From:	Voit, Angela <AVoit@trccompanies.com>
Sent:	Wednesday, July 8, 2020 3:34 PM
To:	James, Andrew G - DNR; VanPrice, Kathie - DOT; DOT Hazmat Unit
Cc:	Haak, Daniel
Subject:	Final Report: BRRTS 02-20-554881, Documentation of Contaminated Soil, Former Tynan Property, W998 STH 23, Fond du Lac County (WisDOT ID 1440-15-72)
Attachments:	BRRTS 02-20-554881_WisDOT 1440-15-72_Documentation of Contaminated Soil_Former Tynan Property STH 23 Forest.pdf

Attached is the Final Phase 4 Contaminated Soil Documentation Report for Former Tynan Property, W998 STH 23 in Fond du Lac County, Wisconsin (BRRTS 02-20-554881). This report has been uploaded to the WDNR RR Portal.

Please contact us with any questions.

Angie Voit
Senior Project Coordinator

708 Heartland Trail, Suite 3000, Madison, WI 53717
T 608.444.3509 | avoit@trccompanies.com
LinkedIn | Twitter | Blog | TRCcompanies.com

708 Heartland Trl.
Suite 3000
Madison, WI 53717

T 608.826.3600
TRCcompanies.com

July 8, 2020

Mr. Andrew James
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

Subject: Phase 4 On-Site Management & Documentation of Contaminated Soil Excavated During Construction
Former Tynan Property, STH 23, Forest, Wisconsin
WisDOT Project ID #1440-15-72
WDNR BRRTS #02-20-554881

Dear Mr. James:

TRC Environmental Corporation (TRC) has prepared this Phase 4 documentation report for the STH 23 project at the former Tynan Property (W998 STH 23) in Fond du Lac County, Wisconsin.

Background Information

The former Tynan property is located in the northeastern quarter of Section 15 of T15N R19E in the Town of Forest, Fond du Lac County, Wisconsin (Figures 1 and 2). The Tynan property previously operated as a farm, and previous investigations identified soil contamination. TRC recommended that the petroleum- and metals-contaminated soils near historic soil borings B-3 and B-5 be excavated and disposed of at a WDNR-licensed treatment and disposal facility. Special Provisions for the management of contaminated soil were included in the STH 23 highway contract (WisDOT ID #1440-15-72). The Wisconsin Department of Natural Resources (WDNR) concurred with the Excavation Management Plan (Attachment 3).

Soil Excavation and Sampling

On May 14, 2020, TRC met with Mashuda Contractors, Inc. (Mashuda) to conduct two hot spot excavations around borings B-3 and B-5. A 10' x 10' square was marked out around each boring with the boring in the approximate center (Photographs in Attachment 4). Soil was excavated to an approximate depth of 3 feet below ground surface (ft bgs), and four confirmation base soil samples were collected in each of the two excavations. These soil samples were sent to Pace Analytical Services, LLC (Pace) in Green Bay, Wisconsin, and analyzed for polyaromatic hydrocarbons (PAHs) using EPA Method 8270 by SIM and for lead using EPA Method 6010 (Attachment 1). The excavated soil was stockpiled onsite and hauled on May 15, 2020 to Advanced Disposal Hickory Meadows Landfill in Hilbert, Wisconsin. A total of 29.93 tons of soil were landfilled from the project site (Attachment 2). Surrounding soil was used to backfill the excavations.

Conclusion

The analytical results of the soil samples show a range of lead detections from 9.3 mg/kg to 13.7 mg/kg, which appear to be background concentrations. Some PAHs were detected but all were estimated concentrations (Table 1). None of the detections in these samples exceed the WDNR NR 720 residual contaminant levels (RCLs), and no other signs of contamination were seen during excavation. Future grading in this area for the new bike trail will be limited to less than 2 feet and is not

expected to encounter contaminated soils. TRC recommends no further action be taken near soil borings B-3 and B-5, and the site be closed.

If you have any questions or comments, please feel free to contact Dan Haak (608-826-3628).

Sincerely,

TRC

Dan Haak, P.E.
Project Manager

Attachments: Table 1 – Soil Sampling Results Summary
Figure 1 – Site Location Map
Figure 2 – Hot Spot Soil Excavation Areas
Attachment 1 – Laboratory Reports
Attachment 2 – Disposal Records
Attachment 3 – WDNR Concurrence E-mail
Attachment 4 – Photographic Log

cc: Allen Buechel, Fond du Lac County
Kathie VanPrice, WisDOT
Shar TeBeest, WisDOT

Table 1 - Soil Sampling Results Summary
STH 23 Former Tynan Property, Forest, Fond du Lac County, Wisconsin
WisDOT ID# 1440-15-72, TRC# 382762.0000.0000

ANALYTES[1]	NR 720 SOIL RCLs[4]				SOIL BORING ID, SAMPLE DEPTH (feet bgs), DATE							
	SOIL TO GROUNDWATER PATHWAY[2]	DIRECT CONTACT PATHWAY		BACKGROUND	B3 A	B3 B	B3 C	B3 D	B5 A	B5 B	B5 C	B5 D
		NON-INDUSTRIAL[3]	INDUSTRIAL[3]	SURFICIAL BTV[5]	3	3	3	3	3	3	3	3
					5/14/20							
PAHs (µg/kg)												
1-Methylnaphthalene	-	17,600	72,700	-	4.1 J	<2.9	4.0 J	<2.9	4.4 J	<2.9	<3.0	<3.0
2-Methylnaphthalene	-	239,000	3,010,000	-	<2.9	<2.9	8.7 J	<2.9	7.9 J	<2.9	<3.0	<3.0
Acenaphthene	-	3,590,000	45,200,000	-	<2.6	<2.6	<2.6	<2.6	4.8 J	<2.6	<2.6	<2.6
Benzo(a)pyrene	470	115	2,110	-	3.5 J	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3
Benzo(b)fluoranthene	478.1	1,150	21,100	-	3.5 J	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8	<2.8
Benzo(g,h,i)perylene	-	-	-	-	3.7 J	<3.5	<3.5	<3.5	<3.6	<3.5	<3.6	<3.5
Fluoranthene	88,877.8	2,390,000	30,100,000	-	<2.4	<2.4	<2.4	<2.4	<2.4	3.6 J	<2.4	<2.4
Naphthalene	658.2	5,520	24,100	-	<2.0	<2.0	6.2 J	<2.0	39.3	3.9 J	4.7 J	3.5 J
Phenanthrene	-	-	-	-	4.3 J	<2.3	<2.3	<2.3	3.7 J	3.3 J	<2.3	<2.3
Metals (mg/kg)												
Lead	27	400	800	52	11.4	9.6	11.0	9.3	11.1	11.1	13.7	11.3

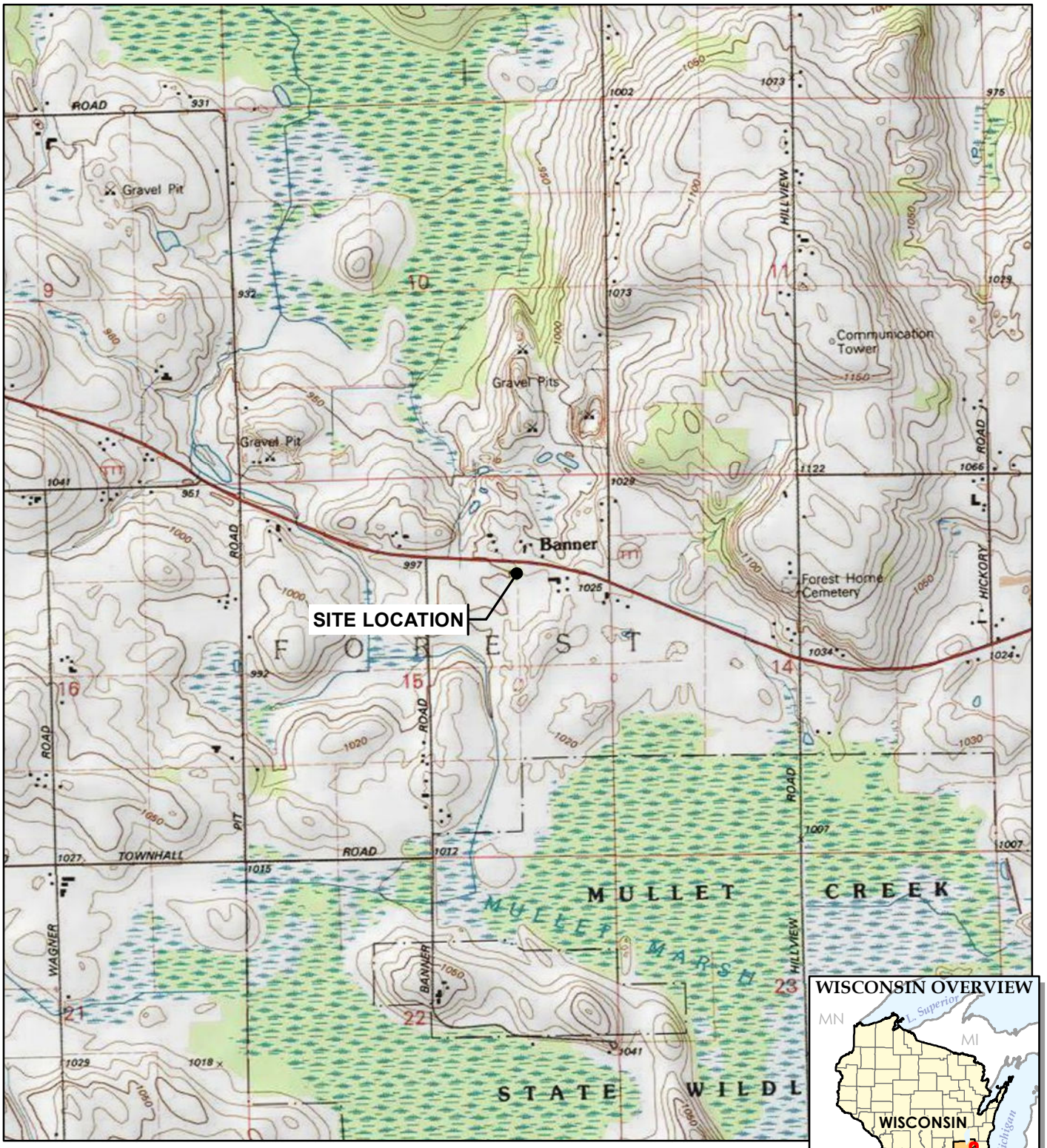
Notes:

1. Samples were analyzed for PAHs and lead.
2. Samples were collected by TRC and analyzed by Pace Analytical (WDNR Cert. #405132750)
3. PAHs = Polycyclic aromatic hydrocarbons analyzed using EPA Method 8270 by SIM
4. µg/kg = micrograms per kilogram (ppb)
5. mg/kg = milligrams per kilogram (ppm)
6. - = Standard not established
7. RCLs = NR 720 residual contaminant levels

Created By: B. Wachholz 5/21/2020
Checked By: L. Auner 5/26/2020

Footnotes:

(1) Only analytes detected in at least one sample are shown in the table.
(2) Value is the generic RCL for the groundwater pathway.
(3) Value is the generic RCL for exposure by direct contact.
(4) RCLs from the Wisconsin DNR's NR 720 RCL Spreadsheet (December 2018 update) found here: https://dnr.wi.gov/topic/Brownfields/soil.html.
(5) Background threshold value (BTV) was taken from the Wisconsin DNR's NR 720 RCL spreadsheet (December 2018 update).



BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

TRC

708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600

TRC - GIS

PROJECT:

WISDOT ID# 1440-15-72
STH 23/FORMER TYNAN PROPERTY
TOWN OF FOREST, FOND DU LAC COUNTY, WISCONSIN

TITLE:

SITE LOCATION MAP

DRAWN BY:	R. SUEMNICHT
CHECKED BY:	D. HAAK
APPROVED BY:	B. BERGMANN
DATE:	JULY 2020
PROJ. NO.:	382762
FILE:	382762-001slm.mxd

FIGURE 1

S:\1-PROJECTS\WI_DOT\2020_382762_STH23\382762-001slm.mxd -- Saved By: RSUEMNICHT on 7/8/2020, 12:21:23 PM

LEGEND

- HISTORIC SOIL BORING
- PRIVATE WELL (ABANDONED)
- HOT SPOT SOIL EXCAVATION AREAS
- PARCEL BOUNDARY

NOTES

1. BASE MAP IMAGERY FROM FOND DU LAC COUNTY IMAGE SERVICE, 2018.
2. PARCELS FROM WISCONSIN STATE CARTOGRAPHER 'S OFFICE.
3. MAP PROJECTION AND GRID COORDINATES ARE NAD83 STATE PLANE WISCONSIN-SOUTH (US SURVEY FEET).
4. PREVIOUS SAMPLE LOCATIONS ARE APPROXIMATE.

0 30 60 Feet

1 " = 30 '

1:360

PROJECT:

WISDOT ID# 1440-15-72
STH 23/FORMER TYNAN PROPERTY
TOWN OF FOREST, FOND DU LAC COUNTY, WISCONSIN

TITLE:

HOT SPOT SOIL EXCAVATION AREAS

DRAWN BY:	R. SUEMNICHT	PROJ NO.:	382762
CHECKED BY:	D. HAAK		
APPROVED BY:	B. BERGMANN		**FIGURE 2**
DATE:	JULY 2020		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trccompanies.com

FILE NO.: 382762-002.mxd

TRC - GIS

Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet (Foot US)
Map Rotation: 0

Plot Date: 7/8/2020, 12:20:51 PM by RSUEMNICHT -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\WI_DOT\2020_382762_STH23\382762-002.mxd

Attachment 1

Laboratory Reports

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

May 19, 2020

DAN HAAK
TRC - MADISON
708 HEARTLAND TRAIL
Madison, WI 53717

RE: Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Dear DAN HAAK:

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

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

Sincerely,

Tod Noltemeyer

Tod Noltemeyer
tod.noltemeyer@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Peggy Popp, TRC - Madison

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Pace Analytical Services Green Bay
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40207763001	**B3 A**	Solid	05/14/20 12:30	05/14/20 15:55
40207763002	**B3 B**	Solid	05/14/20 12:35	05/14/20 15:55
40207763003	**B3 C**	Solid	05/14/20 12:40	05/14/20 15:55
40207763004	**B3 D**	Solid	05/14/20 12:45	05/14/20 15:55
40207763005	**B5 A**	Solid	05/14/20 13:00	05/14/20 15:55
40207763006	**B5 B**	Solid	05/14/20 13:05	05/14/20 15:55
40207763007	**B5 C**	Solid	05/14/20 13:10	05/14/20 15:55
40207763008	**B5 D**	Solid	05/14/20 13:15	05/14/20 15:55

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40207763001	**B3 A**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763002	**B3 B**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763003	**B3 C**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763004	**B3 D**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763005	**B5 A**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763006	**B5 B**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763007	**B5 C**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	RJN	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40207763008	**B5 D**	EPA 6010	TXW	1	PASI-G
		EPA 8270 by SIM	JJB	20	PASI-G
		ASTM D2974-87	MMX	1	PASI-G

PASI-G = Pace Analytical Services - Green Bay

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40207763001	**B3 A**					
EPA 6010	Lead	11.4	mg/kg	2.4	05/18/20 04:27	
EPA 8270 by SIM	1-Methylnaphthalene	4.1J	ug/kg	20.2	05/18/20 10:39	
EPA 8270 by SIM	Benzo(a)pyrene	3.5J	ug/kg	20.2	05/18/20 10:39	
EPA 8270 by SIM	Benzo(b)fluoranthene	3.5J	ug/kg	20.2	05/18/20 10:39	
EPA 8270 by SIM	Benzo(g,h,i)perylene	3.7J	ug/kg	20.2	05/18/20 10:39	
EPA 8270 by SIM	Phenanthrene	4.3J	ug/kg	20.2	05/18/20 10:39	
ASTM D2974-87	Percent Moisture	17.1	%	0.10	05/14/20 16:26	
40207763002	**B3 B**					
EPA 6010	Lead	9.6	mg/kg	2.4	05/18/20 04:29	
ASTM D2974-87	Percent Moisture	16.7	%	0.10	05/14/20 16:26	
40207763003	**B3 C**					
EPA 6010	Lead	11.0	mg/kg	2.2	05/18/20 04:32	
EPA 8270 by SIM	1-Methylnaphthalene	4.0J	ug/kg	20.1	05/15/20 17:16	
EPA 8270 by SIM	2-Methylnaphthalene	8.7J	ug/kg	20.1	05/15/20 17:16	
EPA 8270 by SIM	Naphthalene	6.2J	ug/kg	20.1	05/15/20 17:16	
ASTM D2974-87	Percent Moisture	16.9	%	0.10	05/14/20 16:26	
40207763004	**B3 D**					
EPA 6010	Lead	9.3	mg/kg	2.2	05/18/20 04:39	
ASTM D2974-87	Percent Moisture	16.9	%	0.10	05/14/20 16:26	
40207763005	**B5 A**					
EPA 6010	Lead	11.1	mg/kg	2.4	05/18/20 04:41	
EPA 8270 by SIM	1-Methylnaphthalene	4.4J	ug/kg	20.5	05/15/20 17:51	
EPA 8270 by SIM	2-Methylnaphthalene	7.9J	ug/kg	20.5	05/15/20 17:51	
EPA 8270 by SIM	Acenaphthene	4.8J	ug/kg	20.5	05/15/20 17:51	
EPA 8270 by SIM	Naphthalene	39.3	ug/kg	20.5	05/15/20 17:51	
EPA 8270 by SIM	Phenanthrene	3.7J	ug/kg	20.5	05/15/20 17:51	
ASTM D2974-87	Percent Moisture	18.4	%	0.10	05/14/20 16:26	
40207763006	**B5 B**					
EPA 6010	Lead	11.1	mg/kg	2.4	05/18/20 04:44	
EPA 8270 by SIM	Fluoranthene	3.6J	ug/kg	20.1	05/18/20 10:04	
EPA 8270 by SIM	Naphthalene	3.9J	ug/kg	20.1	05/18/20 10:04	
EPA 8270 by SIM	Phenanthrene	3.3J	ug/kg	20.1	05/18/20 10:04	
ASTM D2974-87	Percent Moisture	17.1	%	0.10	05/14/20 16:26	
40207763007	**B5 C**					
EPA 6010	Lead	13.7	mg/kg	2.4	05/18/20 04:46	
EPA 8270 by SIM	Naphthalene	4.7J	ug/kg	20.3	05/18/20 10:22	
ASTM D2974-87	Percent Moisture	17.5	%	0.10	05/14/20 16:26	
40207763008	**B5 D**					
EPA 6010	Lead	11.3	mg/kg	2.4	05/18/20 04:48	
EPA 8270 by SIM	Naphthalene	3.5J	ug/kg	20.2	05/18/20 14:47	
ASTM D2974-87	Percent Moisture	17.4	%	0.10	05/14/20 16:26	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Method: **EPA 6010**
Description: 6010 MET ICP
Client: TRC - MADISON
Date: May 19, 2020

General Information:
8 samples were analyzed for EPA 6010 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Method: **EPA 8270 by SIM**
Description: 8270 MSSV PAH by SIM
Client: TRC - MADISON
Date: May 19, 2020

General Information:
8 samples were analyzed for EPA 8270 by SIM by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B3 A **Lab ID: 40207763001** Collected: 05/14/20 12:30 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
	Pace Analytical Services - Green Bay								
Lead	**11.4**	mg/kg	2.4	0.71	1	05/17/20 20:40	05/18/20 04:27	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
	Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**4.1J**	ug/kg	20.2	2.9	1	05/15/20 08:40	05/18/20 10:39	90-12-0	
2-Methylnaphthalene	**<2.9**	ug/kg	20.2	2.9	1	05/15/20 08:40	05/18/20 10:39	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 10:39	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	20.2	2.5	1	05/15/20 08:40	05/18/20 10:39	208-96-8	
Anthracene	**<2.5**	ug/kg	20.2	2.5	1	05/15/20 08:40	05/18/20 10:39	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 10:39	56-55-3	
Benzo(a)pyrene	**3.5J**	ug/kg	20.2	2.3	1	05/15/20 08:40	05/18/20 10:39	50-32-8	
Benzo(b)fluoranthene	**3.5J**	ug/kg	20.2	2.8	1	05/15/20 08:40	05/18/20 10:39	205-99-2	
Benzo(g,h,i)perylene	**3.7J**	ug/kg	20.2	3.5	1	05/15/20 08:40	05/18/20 10:39	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 10:39	207-08-9	
Chrysene	**<3.8**	ug/kg	20.2	3.8	1	05/15/20 08:40	05/18/20 10:39	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.2	2.8	1	05/15/20 08:40	05/18/20 10:39	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.2	2.4	1	05/15/20 08:40	05/18/20 10:39	206-44-0	
Fluorene	**<2.4**	ug/kg	20.2	2.4	1	05/15/20 08:40	05/18/20 10:39	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.2	4.2	1	05/15/20 08:40	05/18/20 10:39	193-39-5	
Naphthalene	**<2.0**	ug/kg	20.2	2.0	1	05/15/20 08:40	05/18/20 10:39	91-20-3	
Phenanthrene	**4.3J**	ug/kg	20.2	2.3	1	05/15/20 08:40	05/18/20 10:39	85-01-8	
Pyrene	**<3.0**	ug/kg	20.2	3.0	1	05/15/20 08:40	05/18/20 10:39	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	17-100		1	05/15/20 08:40	05/18/20 10:39	321-60-8	
Terphenyl-d14 (S)	60	%	17-98		1	05/15/20 08:40	05/18/20 10:39	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**17.1**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B3 B **Lab ID: 40207763002** Collected: 05/14/20 12:35 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
	Pace Analytical Services - Green Bay								
Lead	**9.6**	mg/kg	2.4	0.70	1	05/17/20 20:40	05/18/20 04:29	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
	Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**<2.9**	ug/kg	20.0	2.9	1	05/15/20 08:40	05/15/20 16:59	90-12-0	
2-Methylnaphthalene	**<2.9**	ug/kg	20.0	2.9	1	05/15/20 08:40	05/15/20 16:59	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.0	2.6	1	05/15/20 08:40	05/15/20 16:59	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	20.0	2.5	1	05/15/20 08:40	05/15/20 16:59	208-96-8	
Anthracene	**<2.5**	ug/kg	20.0	2.5	1	05/15/20 08:40	05/15/20 16:59	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.0	2.6	1	05/15/20 08:40	05/15/20 16:59	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.0	2.3	1	05/15/20 08:40	05/15/20 16:59	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.0	2.8	1	05/15/20 08:40	05/15/20 16:59	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	20.0	3.5	1	05/15/20 08:40	05/15/20 16:59	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.0	2.6	1	05/15/20 08:40	05/15/20 16:59	207-08-9	
Chrysene	**<3.8**	ug/kg	20.0	3.8	1	05/15/20 08:40	05/15/20 16:59	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.0	2.8	1	05/15/20 08:40	05/15/20 16:59	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.0	2.4	1	05/15/20 08:40	05/15/20 16:59	206-44-0	
Fluorene	**<2.4**	ug/kg	20.0	2.4	1	05/15/20 08:40	05/15/20 16:59	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.0	4.2	1	05/15/20 08:40	05/15/20 16:59	193-39-5	
Naphthalene	**<2.0**	ug/kg	20.0	2.0	1	05/15/20 08:40	05/15/20 16:59	91-20-3	
Phenanthrene	**<2.3**	ug/kg	20.0	2.3	1	05/15/20 08:40	05/15/20 16:59	85-01-8	
Pyrene	**<2.9**	ug/kg	20.0	2.9	1	05/15/20 08:40	05/15/20 16:59	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	66	%	17-100		1	05/15/20 08:40	05/15/20 16:59	321-60-8	
Terphenyl-d14 (S)	69	%	17-98		1	05/15/20 08:40	05/15/20 16:59	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**16.7**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B3 C **Lab ID: 40207763003** Collected: 05/14/20 12:40 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Lead	**11.0**	mg/kg	2.2	0.66	1	05/17/20 20:40	05/18/20 04:32	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**4.0J**	ug/kg	20.1	2.9	1	05/15/20 08:40	05/15/20 17:16	90-12-0	
2-Methylnaphthalene	**8.7J**	ug/kg	20.1	2.9	1	05/15/20 08:40	05/15/20 17:16	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/15/20 17:16	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	20.1	2.5	1	05/15/20 08:40	05/15/20 17:16	208-96-8	
Anthracene	**<2.5**	ug/kg	20.1	2.5	1	05/15/20 08:40	05/15/20 17:16	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/15/20 17:16	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.1	2.3	1	05/15/20 08:40	05/15/20 17:16	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.1	2.8	1	05/15/20 08:40	05/15/20 17:16	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	20.1	3.5	1	05/15/20 08:40	05/15/20 17:16	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/15/20 17:16	207-08-9	
Chrysene	**<3.8**	ug/kg	20.1	3.8	1	05/15/20 08:40	05/15/20 17:16	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.1	2.8	1	05/15/20 08:40	05/15/20 17:16	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.1	2.4	1	05/15/20 08:40	05/15/20 17:16	206-44-0	
Fluorene	**<2.4**	ug/kg	20.1	2.4	1	05/15/20 08:40	05/15/20 17:16	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.1	4.2	1	05/15/20 08:40	05/15/20 17:16	193-39-5	
Naphthalene	**6.2J**	ug/kg	20.1	2.0	1	05/15/20 08:40	05/15/20 17:16	91-20-3	
Phenanthrene	**<2.3**	ug/kg	20.1	2.3	1	05/15/20 08:40	05/15/20 17:16	85-01-8	
Pyrene	**<3.0**	ug/kg	20.1	3.0	1	05/15/20 08:40	05/15/20 17:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	66	%	17-100		1	05/15/20 08:40	05/15/20 17:16	321-60-8	
Terphenyl-d14 (S)	64	%	17-98		1	05/15/20 08:40	05/15/20 17:16	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**16.9**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B3 D **Lab ID: 40207763004** Collected: 05/14/20 12:45 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
	Pace Analytical Services - Green Bay								
Lead	**9.3**	mg/kg	2.2	0.66	1	05/17/20 20:40	05/18/20 04:39	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
	Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**<2.9**	ug/kg	20.1	2.9	1	05/15/20 08:40	05/15/20 17:34	90-12-0	
2-Methylnaphthalene	**<2.9**	ug/kg	20.1	2.9	1	05/15/20 08:40	05/15/20 17:34	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/15/20 17:34	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	20.1	2.5	1	05/15/20 08:40	05/15/20 17:34	208-96-8	
Anthracene	**<2.5**	ug/kg	20.1	2.5	1	05/15/20 08:40	05/15/20 17:34	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/15/20 17:34	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.1	2.3	1	05/15/20 08:40	05/15/20 17:34	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.1	2.8	1	05/15/20 08:40	05/15/20 17:34	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	20.1	3.5	1	05/15/20 08:40	05/15/20 17:34	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/15/20 17:34	207-08-9	
Chrysene	**<3.8**	ug/kg	20.1	3.8	1	05/15/20 08:40	05/15/20 17:34	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.1	2.8	1	05/15/20 08:40	05/15/20 17:34	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.1	2.4	1	05/15/20 08:40	05/15/20 17:34	206-44-0	
Fluorene	**<2.4**	ug/kg	20.1	2.4	1	05/15/20 08:40	05/15/20 17:34	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.1	4.2	1	05/15/20 08:40	05/15/20 17:34	193-39-5	
Naphthalene	**<2.0**	ug/kg	20.1	2.0	1	05/15/20 08:40	05/15/20 17:34	91-20-3	
Phenanthrene	**<2.3**	ug/kg	20.1	2.3	1	05/15/20 08:40	05/15/20 17:34	85-01-8	
Pyrene	**<3.0**	ug/kg	20.1	3.0	1	05/15/20 08:40	05/15/20 17:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	17-100		1	05/15/20 08:40	05/15/20 17:34	321-60-8	
Terphenyl-d14 (S)	61	%	17-98		1	05/15/20 08:40	05/15/20 17:34	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**16.9**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B5 A **Lab ID: 40207763005** Collected: 05/14/20 13:00 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
	Pace Analytical Services - Green Bay								
Lead	**11.1**	mg/kg	2.4	0.73	1	05/17/20 20:40	05/18/20 04:41	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
	Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**4.4J**	ug/kg	20.5	3.0	1	05/15/20 08:40	05/15/20 17:51	90-12-0	
2-Methylnaphthalene	**7.9J**	ug/kg	20.5	3.0	1	05/15/20 08:40	05/15/20 17:51	91-57-6	
Acenaphthene	**4.8J**	ug/kg	20.5	2.7	1	05/15/20 08:40	05/15/20 17:51	83-32-9	
Acenaphthylene	**<2.6**	ug/kg	20.5	2.6	1	05/15/20 08:40	05/15/20 17:51	208-96-8	
Anthracene	**<2.5**	ug/kg	20.5	2.5	1	05/15/20 08:40	05/15/20 17:51	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.5	2.6	1	05/15/20 08:40	05/15/20 17:51	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.5	2.3	1	05/15/20 08:40	05/15/20 17:51	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.5	2.8	1	05/15/20 08:40	05/15/20 17:51	205-99-2	
Benzo(g,h,i)perylene	**<3.6**	ug/kg	20.5	3.6	1	05/15/20 08:40	05/15/20 17:51	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.5	2.6	1	05/15/20 08:40	05/15/20 17:51	207-08-9	
Chrysene	**<3.9**	ug/kg	20.5	3.9	1	05/15/20 08:40	05/15/20 17:51	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.5	2.8	1	05/15/20 08:40	05/15/20 17:51	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.5	2.4	1	05/15/20 08:40	05/15/20 17:51	206-44-0	
Fluorene	**<2.5**	ug/kg	20.5	2.5	1	05/15/20 08:40	05/15/20 17:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.3**	ug/kg	20.5	4.3	1	05/15/20 08:40	05/15/20 17:51	193-39-5	
Naphthalene	**39.3**	ug/kg	20.5	2.0	1	05/15/20 08:40	05/15/20 17:51	91-20-3	
Phenanthrene	**3.7J**	ug/kg	20.5	2.3	1	05/15/20 08:40	05/15/20 17:51	85-01-8	
Pyrene	**<3.0**	ug/kg	20.5	3.0	1	05/15/20 08:40	05/15/20 17:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	17-100		1	05/15/20 08:40	05/15/20 17:51	321-60-8	
Terphenyl-d14 (S)	64	%	17-98		1	05/15/20 08:40	05/15/20 17:51	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**18.4**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B5 B **Lab ID: 40207763006** Collected: 05/14/20 13:05 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay								
Lead	**11.1**	mg/kg	2.4	0.71	1	05/17/20 20:40	05/18/20 04:44	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546 Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**<2.9**	ug/kg	20.1	2.9	1	05/15/20 08:40	05/18/20 10:04	90-12-0	
2-Methylnaphthalene	**<2.9**	ug/kg	20.1	2.9	1	05/15/20 08:40	05/18/20 10:04	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/18/20 10:04	83-32-9	
Acenaphthylene	**<2.5**	ug/kg	20.1	2.5	1	05/15/20 08:40	05/18/20 10:04	208-96-8	
Anthracene	**<2.5**	ug/kg	20.1	2.5	1	05/15/20 08:40	05/18/20 10:04	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/18/20 10:04	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.1	2.3	1	05/15/20 08:40	05/18/20 10:04	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.1	2.8	1	05/15/20 08:40	05/18/20 10:04	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	20.1	3.5	1	05/15/20 08:40	05/18/20 10:04	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.1	2.6	1	05/15/20 08:40	05/18/20 10:04	207-08-9	
Chrysene	**<3.8**	ug/kg	20.1	3.8	1	05/15/20 08:40	05/18/20 10:04	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.1	2.8	1	05/15/20 08:40	05/18/20 10:04	53-70-3	
Fluoranthene	**3.6J**	ug/kg	20.1	2.4	1	05/15/20 08:40	05/18/20 10:04	206-44-0	
Fluorene	**<2.4**	ug/kg	20.1	2.4	1	05/15/20 08:40	05/18/20 10:04	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.1	4.2	1	05/15/20 08:40	05/18/20 10:04	193-39-5	
Naphthalene	**3.9J**	ug/kg	20.1	2.0	1	05/15/20 08:40	05/18/20 10:04	91-20-3	
Phenanthrene	**3.3J**	ug/kg	20.1	2.3	1	05/15/20 08:40	05/18/20 10:04	85-01-8	
Pyrene	**<3.0**	ug/kg	20.1	3.0	1	05/15/20 08:40	05/18/20 10:04	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	51	%	17-100		1	05/15/20 08:40	05/18/20 10:04	321-60-8	
Terphenyl-d14 (S)	68	%	17-98		1	05/15/20 08:40	05/18/20 10:04	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87 Pace Analytical Services - Green Bay								
Percent Moisture	**17.1**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B5 C **Lab ID: 40207763007** Collected: 05/14/20 13:10 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
	Pace Analytical Services - Green Bay								
Lead	**13.7**	mg/kg	2.4	0.72	1	05/17/20 20:40	05/18/20 04:46	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
	Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**<3.0**	ug/kg	20.3	3.0	1	05/15/20 08:40	05/18/20 10:22	90-12-0	
2-Methylnaphthalene	**<3.0**	ug/kg	20.3	3.0	1	05/15/20 08:40	05/18/20 10:22	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.3	2.6	1	05/15/20 08:40	05/18/20 10:22	83-32-9	
Acenaphthylene	**<2.6**	ug/kg	20.3	2.6	1	05/15/20 08:40	05/18/20 10:22	208-96-8	
Anthracene	**<2.5**	ug/kg	20.3	2.5	1	05/15/20 08:40	05/18/20 10:22	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.3	2.6	1	05/15/20 08:40	05/18/20 10:22	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.3	2.3	1	05/15/20 08:40	05/18/20 10:22	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.3	2.8	1	05/15/20 08:40	05/18/20 10:22	205-99-2	
Benzo(g,h,i)perylene	**<3.6**	ug/kg	20.3	3.6	1	05/15/20 08:40	05/18/20 10:22	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.3	2.6	1	05/15/20 08:40	05/18/20 10:22	207-08-9	
Chrysene	**<3.8**	ug/kg	20.3	3.8	1	05/15/20 08:40	05/18/20 10:22	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.3	2.8	1	05/15/20 08:40	05/18/20 10:22	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.3	2.4	1	05/15/20 08:40	05/18/20 10:22	206-44-0	
Fluorene	**<2.4**	ug/kg	20.3	2.4	1	05/15/20 08:40	05/18/20 10:22	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.3	4.2	1	05/15/20 08:40	05/18/20 10:22	193-39-5	
Naphthalene	**4.7J**	ug/kg	20.3	2.0	1	05/15/20 08:40	05/18/20 10:22	91-20-3	
Phenanthrene	**<2.3**	ug/kg	20.3	2.3	1	05/15/20 08:40	05/18/20 10:22	85-01-8	
Pyrene	**<3.0**	ug/kg	20.3	3.0	1	05/15/20 08:40	05/18/20 10:22	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	60	%	17-100		1	05/15/20 08:40	05/18/20 10:22	321-60-8	
Terphenyl-d14 (S)	78	%	17-98		1	05/15/20 08:40	05/18/20 10:22	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**17.5**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Sample: B5 D **Lab ID: 40207763008** Collected: 05/14/20 13:15 Received: 05/14/20 15:55 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
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
	Pace Analytical Services - Green Bay								
Lead	**11.3**	mg/kg	2.4	0.72	1	05/17/20 20:40	05/18/20 04:48	7439-92-1	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
	Pace Analytical Services - Green Bay								
1-Methylnaphthalene	**<3.0**	ug/kg	20.2	3.0	1	05/15/20 08:40	05/18/20 14:47	90-12-0	
2-Methylnaphthalene	**<3.0**	ug/kg	20.2	3.0	1	05/15/20 08:40	05/18/20 14:47	91-57-6	
Acenaphthene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 14:47	83-32-9	
Acenaphthylene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 14:47	208-96-8	
Anthracene	**<2.5**	ug/kg	20.2	2.5	1	05/15/20 08:40	05/18/20 14:47	120-12-7	
Benzo(a)anthracene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 14:47	56-55-3	
Benzo(a)pyrene	**<2.3**	ug/kg	20.2	2.3	1	05/15/20 08:40	05/18/20 14:47	50-32-8	
Benzo(b)fluoranthene	**<2.8**	ug/kg	20.2	2.8	1	05/15/20 08:40	05/18/20 14:47	205-99-2	
Benzo(g,h,i)perylene	**<3.5**	ug/kg	20.2	3.5	1	05/15/20 08:40	05/18/20 14:47	191-24-2	
Benzo(k)fluoranthene	**<2.6**	ug/kg	20.2	2.6	1	05/15/20 08:40	05/18/20 14:47	207-08-9	
Chrysene	**<3.8**	ug/kg	20.2	3.8	1	05/15/20 08:40	05/18/20 14:47	218-01-9	
Dibenz(a,h)anthracene	**<2.8**	ug/kg	20.2	2.8	1	05/15/20 08:40	05/18/20 14:47	53-70-3	
Fluoranthene	**<2.4**	ug/kg	20.2	2.4	1	05/15/20 08:40	05/18/20 14:47	206-44-0	
Fluorene	**<2.4**	ug/kg	20.2	2.4	1	05/15/20 08:40	05/18/20 14:47	86-73-7	
Indeno(1,2,3-cd)pyrene	**<4.2**	ug/kg	20.2	4.2	1	05/15/20 08:40	05/18/20 14:47	193-39-5	
Naphthalene	**3.5J**	ug/kg	20.2	2.0	1	05/15/20 08:40	05/18/20 14:47	91-20-3	
Phenanthrene	**<2.3**	ug/kg	20.2	2.3	1	05/15/20 08:40	05/18/20 14:47	85-01-8	
Pyrene	**<3.0**	ug/kg	20.2	3.0	1	05/15/20 08:40	05/18/20 14:47	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	78	%	17-100		1	05/15/20 08:40	05/18/20 14:47	321-60-8	
Terphenyl-d14 (S)	69	%	17-98		1	05/15/20 08:40	05/18/20 14:47	1718-51-0	
Percent Moisture	Analytical Method: ASTM D2974-87								
	Pace Analytical Services - Green Bay								
Percent Moisture	**17.4**	%	0.10	0.10	1		05/14/20 16:26		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

QC Batch: 355129 — Analysis Method: EPA 6010
QC Batch Method: EPA 3050 — Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207763001, 40207763002, 40207763003, 40207763004, 40207763005, 40207763006, 40207763007, 40207763008

METHOD BLANK: 2054896 — Matrix: Solid
Associated Lab Samples: 40207763001, 40207763002, 40207763003, 40207763004, 40207763005, 40207763006, 40207763007, 40207763008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	<0.60	2.0	05/18/20 03:36	

LABORATORY CONTROL SAMPLE: 2054897

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	50.8	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2054898 2054899

Parameter	Units	40207779001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/kg	22.1	291	291	298	297	95	95	75-125	0	20	

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, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

QC Batch: 355040
QC Batch Method: EPA 3546
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207763001, 40207763002, 40207763003, 40207763004, 40207763005, 40207763006, 40207763007, 40207763008

METHOD BLANK: 2054137 Matrix: Solid
Associated Lab Samples: 40207763001, 40207763002, 40207763003, 40207763004, 40207763005, 40207763006, 40207763007, 40207763008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<2.4	16.7	05/15/20 12:57	
2-Methylnaphthalene	ug/kg	<2.4	16.7	05/15/20 12:57	
Acenaphthene	ug/kg	<2.2	16.7	05/15/20 12:57	
Acenaphthylene	ug/kg	<2.1	16.7	05/15/20 12:57	
Anthracene	ug/kg	<2.1	16.7	05/15/20 12:57	
Benzo(a)anthracene	ug/kg	<2.2	16.7	05/15/20 12:57	
Benzo(a)pyrene	ug/kg	<1.9	16.7	05/15/20 12:57	
Benzo(b)fluoranthene	ug/kg	<2.3	16.7	05/15/20 12:57	
Benzo(g,h,i)perylene	ug/kg	<2.9	16.7	05/15/20 12:57	
Benzo(k)fluoranthene	ug/kg	<2.1	16.7	05/15/20 12:57	
Chrysene	ug/kg	<3.1	16.7	05/15/20 12:57	
Dibenz(a,h)anthracene	ug/kg	<2.3	16.7	05/15/20 12:57	
Fluoranthene	ug/kg	<2.0	16.7	05/15/20 12:57	
Fluorene	ug/kg	<2.0	16.7	05/15/20 12:57	
Indeno(1,2,3-cd)pyrene	ug/kg	<3.5	16.7	05/15/20 12:57	
Naphthalene	ug/kg	<1.6	16.7	05/15/20 12:57	
Phenanthrene	ug/kg	<1.9	16.7	05/15/20 12:57	
Pyrene	ug/kg	<2.5	16.7	05/15/20 12:57	
2-Fluorobiphenyl (S)	%	79	17-100	05/15/20 12:57	
Terphenyl-d14 (S)	%	81	17-98	05/15/20 12:57	

LABORATORY CONTROL SAMPLE: 2054138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	248	74	58-101	
2-Methylnaphthalene	ug/kg	333	236	71	59-101	
Acenaphthene	ug/kg	333	270	81	62-97	
Acenaphthylene	ug/kg	333	281	84	67-102	
Anthracene	ug/kg	333	307	92	69-120	
Benzo(a)anthracene	ug/kg	333	251	75	59-101	
Benzo(a)pyrene	ug/kg	333	297	89	70-110	
Benzo(b)fluoranthene	ug/kg	333	280	84	66-111	
Benzo(g,h,i)perylene	ug/kg	333	273	82	64-106	
Benzo(k)fluoranthene	ug/kg	333	310	93	65-108	
Chrysene	ug/kg	333	278	83	61-102	
Dibenz(a,h)anthracene	ug/kg	333	283	85	64-120	
Fluoranthene	ug/kg	333	287	86	69-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

LABORATORY CONTROL SAMPLE: 2054138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluorene	ug/kg	333	285	86	70-99	
Indeno(1,2,3-cd)pyrene	ug/kg	333	285	85	66-120	
Naphthalene	ug/kg	333	248	74	60-95	
Phenanthrene	ug/kg	333	285	85	66-98	
Pyrene	ug/kg	333	260	78	63-120	
2-Fluorobiphenyl (S)	%			76	17-100	
Terphenyl-d14 (S)	%			78	17-98	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2054139 2054140

Parameter	Units	40207618002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	<2.8	380	380	244	241	64	63	48-101	1	25	
2-Methylnaphthalene	ug/kg	<2.8	380	380	239	234	63	61	46-101	2	21	
Acenaphthene	ug/kg	<2.5	380	380	286	303	75	79	52-97	6	20	
Acenaphthylene	ug/kg	<2.4	380	380	297	291	78	77	51-102	2	20	
Anthracene	ug/kg	<2.4	380	380	300	332	79	87	54-120	10	20	
Benzo(a)anthracene	ug/kg	11.7J	380	380	252	268	63	68	34-101	6	22	
Benzo(a)pyrene	ug/kg	16.1J	380	380	305	326	76	82	46-110	7	25	
Benzo(b)fluoranthene	ug/kg	18.7J	380	380	299	339	74	84	40-111	13	23	
Benzo(g,h,i)perylene	ug/kg	13.3J	380	380	278	297	70	75	40-120	6	24	
Benzo(k)fluoranthene	ug/kg	8.2J	380	380	300	350	77	90	47-108	15	24	
Chrysene	ug/kg	12.2J	380	380	277	298	70	75	35-115	7	20	
Dibenz(a,h)anthracene	ug/kg	<2.6	380	380	282	304	74	79	46-120	8	21	
Fluoranthene	ug/kg	18.6J	380	380	305	308	75	76	52-120	1	23	
Fluorene	ug/kg	<2.3	380	380	295	308	78	81	54-99	4	20	
Indeno(1,2,3-cd)pyrene	ug/kg	9.6J	380	380	285	311	73	79	46-120	9	22	
Naphthalene	ug/kg	2.3J	380	380	264	277	69	72	46-95	5	23	
Phenanthrene	ug/kg	7.9J	380	380	291	306	75	79	51-98	5	20	
Pyrene	ug/kg	15.0J	380	380	265	286	66	71	46-120	8	24	
2-Fluorobiphenyl (S)	%						66	68	17-100			
Terphenyl-d14 (S)	%						61	67	17-98			

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, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

QC Batch: 354979
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40207763001, 40207763002, 40207763003, 40207763004, 40207763005, 40207763006, 40207763007, 40207763008

SAMPLE DUPLICATE: 2053941

Parameter	Units	40207737006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	2.9	3.0	2	10	

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, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

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, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: STH 23 FMR TYNAN 382762
Pace Project No.: 40207763

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40207763001	**B3 A**	EPA 3050	355129	EPA 6010	355136
40207763002	**B3 B**	EPA 3050	355129	EPA 6010	355136
40207763003	**B3 C**	EPA 3050	355129	EPA 6010	355136
40207763004	**B3 D**	EPA 3050	355129	EPA 6010	355136
40207763005	**B5 A**	EPA 3050	355129	EPA 6010	355136
40207763006	**B5 B**	EPA 3050	355129	EPA 6010	355136
40207763007	**B5 C**	EPA 3050	355129	EPA 6010	355136
40207763008	**B5 D**	EPA 3050	355129	EPA 6010	355136
40207763001	**B3 A**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763002	**B3 B**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763003	**B3 C**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763004	**B3 D**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763005	**B5 A**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763006	**B5 B**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763007	**B5 C**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763008	**B5 D**	EPA 3546	355040	EPA 8270 by SIM	355086
40207763001	**B3 A**	ASTM D2974-87	354979		
40207763002	**B3 B**	ASTM D2974-87	354979		
40207763003	**B3 C**	ASTM D2974-87	354979		
40207763004	**B3 D**	ASTM D2974-87	354979		
40207763005	**B5 A**	ASTM D2974-87	354979		
40207763006	**B5 B**	ASTM D2974-87	354979		
40207763007	**B5 C**	ASTM D2974-87	354979		
40207763008	**B5 D**	ASTM D2974-87	354979		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

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CHAIN OF CUSTODY

(Please Print Clearly)	
Company Name:	TRC
Branch/Location:	Madison
Project Contact:	Dan Hook
Phone:	608 826 3628
Project Number:	382762
Project Name:	STH23 Fmr Tynan
Project State:	WI
Sampled By (Print):	Dan Hook
Sampled By (Sign):	Dan Hook
PO #:	Regulatory Program:

Quote #:	40207163
Mail To Contact:	Dan Hook
Mail To Company:	TRC
Mail To Address:	708 Heartland Tr Ste 3000 Madison WI 53717
Invoice To Contact:	Dan Hook
Invoice To Company:	
Invoice To Address:	Same
Invoice To Phone:	

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SI = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: Lead	Analyses Requested: PAHs
					N	A		
001	B3 A	5/14/20	12:35	S	X	X		
002	B3 B		12:35					
003	B3 C		12:40					
004	B3 D		12:45					
005	B5 A		13:00					
006	B5 B		13:05					
007	B5 C		13:10					
008	B5 D		13:15					

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	dhook@trcompanies.com
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
Dan Hook	5/14/20 3:40	Vyvyan Cole Pace	5/14/20 1555

PACE Project No.: 40207163

Receipt Temp = 2.0 °C

Sample Receipt pH: OK / Adjusted

Cooler Custody Seal: Present / ~~Not Present~~

Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: TRC Project # 46207763

All containers needing preservation have been checked and noted below: □Yes □No ☒N/A Initial when completed: Date/ Time:

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted):

	Glass							Plastic					Vials						Jars				General			VOA Vials (>6mm) *						
Pace Lab #	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN		H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																				1												2.5 / 5 / 10
002																				1												2.5 / 5 / 10
003																				1												2.5 / 5 / 10
004																				1												2.5 / 5 / 10
005																				1												2.5 / 5 / 10
006																				1												2.5 / 5 / 10
007																				1												2.5 / 5 / 10
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019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

VC 5/14/20

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other:_____ Headspace in VOA Vials (>6mm) : □Yes □No ☒N/A ***If yes look in headspace column**

AG1U	1 liter amber glass
BG1U	1 liter clear glass
AG1H	1 liter amber glass HCL
AG4S	125 mL amber glass H2SO4
AG4U	120 mL amber glass unpres
AG5U	100 mL amber glass unpres
AG2S	500 mL amber glass H2SO4
BG3U	250 mL clear glass unpres

BP1U	1 liter plastic unpres
BP3U	250 mL plastic unpres
BP3B	250 mL plastic NaOH
BP3N	250 mL plastic HNO3
BP3S	250 mL plastic H2SO4

VG9A	40 mL clear ascorbic
DG9T	40 mL amber Na Thio
VG9U	40 mL clear vial unpres
VG9H	40 mL clear vial HCL
VG9M	40 mL clear vial MeOH
VG9D	40 mL clear vial DI

JGFU	4 oz amber jar unpres
JG9U	9 oz amber jar unpres
WGFU	4 oz clear jar unpres
WPFU	4 oz plastic jar unpres
SP5T	120 mL plastic Na Thiosulfate
ZPLC	ziploc bag
GN	

Pace Analytical® 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40207763

Client Name: TRC

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☒ Client ☐ Pace Other: ____

Tracking #: ____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

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

Thermometer Used SR - NA **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROL /Corr: ____

Temp Blank Present: ☐ yes ☒ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Person examining contents: Date: 5/14/20 Initials: KC

Labeled By Initials: SMW

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.

Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☒No ☐N/A	2. no page # VC 5/14/20
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☒No	6.
Rush Turn Around Time Requested:	☐Yes ☒No	7.
Sufficient Volume: For Analysis: ☐Yes ☐No MS/MSD:	☐Yes ☒No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☐Yes ☒No ☐N/A	12. sample 008 has no label. none of the sample labels have time or date VC 5/14/20
Trip Blank Present:	☐Yes ☐No ☒N/A	13.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased): ____		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: ____ Date/Time: ____

Comments/ Resolution: ____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir

Attachment 2

Disposal Records

REPRINT

HICKORY MEADOWS LANDFILL
W3105 SCHNEIDER ROAD
HILBERT, WI 54129
9208538553

000864 - MASHUDA CONTRACTORS
PO BOX 16
N6504 HWY 73
PRINCETON, WI 54968

INVOICE
INBOUND

Work Order: 0			Route #: 0
SITE	CELL	OPERATOR	TICKET #
B5		SBROECKEL	**728363**

TRUCK	CONTAINER	LICENSE		
Z88				
REFERENCE			IN	OUT
			5/15/20 8:12 am	5/15/20 8:24 am

CONTRACT: HML20-024
BOL:

GROSS 57,520.00 LBS Scale In
TARE 29,620.00 LBS Scale Out
NET 27,900.00

QTY	UNIT	DESCRIPTION	%	RATE	TAX	TOTAL
1.00	EA	APPROVAL FEE SPEC	0.00			
13.95	TN	37A Remediated Waste / Soil (Ext)	0.00			

HAVE A GREAT DAY!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

FACILITY COPY

Total
Paid
Change
Check#
Recpt #

SIGNATURE:_____

REPRINT

HICKORY MEADOWS LANDFILL
W3105 SCHNEIDER ROAD
HILBERT, WI 54129
9208538553

000864 - MASHUDA CONTRACTORS
PO BOX 16
N6504 HWY 73
PRINCETON, WI 54968

INVOICE
INBOUND

Work Order: 0			Route #: 0
SITE	CELL	OPERATOR	TICKET #
B5		SBROECKEL	**728401**

TRUCK	CONTAINER	LICENSE		
Z88				
REFERENCE			IN	OUT
			5/15/20 10:41 am	5/15/20 10:51 am

CONTRACT: HML20-024
BOL:

GROSS 61,880.00 LBS Scale In
TARE 29,920.00 LBS Scale Out
NET 31,960.00

QTY	UNIT	DESCRIPTION	%	RATE	TAX	TOTAL
15.98	TN	37A Remediated Waste / Soil (Ext)	0.00			

HAVE A GREAT DAY!!

I hereby certify that this load does not contain any unauthorized hazardous waste.

FACILITY COPY

Total
Paid
Change
Check#
Recpt #

SIGNATURE:_____

Advanced Disposal

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR INFORMATION

GENERATOR INFORMATION

Generator: Wisconsin Department of Transportation Work Site: 728363

Profile Number: HML20-026 Bill To: Mashuda

Waste Description: Petroleum/Metal Contaminated Soil ***DIRECT***

I hereby certify that the above described materials are not hazardous wastes as defined by Wisconsin Administrative code NR 661 and 40CFR Part 261 and is not infectious or is not regulated pursuant to applicable federal and state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Dan Hook TPC for WisDOT — Signature — 5/14/20

Generator Authorized Agent Name (Print Here) — Signature — Date

TRANSPORTER INFORMATION

TRANSPORTER

Transporter Name (Print): ZAchow Trucking LLC

I hereby acknowledge receipt of the above described materials for transport from the generators site listed above.

Driver Signature — 05/15/2020 Date

DISPOSAL FACILITY DESTINATION

DISPOSAL INFORMATION

Site Name: Advanced Disposal Services Hickory Meadows Landfill, LLC Phone: (920) 853-8553

Site Address: W3105 Schneider Road, Hilbert, WI 54129 Fax: (920) 853-3513

Accepted by — 5/15/2020 Date Tons: 13.95

Original: Landfill Yellow:Generator Pink: Transporter Gold:Generator

Advanced Disposal

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR INFORMATION

Generator: Wisconsin Department of Transportation Work Site: 728401

Profile Number: WML20-024 Bill To: Mashuda

Waste Description: Petroleum/Metal Contaminated Soil ***DIRECT***

I hereby certify that the above described materials are not hazardous wastes as defined by Wisconsin Administrative code NR 661 and 40CFR Part 261 and is not infectious or is not regulated pursuant to applicable federal and state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Dan Hack TRC for WiDOT — Generator Authorized Agent Name (Print Here)

Dan Hack — Signature

5/14/20 — Date

TRANSPORTER INFORMATION

Transporter Name (Print): ZAchau Trucking LLC

I hereby acknowledge receipt of the above described materials for transport from the generators site listed above.

Driver Signature

05/15/2020 — Date

DISPOSAL FACILITY DESTINATION

Site Name: Advanced Disposal Services Hickory Meadows Landfill, LLC Phone: (920) 853-8553

Site Address: W3105 Schneider Road, Hilbert, WI 54129 Fax: (920) 853-3513

Accepted by

Date

Tons: ~~18.98~~ 15.98

Original: Landfill Yellow:Generator Pink: Transporter Gold:Generator

Attachment 3

WDNR Concurrence E-mail

From: Femal, Kristina A - DNR
Sent: Wednesday, October 16, 2019 3:29 PM
To: 'Haak, Daniel'
Cc: Krueger, Sarah E - DNR; VanPrice, Kathie - DOT
Subject: RE: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Hi Dan,

I reviewed your soil management plan submitted 9/4/19, revised special provisions submitted 9/30/19, and confirmation sampling plans submitted 10/11/19 and the DNR concurs with the plans.

Warm Regards,
Kristina

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Kristina Femal
Phone: (920) 662-5431
Kristina.Femal@wisconsin.gov

From: Haak, Daniel <DHaak@trccompanies.com>
Sent: Friday, October 11, 2019 10:06 AM
To: Femal, Kristina A - DNR <Kristina.Femal@wisconsin.gov>
Cc: Krueger, Sarah E - DNR <sarah.krueger@wisconsin.gov>; VanPrice, Kathie - DOT <Kathie.VanPrice@dot.wi.gov>
Subject: RE: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Kristina
As discussed, concurrent with highway construction, we plan to complete two shallow excavations (up 3 feet depth at locations shown on attached). For confirmation sampling we plan to collect up to 4 base samples for PAHs and lead from each excavation.

For the attached special provisions, I estimate 150 tons of contaminated soil will require landfill disposal.

Let me know if you have any questions.

Thanks

Dan

From: Femal, Kristina A - DNR <Kristina.Femal@wisconsin.gov>
Sent: Friday, October 11, 2019 9:43 AM
To: Haak, Daniel <DHaak@trccompanies.com>
Cc: Krueger, Sarah E - DNR <sarah.krueger@wisconsin.gov>

Subject: RE: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Hi Dan,

Kathie mentioned that she spoke to you earlier this week, so I'm just following up to see what decision has been made regarding the Tynan confirmation sampling. Please let us know.

Warm Regards,
Kristina

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Kristina Femal
Phone: (920) 662-5431
Kristina.Femal@wisconsin.gov

From: Haak, Daniel <DHaak@trccompanies.com>
Sent: Monday, September 30, 2019 11:43 AM
To: Femal, Kristina A - DNR <Kristina.Femal@wisconsin.gov>
Cc: VanPrice, Kathie - DOT <Kathie.VanPrice@dot.wi.gov>
Subject: RE: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Kristina,
Per our conversation, I've revised the special provisions (attached with red-line edits) to account for elevated lab results. Also, we discussed that excavated soil at and around B-3 will be landfilled due to the PAHs detected. It appears that the cut at this location will be minor and as such I estimate up to 100 tons of PAH-impacted soil will require landfill disposal.

Thanks

Dan

From: Femal, Kristina A - DNR <Kristina.Femal@wisconsin.gov>
Sent: Thursday, September 26, 2019 2:23 PM
To: Haak, Daniel <DHaak@trccompanies.com>
Cc: Voit, Angela <AVoit@trccompanies.com>
Subject: RE: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Hi Daniel,

I'm reviewing the soil management plan Angela submitted on 9/4 and just have a few quick questions. Forgive me if I'm overlooking the obvious, but in Figure 2, the Boring Location Map, what are the black

boxes supposed to represent? Also, could you send a map that illustrates exactly where soil will be excavated? Thanks!

Warm Regards,
Kristina

We are committed to service excellence.
Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Kristina Femal
Phone: (920) 662-5431
Kristina.Femal@wisconsin.gov

From: Haak, Daniel <DHaak@trccompanies.com>
Sent: Thursday, September 12, 2019 12:16 PM
To: Femal, Kristina A - DNR <Kristina.Femal@wisconsin.gov>
Subject: RE: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Kristina,
Since this site has a long history, let me know if you want to discuss sometime.

Thanks

Dan

Daniel Haak, P.E. (WI)
Senior Project Manager

708 Heartland Trail, Suite 3000, Madison, WI 53717
T 608.826.3628 | **F** 608.826.3941 | **C** 608.886.7423
LinkedIn | Twitter | Blog | TRCcompanies.com

Please note that our domain name and email addresses have changed

---

From: Voit, Angela <AVoit@trccompanies.com>
Sent: Wednesday, September 4, 2019 11:29 AM
To: kristina.femal@wisconsin.gov
Cc: VanPrice, Kathie - DOT <kathie.vanprice@dot.wi.gov>; Haak, Daniel <DHaak@trccompanies.com>; Bergmann, Bryan <BBergmann@trccompanies.com>
Subject: BRRTS 02-20-554881_Excavation Management Plan STH 23-Tynan Property_Fond du Lac County (WisDOT ID# 1440-15-01)

Below is the link to the Excavation Management Plan for STH 23-Tynan Property in Fond du Lac County (BRRTS# 02-20-554881 and WisDOT ID# 1440-15-01). This has been uploaded to the WDNR RR Submittal Portal and a hard copy will also be sent to you.

Please click the following link to download your file:
https://adhocftp.trccompanies.com:443/AHT/AHT_UI/public/#/password?package=7%2bKwtovKAYQbM7pAI9GWlHhjRvtMpto9%2b6I5uY%2bQcY9c48mdZOMAeCeds01dnehaoA%2fvhuRIeZI94nbKApStVo%2fR59SDsJKhHU98Bjpqd%2fk%3d

Angie Voit
Senior Project Coordinator

708 Heartland Trail, Suite 3000, Madison, WI 53717
T 608.444.3509 | avoit@trccompanies.com
LinkedIn | Twitter | Blog | TRCcompanies.com

Attachment 4

Photographic Log

Photographic Log

Client Name:	Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)	W998 STH 23 Forest, Wisconsin	WisDOT# 1440-15-72 TRC# 382762.0000.0000

Photo No.	Date
1	5/14/2020

Description
Staked out excavation area around historic boring B-5

Photo facing southeast

Photo No.	Date
2	5/14/2020

Description
Staked out excavation area around historic boring B-3

Photo facing southeast

Photographic Log

Client Name:	Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)	W998 STH 23 Forest, Wisconsin	WisDOT# 1440-15-72 TRC# 382762.0000.0000

Photo No.	Date
3	5/14/2020

Description
Soil profile at hot spot excavation near boring B-5

Photo No.	Date
4	5/14/2020

Description
Soil profile at hot spot excavation near boring B-3

Photographic Log

Client Name:	Site Location:	Project No.:
Wisconsin Department of Transportation (WisDOT)	W998 STH 23 Forest, Wisconsin	WisDOT# 1440-15-72 TRC# 382762.0000.0000

Photo No.	Date
5	5/14/2020

Description
Approximately 10’ by 10’ excavation to a depth of 3’ below ground surface around boring B-3

Photo facing west

Photo No.	Date
6	5/14/2020

Description
Post-excavation of area around boring B-5

Photo facing west