene (S)	91	%.	75-125		1		07/21/16 16:07	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -3.1 **Lab ID: 10356146004** Collected: 07/19/16 12:15 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
Acenaphthene	**1.1**	ug/L	0.011	0.0038	1	07/22/16 08:52	07/25/16 17:48	83-32-9	
Acenaphthylene	**0.051**	ug/L	0.014	0.0075	1	07/22/16 08:52	07/25/16 17:48	208-96-8	
Anthracene	**0.24**	ug/L	0.015	0.0044	1	07/22/16 08:52	07/25/16 17:48	120-12-7	
Benzo(a)anthracene	**0.21**	ug/L	0.010	0.0039	1	07/22/16 08:52	07/25/16 17:48	56-55-3	
Benzo(a)pyrene	**0.24**	ug/L	0.010	0.0054	1	07/22/16 08:52	07/25/16 17:48	50-32-8	
Benzo(b)fluoranthene	**0.29**	ug/L	0.026	0.0046	1	07/22/16 08:52	07/25/16 17:48	205-99-2	
Benzo(g,h,i)perylene	**0.15**	ug/L	0.019	0.0038	1	07/22/16 08:52	07/25/16 17:48	191-24-2	
Benzo(k)fluoranthene	**0.11**	ug/L	0.013	0.0041	1	07/22/16 08:52	07/25/16 17:48	207-08-9	
Chrysene	**0.24**	ug/L	0.018	0.0039	1	07/22/16 08:52	07/25/16 17:48	218-01-9	
Dibenz(a,h)anthracene	**0.032J**	ug/L	0.033	0.0039	1	07/22/16 08:52	07/25/16 17:48	53-70-3	
Fluoranthene	**0.69**	ug/L	0.019	0.0060	1	07/22/16 08:52	07/25/16 17:48	206-44-0	
Fluorene	**0.41**	ug/L	0.019	0.0046	1	07/22/16 08:52	07/25/16 17:48	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.13**	ug/L	0.019	0.0040	1	07/22/16 08:52	07/25/16 17:48	193-39-5	
Naphthalene	**0.79**	ug/L	0.031	0.0050	1	07/22/16 08:52	07/25/16 17:48	91-20-3	
Phenanthrene	**1.4**	ug/L	0.043	0.0065	1	07/22/16 08:52	07/25/16 17:48	85-01-8	
Pyrene	**0.65**	ug/L	0.022	0.0055	1	07/22/16 08:52	07/25/16 17:48	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	74	%.	53-125		1	07/22/16 08:52	07/25/16 17:48	321-60-8	
p-Terphenyl-d14 (S)	88	%.	57-125		1	07/22/16 08:52	07/25/16 17:48	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B								
Acetone	**4.1J**	ug/L	20.0	0.64	1		07/21/16 16:30	67-64-1	
Allyl chloride	**<0.25**	ug/L	4.0	0.25	1		07/21/16 16:30	107-05-1	
Benzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:30	71-43-2	
Bromobenzene	**<0.34**	ug/L	1.0	0.34	1		07/21/16 16:30	108-86-1	
Bromochloromethane	**<0.19**	ug/L	1.0	0.19	1		07/21/16 16:30	74-97-5	
Bromodichloromethane	**<0.24**	ug/L	1.0	0.24	1		07/21/16 16:30	75-27-4	
Bromoform	**<0.27**	ug/L	4.0	0.27	1		07/21/16 16:30	75-25-2	
Bromomethane	**<0.44**	ug/L	4.0	0.44	1		07/21/16 16:30	74-83-9	
2-Butanone (MEK)	**<1.1**	ug/L	5.0	1.1	1		07/21/16 16:30	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:30	104-51-8	
sec-Butylbenzene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 16:30	135-98-8	
tert-Butylbenzene	**<0.22**	ug/L	1.0	0.22	1		07/21/16 16:30	98-06-6	
Carbon tetrachloride	**<0.20**	ug/L	4.0	0.20	1		07/21/16 16:30	56-23-5	
Chlorobenzene	**<0.11**	ug/L	1.0	0.11	1		07/21/16 16:30	108-90-7	
Chloroethane	**<0.34**	ug/L	1.0	0.34	1		07/21/16 16:30	75-00-3	
Chloroform	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:30	67-66-3	
Chloromethane	**<0.25**	ug/L	4.0	0.25	1		07/21/16 16:30	74-87-3	
2-Chlorotoluene	**<0.30**	ug/L	1.0	0.30	1		07/21/16 16:30	95-49-8	
4-Chlorotoluene	**<0.26**	ug/L	1.0	0.26	1		07/21/16 16:30	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.60**	ug/L	10.0	0.60	1		07/21/16 16:30	96-12-8	
Dibromochloromethane	**<0.16**	ug/L	4.0	0.16	1		07/21/16 16:30	124-48-1	
1,2-Dibromoethane (EDB)	**<0.20**	ug/L	1.0	0.20	1		07/21/16 16:30	106-93-4	
Dibromomethane	**<0.19**	ug/L	4.0	0.19	1		07/21/16 16:30	74-95-3	
1,2-Dichlorobenzene	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:30	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 16:30	541-73-1	

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -3.1 **Lab ID: 10356146004** Collected: 07/19/16 12:15 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
1,4-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:30	106-46-7	
Dichlorodifluoromethane	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:30	75-71-8	
1,1-Dichloroethane	**0.93J**	ug/L	1.0	0.17	1		07/21/16 16:30	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:30	107-06-2	
1,1-Dichloroethene	**<0.28**	ug/L	1.0	0.28	1		07/21/16 16:30	75-35-4	
cis-1,2-Dichloroethene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 16:30	156-59-2	
trans-1,2-Dichloroethene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:30	156-60-5	
Dichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:30	75-43-4	
1,2-Dichloropropane	**<0.22**	ug/L	4.0	0.22	1		07/21/16 16:30	78-87-5	
1,3-Dichloropropane	**<0.096**	ug/L	1.0	0.096	1		07/21/16 16:30	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	4.0	0.13	1		07/21/16 16:30	594-20-7	
1,1-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:30	563-58-6	
cis-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 16:30	10061-01-5	
trans-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 16:30	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.19**	ug/L	4.0	0.19	1		07/21/16 16:30	60-29-7	
Ethylbenzene	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:30	100-41-4	
Hexachloro-1,3-butadiene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 16:30	87-68-3	
Isopropylbenzene (Cumene)	**<0.25**	ug/L	1.0	0.25	1		07/21/16 16:30	98-82-8	
p-Isopropyltoluene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 16:30	99-87-6	
Methylene Chloride	**<0.29**	ug/L	4.0	0.29	1		07/21/16 16:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.43**	ug/L	5.0	0.43	1		07/21/16 16:30	108-10-1	
Methyl-tert-butyl ether	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:30	1634-04-4	
Naphthalene	**1.2J**	ug/L	4.0	0.20	1		07/21/16 16:30	91-20-3	
n-Propylbenzene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:30	103-65-1	
Styrene	**<0.29**	ug/L	1.0	0.29	1		07/21/16 16:30	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.17**	ug/L	4.0	0.17	1		07/21/16 16:30	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.22**	ug/L	1.0	0.22	1		07/21/16 16:30	79-34-5	
Tetrachloroethene	**<0.25**	ug/L	1.0	0.25	1		07/21/16 16:30	127-18-4	
Tetrahydrofuran	**4.3J**	ug/L	10.0	1.5	1		07/21/16 16:30	109-99-9	
Toluene	**<0.14**	ug/L	1.0	0.14	1		07/21/16 16:30	108-88-3	
1,2,3-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:30	87-61-6	
1,2,4-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:30	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:30	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:30	79-00-5	
Trichloroethene	**<0.20**	ug/L	0.40	0.20	1		07/21/16 16:30	79-01-6	
Trichlorofluoromethane	**<0.33**	ug/L	1.0	0.33	1		07/21/16 16:30	75-69-4	
1,2,3-Trichloropropane	**<0.28**	ug/L	4.0	0.28	1		07/21/16 16:30	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.32**	ug/L	1.0	0.32	1		07/21/16 16:30	76-13-1	
1,2,4-Trimethylbenzene	**0.21J**	ug/L	1.0	0.18	1		07/21/16 16:30	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/L	1.0	0.27	1		07/21/16 16:30	108-67-8	
Vinyl chloride	**<0.29**	ug/L	0.40	0.29	1		07/21/16 16:30	75-01-4	
Xylene (Total)	**<0.32**	ug/L	3.0	0.32	1		07/21/16 16:30	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	103	%.	75-125		1		07/21/16 16:30	17060-07-0	
Toluene-d8 (S)	92	%.	75-125		1		07/21/16 16:30	2037-26-5	
4-Bromofluorobenzene (S)	90	%.	75-125		1		07/21/16 16:30	460-00-4	

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -4 Lab ID: **10356146005** Collected: 07/19/16 13:45 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270D MSSV PAH by SIM	Analytical Method: EPA 8270D by SIM Preparation Method: EPA 3510C								
Acenaphthene	**0.047**	ug/L	0.011	0.0038	1	07/22/16 08:52	07/25/16 18:09	83-32-9	
Acenaphthylene	**0.031**	ug/L	0.014	0.0075	1	07/22/16 08:52	07/25/16 18:09	208-96-8	
Anthracene	**0.071**	ug/L	0.015	0.0044	1	07/22/16 08:52	07/25/16 18:09	120-12-7	
Benzo(a)anthracene	**0.23**	ug/L	0.010	0.0040	1	07/22/16 08:52	07/25/16 18:09	56-55-3	
Benzo(a)pyrene	**0.27**	ug/L	0.010	0.0054	1	07/22/16 08:52	07/25/16 18:09	50-32-8	
Benzo(b)fluoranthene	**0.36**	ug/L	0.026	0.0047	1	07/22/16 08:52	07/25/16 18:09	205-99-2	
Benzo(g,h,i)perylene	**0.19**	ug/L	0.019	0.0038	1	07/22/16 08:52	07/25/16 18:09	191-24-2	
Benzo(k)fluoranthene	**0.13**	ug/L	0.013	0.0041	1	07/22/16 08:52	07/25/16 18:09	207-08-9	
Chrysene	**0.27**	ug/L	0.018	0.0039	1	07/22/16 08:52	07/25/16 18:09	218-01-9	
Dibenz(a,h)anthracene	**0.040**	ug/L	0.033	0.0039	1	07/22/16 08:52	07/25/16 18:09	53-70-3	
Fluoranthene	**0.58**	ug/L	0.020	0.0060	1	07/22/16 08:52	07/25/16 18:09	206-44-0	
Fluorene	**0.027**	ug/L	0.019	0.0046	1	07/22/16 08:52	07/25/16 18:09	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.16**	ug/L	0.019	0.0041	1	07/22/16 08:52	07/25/16 18:09	193-39-5	
Naphthalene	**0.055**	ug/L	0.031	0.0050	1	07/22/16 08:52	07/25/16 18:09	91-20-3	
Phenanthrene	**0.30**	ug/L	0.043	0.0065	1	07/22/16 08:52	07/25/16 18:09	85-01-8	
Pyrene	**0.56**	ug/L	0.022	0.0055	1	07/22/16 08:52	07/25/16 18:09	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	73	%.	53-125		1	07/22/16 08:52	07/25/16 18:09	321-60-8	
p-Terphenyl-d14 (S)	87	%.	57-125		1	07/22/16 08:52	07/25/16 18:09	1718-51-0	
8260B VOC	Analytical Method: EPA 8260B								
Acetone	**5.4J**	ug/L	20.0	0.64	1		07/21/16 16:52	67-64-1	
Allyl chloride	**<0.25**	ug/L	4.0	0.25	1		07/21/16 16:52	107-05-1	
Benzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:52	71-43-2	
Bromobenzene	**<0.34**	ug/L	1.0	0.34	1		07/21/16 16:52	108-86-1	
Bromochloromethane	**<0.19**	ug/L	1.0	0.19	1		07/21/16 16:52	74-97-5	
Bromodichloromethane	**<0.24**	ug/L	1.0	0.24	1		07/21/16 16:52	75-27-4	
Bromoform	**<0.27**	ug/L	4.0	0.27	1		07/21/16 16:52	75-25-2	
Bromomethane	**<0.44**	ug/L	4.0	0.44	1		07/21/16 16:52	74-83-9	
2-Butanone (MEK)	**<1.1**	ug/L	5.0	1.1	1		07/21/16 16:52	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:52	104-51-8	
sec-Butylbenzene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 16:52	135-98-8	
tert-Butylbenzene	**<0.22**	ug/L	1.0	0.22	1		07/21/16 16:52	98-06-6	
Carbon tetrachloride	**<0.20**	ug/L	4.0	0.20	1		07/21/16 16:52	56-23-5	
Chlorobenzene	**<0.11**	ug/L	1.0	0.11	1		07/21/16 16:52	108-90-7	
Chloroethane	**<0.34**	ug/L	1.0	0.34	1		07/21/16 16:52	75-00-3	
Chloroform	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:52	67-66-3	
Chloromethane	**<0.25**	ug/L	4.0	0.25	1		07/21/16 16:52	74-87-3	
2-Chlorotoluene	**<0.30**	ug/L	1.0	0.30	1		07/21/16 16:52	95-49-8	
4-Chlorotoluene	**<0.26**	ug/L	1.0	0.26	1		07/21/16 16:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.60**	ug/L	10.0	0.60	1		07/21/16 16:52	96-12-8	
Dibromochloromethane	**<0.16**	ug/L	4.0	0.16	1		07/21/16 16:52	124-48-1	
1,2-Dibromoethane (EDB)	**<0.20**	ug/L	1.0	0.20	1		07/21/16 16:52	106-93-4	
Dibromomethane	**<0.19**	ug/L	4.0	0.19	1		07/21/16 16:52	74-95-3	
1,2-Dichlorobenzene	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:52	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 16:52	541-73-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: PS MW -4 **Lab ID: 10356146005** Collected: 07/19/16 13:45 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
1,4-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:52	106-46-7	
Dichlorodifluoromethane	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:52	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:52	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 16:52	107-06-2	
1,1-Dichloroethene	**<0.28**	ug/L	1.0	0.28	1		07/21/16 16:52	75-35-4	
cis-1,2-Dichloroethene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 16:52	156-59-2	
trans-1,2-Dichloroethene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 16:52	156-60-5	
Dichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:52	75-43-4	
1,2-Dichloropropane	**<0.22**	ug/L	4.0	0.22	1		07/21/16 16:52	78-87-5	
1,3-Dichloropropane	**<0.096**	ug/L	1.0	0.096	1		07/21/16 16:52	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	4.0	0.13	1		07/21/16 16:52	594-20-7	
1,1-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:52	563-58-6	
cis-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 16:52	10061-01-5	
trans-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 16:52	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.19**	ug/L	4.0	0.19	1		07/21/16 16:52	60-29-7	
Ethylbenzene	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:52	100-41-4	
Hexachloro-1,3-butadiene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 16:52	87-68-3	
Isopropylbenzene (Cumene)	**<0.25**	ug/L	1.0	0.25	1		07/21/16 16:52	98-82-8	
p-Isopropyltoluene	**0.48J**	ug/L	1.0	0.19	1		07/21/16 16:52	99-87-6	
Methylene Chloride	**<0.29**	ug/L	4.0	0.29	1		07/21/16 16:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.43**	ug/L	5.0	0.43	1		07/21/16 16:52	108-10-1	
Methyl-tert-butyl ether	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:52	1634-04-4	
Naphthalene	**<0.20**	ug/L	4.0	0.20	1		07/21/16 16:52	91-20-3	
n-Propylbenzene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 16:52	103-65-1	
Styrene	**<0.29**	ug/L	1.0	0.29	1		07/21/16 16:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.17**	ug/L	4.0	0.17	1		07/21/16 16:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.22**	ug/L	1.0	0.22	1		07/21/16 16:52	79-34-5	
Tetrachloroethene	**<0.25**	ug/L	1.0	0.25	1		07/21/16 16:52	127-18-4	
Tetrahydrofuran	**<1.5**	ug/L	10.0	1.5	1		07/21/16 16:52	109-99-9	
Toluene	**<0.14**	ug/L	1.0	0.14	1		07/21/16 16:52	108-88-3	
1,2,3-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:52	87-61-6	
1,2,4-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 16:52	120-82-1	
1,1,1-Trichloroethane	**0.30J**	ug/L	1.0	0.17	1		07/21/16 16:52	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		07/21/16 16:52	79-00-5	
Trichloroethene	**<0.20**	ug/L	0.40	0.20	1		07/21/16 16:52	79-01-6	
Trichlorofluoromethane	**<0.33**	ug/L	1.0	0.33	1		07/21/16 16:52	75-69-4	
1,2,3-Trichloropropane	**<0.28**	ug/L	4.0	0.28	1		07/21/16 16:52	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.32**	ug/L	1.0	0.32	1		07/21/16 16:52	76-13-1	
1,2,4-Trimethylbenzene	**0.21J**	ug/L	1.0	0.18	1		07/21/16 16:52	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/L	1.0	0.27	1		07/21/16 16:52	108-67-8	
Vinyl chloride	**<0.29**	ug/L	0.40	0.29	1		07/21/16 16:52	75-01-4	
Xylene (Total)	**<0.32**	ug/L	3.0	0.32	1		07/21/16 16:52	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	95	%.	75-125		1		07/21/16 16:52	17060-07-0	
Toluene-d8 (S)	90	%.	75-125		1		07/21/16 16:52	2037-26-5	
4-Bromofluorobenzene (S)	89	%.	75-125		1		07/21/16 16:52	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: HCL TRIP BLANK **Lab ID: 10356146006** Collected: 07/19/16 14:00 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
Acetone	**6.8J**	ug/L	20.0	0.64	1		07/21/16 14:38	67-64-1	
Allyl chloride	**<0.25**	ug/L	4.0	0.25	1		07/21/16 14:38	107-05-1	
Benzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 14:38	71-43-2	
Bromobenzene	**<0.34**	ug/L	1.0	0.34	1		07/21/16 14:38	108-86-1	
Bromochloromethane	**<0.19**	ug/L	1.0	0.19	1		07/21/16 14:38	74-97-5	
Bromodichloromethane	**<0.24**	ug/L	1.0	0.24	1		07/21/16 14:38	75-27-4	
Bromoform	**<0.27**	ug/L	4.0	0.27	1		07/21/16 14:38	75-25-2	
Bromomethane	**<0.44**	ug/L	4.0	0.44	1		07/21/16 14:38	74-83-9	
2-Butanone (MEK)	**<1.1**	ug/L	5.0	1.1	1		07/21/16 14:38	78-93-3	
n-Butylbenzene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 14:38	104-51-8	
sec-Butylbenzene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 14:38	135-98-8	
tert-Butylbenzene	**<0.22**	ug/L	1.0	0.22	1		07/21/16 14:38	98-06-6	
Carbon tetrachloride	**<0.20**	ug/L	4.0	0.20	1		07/21/16 14:38	56-23-5	
Chlorobenzene	**<0.11**	ug/L	1.0	0.11	1		07/21/16 14:38	108-90-7	
Chloroethane	**<0.34**	ug/L	1.0	0.34	1		07/21/16 14:38	75-00-3	
Chloroform	**<0.21**	ug/L	1.0	0.21	1		07/21/16 14:38	67-66-3	
Chloromethane	**<0.25**	ug/L	4.0	0.25	1		07/21/16 14:38	74-87-3	
2-Chlorotoluene	**<0.30**	ug/L	1.0	0.30	1		07/21/16 14:38	95-49-8	
4-Chlorotoluene	**<0.26**	ug/L	1.0	0.26	1		07/21/16 14:38	106-43-4	
1,2-Dibromo-3-chloropropane	**<0.60**	ug/L	10.0	0.60	1		07/21/16 14:38	96-12-8	
Dibromochloromethane	**<0.16**	ug/L	4.0	0.16	1		07/21/16 14:38	124-48-1	
1,2-Dibromoethane (EDB)	**<0.20**	ug/L	1.0	0.20	1		07/21/16 14:38	106-93-4	
Dibromomethane	**<0.19**	ug/L	4.0	0.19	1		07/21/16 14:38	74-95-3	
1,2-Dichlorobenzene	**<0.17**	ug/L	1.0	0.17	1		07/21/16 14:38	95-50-1	
1,3-Dichlorobenzene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 14:38	541-73-1	
1,4-Dichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 14:38	106-46-7	
Dichlorodifluoromethane	**<0.23**	ug/L	1.0	0.23	1		07/21/16 14:38	75-71-8	
1,1-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 14:38	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 14:38	107-06-2	
1,1-Dichloroethene	**<0.28**	ug/L	1.0	0.28	1		07/21/16 14:38	75-35-4	
cis-1,2-Dichloroethene	**<0.12**	ug/L	1.0	0.12	1		07/21/16 14:38	156-59-2	
trans-1,2-Dichloroethene	**<0.16**	ug/L	1.0	0.16	1		07/21/16 14:38	156-60-5	
Dichlorofluoromethane	**<0.21**	ug/L	1.0	0.21	1		07/21/16 14:38	75-43-4	
1,2-Dichloropropane	**<0.22**	ug/L	4.0	0.22	1		07/21/16 14:38	78-87-5	
1,3-Dichloropropane	**<0.096**	ug/L	1.0	0.096	1		07/21/16 14:38	142-28-9	
2,2-Dichloropropane	**<0.13**	ug/L	4.0	0.13	1		07/21/16 14:38	594-20-7	
1,1-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 14:38	563-58-6	
cis-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 14:38	10061-01-5	
trans-1,3-Dichloropropene	**<0.15**	ug/L	4.0	0.15	1		07/21/16 14:38	10061-02-6	
Diethyl ether (Ethyl ether)	**<0.19**	ug/L	4.0	0.19	1		07/21/16 14:38	60-29-7	
Ethylbenzene	**<0.15**	ug/L	1.0	0.15	1		07/21/16 14:38	100-41-4	
Hexachloro-1,3-butadiene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 14:38	87-68-3	
Isopropylbenzene (Cumene)	**<0.25**	ug/L	1.0	0.25	1		07/21/16 14:38	98-82-8	
p-Isopropyltoluene	**<0.19**	ug/L	1.0	0.19	1		07/21/16 14:38	99-87-6	
Methylene Chloride	**0.37J**	ug/L	4.0	0.29	1		07/21/16 14:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<0.43**	ug/L	5.0	0.43	1		07/21/16 14:38	108-10-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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ANALYTICAL RESULTS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Sample: HCL TRIP BLANK **Lab ID: 10356146006** Collected: 07/19/16 14:00 Received: 07/20/16 18:15 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260B VOC	Analytical Method: EPA 8260B								
Methyl-tert-butyl ether	**<0.15**	ug/L	1.0	0.15	1		07/21/16 14:38	1634-04-4	
Naphthalene	**<0.20**	ug/L	4.0	0.20	1		07/21/16 14:38	91-20-3	
n-Propylbenzene	**<0.23**	ug/L	1.0	0.23	1		07/21/16 14:38	103-65-1	
Styrene	**<0.29**	ug/L	1.0	0.29	1		07/21/16 14:38	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.17**	ug/L	4.0	0.17	1		07/21/16 14:38	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.22**	ug/L	1.0	0.22	1		07/21/16 14:38	79-34-5	
Tetrachloroethene	**<0.25**	ug/L	1.0	0.25	1		07/21/16 14:38	127-18-4	
Tetrahydrofuran	**<1.5**	ug/L	10.0	1.5	1		07/21/16 14:38	109-99-9	
Toluene	**<0.14**	ug/L	1.0	0.14	1		07/21/16 14:38	108-88-3	
1,2,3-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 14:38	87-61-6	
1,2,4-Trichlorobenzene	**<0.21**	ug/L	1.0	0.21	1		07/21/16 14:38	120-82-1	
1,1,1-Trichloroethane	**<0.17**	ug/L	1.0	0.17	1		07/21/16 14:38	71-55-6	
1,1,2-Trichloroethane	**<0.15**	ug/L	1.0	0.15	1		07/21/16 14:38	79-00-5	
Trichloroethene	**<0.20**	ug/L	0.40	0.20	1		07/21/16 14:38	79-01-6	
Trichlorofluoromethane	**<0.33**	ug/L	1.0	0.33	1		07/21/16 14:38	75-69-4	
1,2,3-Trichloropropane	**<0.28**	ug/L	4.0	0.28	1		07/21/16 14:38	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.32**	ug/L	1.0	0.32	1		07/21/16 14:38	76-13-1	
1,2,4-Trimethylbenzene	**<0.18**	ug/L	1.0	0.18	1		07/21/16 14:38	95-63-6	
1,3,5-Trimethylbenzene	**<0.27**	ug/L	1.0	0.27	1		07/21/16 14:38	108-67-8	
Vinyl chloride	**<0.29**	ug/L	0.40	0.29	1		07/21/16 14:38	75-01-4	
Xylene (Total)	**<0.32**	ug/L	3.0	0.32	1		07/21/16 14:38	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)	97	%.	75-125		1		07/21/16 14:38	17060-07-0	
Toluene-d8 (S)	89	%.	75-125		1		07/21/16 14:38	2037-26-5	
4-Bromofluorobenzene (S)	93	%.	75-125		1		07/21/16 14:38	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

QC Batch: 426455 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV 465 W
Associated Lab Samples: 10356146001, 10356146002, 10356146003, 10356146004, 10356146005, 10356146006

METHOD BLANK: 2321999 Matrix: Water
Associated Lab Samples: 10356146001, 10356146002, 10356146003, 10356146004, 10356146005, 10356146006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.17	4.0	07/21/16 10:33	
1,1,1-Trichloroethane	ug/L	<0.17	1.0	07/21/16 10:33	
1,1,2,2-Tetrachloroethane	ug/L	<0.22	1.0	07/21/16 10:33	
1,1,2-Trichloroethane	ug/L	<0.15	1.0	07/21/16 10:33	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.32	1.0	07/21/16 10:33	
1,1-Dichloroethane	ug/L	<0.17	1.0	07/21/16 10:33	
1,1-Dichloroethene	ug/L	<0.28	1.0	07/21/16 10:33	
1,1-Dichloropropene	ug/L	<0.23	1.0	07/21/16 10:33	
1,2,3-Trichlorobenzene	ug/L	<0.21	1.0	07/21/16 10:33	
1,2,3-Trichloropropane	ug/L	<0.28	4.0	07/21/16 10:33	
1,2,4-Trichlorobenzene	ug/L	<0.21	1.0	07/21/16 10:33	
1,2,4-Trimethylbenzene	ug/L	<0.18	1.0	07/21/16 10:33	
1,2-Dibromo-3-chloropropane	ug/L	<0.60	10.0	07/21/16 10:33	
1,2-Dibromoethane (EDB)	ug/L	<0.20	1.0	07/21/16 10:33	
1,2-Dichlorobenzene	ug/L	<0.17	1.0	07/21/16 10:33	
1,2-Dichloroethane	ug/L	<0.17	1.0	07/21/16 10:33	
1,2-Dichloropropane	ug/L	<0.22	4.0	07/21/16 10:33	
1,3,5-Trimethylbenzene	ug/L	<0.27	1.0	07/21/16 10:33	
1,3-Dichlorobenzene	ug/L	<0.12	1.0	07/21/16 10:33	
1,3-Dichloropropane	ug/L	<0.096	1.0	07/21/16 10:33	
1,4-Dichlorobenzene	ug/L	<0.21	1.0	07/21/16 10:33	
2,2-Dichloropropane	ug/L	<0.13	4.0	07/21/16 10:33	
2-Butanone (MEK)	ug/L	<1.1	5.0	07/21/16 10:33	
2-Chlorotoluene	ug/L	<0.30	1.0	07/21/16 10:33	
4-Chlorotoluene	ug/L	<0.26	1.0	07/21/16 10:33	
4-Methyl-2-pentanone (MIBK)	ug/L	<0.43	5.0	07/21/16 10:33	
Acetone	ug/L	<0.64	20.0	07/21/16 10:33	
Allyl chloride	ug/L	<0.25	4.0	07/21/16 10:33	
Benzene	ug/L	<0.16	1.0	07/21/16 10:33	
Bromobenzene	ug/L	<0.34	1.0	07/21/16 10:33	
Bromochloromethane	ug/L	<0.19	1.0	07/21/16 10:33	
Bromodichloromethane	ug/L	<0.24	1.0	07/21/16 10:33	
Bromoform	ug/L	<0.27	4.0	07/21/16 10:33	
Bromomethane	ug/L	<0.44	4.0	07/21/16 10:33	
Carbon tetrachloride	ug/L	<0.20	4.0	07/21/16 10:33	
Chlorobenzene	ug/L	<0.11	1.0	07/21/16 10:33	
Chloroethane	ug/L	<0.34	1.0	07/21/16 10:33	
Chloroform	ug/L	<0.21	1.0	07/21/16 10:33	
Chloromethane	ug/L	<0.25	4.0	07/21/16 10:33	
cis-1,2-Dichloroethene	ug/L	<0.12	1.0	07/21/16 10:33	
cis-1,3-Dichloropropene	ug/L	<0.15	4.0	07/21/16 10:33	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

METHOD BLANK: 2321999 Matrix: Water
Associated Lab Samples: 10356146001, 10356146002, 10356146003, 10356146004, 10356146005, 10356146006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/L	<0.16	4.0	07/21/16 10:33	
Dibromomethane	ug/L	<0.19	4.0	07/21/16 10:33	
Dichlorodifluoromethane	ug/L	<0.23	1.0	07/21/16 10:33	
Dichlorofluoromethane	ug/L	<0.21	1.0	07/21/16 10:33	
Diethyl ether (Ethyl ether)	ug/L	<0.19	4.0	07/21/16 10:33	
Ethylbenzene	ug/L	<0.15	1.0	07/21/16 10:33	
Hexachloro-1,3-butadiene	ug/L	<0.18	1.0	07/21/16 10:33	
Isopropylbenzene (Cumene)	ug/L	<0.25	1.0	07/21/16 10:33	
Methyl-tert-butyl ether	ug/L	<0.15	1.0	07/21/16 10:33	
Methylene Chloride	ug/L	<0.29	4.0	07/21/16 10:33	
n-Butylbenzene	ug/L	<0.16	1.0	07/21/16 10:33	
n-Propylbenzene	ug/L	<0.23	1.0	07/21/16 10:33	
Naphthalene	ug/L	<0.20	4.0	07/21/16 10:33	
p-Isopropyltoluene	ug/L	<0.19	1.0	07/21/16 10:33	
sec-Butylbenzene	ug/L	<0.19	1.0	07/21/16 10:33	
Styrene	ug/L	<0.29	1.0	07/21/16 10:33	
tert-Butylbenzene	ug/L	<0.22	1.0	07/21/16 10:33	
Tetrachloroethene	ug/L	<0.25	1.0	07/21/16 10:33	
Tetrahydrofuran	ug/L	<1.5	10.0	07/21/16 10:33	
Toluene	ug/L	<0.14	1.0	07/21/16 10:33	
trans-1,2-Dichloroethene	ug/L	<0.16	1.0	07/21/16 10:33	
trans-1,3-Dichloropropene	ug/L	<0.15	4.0	07/21/16 10:33	
Trichloroethene	ug/L	<0.20	0.40	07/21/16 10:33	
Trichlorofluoromethane	ug/L	<0.33	1.0	07/21/16 10:33	
Vinyl chloride	ug/L	<0.29	0.40	07/21/16 10:33	
Xylene (Total)	ug/L	<0.32	3.0	07/21/16 10:33	
1,2-Dichloroethane-d4 (S)	%.	110	75-125	07/21/16 10:33	
4-Bromofluorobenzene (S)	%.	99	75-125	07/21/16 10:33	
Toluene-d8 (S)	%.	93	75-125	07/21/16 10:33	

LABORATORY CONTROL SAMPLE: 2322000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.2	106	75-125	
1,1,1-Trichloroethane	ug/L	20	22.1	111	73-125	
1,1,2,2-Tetrachloroethane	ug/L	20	20.6	103	75-128	
1,1,2-Trichloroethane	ug/L	20	20.6	103	75-129	
1,1,2-Trichlorotrifluoroethane	ug/L	20	23.0	115	69-125	
1,1-Dichloroethane	ug/L	20	24.6	123	75-131	
1,1-Dichloroethene	ug/L	20	22.4	112	72-125	
1,1-Dichloropropene	ug/L	20	22.0	110	74-125	
1,2,3-Trichlorobenzene	ug/L	20	18.8	94	68-127	
1,2,3-Trichloropropane	ug/L	20	19.7	99	75-125	
1,2,4-Trichlorobenzene	ug/L	20	19.1	96	70-125	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

LABORATORY CONTROL SAMPLE: 2322000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.7	99	75-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.9	90	74-125	
1,2-Dibromoethane (EDB)	ug/L	20	19.7	99	75-125	
1,2-Dichlorobenzene	ug/L	20	20.7	103	75-125	
1,2-Dichloroethane	ug/L	20	23.8	119	72-129	
1,2-Dichloropropane	ug/L	20	22.5	113	71-129	
1,3,5-Trimethylbenzene	ug/L	20	19.7	99	75-127	
1,3-Dichlorobenzene	ug/L	20	19.9	100	75-125	
1,3-Dichloropropane	ug/L	20	21.2	106	75-125	
1,4-Dichlorobenzene	ug/L	20	20.5	103	75-125	
2,2-Dichloropropane	ug/L	20	22.4	112	71-125	
2-Butanone (MEK)	ug/L	100	123	123	58-150	
2-Chlorotoluene	ug/L	20	19.9	100	75-125	
4-Chlorotoluene	ug/L	20	20.2	101	75-130	
4-Methyl-2-pentanone (MIBK)	ug/L	100	117	117	72-140	
Acetone	ug/L	100	88.7	89	69-137	
Allyl chloride	ug/L	20	24.5	123	68-132	
Benzene	ug/L	20	21.0	105	75-125	
Bromobenzene	ug/L	20	19.3	97	75-125	
Bromochloromethane	ug/L	20	22.6	113	75-125	
Bromodichloromethane	ug/L	20	22.1	111	69-128	
Bromoform	ug/L	20	17.0	85	75-125	
Bromomethane	ug/L	20	12.1	61	30-150	
Carbon tetrachloride	ug/L	20	22.8	114	74-125	
Chlorobenzene	ug/L	20	20.6	103	75-125	
Chloroethane	ug/L	20	26.5	132	60-150	
Chloroform	ug/L	20	22.3	111	75-126	
Chloromethane	ug/L	20	20.6	103	46-150	
cis-1,2-Dichloroethene	ug/L	20	21.6	108	75-126	
cis-1,3-Dichloropropene	ug/L	20	21.6	108	75-125	
Dibromochloromethane	ug/L	20	18.4	92	75-125	
Dibromomethane	ug/L	20	21.3	107	72-127	
Dichlorodifluoromethane	ug/L	20	22.9	114	58-135	
Dichlorofluoromethane	ug/L	20	23.4	117	68-149	
Diethyl ether (Ethyl ether)	ug/L	20	24.7	123	66-144	
Ethylbenzene	ug/L	20	20.6	103	75-125	
Hexachloro-1,3-butadiene	ug/L	20	17.6	88	73-125	
Isopropylbenzene (Cumene)	ug/L	20	19.7	98	69-140	
Methyl-tert-butyl ether	ug/L	20	22.0	110	75-126	
Methylene Chloride	ug/L	20	21.9	109	71-130	
n-Butylbenzene	ug/L	20	19.7	99	71-129	
n-Propylbenzene	ug/L	20	20.0	100	71-133	
Naphthalene	ug/L	20	17.3	86	59-137	
p-Isopropyltoluene	ug/L	20	19.2	96	74-127	
sec-Butylbenzene	ug/L	20	19.2	96	66-140	
Styrene	ug/L	20	19.6	98	75-125	
tert-Butylbenzene	ug/L	20	18.7	94	73-129	

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QUALITY CONTROL DATA

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

LABORATORY CONTROL SAMPLE: 2322000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Tetrachloroethene	ug/L	20	19.0	95	75-125	
Tetrahydrofuran	ug/L	200	175	88	71-129	
Toluene	ug/L	20	19.3	96	75-125	
trans-1,2-Dichloroethene	ug/L	20	22.7	114	75-125	
trans-1,3-Dichloropropene	ug/L	20	19.3	97	75-125	
Trichloroethene	ug/L	20	22.8	114	75-125	
Trichlorofluoromethane	ug/L	20	24.6	123	74-128	
Vinyl chloride	ug/L	20	21.9	110	71-131	
Xylene (Total)	ug/L	60	58.9	98	75-125	
1,2-Dichloroethane-d4 (S)	%.			110	75-125	
4-Bromofluorobenzene (S)	%.			96	75-125	
Toluene-d8 (S)	%.			96	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2322046 2322047

Parameter	Units	1270844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	19.1	21.4	95	107	75-125	11	30	
1,1,1-Trichloroethane	ug/L	ND	20	20	20.8	22.3	104	111	71-144	7	30	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.4	21.4	97	107	75-131	10	30	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.0	21.1	95	106	75-125	11	30	
1,1,2-Trichlorotrifluoroethane	ug/L	ND	20	20	25.2	26.0	126	130	75-150	3	30	
1,1-Dichloroethane	ug/L	ND	20	20	21.1	22.6	106	113	64-150	7	30	
1,1-Dichloroethene	ug/L	ND	20	20	21.3	23.1	106	115	68-150	8	30	
1,1-Dichloropropene	ug/L	ND	20	20	20.9	22.1	105	111	68-145	6	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	19.7	20.9	98	105	57-142	6	30	
1,2,3-Trichloropropane	ug/L	ND	20	20	18.0	20.5	90	102	75-125	13	30	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.9	21.6	99	108	60-135	8	30	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	19.0	20.8	95	104	67-148	9	30	
1,2-Dibromo-3-chloropropane	ug/L	ND	50	50	39.8	47.9	80	96	32-137	18	30	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	17.9	20.5	90	103	75-125	14	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	19.0	21.3	95	107	75-125	11	30	
1,2-Dichloroethane	ug/L	ND	20	20	20.1	22.0	100	110	62-138	9	30	
1,2-Dichloropropane	ug/L	ND	20	20	19.7	22.7	98	114	62-144	14	30	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	18.9	20.7	95	104	67-148	9	30	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.5	20.7	93	104	74-131	11	30	
1,3-Dichloropropane	ug/L	ND	20	20	19.0	21.2	95	106	75-127	11	30	
1,4-Dichlorobenzene	ug/L	ND	20	20	18.9	21.2	95	106	74-126	11	30	
2,2-Dichloropropane	ug/L	ND	20	20	20.4	22.5	102	112	56-146	9	30	
2-Butanone (MEK)	ug/L	ND	100	100	98.9	109	99	109	47-150	10	30	
2-Chlorotoluene	ug/L	ND	20	20	18.7	21.4	94	107	74-137	13	30	
4-Chlorotoluene	ug/L	ND	20	20	18.8	21.1	94	106	72-138	12	30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	100	100	102	115	102	115	60-147	12	30	
Acetone	ug/L	ND	100	100	85.9	99.9	86	100	61-150	15	30	

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QUALITY CONTROL DATA

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2322046 2322047

Parameter	Units	1270844001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Allyl chloride	ug/L	ND	20	20	22.4	23.9	112	119	53-150	6	30	
Benzene	ug/L	ND	20	20	18.3	20.9	92	105	52-147	13	30	
Bromobenzene	ug/L	ND	20	20	18.3	20.5	91	102	75-129	11	30	
Bromochloromethane	ug/L	ND	20	20	18.9	20.6	95	103	72-128	8	30	
Bromodichloromethane	ug/L	ND	20	20	19.2	22.1	96	110	65-137	14	30	
Bromoform	ug/L	ND	20	20	15.8	17.9	79	89	59-133	12	30	
Bromomethane	ug/L	ND	20	20	15.0	17.5	75	88	30-150	16	30	
Carbon tetrachloride	ug/L	ND	20	20	22.1	23.3	110	117	73-144	6	30	
Chlorobenzene	ug/L	ND	20	20	18.6	21.1	93	105	75-126	13	30	
Chloroethane	ug/L	ND	20	20	24.6	25.2	123	126	55-150	2	30	
Chloroform	ug/L	ND	20	20	19.5	20.9	97	104	66-143	7	30	
Chloromethane	ug/L	ND	20	20	19.2	18.6	96	93	42-150	3	30	
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.7	20.0	93	100	65-143	7	30	
cis-1,3-Dichloropropene	ug/L	ND	20	20	18.8	21.1	94	106	75-125	11	30	
Dibromochloromethane	ug/L	ND	20	20	16.9	19.5	85	97	75-125	14	30	
Dibromomethane	ug/L	ND	20	20	18.6	21.1	93	106	66-133	13	30	
Dichlorodifluoromethane	ug/L	ND	20	20	26.5	27.5	133	137	74-150	3	30	
Dichlorofluoromethane	ug/L	ND	20	20	22.2	22.8	111	114	68-150	3	30	
Diethyl ether (Ethyl ether)	ug/L	ND	20	20	20.5	22.5	103	112	57-148	9	30	
Ethylbenzene	ug/L	ND	20	20	18.9	21.3	94	107	67-149	12	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	21.5	22.3	107	112	65-143	4	30	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	18.2	20.4	91	102	64-150	12	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.1	19.7	91	99	71-130	8	30	
Methylene Chloride	ug/L	ND	20	20	18.2	19.5	91	98	67-137	7	30	
n-Butylbenzene	ug/L	ND	20	20	21.4	23.0	107	115	70-138	7	30	
n-Propylbenzene	ug/L	ND	20	20	20.0	21.7	100	109	70-148	8	30	
Naphthalene	ug/L	ND	20	20	16.2	18.5	81	93	39-150	13	30	
p-Isopropyltoluene	ug/L	ND	20	20	19.8	21.4	99	107	74-138	8	30	
sec-Butylbenzene	ug/L	ND	20	20	19.4	21.6	97	108	64-150	10	30	
Styrene	ug/L	ND	20	20	17.7	20.1	88	101	75-132	13	30	
tert-Butylbenzene	ug/L	ND	20	20	18.8	20.5	94	102	75-138	9	30	
Tetrachloroethene	ug/L	ND	20	20	18.1	20.6	91	103	73-136	13	30	
Tetrahydrofuran	ug/L	ND	200	200	165	186	82	93	68-142	12	30	
Toluene	ug/L	ND	20	20	18.1	20.7	91	103	69-139	13	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.5	21.8	102	109	75-135	6	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.4	20.0	87	100	66-136	14	30	
Trichloroethene	ug/L	ND	20	20	20.8	23.2	104	116	74-135	11	30	
Trichlorofluoromethane	ug/L	ND	20	20	27.2	27.9	136	139	75-150	2	30	
Vinyl chloride	ug/L	ND	20	20	23.2	23.8	116	119	69-150	3	30	
Xylene (Total)	ug/L	ND	60	60	53.5	61.1	89	102	70-147	13	30	
1,2-Dichloroethane-d4 (S)	%.						105	101	75-125			
4-Bromofluorobenzene (S)	%.						102	101	75-125			
Toluene-d8 (S)	%.						96	95	75-125			

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1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

QC Batch: 426700 Analysis Method: EPA 8270D by SIM
QC Batch Method: EPA 3510C Analysis Description: 8270D PAH by SIM MSSV
Associated Lab Samples: 10356146001, 10356146002, 10356146003, 10356146004, 10356146005

METHOD BLANK: 2323058 Matrix: Water
Associated Lab Samples: 10356146001, 10356146002, 10356146003, 10356146004, 10356146005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/L	<0.0037	0.011	07/25/16 15:17	
Acenaphthylene	ug/L	<0.0073	0.013	07/25/16 15:17	
Anthracene	ug/L	<0.0043	0.015	07/25/16 15:17	
Benzo(a)anthracene	ug/L	0.0071J	0.0099	07/25/16 15:17	
Benzo(a)pyrene	ug/L	<0.0052	0.010	07/25/16 15:17	
Benzo(b)fluoranthene	ug/L	<0.0045	0.025	07/25/16 15:17	
Benzo(g,h,i)perylene	ug/L	<0.0036	0.018	07/25/16 15:17	
Benzo(k)fluoranthene	ug/L	<0.0040	0.013	07/25/16 15:17	
Chrysene	ug/L	<0.0038	0.018	07/25/16 15:17	
Dibenz(a,h)anthracene	ug/L	<0.0038	0.032	07/25/16 15:17	
Fluoranthene	ug/L	0.0064J	0.019	07/25/16 15:17	
Fluorene	ug/L	<0.0044	0.019	07/25/16 15:17	
Indeno(1,2,3-cd)pyrene	ug/L	<0.0039	0.018	07/25/16 15:17	
Naphthalene	ug/L	<0.0048	0.030	07/25/16 15:17	
Phenanthrene	ug/L	0.011J	0.041	07/25/16 15:17	
Pyrene	ug/L	<0.0053	0.021	07/25/16 15:17	
2-Fluorobiphenyl (S)	%.	69	53-125	07/25/16 15:17	
p-Terphenyl-d14 (S)	%.	99	57-125	07/25/16 15:17	

LABORATORY CONTROL SAMPLE & LCSD: 2323059 2323060

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Acenaphthene	ug/L	1	0.59	0.68	59	68	55-125	14	20	
Acenaphthylene	ug/L	1	0.56	0.66	56	66	55-125	15	20	
Anthracene	ug/L	1	0.71	0.82	71	82	66-125	14	20	
Benzo(a)anthracene	ug/L	1	0.76	0.84	76	84	66-125	11	20	
Benzo(a)pyrene	ug/L	1	0.79	0.90	79	90	74-125	13	20	
Benzo(b)fluoranthene	ug/L	1	0.82	0.94	82	94	65-125	14	20	
Benzo(g,h,i)perylene	ug/L	1	0.78	0.78	78	78	68-125	0	20	
Benzo(k)fluoranthene	ug/L	1	0.75	0.86	75	86	72-125	13	20	
Chrysene	ug/L	1	0.75	0.82	75	82	69-125	9	20	
Dibenz(a,h)anthracene	ug/L	1	0.71	0.69	71	69	61-125	2	20	
Fluoranthene	ug/L	1	0.80	0.89	80	89	75-125	11	20	
Fluorene	ug/L	1	0.70	0.79	70	79	63-125	12	20	
Indeno(1,2,3-cd)pyrene	ug/L	1	0.76	0.82	76	82	66-125	8	20	
Naphthalene	ug/L	1	0.55	0.67	55	67	51-125	19	20	
Phenanthrene	ug/L	1	0.68	0.79	68	79	64-125	14	20	
Pyrene	ug/L	1	0.79	0.89	79	89	72-125	12	20	
2-Fluorobiphenyl (S)	%.				54	64	53-125			
p-Terphenyl-d14 (S)	%.				82	91	57-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1700 Elm Street - Suite 200
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 427059

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

Pace Analytical Services, Inc.
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-1004 FRASER SHIP YARD
Pace Project No.: 10356146

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10356146001	PS MW -2	EPA 3510C	426700	EPA 8270D by SIM	427059
10356146002	PS MW -1	EPA 3510C	426700	EPA 8270D by SIM	427059
10356146003	PS MW -3	EPA 3510C	426700	EPA 8270D by SIM	427059
10356146004	PS MW -3.1	EPA 3510C	426700	EPA 8270D by SIM	427059
10356146005	PS MW -4	EPA 3510C	426700	EPA 8270D by SIM	427059
10356146001	PS MW -2	EPA 8260B	426455		
10356146002	PS MW -1	EPA 8260B	426455		
10356146003	PS MW -3	EPA 8260B	426455		
10356146004	PS MW -3.1	EPA 8260B	426455		
10356146005	PS MW -4	EPA 8260B	426455		
10356146006	HCL TRIP BLANK	EPA 8260B	426455		

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

10356146

Page: 1 of 1

2039756

Section A Required Client Information:

Company: Environmental Troubleshooters
Address: 3825 Grand Ave
Duluth MN 55807
Email To: Jmccarthy@etsmn.com
Phone: 2187226013 Fax:
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: John McCarthy
Copy To:
Purchase Order No.:
Project Name: Fraser Shipyard
Project Number: 14-1004

Section C Invoice Information:

Attention: Same as report to
Company Name:
Address:
Pace Quote Reference: ET 2016
Pace Project Manager: Lori Castile
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☒ RCRA ☐ OTHER

Site Location STATE: WI

Section D Required Client Information

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analysis Test: PAH	VOC	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	PS MW-2	WT	G			7/19	930		5	2			3					X	X			001
2	PS MW-1						1015		5	2			3					X	X			002
3	PS MW-3						1210		5	2			3					X	X			003
4	PS MW-3.1						1215		5	2			3					X	X			004
5	PS MW-4						1345		5	2			3					X	X			005
6	HCl Trip Blank						1400		2				2						X			006
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
		7/19	1455	Kristina Polson	7/19/16	~~1555~~ 1455	6.2	Y	N	Y
	Kristina Polson	7/20/16	1340	Gabe Stieglitz/Pace	7/20/16	7/19/16 1815	3.6	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Nicole Torguson

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 07/19/16

ORIGINAL

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical	Document Name: Sample Condition Upon Receipt Form	Document Revised: 04Apr2016 Page 1 of 1
	Document No.: F-MN-L-213-rev.16	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt

Client Name: Environmental Troubleshooters

Project #: WO#: 10356146

10356146

Courier: ☐Fed Ex ☐UPS ☐USPS ☐Client ☐Commercial ☑Pace ☐SpeeDee ☐Other:_____

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☑Yes ☐No **Seals Intact?** ☑Yes ☐No

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☐Bubble Wrap ☑Bubble Bags ☐None ☐Other:_____ **Temp Blank?** ☑Yes ☐No

Thermometer Used: ☐151401163 ☑B88A912167504 ☐151401164 ☐B88A0143310098 **Type of Ice:** ☑Wet ☐Blue ☐None ☐Samples on ice, cooling process has begun

Cooler Temp Read (°C): 3.6 **Cooler Temp Corrected (°C):** 3.6 **Biological Tissue Frozen?** ☐Yes ☐No ☑N/A

Temp should be above freezing to 6°C **Correction Factor:** +0.0 **Date and Initials of Person Examining Contents:** GS 7/20/16

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

Did samples originate in a quarantine zone within the United States: AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐Yes ☐No

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

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present?	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out?	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished?	☑Yes	☐No	☐N/A	3.
Sampler Name and/or Signature on COC?	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time?	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72 hr)?	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested?	☐Yes	☑No	☐N/A	7.
Sufficient Volume?	☑Yes	☐No	☐N/A	8.
Correct Containers Used?	☑Yes	☐No	☐N/A	9.
-Pace Containers Used?	☑Yes	☐No	☐N/A	
Containers Intact?	☑Yes	☐No	☐N/A	10.
Filtered Volume Received for Dissolved Tests?	☐Yes	☐No	☑N/A	11. Note if sediment is visible in the dissolved container
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WT	☑Yes	☐No	☐N/A	12.
All containers needing acid/base preservation have been checked?	☐Yes	☐No	☑N/A	13. ☐HNO_3 ☐H_2SO_4 ☐NaOH ☐HCl Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, HCl<2; NaOH >9 Sulfide, NaOH>12 Cyanide)	☐Yes	☐No	☑N/A	
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC	☐Yes	☐No	☑N/A	Initial when completed:_____ Lot # of added preservative:_____
Headspace in VOA Vials (>6mm)?	☐Yes	☑No	☐N/A	14.
Trip Blank Present?	☑Yes	☐No	☐N/A	15.
Trip Blank Custody Seals Present?	☑Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if purchased): 101215-332A				

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐Yes ☐No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Kaber Xiong **Date:** 7/21/16

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