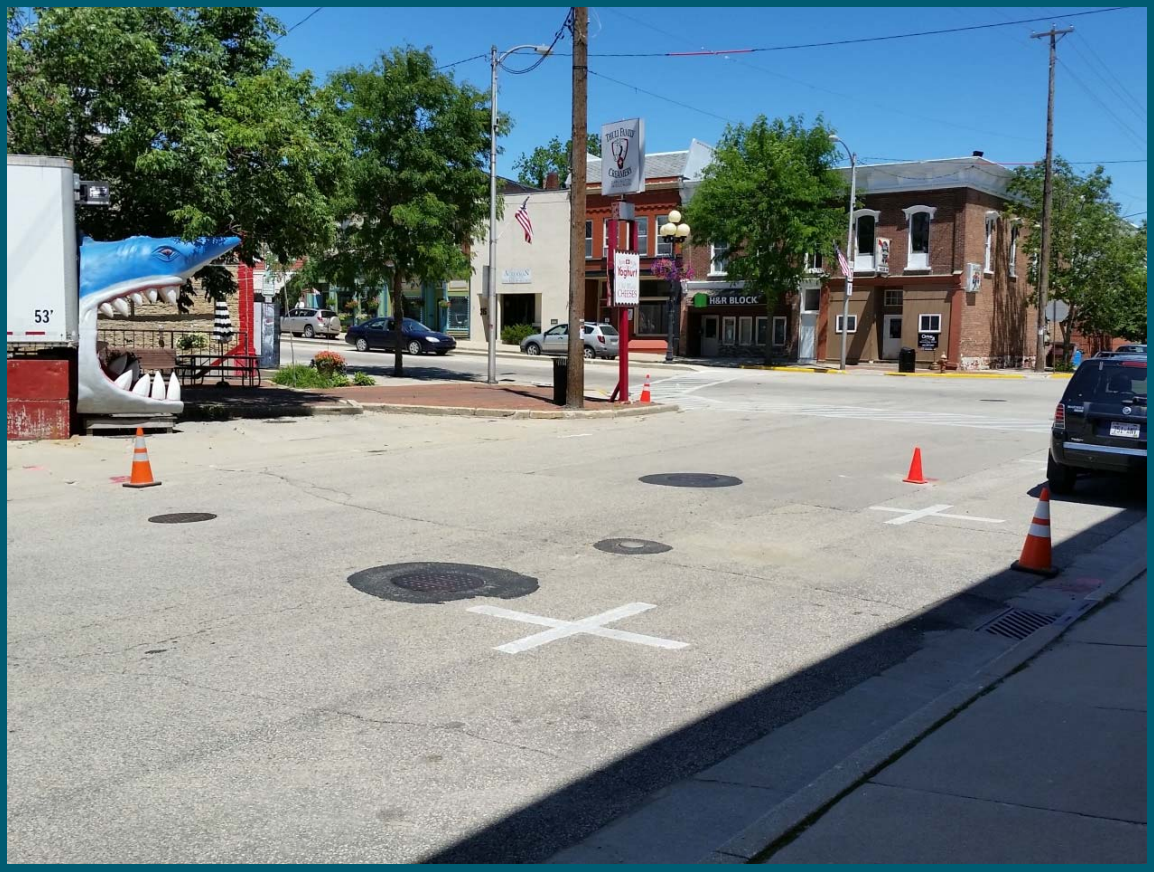
Thuli Family Creamery/Former Lafayette County Co-op
STH 23 – County Shop Road to Minerva Street
City of Darlington, Lafayette County, Wisconsin



Phase 2.5 Environmental Sampling Investigation

WisDOT Project ID No. 5245-02-02
WDNR BRRTS No. 03-33-000171

December 2016

AECOM
200 Indiana Avenue
Stevens Point, WI 54481
T 715-341-8110
F 715-341-7390
AECOM Project No. 60492955

Phase 2.5 Environmental Sampling Investigation

Thuli Family Creamery/Former Lafayette County Co-op
112 W. Ann Street
City of Darlington, Lafayette County, Wisconsin
STH 23 – County Shop Road to Minerva Street

WisDOT Project No. 5245-02-02
WDNR BRRTS No. 03-33-000171

December 22, 2016
Date

Prepared by:
Marcus Hopkins
Geologist
marcus.hopkins@aecom.com

December 22, 2016
Date

Reviewed by:
Kyle Wagoner, P.G., CHMM
Project Manager
kyle.wagoner@aecom.com

Contents

Table

List of Figures

Appendix

Acronyms and Abbreviations

bgs	below ground surface
DATCP	Wisconsin Department of Agriculture, Trade, and Consumer Protection
EPA	U.S. Environmental Protection Agency
ES	enforcement standards
GPS	Global Positioning System
IDW	Investigation Derived Wastes
LUST	leaking underground storage tank
NR 720	Wisconsin Administrative Code, Chapter NR 720
Pace	Pace Analytical Services, Inc.
PAL	preventive action limits
Phase 1	Phase 1 Hazardous Materials Assessment
Phase 2.5	Phase 2.5 Environmental Sampling Investigation
PID	Photoionization detector
PVOC	petroleum volatile organic compounds
RCL	NR 720 Residual Contaminant Level
ROW	right of way
STH	State Highway
TLE	Temporary Limited Easement
UST	underground storage tank
VES	Veolia Environmental Services
WAC	Wisconsin Administrative Code
WDNR	Wisconsin Department of Natural Resources
WisDOT	Wisconsin Department of Transportation

1.0 Executive Summary

This report summarizes the results of a Phase 2.5 Environmental Sampling Investigation (Phase 2.5) conducted at Thuli Family Creamery/Former Lafayette County Co-op site, located at 112 West Ann Street, City of Darlington, Lafayette County, Wisconsin. The site is a closed leaking underground storage tank (LUST) (2011) and is registered with Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) as having nine underground storage tanks (USTs), which are identified as being removed between 1988 and 2002. The types of petroleum products contained in the removed USTs were unleaded gasoline, fuel oil, diesel, gasohol, and waste/used motor oil. The site is currently a creamery. The purpose of the Phase 2.5 was to investigate for the presence and extent of petroleum hydrocarbon contamination within the planned construction limits and temporary lease easement (TLE) areas adjacent to the site.

On July 6, 2016, nine direct push soil borings (DP21-1 through DP21-9) were advanced to approximately 10 feet below ground surface (bgs). Two soil samples were collected from each boring for lead, petroleum volatile organic compounds (PVOCs) and naphthalene analysis. Field and analytical results of the samples collected during the Phase 2.5 indicated the following:

- The metal detector survey did not identify any potential USTs or associated piping within TLE areas.
- Photoionization detector (PID) readings of soil cuttings indicated the presence of volatile organic compounds in the area of borings DP21-2, DP21-3, DP21-5, DP21-6, DP21-8 and DP21-9.
- PVOCs and naphthalene in soil were detected at concentrations exceeding Wisconsin Administrative Code, Chapter NR 720 non-industrial direct contact residual contamination levels (RCLs) in the area of DP21-3 (7 to 8 feet bgs), DP21-5 (7 to 8 feet bgs) and DP21-9 (5 to 6 feet bgs), which is anticipated to be within construction limits. PVOCs were also reported at concentration exceeding the Wisconsin Administrative Code, Chapter NR 720 soil to groundwater pathway RCLs in the area of DP21-6 (2 to 3 feet bgs) and DP21 9 (2 to 3 feet bgs).
- Lead in soil was detected at concentrations exceeding the Wisconsin Administrative Code, Chapter NR 720 soil to groundwater pathway RCL of 27 mg/kg in the area of borings DP21-1, DP21-2, DP21-4, DP21-5 and DP21-6, between 2 to 3 feet bgs, which is anticipated to be within construction limits.
- Groundwater was encountered within approximately 8 to 10 feet of the ground surface.
- PVOCs and naphthalene in groundwater were detected at concentrations exceeding the Wisconsin Administrative Code, Chapter NR 140 enforcement standards (ES) for the samples collected from DP21-3, DP21-5, DP21-8 and DP21-9. Wisconsin Administrative Code, Chapter NR 140 preventive action limits (PALs) were also exceeded in the groundwater sample collected from DP21-6.

Based on the Phase 2.5 results, a contract special provision for management of contaminated soil excavated during construction is warranted for the Thuli Family Creamery/Former Lafayette County Co-op.

2.0 Investigation

2.1 Project Background

The Wisconsin Department of Transportation (WisDOT) is developing plans for improvements to State Highway (STH) 23 from County Shop Road to Minerva Street in the City of Darlington, Lafayette County.

Significant project dates include:

- Real Estate Acquisition: July 2017
- PS&E: May, 2019
- Construction: 2020 or 2021

The proposed improvements along the 1.5 mile-long, urban corridor consist of reconstructing STH 23 from County Shop Road to Minerva Street on current alignment with some intersection improvements to accommodate truck turning movements, and other improvements to meet current standards. Numerous areas of right-of-way (ROW) acquisition in fee and temporary lease easements (TLE) for grading are anticipated for this project.

Under the proposed improvements, the current estimate for maximum depths of excavation is anticipated to be 3 feet below the proposed final roadway surface elevation for the pavement and 5 to 10 feet below the final roadway surface elevation for water and sewer lines.

JT Engineering, Inc., performed a Phase 1 Hazardous Materials Assessment (Phase 1) for the project and documented their findings in a Phase 1 report, dated March 2016. Based on the Phase 1 results, requested that a Phase 2.5 investigation at Thuli Family Creamery/Former Lafayette County Co-op. According to the Phase 1 report, the site is a closed LUST and is registered with DATCP as having nine underground storage tanks, which are identified as being removed between 1988 and 2002. The types of petroleum products contained in the removed USTs were unleaded gasoline, fuel oil, diesel, gasohol, and waste/used motor oil. The site is currently a creamery and the LUST case was closed in 2011.

Based on previous site investigations and the elevation of the site relative to the Pecatonica River, depth to groundwater was estimated to be less than 10 feet below ground surface (bgs).

2.2 Purpose and Scope

The purpose of the Phase 2.5 was to investigate for the presence and extent of petroleum hydrocarbon contamination within existing ROW and TLE areas at the site.

The Phase 2.5 scope of work included:

- A metal detector survey for potential abandoned USTs and associated piping between the edge of STH 23 pavement to the TLE limit on the west side of STH 23.
- Advancement of nine direct-push soil borings within the project limits adjacent to the site to a maximum depth of 10 feet bgs.
- Visual classification of the soil samples obtained from the borings and field screening of samples for volatile organic vapors using a PID.
- Collection of two soil samples per boring from the direct contact zone (uppermost 4 feet), interval having the highest PID reading, visible staining, or at the bottom of the boring. Submittal of the soil samples to a laboratory for lead, PVOCs and naphthalene analysis.

- Collection of one representative soil sample from soil cuttings for waste characterization. Submittal of the representative soil sample to the laboratory for Protocol T1 analysis.
- Collection of one groundwater sample directly from each soil boring where groundwater was encountered for laboratory analysis of PVOCs and naphthalene.
- Borehole closure in accordance with the requirements of Wisconsin Administrative Code (WAC), Chapter NR 141.
- Taking photographs of the soil boring locations and measurement of the locations from site features for use in preparing a site map.
- Collection of global positioning system (GPS) coordinates from the approximate center of the investigation area.
- Investigation derived waste (IDW) (soil cuttings) generated at the site were containerized and placed in a temporary storage area.
- Contacted Veolia Environmental Services (VES) to coordinate IDW pickup and disposal.
- Preparation of this report summarizing results of the Phase 2.5.

2.3 Site Information

General site information includes:

Location:	Northwest 1/4 of the Northeast 1/4, Section 3, Township 2 North, Range 3 east (See Figure 1)
Address:	112 West Ann Street, City of Darlington, Wisconsin
County:	Lafayette
Stationing:	approximately STA 57SB+25 to 58SB+50, Left
GPS Coordinates:	Latitude: 42.679387 Longitude: -90.118258
WTM Coordinates:	X 510,311, Y 245,219

2.4 Description of Field Investigation

On July 6, 2016, nine direct-push soil borings (DP21-1 through DP21-9) were advanced at the Thuli Family Creamery/Former Lafayette County Co-op. Soil boring depths were set based on anticipated excavated depths at the site during construction. The borings were advanced using a truck-mounted hydraulic direct-push drilling rig operated by Soils & Engineering Services, Inc. Madison, Wisconsin. The locations of the borings are shown in Figure 2. Photographs are presented in Appendix A. Bentley gINT® boring logs (Wisconsin Department of Natural Resources (WDNR) Form 4400-122) are provided in Appendix B.

Soil samples were collected continuously from the direct-push sampler and field screened using a PID. The PID is capable of detecting and measuring relative concentrations of volatile organic vapors in the soil gas. PID readings were recorded on the soil boring logs. Soil gas monitoring procedures are described in Appendix C.

Two soil samples were collected from each boring for laboratory analysis by Pace Analytical Services, Inc. (Pace). The samples submitted for laboratory analysis were collected from the direct contact zone (uppermost 4 feet), highest PID reading, visible staining or bottom of boring and were analyzed for PVOCs and naphthalene. Soil sampling procedures are discussed in Appendix D.

After sampling, the borings were abandoned with bentonite in general accordance with the requirements of Wisconsin Administrative Code (WAC), Chapter NR 141. Abandonment forms (WDNR Form 3300-005) are presented in Appendix E.

Soil cuttings generated during borehole advancement were containerized in a 5-gallon plastic bucket with lid, identified with appropriate WisDOT label, and temporarily stored within the City of Darlington Municipal Building, located at 101-149 Spring Street. A non-hazardous IDW pickup request was emailed to VES with supporting documentation on July 25, 2016. Waste disposal request documentation is presented in Appendix F.

2.5 Subsurface Conditions

Subsurface materials encountered generally included sand and sandy/silty clay with gravel to the borings termination depths. The ground surface at the boring locations was concrete or asphalt covered.

Field screening results did indicate the presence of volatile organic vapors in soil borings DP21-2, DP21-3, DP21-5, DP21-6, DP21-8 and DP21-9.

Based on United States Geological Survey geological mapping, it appears that native soils in the area of the site consists of stratified lake deposits of clay, silt and sand, underlain by undifferentiated dolomite and limestone of the Galena, Decorah and Platteville formations.

Groundwater was encountered within approximately 8 to 10 feet bgs during borehole advancement. Regional groundwater flow direction in the project area is generally expected to the south and southwest. Local groundwater flow is generally in the direction of the Pecatonica River. The regional topography of the project area was generally hilly terrain, sloping downward toward the southwest.

The metal detector survey did not indicate the presence of UST's or associated piping.

2.6 Analytical Parameters and Results

Analytical parameters were selected in general accordance with WisDOT and WDNR guidance for investigations of LUST sites with potential unknown subsurface impacts. Soil and groundwater samples were submitted to Pace for analysis. Analytical results for soil samples were compared against the WAC, NR 720 non-industrial direct contact and groundwater pathway RCLs, updated June 2016. Analytical results for groundwater samples were compared against the WAC, NR 140 ES and PAL, updated July 2015. Standard analytical procedures are discussed in Appendix G. Analytical results for soil and groundwater are summarized in Tables 1 and 2, respectively. The laboratory report and sample chain of custody form is included in Appendix H.

2.6.1 Soil

PVOCs and naphthalene were reported as exceeding the NR 720 non-industrial direct contact RCLs for ethylbenzene and naphthalene in boring DP21-3 (7.0 to 8.0 feet bgs), benzene, ethylbenzene and naphthalene in boring DP21-5 (7.0 to 8.0 feet bgs) and ethylbenzene, 1,2,4-trimethylbenzene and naphthalene in borings DP21-9 (5.0 to 6.0 feet bgs). PVOCs were also reported as exceeding the NR 720 soil to groundwater pathway RCLs for benzene, methyl-tert-butyl ether, toluene, trimethylbenzenes (combined) and Xylenes (combined) in boring DP21-3, DP21-5 and DP21-9, as well as benzene, methyl-tert-butyl ether and trimethylbenzenes (combined) in borings DP21-6, and DP21-9.

Lead was reported at concentrations ranging from 1.6 to 213 mg/kg exceeding the NR 720 soil to groundwater pathway RCL of 27 mg/kg in borings DP21-1, DP21-2, DP21-4 DP21-5 and DP21-6.

2.6.2 Groundwater

PVOCs were reported as exceeding the NR 140 ES for the groundwater samples collected from DP21-8 (benzene) and DP21-3, DP21-5 and DP21-9 (ethylbenzene, naphthalene, toluene, trimethylbenzenes and xylenes) as well as exceeding the NR 140 PALs for the groundwater samples collected from DP21-3, DP21-5 (methyl tert butyl ether), DP21-6 (1,2,4-trimethylbenzene) and DP21-9 (methyl tert-butyl ether and toluene).

2.7 Conclusions and Recommendation

Field and analytical results of the soil samples collected during the Phase 2.5 indicated the following:

- The metal detector survey did not identify any potential USTs or associated piping within TLE areas.
- PID readings of soil cuttings indicated the presence of volatile organic compounds in the area of borings DP21-2, DP21-3, DP21-5, DP21-6, DP21-8 and DP21-9.
- PVOCs and naphthalene in soil were detected at concentrations exceeding Wisconsin Administrative Code, Chapter NR 720 non-industrial direct contact RCLs in the area of DP21-3 (7 to 8 feet bgs), DP21-5 (7 to 8 feet bgs) and DP21-9 (5 to 6 feet bgs), which is anticipated to be within construction limits. PVOCs were also reported at concentration exceeding the Wisconsin Administrative Code, Chapter NR 720 soil to groundwater pathway RCLs in the area of DP21-6 (2 to 3 feet bgs) and DP21-9 (2 to 3 feet bgs).
- Lead in soil was detected at concentrations exceeding the Wisconsin Administrative Code, Chapter NR 720 soil to groundwater pathway RCL of 27 mg/kg in the area of borings DP21-1, DP21-2, DP21-4, DP21-5 and DP21-6, between 2 to 3 feet bgs, which is anticipated to be within construction limits.
- Groundwater was encountered within approximately 8 to 10 feet of the ground surface.
- PVOCs and naphthalene in groundwater were detected at concentrations exceeding the Wisconsin Administrative Code, Chapter NR 140 ES for the samples collected from DP21-3, DP21-5, DP21-8 and DP21-9. Wisconsin Administrative Code, Chapter NR 140 PALs were also exceeded in the groundwater sample collected from DP21-6.

Based on the Phase 2.5 results, a contract special provision for management of contaminated soil excavated during construction is warranted for the Thuli Family Creamery/Former Lafayette County Co-op.

3.0 Limitations

AECOM's scope of services was limited to conducting a Phase 2.5 within ROW and TLE adjacent to the Thuli Family Creamery/Former Lafayette County Co-op.

AECOM's opinion regarding existing conditions at the site does not constitute a guarantee or warranty as to the potential environmental liability associated with the site. Furthermore, the findings and conclusions given are not scientific certainties, but rather probabilities based on data obtained or activities performed during this assessment and professional judgment concerning the significance of this data. Information was collected in accordance with generally accepted professional standards and practices, accepted in good faith, and are assumed to be factual and accurate.

AECOM is not able to determine whether the site or adjoining land areas contain hazardous waste, oil, or other latent conditions beyond those detected or observed by AECOM at the time the investigation was conducted. The possibility exists for contaminants to migrate through the surface water, air, or groundwater. Detailed analysis and discussion of the environmental risk associated with contaminant transport in these media was beyond the scope of this assessment.

The findings, conclusions, and opinion contained in this report are intended for exclusive use by WisDOT and are applicable only to this Phase 2.5. AECOM has no obligations to other persons or organizations that may use or rely upon this information.

4.0 References

JT Engineering, Inc., Phase 1 Hazardous Materials Assessment Report, STH 23, County Shop Road to Minerva Street, City of Darlington, Lafayette County, Wisconsin, March 29, 2016.

U.S. Geological Survey. 1972. Darlington, Wis., 7.5'-Minute Quadrangle

S.M. Hindall and E.L. Skinner, Water Resources of Wisconsin – Pecatonica-Sugar River Basin Hydrologic Investigations, Atlas HA-453, 1973.

Wisconsin Administrative Code, Chapter NR 720, Soil Cleanup Standards, Register, November 2013, No. 695.

Wisconsin Administrative Code, Chapter NR 140, Groundwater Quality, Register, July 2015, No. 715

Wisconsin Department of Natural Resources Remediation and Redevelopment Program, RCL spreadsheet, Updated June 2016.

Soil Sample Analytical Results

Table 1

Table 1

Phase 2.5 Soil Sample Analytical Results
Thuli Family Creamery / Former Lafayette County Co-op
112 W. Ann St. Darlington, Lafayette County, Wisconsin

AECOM Project No. 60492955
WisDOT Project No. 5245-02-02

		Soil Boring/Sample ID:	DP21-1	DP21-1	DP21-2	DP21-2	DP21-3	DP21-3	DP21-4	DP21-4	DP21-5	DP21-5	DP21-6	DP21-6	DP21-7	DP21-7	DP21-8	DP21-8	DP21-9	DP21-9	WC
		Sample Depth (feet):	2-4'	8-10'	2-4'	7-8'	4-6'	7-8'	2-4'	8.5-9.5'	2-4'	7-8'	2-3'	5-6'	3-4'	8-9'	1-2'	7-8'	2-3'	5-6'	
		PID Readings (i.u):	5.5	3.4	4.3	4.2	5.8	480	1.5	2.0	52.6	522	205	12.6	4.7	4.9	1.0	4.4	35.6	503	
		Sample Date:	7/6/2016	7/6/2016	7/6/2016	7/6/2016	7/6/2016	7/6/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016
Analyte	**Non-Industrial D-C RCL**	**RCL-gw**	**Results**																		
PVOCs+Nap (µg/kg)																					
Benzene	1,490	5.1	<25.0	<25.0	<25.0	<25.0	<25.0	**<200**	<25.0	<25.0	37.5J	**2,880**	**<200**	<25.0	<25.0	<25.0	<25.0	<25.0	**197**	**<250**	**4,690**
Ethylbenzene	7,470	1,570	<25.0	<25.0	<25.0	<25.0	<25.0	**13,300**	<25.0	<25.0	<25.0	**23,100**	<200	<25.0	<25.0	<25.0	<25.0	<25.0	1,300	**22,700**	-
Methyl-tert-butyl ether	59,400	27	<25.0	<25.0	<25.0	<25.0	<25.0	**925**	<25.0	<25.0	<25.0	**977**	**<200**	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	**808**	-
Naphthalene	5,150	658.2	<25.0	<25.0	<25.0	<25.0	33.8	**7,570**	<25.0	<25.0	<25.0	**10,000**	**1,140**	<25.0	<25.0	<25.0	<25.0	<25.0	436	**9,830**	-
Toluene	818,000	1,107.2	<25.0	<25.0	<25.0	<25.0	<25.0	**1,290**	<25.0	<25.0	<25.0	**4,060**	<200	<25.0	<25.0	<25.0	<25.0	<25.0	140	**2,250**	-
1,2,4-Trimethylbenzene	89,800	1,382.1 (combined)	<50.0	<50.0	<50.0	<50.0	<50.0	**56,400**	<50.0	<50.0	123.6	**58,600**	**12,440**	<50.0	<50.0	<50.0	<50.0	<50.0	**4,055**	**93,800**	-
1,3,5-Trimethylbenzene	182,000																				
m&p-Xylene	778,000	3,960 (combined)	<75.0	<75.0	<75.0	<75.0	<75.0	**41,600**	<75.0	<75.0	<75.0	**94,100**	2,670	<75.0	<75.0	<75.0	<75.0	<75.0	**6,020**	**90,700**	-
o-Xylene	434,000																				
Metals (mg/kg)																					
Lead (total)	400	27.0	**213**	-	**50.6**	-	-	16.4	**32.2**	-	-	**33.1**	**33**	-	16.2	-	1.6	-	-	25	18.2
Waste Characterization																					
DRO (mg/kg)	NE	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	385
GRO (mg/kg)	NE	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	680
Flashpoint (°F)	NE	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	131
Paint Filter	NE	NE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	PASS

Notes:
Only results for detected analytes are provided in this table, all other analytes were below the limit of detection.
Non-Industrial D-C RCL refers to the Not-To-Exceed, non-industrial Direct-Contact Residual Contaminant Levels taken from the WDNR's RCLs spreadsheet, updated December 2015.
RCL-gw refers to the Soil-to-Groundwater Residual Contaminant Level, DF = 2, taken from the WDNR's RCLs spreadsheet, updated December 2015.
Bold data indicates RCL exceedence (RCL-gw).
Bold data and cell border indicates RCL exceedence (D-C RCL).
NE: Not Established
WC: Waste Characterization sample (Protocol T1); results for benzene and lead were taken from results for GP-4.
J: Estimated Concentration at or below the LOD and below the LOQ

Groundwater Sample Analytical Results

Table 2

Table 2

Phase 2.5 Groundwater Sample Analytical Results
Thuli Family Creamery/Former Lafayette County Co-op
112 W. Ann St. Darlington, Lafayette County, Wisconsin

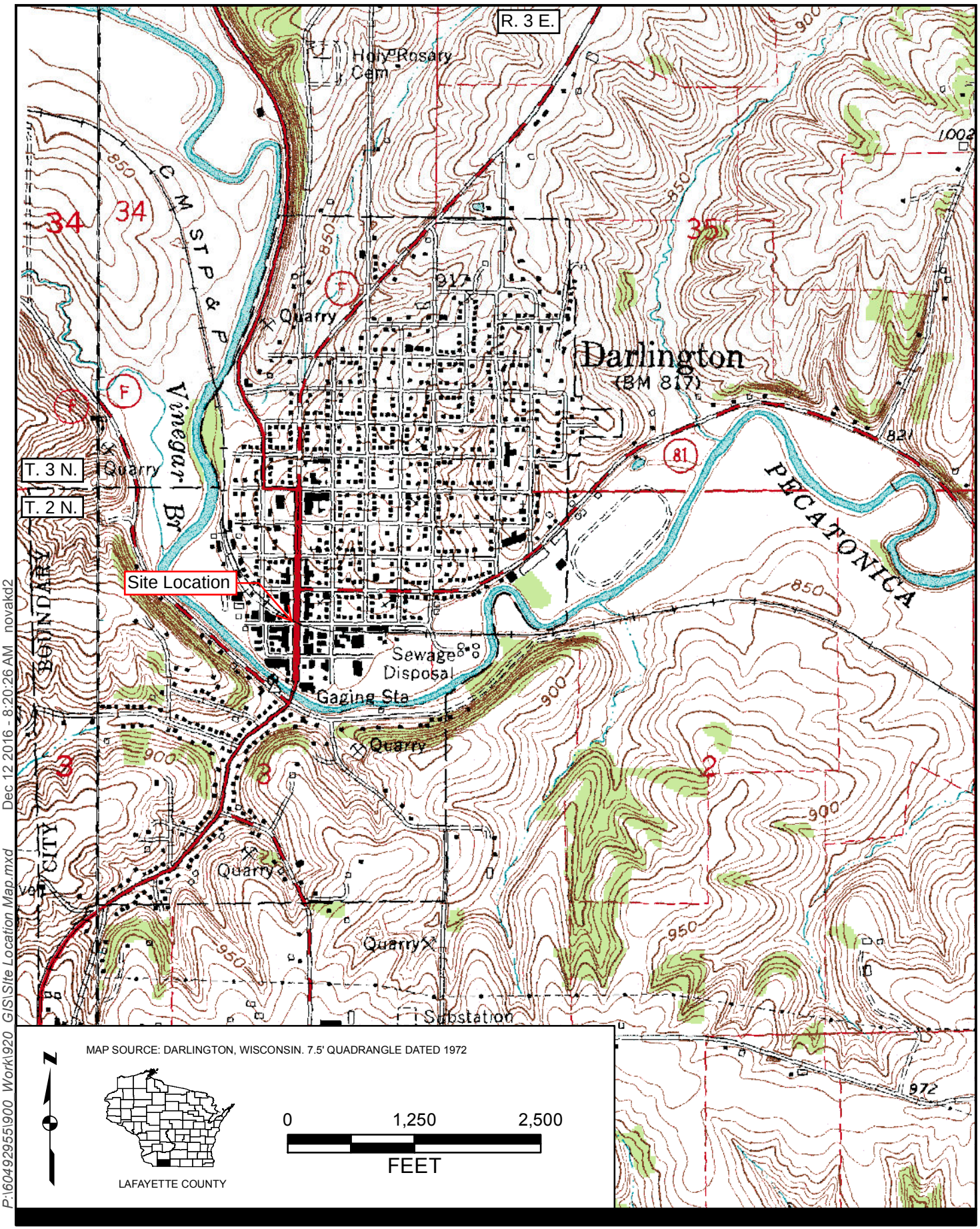
AECOM Project No. 60492955
WisDOT Project No. 5245-02-02

	Soil Boring/Sample ID:		DP21-2	DP21-3	DP21-4	DP21-5	DP21-6	DP21-7	DP21-8	DP21-9
	Depth (feet):		8.5	8	9.5	9	7.5	9	8	6
	Sample Date:		7/6/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016	7/7/2016
Analyte	**NR 140 ES**	**NR 140 PAL**	**Results**							
PVOCs+Nap (µg/l)										
Benzene	5	0.5	<0.4	**1,270**	<0.4	**3,670**	1.9	<0.4	**167**	**1,940**
Ethylbenzene	700	140	2.3	**1,400**	<0.39	**2,480**	24.3	<0.39	13.1	**2,040**
Methyl tert-butyl ether	60	12	4.3	**<19.4**	<0.48	**<24.2**	1.1	<0.48	2.2	**<24.2**
Naphthalene	100	10	2.2	**1,270**	<0.42	**850**	6.4	3.3	6.3	**693**
Toluene	800	160	<0.39	153	<0.39	**6,510**	2.4	<0.39	3.3	**414**
1,2,4-Trimethylbenzene	480	96	<0.42	**3,770**	<0.42	**2,340**	**130**	0.42J	27.1	**2,160**
1,3,5-Trimethylbenzene	480	96	<0.42	**1,070**	<0.42	**581**	14.1	<0.42	5.9	**624**
Xylenes (total)	2,000	400	2.1J	**3,040**	<1.2	**10,400**	44	<1.2	31.5	**8,810**

Notes:
ES: Enforcement Standard listed in Ch. NR140, WAC, July 2015.
PAL: Preventive Action Limit listed in Ch. NR140, WAC, July 2015.
Bold data indicates PAL exceedence.
Bold data and cell border indicates ES exceedence.
J: Estimated concentration at or above the LOD and below the LOQ.

Site Location Map

Figure 1



P:\60492955\900_Work\920_GIS\Site Location Map.mxd Dec 12 2016 - 8:20:26 AM novakd2

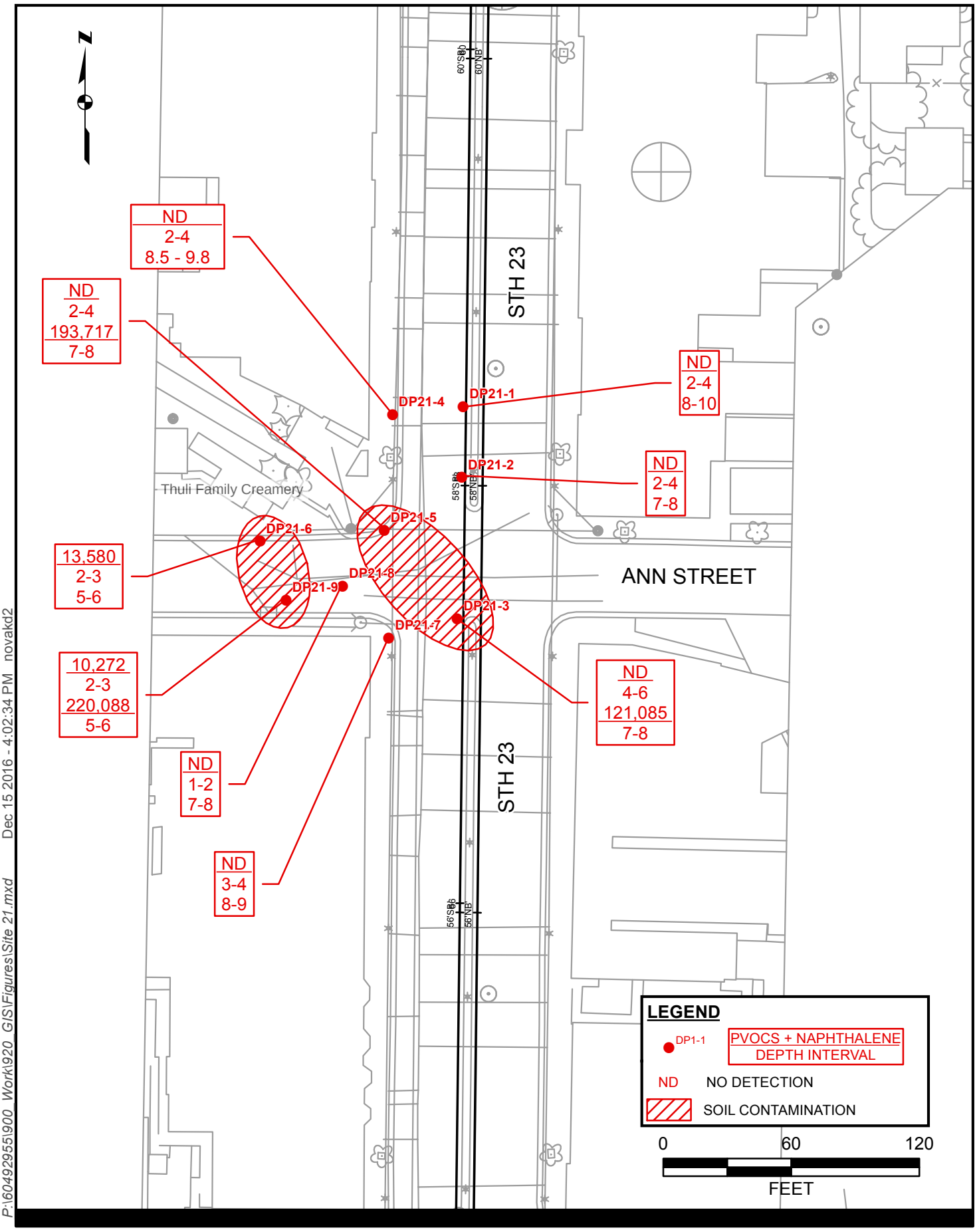
December 16, 2016
AECOM Project No.: 60492955
WisDOT Project No.: 5245-02-02

Site Location Map
Thuli Family Creamery/Former Lafayette County Co-op
112 W. Ann Street, Darlington, WI
WDNR BRRTS No. 03-33-000171

AECOM
Figure 1

Site Plan – Boring Locations

Figure 2



P:\60492955\900_Work\920_GIS\Figures\Site 21.mxd Dec 15 2016 - 4:02:34 PM novakd2

December 16, 2016
AECOM Project No.: 60492955
WisDOT Project No.: 5245-02-02

Site Plan
Thuli Family Creamery/Former Lafayette County Co-op
112 W. Ann Street, Darlington, WI
WDNR BRRTS No. 03-33-000171

AECOM
Figure 2

Photograph Log

Appendix A

AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Wisconsin Department of Transportation	Thuli Family Creamery 112 W. Ann Street, City of Darlington, Lafayette County, WI.	60492955

Photo No.	Date:
1	07/08/16

Direction Photo Taken:

Northwest

Description:

View of indicated borings located at 112 West Ann Street.

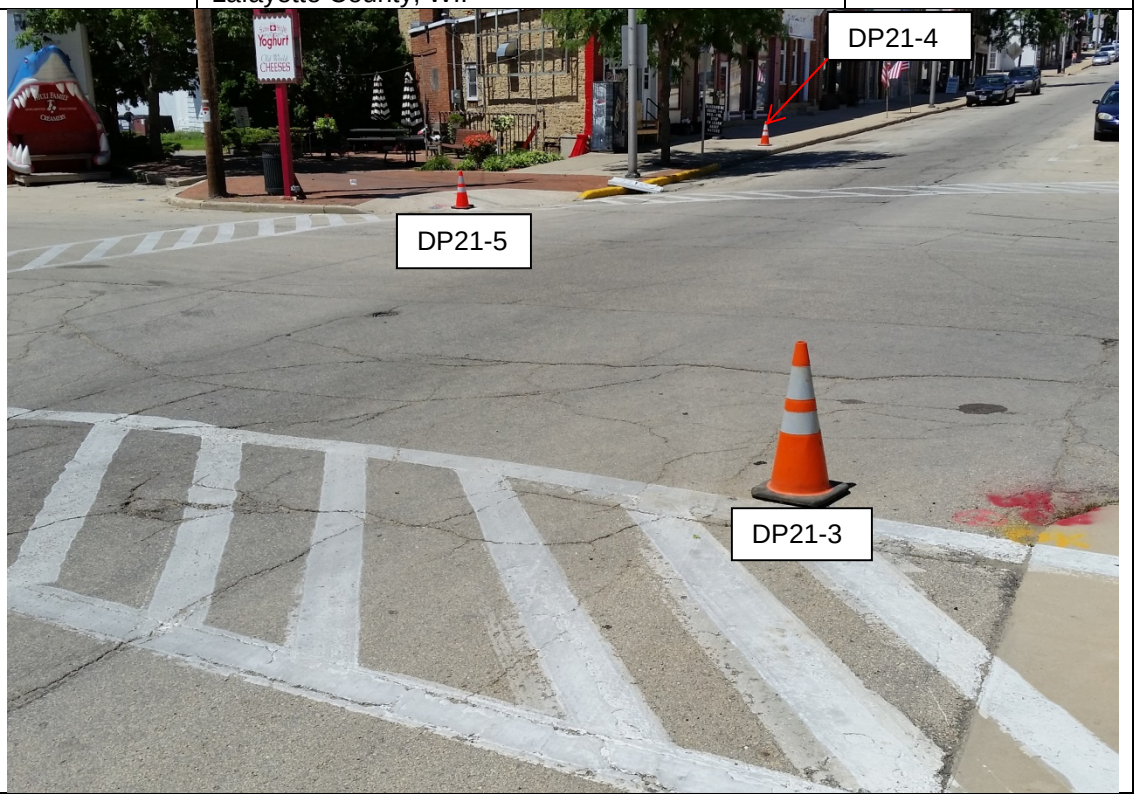


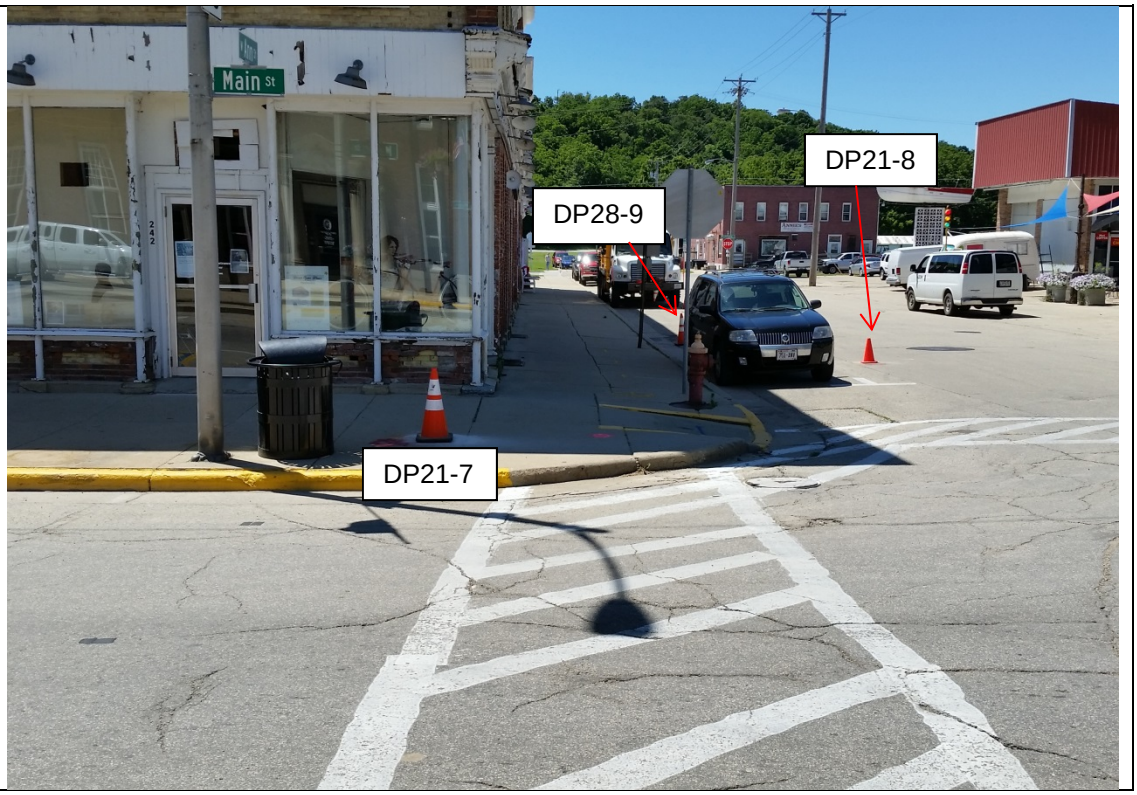
Photo No.	Date:
2	07/08/16

Direction Photo Taken:

South

Description:

View of indicated borings located at 112 West Ann Street.



AECOM

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
Wisconsin Department of Transportation	Thuli Family Creamery 112 W. Ann Street, City of Darlington, Lafayette County, WI.	60492955

Photo No.	Date:
3	07/08/16

Direction Photo Taken:

Northeast

Description:

View of indicated borings located at 112 West Ann Street.

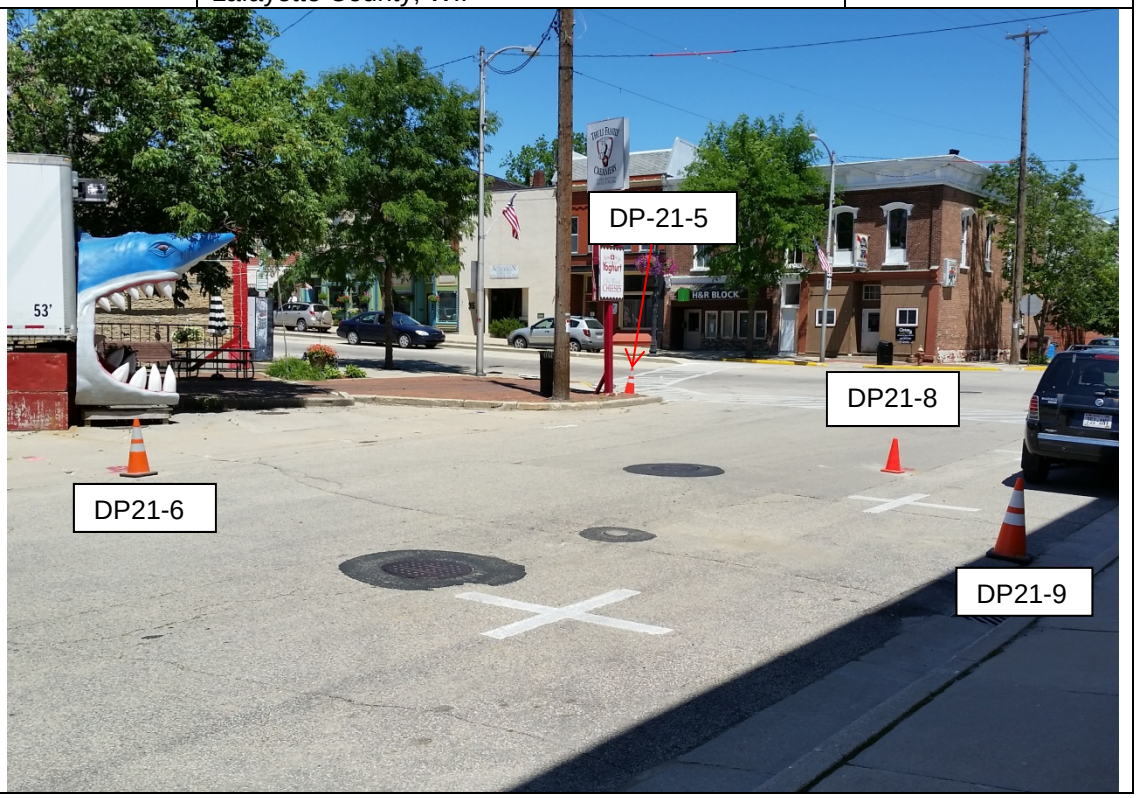


Photo No.	Date:
4	07/08/16

Direction Photo Taken:

North

Description:

View of indicated borings located at 112 West Ann Street.

AECOM

PHOTOGRAPHIC LOG

Client Name: Wisconsin Department of Transportation	**Site Location:** Thuli Family Creamery 112 W. Ann Street, City of Darlington, Lafayette County, WI.	**Project No.** 60492955

Photo No. 5	**Date:** 07/08/16

Direction Photo Taken:

East

Description:

View of indicated borings located at 112 West Ann Street.

Photo No. 6	**Date:** 07/08/16

Direction Photo Taken:

East

Description:

View of indicated borings located at 112 West Ann Street.

Soil Boring Logs

Appendix B

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-1

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/6/2016	7/6/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E

Lat ° ' "
Long ° ' "

Local Grid Location
☐ N ☐ E
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 8		0	8" of Asphalt, Cobblestone										
			1	No recovery										
	24 12		2	Light brown / brown, sandy / silty clay with gravel, soft to medium firm	CL-ML			5.5						No odor
			3											
	24 12		4	Sandy clay with gravel, dark brown to light brown	CL-ML			4.9						No odor
			5											
			6	Brown, soft to medium firm, sandy clay with gravel	CL-ML			3.1						No odor
			7											
			8											
			9	Brown, soft, saturated clay	CL			3.4						No odor
			10	End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/6/2016	7/6/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 6		1	Light gray to brown, sandy/silty clay with gravel	CL			4.5						
	24 10		2 3	Dark gray, sandy clay with gravel	CL			4.3						No odor
	24 18		4 5	Brown, moderately firm to firm, silty clay				4.1						
	24 20		6 7		CL			4.2						Sample taken from 7.0 to 8.0 feet
	24 24		8 9	Brown, soft, silty clay Saturated	CL			3.5						Moderate to strong petro odor
			10	Grayish staining from 9.5 to 10.0 feet End of Boring				114						

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-3

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/6/2016	7/6/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E

Lat ° ' "
Long ° ' "

Local Grid Location
☐ N ☐ E
Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 18		1	10" Asphalt	Asphalt									
				8" Gravel										
	24 0		2	No Recovery										
			3											
	24 12		4	Sandy / silty clay, gray to dark gray	CL-ML			5.8						No odor
			5											
	24 0		6	No Recovery										
			7											
	24 8		8	Dark gray, saturated, silty clay	CL			480						Strong petro odor
			9											
			10	End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-4

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/7/2016	7/7/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 12		1	4" Concrete Tan to dark brown, sand and gravel	SM									
	24 16		2 3	4" Concrete with gravel Tan to dark brown, soft to moderately firm, silty clay				1.5						
	24 12		4 5					1.9						No odor
	24 18		6 7		CL			1.5						
	24 24		8 9					2.0						No odor
			10	Saturated End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-5

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/7/2016	7/7/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ___ ° ___ ' ___ "
Long ___ ° ___ ' ___ "
Local Grid Location: ☐ N ☐ S Feet; ☐ E ☐ W Feet

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample: Number and Type	Sample: Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 16		0	2" Concrete powder and asphalt Tan to dark brown, soft to moderately firm, silty clay	CL									
			1					3.0						No odor
	24 18		2											
			3	Dark brown / black staining				52.6						Slight petro odor
	24 16		4											
			5					470.3						
	24 24		6	Silty clay, gray / dark green staining	CL									Strong petro odor
			7					522						
	24 24		8	More staining										Strong petro odor
			9	Saturated; distinct grey staining at water table				435						
			10	End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [signature] | Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-6

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/7/2016	7/7/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 24		0	8" Asphalt / gravel										
			1	Sand with gravel, light brown	SP			5.7						No odor
	24 18		2	Silty clay, darker brown, gray staining										
			3					205						Petro Odor
	24 12		4		CL									
			5					12.6						No odor
	24 12		6	Silty clay, light brown, soft										
			7		CL									
				Saturated										
	24 24		8	Sand and gravel, light brown										
			9		SP									
				Clay with gravel, black	CL									
			10	End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Mason Kyle

Firm: AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-7

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/7/2016	7/7/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 16		0 1	2" Asphalt Sand / silty clay with gravel, tan	CL-ML			4.1						No odor
	24 12		2 3	Sandy clay, dark brown, soft to medium firm	CL-ML			4.7						
	24 3		4 5	Dark gray to brown, soft, silty clay				3.3						No odor
	24 16		6 7		CL			3.0						No odor
	24 24		8 9	Saturated				4.9						No odor
			10	End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-8

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/7/2016	7/7/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N Feet ☐ S ☐ E Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 16		1	Tan, sand and gravel fill				1.0						
	24 16		2											No odor
			3					1.5						
	24 8		4		SP									No odor
			5					2.3						
	24 16		6											No odor
			7					4.4						
	24		8	Interbedded siltstone/sandstone Saturated	SM									
			9					490						Strong Petro Odor
			10	Clay with dark gray staining	CL									
				End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

State of Wisconsin
Department of Natural Resources

SOIL BORING LOG INFORMATION

Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Site 21 - Thuli Family Creamery / Former Layfayette County Co-op		DP21-9

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
Scott Klumb SES	7/7/2016	7/7/2016	split spoon

WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
			Feet MSL	Feet MSL	2.0 inches

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane N, E S/C/N
NW 1/4 of NE 1/4 of Section 3, T 2 N,R 3 E
Lat ° ' "
Long ° ' "
Local Grid Location ☐ N ☐ E Feet ☐ S Feet ☐ W

Facility ID	County	County Code	Civil Town/City/ or Village
	Lafayette	33	Town of Darlington

Sample Number and Type	Sample Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID	Soil Properties: Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
	24 10		1	3" Sand / gravel fill Dark brown to brown, soft to moderately firm, silty clay				2.5						No odor
	24 24		2											
			3					35.6						Slight Petro Odor
	24 24		4											
			5		CL			503						Petro Odor
	24 14		6	Saturated										
			7											
			8											
			9					78.9						Petro Odor
			10	End of Boring										

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature  Firm AECOM
200 Indiana Avenue, Stevens Point, WI 54481 *

This form is authorized by Chapters 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats. Completion of this form is mandatory. Failure to file this form may result in forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be be used for any other purpose. NOTE: See instructions for more information, including where the completed form should be sent.

Soil Gas Monitoring

Appendix C

Soil Gas Monitoring

PID Model: Process Analyzers DL-102

Probe: 10.2 eV Lamp

Calibration Gas: 100 parts per million Isobutylene/Air

The PID was calibrated before and after sampling was conducted.

Soil gas readings for specified depth intervals were obtained using the headspace method. Soil samples were placed in plastic Ziploc bags and the air in each bag was allowed to equilibrate with the soil sample for up to 30 minutes. If the outside air temperature was below 70 degrees Fahrenheit, the soil samples were heated. The PID probe was then inserted into the bag headspace and the instrument reading was recorded.

Standard Sampling Procedures

Appendix D

Standard Sampling Procedures

Soil samples were collected continuously from the soil probe using 2-inch diameter samplers with disposable plastic liners. Samples collected for laboratory analysis were removed from the liners and placed directly into laboratory-supplied glass jars using new protective gloves. Protective gloves were disposed after collecting each sample. The liners were replaced between samples. Soil samples were preserved according to WDNR and U.S. Environmental Protection Agency (EPA) protocol.

Groundwater samples were collected from the soil probe borings/temporary monitoring wells using a stainless steel bailer. Samples were placed into laboratory-supplied containers and preserved in accordance with EPA and WDNR protocol. The stainless steel bailer was decontaminated prior to the collection of each sample with and alconox/water mix and distilled water.

Borehole Abandonment Forms

Appendix E

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) Page 1 of 2

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Lattitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

__ __ ° __ __ . __ __ __ 'N
__ __ ° __ __ . __ __ __ 'W

¼ ¼	¼	Section	Township	Range	
NW	NE	3	2 N	3	☒ E ☐ W

or Gov't Lot #

Well Street Address: 112 W. Ann Street

Well City, Village or Town	Well ZIP Code
City of Darlington	53530

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-1

License/Permit/Monitoring #:

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner	State	ZIP Code
Madison	WI	53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite chips	Surface	10		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route	Telephone Number
1102 Stewart Street	(608) 274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713-4648		10/4/2016

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Waste Management ☐ Watershed/Wastewater ☐ Other: ☐ Remediation/Redevelopment

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Lattitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

__ __ ° __ __ . __ __ __ 'N
__ __ ° __ __ . __ __ __ 'W

¼ / ¼	¼	Section	Township	Range
NW	NE	3	2 N	3 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 112 W. Ann Street

Well City, Village or Town	Well ZIP Code
City of Darlington	53530

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-2

License/Permit/Monitoring #:

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner	State	ZIP Code
Madison	WI	53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Split-spoon

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite chips	Surface	10		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route	Telephone Number
1102 Stewart Street	(608) 274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713-4648	[signature]	10/4/2016

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Latitude / Longitude (Degrees and Minutes) ___ ___ ° ___ ___ . ___ ___ ___ 'N / ___ ___ ° ___ ___ . ___ ___ ___ 'W — Method Code (see instructions)

¼ / ¼	¼	Section	Township	Range	
NW	NE	3	2 N	3	☒ E ☐ W

or Gov't Lot #

Well Street Address: 112 W. Ann Street

Well City, Village or Town: City of Darlington — Well ZIP Code: 53530

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-3

License/Permit/Monitoring #

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner: Madison — State: WI — ZIP Code: 53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite chips	Surface	10		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route: 1102 Stewart Street — Telephone Number: (608) 274-7600

City: Madison — State: WI — ZIP Code: 53713-4648 — Signature of Person Doing Work: [signature] — Date Signed: 10/4/2016

DNR Use Only

Date Received — Noted By — Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Lattitude / Longitude (Degrees and Minutes) ____ ° ____ . ____ 'N ____ ° ____ . ____ 'W

Method Code (see instructions)

¼/¼ or Gov't Lot #	¼	Section	Township	Range	
NW	NE	3	2 N	3	☒ E ☐ W

Well Street Address: 112 W. Ann Street

Well City, Village or Town: City of Darlington

Well ZIP Code: 53530

Subdivision Name:

Lot #:

Reason For Removal From Service: Sampling Complete

WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-4

License/Permit/Monitoring #:

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner: Madison

State: WI

ZIP Code: 53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	10		

3/8" Bentonite chips

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route: 1102 Stewart Street

Telephone Number: (608) 274-7600

City: Madison

State: WI

ZIP Code: 53713-4648

Signature of Person Doing Work

Date Signed: 10/4/2016

DNR Use Only

Date Received | Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Latitude / Longitude (Degrees and Minutes) ___ ___ ° ___ ___ . ___ ___ ___ 'N / ___ ___ ° ___ ___ . ___ ___ ___ 'W — Method Code (see instructions)

¼ / ¼	¼	Section	Township	Range	
NW	NE	3	2 N	3	☒ E ☐ W

or Gov't Lot #

Well Street Address: 112 W. Ann Street

Well City, Village or Town	Well ZIP Code
City of Darlington	53530

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-5

License/Permit/Monitoring #:

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner	State	ZIP Code
Madison	WI	53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	10		

3/8" Bentonite chips

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route	Telephone Number
1102 Stewart Street	(608) 274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713-4648		10/4/2016

DNR Use Only

Date Received	Noted By

Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Latitude / Longitude (Degrees and Minutes) ___ ___ ° ___ ___ . ___ ___ 'N / ___ ___ ° ___ ___ . ___ ___ 'W — Method Code (see instructions)

¼ ¼ NW	¼ NE	Section	Township	Range	
or Gov't Lot #		3	2 N	3	☒ E ☐ W

Well Street Address: 112 W. Ann Street

Well City, Village or Town	Well ZIP Code
City of Darlington	53530

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-6

License/Permit/Monitoring #:

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner	State	ZIP Code
Madison	WI	53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout ☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite chips	Surface	10		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route	Telephone Number
1102 Stewart Street	(608) 274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713-4648		10/4/2016

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Waste Management ☐ Watershed/Wastewater ☐ Other: ☐ Remediation/Redevelopment

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Lattitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

__ __ ° __ __ . __ __ __ 'N
__ __ ° __ __ . __ __ __ 'W

¼/¼ NW	¼ NE	Section	Township	Range	
or Gov't Lot #		3	2 N	3	☒ E ☐ W

Well Street Address: 112 W. Ann Street

Well City, Village or Town: City of Darlington — Well ZIP Code: 53530

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well: __ __ __ __ __

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-7

License/Permit/Monitoring #

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner: Madison — State: WI — ZIP Code: 53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material

☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials

☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite chips	Surface	10		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route: 1102 Stewart Street — Telephone Number: (608) 274-7600

City: Madison — State: WI — ZIP Code: 53713-4648 — Signature of Person Doing Work — Date Signed: 10/4/2016

DNR Use Only

Date Received — Noted By — Comments

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Latitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

__ __ ° __ __ . __ __ __ 'N
__ __ ° __ __ . __ __ __ 'W

¼ ¼	¼	Section	Township	Range	
NW	NE	3	2 N	3	☒ E ☐ W

or Gov't Lot #

Well Street Address: 112 W. Ann Street

Well City, Village or Town	Well ZIP Code
City of Darlington	53530

Subdivision Name	Lot #

Reason For Removal From Service	WI Unique Well # of Replacement Well
Sampling Complete	

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-8

License/Permit/Monitoring #:

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner	State	ZIP Code
Madison	WI	53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A

Lower Drillhole Diameter (in.)	Casing Depth (ft.)
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
3/8" Bentonite chips	Surface	10		

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route	Telephone Number
1102 Stewart Street	(608) 274-7600

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Madison	WI	53713-4648	[signature]	10/4/2016

DNR Use Only

Date Received	Noted By

Comments:

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☐ Verification Only of Fill and Seal

Route to: ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #
Lafayette		

Latitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

__ __ ° __ __ . __ __ __ 'N
__ __ ° __ __ . __ __ __ 'W

¼ ¼	¼	Section	Township	Range
NW	NE	3	2 N	3 ☒ E ☐ W

or Gov't Lot #

Well Street Address: 112 W. Ann Street

Well City, Village or Town: City of Darlington — Well ZIP Code: 53530

Subdivision Name — Lot #

Reason For Removal From Service: Sampling Complete — WI Unique Well # of Replacement Well

2. Facility / Owner Information

Facility Name: Site 21- Thuli Family Creamery / FMR-Lafayette Co-op

Facility ID (FID or PWS): DP21-9

License/Permit/Monitoring #

Original Well Owner: WisDOT

Present Well Owner: WisDOT

Mailing Address of Present Owner: 4802 Sheboygan Ave

City of Present Owner: Madison — State: WI — ZIP Code: 53707

3. Well / Drillhole / Borehole Information

☐ Monitoring Well ☐ Water Well ☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 7/6/16

If a Well Construction Report is available, please attach.

Construction Type: ☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Split-spoon

Formation Type: ☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
	N/A
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
N/A	N/A

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)? — Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☐ No	☒ N/A
Casing left in place?	☐ Yes	☐ No	☒ N/A
Was casing cut off below surface?	☐ Yes	☐ No	☒ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☒ Yes	☐ No	☐ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped ☐ Screened & Poured (Bentonite Chips) ☒ Other (Explain): Gravity

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	10		

3/8" Bentonite chips

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)
Soils & Engineering Services, Inc.		7/7/16

Street or Route: 1102 Stewart Street — Telephone Number: (608) 274-7600

City: Madison — State: WI — ZIP Code: 53713-4648 — Signature of Person Doing Work: [signature] — Date Signed: 10/4/2016

DNR Use Only

Date Received — Noted By — Comments

Waste Disposal Request Documentation

Appendix F

From:	Wagoner, Kyle
To:	Dan.szymaszek@veolia.com
Cc:	Sharlene.TeBeest@dot.wi.gov; kyle.bartowitz@dot.wi.gov; Jeremy Williams (jeremy.williams@cityofdarlingtonwi.org); Hopkins, Marcus
Subject:	Request for Soil Cuttings Pickup & Disposal - STH 23, Darlington (WisDOT 5245-02-02)
Date:	Monday, July 25, 2016 4:25:00 PM
Attachments:	dt1229 (5245-02-02).pdf 20160708_124956.jpg Location Map for Darlington, WI.pdf Pace Lab report (Site #21).pdf Pace Lab report (Site #1).pdf Pace Lab Report (Site #5).pdf Pace Lab Report (Site #9).pdf Pace Lab Report (Site #19).pdf

---

Dan-

Please process this pickup & disposal request at your earliest convenience.

Kyle

Kyle Wagoner, P.G., CHMM
Project Manager
Environment
D 715.342.3038
Internal Cisco Extension 2103038
kyle.wagoner@aecom.com

AECOM
200 Indiana Avenue, Stevens Point, WI 54481
T 715.341.8110 F 715.341.7390

NON-HAZARDOUS WASTE INVENTORY RECORD

Wisconsin Department of Transportation
DT1229 6/2016 (For use with DT1208)

DTSD Region and Office Southwest- LaCrosse		
WisDOT Project ID 5245-02-02	County Lafayette	Highway and Termini STH 23 - County Shop Rd to Minerva St.
Site Name Site Nos. 1, 5, 9, 19, and 21		Phase of Investigation 2.5
Consultant Company AECOM		
Consultant Contact Kyle Wagoner		
Contact (Area Code) Telephone Number (715) 342-3038		
Contact Email Address kyle.wagoner@aecom.com		
Consultant ID for this Site 60492955		
Generation Date (m/d/yyyy) 8/1/2016		
Comments, special instructions for pickup or site access 4 buckets of soil cuttings from Project 5245-02-02 have been temporarily stored with 1 bucket from Project 1693-05-02 next to the SW corner of the Municipal Building (see photo) at 627 Main Street, Darlington, WI. The contact in Darlington is Jeremy Williams, DPW, Phone (608) 776-4973, email jeremy.williams@cityofdarlingtonwi.org.		

Waste Description – describe containers of similar size and contents in one row. Insert additional rows as needed.
Number and Label Each Container.

Container ID Number	**Container Size and Type**	**Estimated Volume of Waste**	**Source: Tank, Well, Boring**	**Contents: Soil, Water, Other (Describe)**
Example: 1, 4, 5, 6, 7, 18, 22, 23	Example: 30 gallon metal drum	Example: 8 drums x 30 gal = 240 gallons	Example: monitoring wells # MW3, MW4, and MW7	Example: wash water, alconox
Bucket nos. 1, 2, 3 and 4	5 gallon plastic bucket	20 gallons	Soil borings	soil

Total Number of Containers to be picked up:

Container Location: Attach map or site sketch to Email

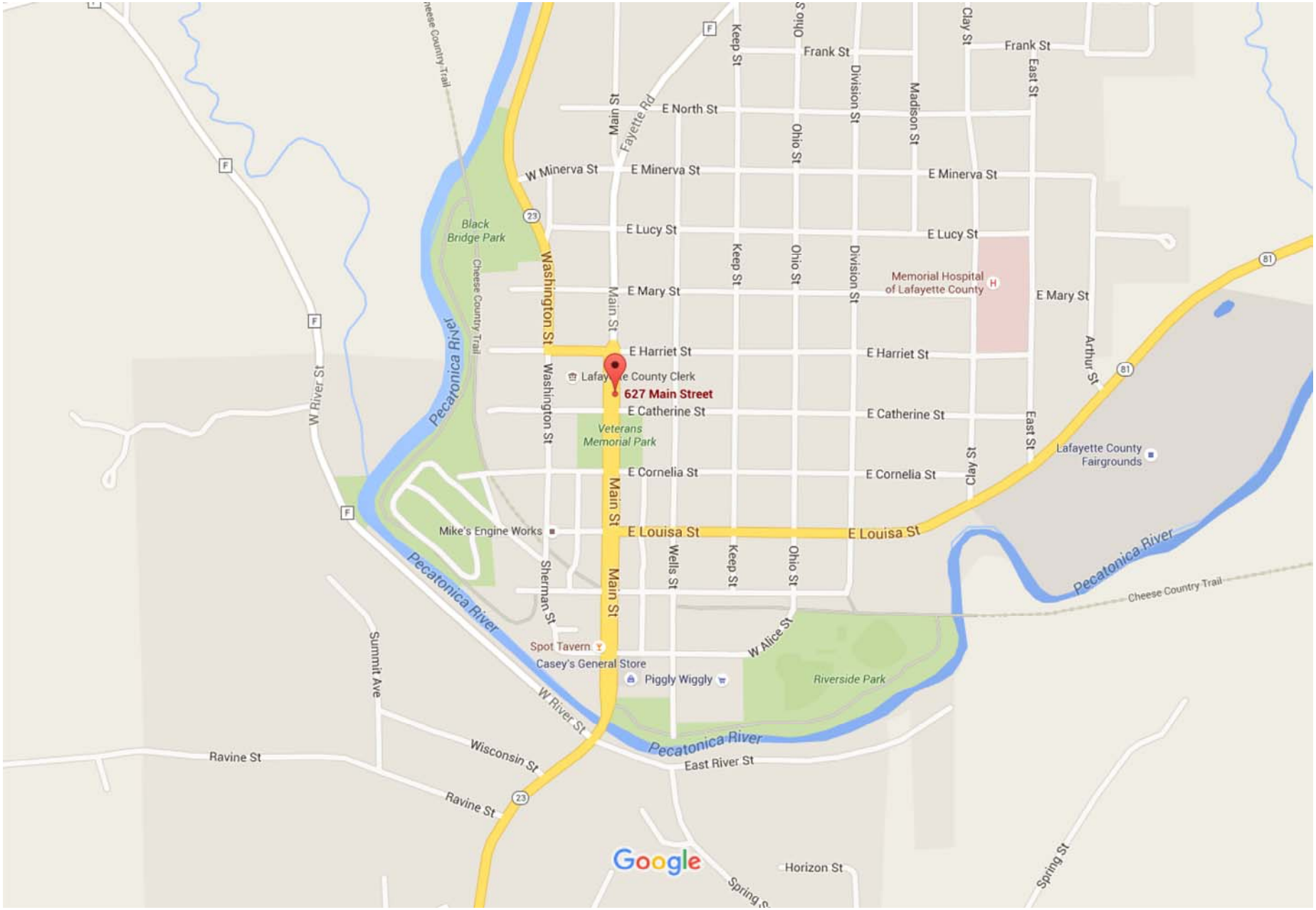
Analytical Results: Attach analytical results to Email

Email one copy of this form to each of the following:

- DOT Hazardous Materials Specialist
- Regional Environmental or Hazardous Materials Coordinator
- Hazardous Waste Contractor

Include a copy of this form as the final appendix in the report for this site.

Google Maps 627 Main St



Standard Analytical Procedures

Appendix G

Standard Analytical Procedures

Samples were analyzed by Pace Analytical Services, Inc., Green Bay, Wisconsin (Wisconsin Certification No. 405132750).

The analytical methods used were:

- PVOCs + Naphthalene by WI MOD GRO
- Lead by EPA Method 6010

Sample detection limits for specific analyses are included in the laboratory analytical report.

Laboratory Report and Chain of Custody Form

Appendix H

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

July 25, 2016

Kyle Wagoner
AECOM, Inc. - Stevens Point
200 INDIANA AVE
Stevens Point, WI 54481

RE: Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Dear Kyle Wagoner:
Enclosed are the analytical results for sample(s) received by the laboratory on July 12, 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,

Christopher Hyska

Christopher Hyska
christopher.hyska@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
Virginia VELAP ID: 460263
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Virginia VELAP Certification ID: 460263
Virginia VELAP ID: 460263
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40135083001	**DP21-1 (2'-4')**	Solid	07/06/16 14:10	07/12/16 10:10
40135083002	**DP21-1 (8'-10')**	Solid	07/06/16 14:20	07/12/16 10:10
40135083003	**DP21-2 (2'-4')**	Solid	07/06/16 14:55	07/12/16 10:10
40135083004	**DP21-2 (7'-8')**	Solid	07/06/16 15:05	07/12/16 10:10
40135083005	**DP21-3 (4'-6')**	Solid	07/06/16 15:55	07/12/16 10:10
40135083006	**DP21-3 (7'-8')**	Solid	07/06/16 16:00	07/12/16 10:10
40135083007	**DP21-4 (2'-4')**	Solid	07/07/16 08:55	07/12/16 10:10
40135083008	**DP21-4 (8.5'-9.5')**	Solid	07/07/16 09:10	07/12/16 10:10
40135083009	**DP21-5 (2'-4')**	Solid	07/07/16 09:43	07/12/16 10:10
40135083010	**DP21-5 (7'-8')**	Solid	07/07/16 09:53	07/12/16 10:10
40135083011	**DP21-6 (2'-3')**	Solid	07/07/16 10:25	07/12/16 10:10
40135083012	**DP21-6 (5'-6')**	Solid	07/07/16 10:35	07/12/16 10:10
40135083013	**DP21-7 (3'-4')**	Solid	07/07/16 11:05	07/12/16 10:10
40135083014	**DP21-7 (8'-9')**	Solid	07/07/16 11:16	07/12/16 10:10
40135083015	**DP21-8 (1'-2')**	Solid	07/07/16 11:55	07/12/16 10:10
40135083016	**DP21-8 (7'-8')**	Solid	07/07/16 12:00	07/12/16 10:10
40135083017	**DP21-9 (2'-3')**	Solid	07/07/16 12:15	07/12/16 10:10
40135083018	**DP21-9 (5'-6')**	Solid	07/07/16 12:20	07/12/16 10:10
40135083019	**WASTE CHAR (SITE 21)**	Solid	07/07/16 10:48	07/12/16 10:10
40135083020	**TRIP BLANK**	Water	07/07/16 00:00	07/12/16 10:10
40135086001	**DP21-2**	Water	07/06/16 16:20	07/12/16 10:10
40135086002	**DP21-3**	Water	07/07/16 07:54	07/12/16 10:10
40135086003	**DP21-4**	Water	07/07/16 12:34	07/12/16 10:10
40135086004	**DP21-5**	Water	07/07/16 12:50	07/12/16 10:10
40135086005	**DP21-6**	Water	07/07/16 12:42	07/12/16 10:10
40135086006	**DP21-7**	Water	07/07/16 12:59	07/12/16 10:10
40135086007	**DP21-8**	Water	07/07/16 13:10	07/12/16 10:10
40135086008	**DP21-9**	Water	07/07/16 13:20	07/12/16 10:10

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

SAMPLE ANALYTE COUNT

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40135083001	**DP21-1 (2'-4')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083002	**DP21-1 (8'-10')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083003	**DP21-2 (2'-4')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083004	**DP21-2 (7'-8')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083005	**DP21-3 (4'-6')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083006	**DP21-3 (7'-8')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083007	**DP21-4 (2'-4')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083008	**DP21-4 (8.5'-9.5')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083009	**DP21-5 (2'-4')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083010	**DP21-5 (7'-8')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083011	**DP21-6 (2'-3')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083012	**DP21-6 (5'-6')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083013	**DP21-7 (3'-4')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083014	**DP21-7 (8'-9')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083015	**DP21-8 (1'-2')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G

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

SAMPLE ANALYTE COUNT

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	BTH	1	PASI-G
40135083016	**DP21-8 (7'-8')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083017	**DP21-9 (2'-3')**	WI MOD GRO	PMS	10	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083018	**DP21-9 (5'-6')**	WI MOD GRO	PMS	10	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
40135083019	**WASTE CHAR (SITE 21)**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	3	PASI-G
		EPA 6010	DLB	1	PASI-G
		ASTM D2974-87	BTH	1	PASI-G
		EPA 1010	DEY	1	PASI-G
		EPA 9095	DEY	1	PASI-G
40135083020	**TRIP BLANK**	WI MOD GRO	PMS	10	PASI-G
40135086001	**DP21-2**	WI MOD GRO	PMS	9	PASI-G
40135086002	**DP21-3**	WI MOD GRO	PMS	9	PASI-G
40135086003	**DP21-4**	WI MOD GRO	PMS	9	PASI-G
40135086004	**DP21-5**	WI MOD GRO	PMS	9	PASI-G
40135086005	**DP21-6**	WI MOD GRO	PMS	9	PASI-G
40135086006	**DP21-7**	WI MOD GRO	PMS	9	PASI-G
40135086007	**DP21-8**	WI MOD GRO	PMS	9	PASI-G
40135086008	**DP21-9**	WI MOD GRO	PMS	9	PASI-G

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

PROJECT NARRATIVE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Method: **WI MOD DRO**
Description: WIDRO GCS
Client: AECOM, Inc. - Stevens Point
Date: July 25, 2016

General Information:
1 sample was analyzed for WI MOD DRO. 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 WI MOD DRO 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.

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.

QC Batch: 229731

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 1362923)
  - Diesel Range Organics
- LCSD (Lab ID: 1362924)
  - Diesel Range Organics

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

Additional Comments:

Analyte Comments:

QC Batch: 229731

P2: Re-extraction or re-analysis could not be performed due to insufficient sample amount.

- WASTE CHAR (SITE 21) (Lab ID: 40135083019)
  - Diesel Range Organics

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

PROJECT NARRATIVE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: AECOM, Inc. - Stevens Point
Date: July 25, 2016

General Information:
28 samples were analyzed for WI MOD GRO. 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.

pH: Post-analysis pH measurement indicates insufficient VOA sample preservation.
- DP21-6 (Lab ID: 40135086005)

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 TPH GRO/PVOC WI ext. 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.

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

QC Batch: 229970

S1: Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
- DP21-2 (Lab ID: 40135086001)
  - a,a,a-Trifluorotoluene (S)

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:

Analyte Comments:

QC Batch: 229707

1q: Analyte recovery in the continuing calibration verification (CCV) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
- DP21-5 (2'-4') (Lab ID: 40135083009)
  - Methyl-tert-butyl ether

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

PROJECT NARRATIVE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Method: **WI MOD GRO**
Description: WIGRO GCV
Client: AECOM, Inc. - Stevens Point
Date: July 25, 2016

Analyte Comments:

QC Batch: 229707

1q: Analyte recovery in the continuing calibration verification (CCV) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DP21-6 (2'-3') (Lab ID: 40135083011)
  - Methyl-tert-butyl ether
- DP21-6 (5'-6') (Lab ID: 40135083012)
  - Methyl-tert-butyl ether
- DP21-7 (3'-4') (Lab ID: 40135083013)
  - Methyl-tert-butyl ether
- DP21-7 (8'-9') (Lab ID: 40135083014)
  - Methyl-tert-butyl ether
- DP21-8 (1'-2') (Lab ID: 40135083015)
  - Methyl-tert-butyl ether
- DP21-8 (7'-8') (Lab ID: 40135083016)
  - Methyl-tert-butyl ether

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- DP21-6 (2'-3') (Lab ID: 40135083011)
  - a,a,a-Trifluorotoluene (S)

QC Batch: 229824

1q: Analyte recovery in the continuing calibration verification (CCV) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

- DP21-4 (Lab ID: 40135086003)
  - Methyl-tert-butyl ether
- DP21-7 (Lab ID: 40135086006)
  - Methyl-tert-butyl ether
- TRIP BLANK (Lab ID: 40135083020)
  - Methyl-tert-butyl ether

QC Batch: 229970

2q: Inconsistent results obtained between vials. Reported highest concentration obtained.

- DP21-8 (Lab ID: 40135086007)
  - a,a,a-Trifluorotoluene (S)

3q: Value is suspect carryover. Insufficient sample to confirm.

- DP21-8 (Lab ID: 40135086007)
  - Naphthalene

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

PROJECT NARRATIVE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Method: **EPA 6010**
Description: 6010 MET ICP
Client: AECOM, Inc. - Stevens Point
Date: July 25, 2016

General Information:
10 samples were analyzed for EPA 6010. 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, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

PROJECT NARRATIVE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Method: **EPA 1010**
Description: 1010 Flashpoint,Closed Cup
Client: AECOM, Inc. - Stevens Point
Date: July 25, 2016

General Information:
1 sample was analyzed for EPA 1010. 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.

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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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

PROJECT NARRATIVE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Method: **EPA 9095**
Description: 9095 Paint Filter Liquid Test
Client: AECOM, Inc. - Stevens Point
Date: July 25, 2016

General Information:
1 sample was analyzed for EPA 9095. 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.

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.

Duplicate Sample:
All duplicate sample results were within method 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, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-1 (2'-4') **Lab ID: 40135083001** Collected: 07/06/16 14:10 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 11:50	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 11:50	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	07/13/16 06:30	07/13/16 11:50	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**213**	mg/kg	6.5	2.4	5	07/13/16 16:15	07/14/16 14:34	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.7**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-1 (8'-10') **Lab ID: 40135083002** Collected: 07/06/16 14:20 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 12:15	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:15	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	07/13/16 06:30	07/13/16 12:15	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.8**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-2 (2'-4') **Lab ID: 40135083003** Collected: 07/06/16 14:55 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 12:41	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 12:41	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	07/13/16 06:30	07/13/16 12:41	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**50.6**	mg/kg	1.3	0.47	1	07/13/16 16:15	07/14/16 13:48	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-2 (7'-8') **Lab ID: 40135083004** Collected: 07/06/16 15:05 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 13:07	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:07	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	07/13/16 06:30	07/13/16 13:07	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-3 (4'-6') **Lab ID: 40135083005** Collected: 07/06/16 15:55 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	1634-04-4	W
Naphthalene	**33.8J**	ug/kg	72.6	30.3	1	07/13/16 06:30	07/13/16 13:33	91-20-3	
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 13:33	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:33	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	07/13/16 06:30	07/13/16 13:33	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.4**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-3 (7'-8') **Lab ID: 40135083006** Collected: 07/06/16 16:00 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<200**	ug/kg	480	200	8	07/13/16 06:30	07/14/16 09:19	71-43-2	W
Ethylbenzene	**13300**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	100-41-4	
Methyl-tert-butyl ether	**925**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	1634-04-4	
Naphthalene	**7570**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	91-20-3	
Toluene	**1290**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	108-88-3	
1,2,4-Trimethylbenzene	**41000**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	95-63-6	
1,3,5-Trimethylbenzene	**15400**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	108-67-8	
m&p-Xylene	**34100**	ug/kg	1180	492	8	07/13/16 06:30	07/14/16 09:19	179601-23-1	
o-Xylene	**7500**	ug/kg	590	246	8	07/13/16 06:30	07/14/16 09:19	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		8	07/13/16 06:30	07/14/16 09:19	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**16.4**	mg/kg	1.4	0.51	1	07/13/16 16:15	07/14/16 13:51	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.7**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-4 (2'-4') **Lab ID: 40135083007** Collected: 07/07/16 08:55 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 13:58	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 13:58	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%	80-120		1	07/13/16 06:30	07/13/16 13:58	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**32.2**	mg/kg	1.4	0.50	1	07/13/16 16:15	07/14/16 13:53	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.9**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-4 (8.5'-9.5') **Lab ID: 40135083008** Collected: 07/07/16 09:10 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	1634-04-4	W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 14:24	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 14:24	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	07/13/16 06:30	07/13/16 14:24	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.1**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-5 (2'-4') **Lab ID: 40135083009** Collected: 07/07/16 09:43 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**37.5J**	ug/kg	73.1	30.5	1	07/13/16 06:30	07/13/16 16:07	71-43-2	
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:07	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:07	1634-04-4	1q,W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:07	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:07	108-88-3	W
1,2,4-Trimethylbenzene	**98.6**	ug/kg	73.1	30.5	1	07/13/16 06:30	07/13/16 16:07	95-63-6	
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:07	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 16:07	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:07	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	07/13/16 06:30	07/13/16 16:07	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.9**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-5 (7'-8') **Lab ID: 40135083010** Collected: 07/07/16 09:53 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**2880**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	71-43-2	
Ethylbenzene	**23100**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	100-41-4	
Methyl-tert-butyl ether	**977**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	1634-04-4	
Naphthalene	**10000**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	91-20-3	
Toluene	**4060**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	108-88-3	
1,2,4-Trimethylbenzene	**42600**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	95-63-6	
1,3,5-Trimethylbenzene	**16000**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	108-67-8	
m&p-Xylene	**70800**	ug/kg	1140	475	8	07/13/16 06:30	07/14/16 09:45	179601-23-1	
o-Xylene	**23300**	ug/kg	570	237	8	07/13/16 06:30	07/14/16 09:45	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		8	07/13/16 06:30	07/14/16 09:45	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**33.1**	mg/kg	1.3	0.48	1	07/13/16 16:15	07/14/16 14:00	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.7**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-6 (2'-3') **Lab ID: 40135083011** Collected: 07/07/16 10:25 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<200**	ug/kg	480	200	8	07/13/16 06:30	07/13/16 17:24	71-43-2	W
Ethylbenzene	**<200**	ug/kg	480	200	8	07/13/16 06:30	07/13/16 17:24	100-41-4	W
Methyl-tert-butyl ether	**<200**	ug/kg	480	200	8	07/13/16 06:30	07/13/16 17:24	1634-04-4	1q,W
Naphthalene	**1140**	ug/kg	551	230	8	07/13/16 06:30	07/13/16 17:24	91-20-3	
Toluene	**<200**	ug/kg	480	200	8	07/13/16 06:30	07/13/16 17:24	108-88-3	W
1,2,4-Trimethylbenzene	**9360**	ug/kg	551	230	8	07/13/16 06:30	07/13/16 17:24	95-63-6	
1,3,5-Trimethylbenzene	**3080**	ug/kg	551	230	8	07/13/16 06:30	07/13/16 17:24	108-67-8	
m&p-Xylene	**1590**	ug/kg	1100	459	8	07/13/16 06:30	07/13/16 17:24	179601-23-1	
o-Xylene	**1080**	ug/kg	551	230	8	07/13/16 06:30	07/13/16 17:24	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	115	%	80-120		8	07/13/16 06:30	07/13/16 17:24	98-08-8	D3
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**33.0**	mg/kg	1.2	0.42	1	07/13/16 16:15	07/14/16 14:03	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.9**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-6 (5'-6') **Lab ID: 40135083012** Collected: 07/07/16 10:35 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	1634-04-4	1q,W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 16:32	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:32	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		1	07/13/16 06:30	07/13/16 16:32	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-7 (3'-4') **Lab ID: 40135083013** Collected: 07/07/16 11:05 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	1634-04-4	1q,W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 16:58	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 16:58	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	07/13/16 06:30	07/13/16 16:58	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**16.2**	mg/kg	1.4	0.50	1	07/13/16 16:15	07/14/16 14:05	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.1**	%	0.10	0.10	1		07/19/16 10:56		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-7 (8'-9') **Lab ID: 40135083014** Collected: 07/07/16 11:16 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	1634-04-4	1q,W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 19:58	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 19:58	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	07/13/16 06:30	07/13/16 19:58	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.3**	%	0.10	0.10	1		07/19/16 10:57		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-8 (1'-2') **Lab ID: 40135083015** Collected: 07/07/16 11:55 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	1634-04-4	1q,W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 20:24	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:24	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	97	%	80-120		1	07/13/16 06:30	07/13/16 20:24	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**1.6**	mg/kg	1.2	0.42	1	07/13/16 16:15	07/14/16 14:08	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.1**	%	0.10	0.10	1		07/19/16 10:57		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-8 (7'-8') **Lab ID: 40135083016** Collected: 07/07/16 12:00 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	71-43-2	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	100-41-4	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	1634-04-4	1q,W
Naphthalene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	91-20-3	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	108-88-3	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	95-63-6	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	108-67-8	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	07/13/16 06:30	07/13/16 20:49	179601-23-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	07/13/16 06:30	07/13/16 20:49	95-47-6	W
Surrogates									
a,a,a-Trifluorotoluene (S)	100	%	80-120		1	07/13/16 06:30	07/13/16 20:49	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.4**	%	0.10	0.10	1		07/19/16 10:57		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-9 (2'-3') **Lab ID: 40135083017** Collected: 07/07/16 12:15 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**197**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	71-43-2	
Ethylbenzene	**1300**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	100-41-4	
Methyl-tert-butyl ether	**<25.0**	ug/kg	50.0	25.0	1	07/13/16 06:30	07/13/16 16:23	1634-04-4	W
Naphthalene	**436**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	91-20-3	
Toluene	**140**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	108-88-3	
1,2,4-Trimethylbenzene	**3060**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	95-63-6	
1,3,5-Trimethylbenzene	**995**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	108-67-8	
m&p-Xylene	**4600**	ug/kg	131	65.3	1	07/13/16 06:30	07/13/16 16:23	179601-23-1	
o-Xylene	**1420**	ug/kg	65.3	32.7	1	07/13/16 06:30	07/13/16 16:23	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1	07/13/16 06:30	07/13/16 16:23	98-08-8	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**23.5**	%	0.10	0.10	1		07/19/16 10:57		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-9 (5'-6') **Lab ID: 40135083018** Collected: 07/07/16 12:20 Received: 07/12/16 10:10 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
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**<250**	ug/kg	500	250	10	07/13/16 06:30	07/13/16 17:40	71-43-2	W
Ethylbenzene	**22700**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	100-41-4	
Methyl-tert-butyl ether	**808**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	1634-04-4	
Naphthalene	**9830**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	91-20-3	
Toluene	**2250**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	108-88-3	
1,2,4-Trimethylbenzene	**66100**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	95-63-6	
1,3,5-Trimethylbenzene	**27700**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	108-67-8	
m&p-Xylene	**68900**	ug/kg	1280	638	10	07/13/16 06:30	07/13/16 17:40	179601-23-1	
o-Xylene	**21800**	ug/kg	638	319	10	07/13/16 06:30	07/13/16 17:40	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	113	%	80-120		10	07/13/16 06:30	07/13/16 17:40	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**25.0**	mg/kg	1.3	0.47	1	07/13/16 16:15	07/14/16 14:10	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.7**	%	0.10	0.10	1		07/19/16 10:57		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: WASTE CHAR (SITE 21) **Lab ID: 40135083019** Collected: 07/07/16 10:48 Received: 07/12/16 10:10 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
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**385**	mg/kg	20.4	8.2	10	07/13/16 09:13	07/14/16 12:16		DC,L2, P2
WIGRO GCV	Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.								
Benzene	**4690**	ug/kg	237	118	4	07/13/16 06:30	07/13/16 17:14	71-43-2	
Gasoline Range Organics	**680**	mg/kg	23.7	11.8	4	07/13/16 06:30	07/13/16 17:14		GO
Surrogates									
a,a,a-Trifluorotoluene (S)	108	%	80-120		4	07/13/16 06:30	07/13/16 17:14	98-08-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**18.2**	mg/kg	1.2	0.44	1	07/13/16 16:15	07/14/16 14:12	7439-92-1	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.4**	%	0.10	0.10	1		07/19/16 10:57		
1010 Flashpoint,Closed Cup	Analytical Method: EPA 1010								
Flashpoint	**131**	deg F			1		07/13/16 12:04		
9095 Paint Filter Liquid Test	Analytical Method: EPA 9095								
Free Liquids	**Pass**	no units			1		07/14/16 11:29		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: TRIP BLANK **Lab ID: 40135083020** Collected: 07/07/16 00:00 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/15/16 01:09	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/15/16 01:09	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/15/16 01:09	1634-04-4	1q
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/15/16 01:09	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/15/16 01:09	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/15/16 01:09	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/15/16 01:09	108-67-8	
m&p-Xylene	**<0.80**	ug/L	2.0	0.80	1		07/15/16 01:09	179601-23-1	
o-Xylene	**<0.45**	ug/L	1.0	0.45	1		07/15/16 01:09	95-47-6	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1		07/15/16 01:09	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-2 **Lab ID: 40135086001** Collected: 07/06/16 16:20 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/15/16 17:48	71-43-2	
Ethylbenzene	**2.3**	ug/L	1.0	0.39	1		07/15/16 17:48	100-41-4	
Methyl-tert-butyl ether	**4.3**	ug/L	1.0	0.48	1		07/15/16 17:48	1634-04-4	
Naphthalene	**2.2**	ug/L	1.0	0.42	1		07/15/16 17:48	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/15/16 17:48	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/15/16 17:48	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/15/16 17:48	108-67-8	
Xylene (Total)	**2.1J**	ug/L	3.0	1.2	1		07/15/16 17:48	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	138	%	80-120		1		07/15/16 17:48	98-08-8	S1

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-3 **Lab ID: 40135086002** Collected: 07/07/16 07:54 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**1270**	ug/L	40.0	15.8	40		07/15/16 20:21	71-43-2	
Ethylbenzene	**1400**	ug/L	40.0	15.7	40		07/15/16 20:21	100-41-4	
Methyl-tert-butyl ether	**<19.4**	ug/L	40.0	19.4	40		07/15/16 20:21	1634-04-4	
Naphthalene	**1270**	ug/L	40.0	17.0	40		07/15/16 20:21	91-20-3	
Toluene	**153**	ug/L	40.0	15.5	40		07/15/16 20:21	108-88-3	
1,2,4-Trimethylbenzene	**3770**	ug/L	40.0	16.7	40		07/15/16 20:21	95-63-6	
1,3,5-Trimethylbenzene	**1070**	ug/L	40.0	16.6	40		07/15/16 20:21	108-67-8	
Xylene (Total)	**3040**	ug/L	120	49.9	40		07/15/16 20:21	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	104	%	80-120		40		07/15/16 20:21	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-4 **Lab ID: 40135086003** Collected: 07/07/16 12:34 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/14/16 14:53	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/14/16 14:53	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/14/16 14:53	1634-04-4	1q
Naphthalene	**<0.42**	ug/L	1.0	0.42	1		07/14/16 14:53	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/14/16 14:53	108-88-3	
1,2,4-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/14/16 14:53	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/14/16 14:53	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/14/16 14:53	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	103	%	80-120		1		07/14/16 14:53	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-5 **Lab ID: 40135086004** Collected: 07/07/16 12:50 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**3670**	ug/L	50.0	19.8	50		07/15/16 19:56	71-43-2	
Ethylbenzene	**2480**	ug/L	50.0	19.6	50		07/15/16 19:56	100-41-4	
Methyl-tert-butyl ether	**<24.2**	ug/L	50.0	24.2	50		07/15/16 19:56	1634-04-4	
Naphthalene	**850**	ug/L	50.0	21.2	50		07/15/16 19:56	91-20-3	
Toluene	**6510**	ug/L	50.0	19.4	50		07/15/16 19:56	108-88-3	
1,2,4-Trimethylbenzene	**2340**	ug/L	50.0	20.9	50		07/15/16 19:56	95-63-6	
1,3,5-Trimethylbenzene	**581**	ug/L	50.0	20.8	50		07/15/16 19:56	108-67-8	
Xylene (Total)	**10400**	ug/L	150	62.4	50		07/15/16 19:56	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		50		07/15/16 19:56	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-6 **Lab ID: 40135086005** Collected: 07/07/16 12:42 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**1.9**	ug/L	1.0	0.40	1		07/19/16 09:16	71-43-2	
Ethylbenzene	**24.3**	ug/L	1.0	0.39	1		07/19/16 09:16	100-41-4	
Methyl-tert-butyl ether	**1.1**	ug/L	1.0	0.48	1		07/19/16 09:16	1634-04-4	
Naphthalene	**6.4**	ug/L	1.0	0.42	1		07/19/16 09:16	91-20-3	
Toluene	**2.4**	ug/L	1.0	0.39	1		07/19/16 09:16	108-88-3	
1,2,4-Trimethylbenzene	**130**	ug/L	1.0	0.42	1		07/19/16 09:16	95-63-6	
1,3,5-Trimethylbenzene	**14.1**	ug/L	1.0	0.42	1		07/19/16 09:16	108-67-8	
Xylene (Total)	**44.0**	ug/L	3.0	1.2	1		07/19/16 09:16	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	107	%	80-120		1		07/19/16 09:16	98-08-8	HS,pH

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-7 **Lab ID: 40135086006** Collected: 07/07/16 12:59 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**<0.40**	ug/L	1.0	0.40	1		07/14/16 17:02	71-43-2	
Ethylbenzene	**<0.39**	ug/L	1.0	0.39	1		07/14/16 17:02	100-41-4	
Methyl-tert-butyl ether	**<0.48**	ug/L	1.0	0.48	1		07/14/16 17:02	1634-04-4	1q
Naphthalene	**3.3**	ug/L	1.0	0.42	1		07/14/16 17:02	91-20-3	
Toluene	**<0.39**	ug/L	1.0	0.39	1		07/14/16 17:02	108-88-3	
1,2,4-Trimethylbenzene	**0.42J**	ug/L	1.0	0.42	1		07/14/16 17:02	95-63-6	
1,3,5-Trimethylbenzene	**<0.42**	ug/L	1.0	0.42	1		07/14/16 17:02	108-67-8	
Xylene (Total)	**<1.2**	ug/L	3.0	1.2	1		07/14/16 17:02	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1		07/14/16 17:02	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-8 **Lab ID: 40135086007** Collected: 07/07/16 13:10 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**167**	ug/L	1.0	0.40	1		07/15/16 19:05	71-43-2	
Ethylbenzene	**13.1**	ug/L	1.0	0.39	1		07/15/16 19:05	100-41-4	
Methyl-tert-butyl ether	**2.2**	ug/L	1.0	0.48	1		07/15/16 19:05	1634-04-4	
Naphthalene	**6.3**	ug/L	1.0	0.42	1		07/15/16 19:05	91-20-3	3q
Toluene	**3.3**	ug/L	1.0	0.39	1		07/15/16 19:05	108-88-3	
1,2,4-Trimethylbenzene	**27.1**	ug/L	1.0	0.42	1		07/15/16 19:05	95-63-6	
1,3,5-Trimethylbenzene	**5.9**	ug/L	1.0	0.42	1		07/15/16 19:05	108-67-8	
Xylene (Total)	**31.5**	ug/L	3.0	1.2	1		07/15/16 19:05	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	102	%	80-120		1		07/15/16 19:05	98-08-8	2q

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Sample: DP21-9 **Lab ID: 40135086008** Collected: 07/07/16 13:20 Received: 07/12/16 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Benzene	**1940**	ug/L	50.0	19.8	50		07/15/16 19:30	71-43-2	
Ethylbenzene	**2040**	ug/L	50.0	19.6	50		07/15/16 19:30	100-41-4	
Methyl-tert-butyl ether	**<24.2**	ug/L	50.0	24.2	50		07/15/16 19:30	1634-04-4	
Naphthalene	**693**	ug/L	50.0	21.2	50		07/15/16 19:30	91-20-3	
Toluene	**414**	ug/L	50.0	19.4	50		07/15/16 19:30	108-88-3	
1,2,4-Trimethylbenzene	**2160**	ug/L	50.0	20.9	50		07/15/16 19:30	95-63-6	
1,3,5-Trimethylbenzene	**624**	ug/L	50.0	20.8	50		07/15/16 19:30	108-67-8	
Xylene (Total)	**8810**	ug/L	150	62.4	50		07/15/16 19:30	1330-20-7	
Surrogates									
a,a,a-Trifluorotoluene (S)	99	%	80-120		50		07/15/16 19:30	98-08-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229707 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 40135083001, 40135083002, 40135083003, 40135083004, 40135083005, 40135083006, 40135083007, 40135083008, 40135083009, 40135083010, 40135083011, 40135083012, 40135083013, 40135083014, 40135083015, 40135083016

METHOD BLANK: 1362874 Matrix: Solid
Associated Lab Samples: 40135083001, 40135083002, 40135083003, 40135083004, 40135083005, 40135083006, 40135083007, 40135083008, 40135083009, 40135083010, 40135083011, 40135083012, 40135083013, 40135083014, 40135083015, 40135083016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	07/13/16 09:41	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	07/13/16 09:41	
Benzene	ug/kg	<25.0	50.0	07/13/16 09:41	
Ethylbenzene	ug/kg	<25.0	50.0	07/13/16 09:41	
m&p-Xylene	ug/kg	<50.0	100	07/13/16 09:41	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	07/13/16 09:41	
Naphthalene	ug/kg	<25.0	50.0	07/13/16 09:41	
o-Xylene	ug/kg	<25.0	50.0	07/13/16 09:41	
Toluene	ug/kg	<25.0	50.0	07/13/16 09:41	
a,a,a-Trifluorotoluene (S)	%	97	80-120	07/13/16 09:41	

LABORATORY CONTROL SAMPLE & LCSD: 1362875 1362876

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	967	952	97	95	80-120	2	20	
1,3,5-Trimethylbenzene	ug/kg	1000	963	949	96	95	80-120	1	20	
Benzene	ug/kg	1000	1060	1060	106	106	80-120	0	20	
Ethylbenzene	ug/kg	1000	1030	1010	103	101	80-120	2	20	
m&p-Xylene	ug/kg	2000	2080	2040	104	102	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	1190	1140	119	114	80-120	4	20	
Naphthalene	ug/kg	1000	1050	1020	105	102	80-120	3	20	
o-Xylene	ug/kg	1000	1060	1020	106	102	80-120	4	20	
Toluene	ug/kg	1000	1030	1040	103	104	80-120	1	20	
a,a,a-Trifluorotoluene (S)	%				100	100	80-120			

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229708 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 40135083017, 40135083018, 40135083019

METHOD BLANK: 1362877 Matrix: Solid
Associated Lab Samples: 40135083017, 40135083018, 40135083019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	07/13/16 08:49	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	07/13/16 08:49	
Benzene	ug/kg	<25.0	50.0	07/13/16 08:49	
Ethylbenzene	ug/kg	<25.0	50.0	07/13/16 08:49	
Gasoline Range Organics	mg/kg	<1.6	5.0	07/13/16 08:49	
m&p-Xylene	ug/kg	<50.0	100	07/13/16 08:49	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	07/13/16 08:49	
Naphthalene	ug/kg	<25.0	50.0	07/13/16 08:49	
o-Xylene	ug/kg	<25.0	50.0	07/13/16 08:49	
Toluene	ug/kg	<25.0	50.0	07/13/16 08:49	
a,a,a-Trifluorotoluene (S)	%	101	80-120	07/13/16 08:49	

LABORATORY CONTROL SAMPLE & LCSD: 1362878 1362879

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1100	1120	110	112	80-120	2	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1080	1100	108	110	80-120	1	20	
Benzene	ug/kg	1000	1070	1080	107	108	80-120	1	20	
Ethylbenzene	ug/kg	1000	1080	1090	108	109	80-120	1	20	
Gasoline Range Organics	mg/kg	10	10.7	10.7	107	107	80-120	0	20	
m&p-Xylene	ug/kg	2000	2140	2170	107	108	80-120	2	20	
Methyl-tert-butyl ether	ug/kg	1000	1080	1100	108	110	80-120	2	20	
Naphthalene	ug/kg	1000	994	1040	99	104	80-120	4	20	
o-Xylene	ug/kg	1000	1080	1100	108	110	80-120	2	20	
Toluene	ug/kg	1000	1070	1080	107	108	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				102	101	80-120			

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229824 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40135083020, 40135086003, 40135086006

METHOD BLANK: 1363624 Matrix: Water
Associated Lab Samples: 40135083020, 40135086003, 40135086006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	07/14/16 13:10	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	07/14/16 13:10	
Benzene	ug/L	<0.40	1.0	07/14/16 13:10	
Ethylbenzene	ug/L	<0.39	1.0	07/14/16 13:10	
m&p-Xylene	ug/L	<0.80	2.0	07/14/16 13:10	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	07/14/16 13:10	
Naphthalene	ug/L	<0.42	1.0	07/14/16 13:10	
o-Xylene	ug/L	<0.45	1.0	07/14/16 13:10	
Toluene	ug/L	<0.39	1.0	07/14/16 13:10	
Xylene (Total)	ug/L	<1.2	3.0	07/14/16 13:10	
a,a,a-Trifluorotoluene (S)	%	101	80-120	07/14/16 13:10	

LABORATORY CONTROL SAMPLE & LCSD: 1363625 1363626

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	19.6	19.9	98	99	80-120	1	20	
1,3,5-Trimethylbenzene	ug/L	20	19.1	19.3	96	97	80-120	1	20	
Benzene	ug/L	20	22.0	21.9	110	109	80-120	0	20	
Ethylbenzene	ug/L	20	20.5	20.6	103	103	80-120	0	20	
m&p-Xylene	ug/L	40	40.8	40.9	102	102	80-120	0	20	
Methyl-tert-butyl ether	ug/L	20	21.7	22.6	109	113	80-120	4	20	
Naphthalene	ug/L	20	19.7	20.8	99	104	80-120	5	20	
o-Xylene	ug/L	20	21.0	21.0	105	105	80-120	0	20	
Toluene	ug/L	20	20.9	21.0	104	105	80-120	1	20	
Xylene (Total)	ug/L	60	61.8	61.8	103	103	80-120	0	20	
a,a,a-Trifluorotoluene (S)	%				101	101	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1364392 1364393

Parameter	Units	40135123001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	<0.42	20	20	16.0	17.1	80	85	48-177	6	20	
1,3,5-Trimethylbenzene	ug/L	<0.42	20	20	18.7	19.2	93	96	73-145	3	20	
Benzene	ug/L	<0.40	20	20	22.8	22.6	114	113	74-139	1	20	
Ethylbenzene	ug/L	<0.39	20	20	21.3	21.2	107	106	74-140	0	20	
m&p-Xylene	ug/L	<0.80	40	40	41.3	41.3	103	103	55-165	0	20	
Methyl-tert-butyl ether	ug/L	<0.48	20	20	23.0	22.7	115	113	80-120	1	20	
Naphthalene	ug/L	<0.42	20	20	19.9	20.4	99	102	73-133	3	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, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1364392 1364393

Parameter	Units	40135123001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
o-Xylene	ug/L	<0.45	20	20	21.4	21.2	107	106	73-136	1	20	
Toluene	ug/L	<0.39	20	20	21.8	21.8	109	109	80-128	0	20	
Xylene (Total)	ug/L	<1.2	60	60	62.7	62.4	105	104	69-143	0	20	
a,a,a-Trifluorotoluene (S)	%						102	101	80-120			

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229970 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40135086001, 40135086002, 40135086004, 40135086005, 40135086007, 40135086008

METHOD BLANK: 1364506 Matrix: Water
Associated Lab Samples: 40135086001, 40135086002, 40135086004, 40135086005, 40135086007, 40135086008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.42	1.0	07/15/16 15:15	
1,3,5-Trimethylbenzene	ug/L	<0.42	1.0	07/15/16 15:15	
Benzene	ug/L	<0.40	1.0	07/15/16 15:15	
Ethylbenzene	ug/L	<0.39	1.0	07/15/16 15:15	
Methyl-tert-butyl ether	ug/L	<0.48	1.0	07/15/16 15:15	
Naphthalene	ug/L	<0.42	1.0	07/15/16 15:15	
Toluene	ug/L	<0.39	1.0	07/15/16 15:15	
Xylene (Total)	ug/L	<1.2	3.0	07/15/16 15:15	
a,a,a-Trifluorotoluene (S)	%	99	80-120	07/15/16 15:15	

LABORATORY CONTROL SAMPLE & LCSD: 1364507 1364508

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/L	20	21.5	20.7	108	104	80-120	4	20	
1,3,5-Trimethylbenzene	ug/L	20	20.7	20.0	104	100	80-120	4	20	
Benzene	ug/L	20	21.1	20.8	106	104	80-120	2	20	
Ethylbenzene	ug/L	20	20.6	19.8	103	99	80-120	4	20	
Methyl-tert-butyl ether	ug/L	20	20.5	20.6	102	103	80-120	0	20	
Naphthalene	ug/L	20	20.2	19.9	101	99	80-120	1	20	
Toluene	ug/L	20	20.7	20.1	103	101	80-120	3	20	
Xylene (Total)	ug/L	60	62.5	60.1	104	100	80-120	4	20	
a,a,a-Trifluorotoluene (S)	%				100	100	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1364509 1364510

Parameter	Units	40135086008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2,4-Trimethylbenzene	ug/L	2160	1000	1000	3260	3040	110	88	48-177	7	20	
1,3,5-Trimethylbenzene	ug/L	624	1000	1000	1650	1610	103	98	73-145	3	20	
Benzene	ug/L	1940	1000	1000	2940	2970	100	103	74-139	1	20	
Ethylbenzene	ug/L	2040	1000	1000	3030	3050	99	101	74-140	0	20	
Methyl-tert-butyl ether	ug/L	<24.2	1000	1000	975	1020	98	102	80-120	4	20	
Naphthalene	ug/L	693	1000	1000	1660	1700	97	100	73-133	2	20	
Toluene	ug/L	414	1000	1000	1410	1440	99	103	80-128	2	20	
Xylene (Total)	ug/L	8810	3000	3000	11800	11800	101	100	69-143	0	20	
a,a,a-Trifluorotoluene (S)	%						101	98	80-120			HS

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229805 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40135083001, 40135083003, 40135083006, 40135083007, 40135083010, 40135083011, 40135083013, 40135083015, 40135083018, 40135083019

METHOD BLANK: 1363545 Matrix: Solid
Associated Lab Samples: 40135083001, 40135083003, 40135083006, 40135083007, 40135083010, 40135083011, 40135083013, 40135083015, 40135083018, 40135083019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Lead	mg/kg	<0.43	1.2	07/14/16 13:22	

LABORATORY CONTROL SAMPLE: 1363546

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Lead	mg/kg	50	44.4	89	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1363547 1363548

Parameter	Units	40135084006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/kg	1.4	52.1	52.1	50.8	50.2	95	94	75-125	1	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, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229731
QC Batch Method: WI MOD DRO
Analysis Method: WI MOD DRO
Analysis Description: WIDRO GCS
Associated Lab Samples: 40135083019

METHOD BLANK: 1362922 Matrix: Solid
Associated Lab Samples: 40135083019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/kg	<0.80	2.0	07/14/16 09:07	

LABORATORY CONTROL SAMPLE & LCSD: 1362923 1362924

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/kg	40	26.4	27.1	66	68	70-120	3	20	L0

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 230202 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40135083001, 40135083002, 40135083003, 40135083004, 40135083005, 40135083006, 40135083007, 40135083008, 40135083009, 40135083010, 40135083011, 40135083012, 40135083013, 40135083014, 40135083015, 40135083016, 40135083017, 40135083018, 40135083019

SAMPLE DUPLICATE: 1365817

Parameter	Units	40135084005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.5	4.4	3	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, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229732
QC Batch Method: EPA 1010
Analysis Method: EPA 1010
Analysis Description: 1010 Flash Point, Closed Cup
Associated Lab Samples: 40135083019

LABORATORY CONTROL SAMPLE: 1362925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Flashpoint	deg F		80.6			

SAMPLE DUPLICATE: 1363281

Parameter	Units	40135083019 Result	Dup Result	RPD	Max RPD	Qualifiers
Flashpoint	deg F	131	111			

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

QUALITY CONTROL DATA

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

QC Batch: 229870
QC Batch Method: EPA 9095
Analysis Method: EPA 9095
Analysis Description: 9095 PAINT FILTER LIQUID TEST
Associated Lab Samples: 40135083019

SAMPLE DUPLICATE: 1363903

Parameter	Units	40135061001 Result	Dup Result	RPD	Max RPD	Qualifiers
Free Liquids	no units	Pass	Pass			

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

QUALIFIERS

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

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.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

1q	Analyte recovery in the continuing calibration verification (CCV) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
2q	Inconsistent results obtained between vials. Reported highest concentration obtained.
3q	Value is suspect carryover. Insufficient sample to confirm.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
DC	Chromatographic pattern inconsistent with typical Diesel Fuel.
GO	Early and late peaks present outside the GRO window.
HS	Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.
P2	Re-extraction or re-analysis could not be performed due to insufficient sample amount.
S1	Surrogate recovery outside laboratory control limits (confirmed by re-analysis).
W	Non-detect results are reported on a wet weight basis.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40135083019	WASTE CHAR (SITE 21)	WI MOD DRO	229731	WI MOD DRO	229787
40135083001	DP21-1 (2'-4')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083002	DP21-1 (8'-10')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083003	DP21-2 (2'-4')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083004	DP21-2 (7'-8')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083005	DP21-3 (4'-6')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083006	DP21-3 (7'-8')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083007	DP21-4 (2'-4')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083008	DP21-4 (8.5'-9.5')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083009	DP21-5 (2'-4')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083010	DP21-5 (7'-8')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083011	DP21-6 (2'-3')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083012	DP21-6 (5'-6')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083013	DP21-7 (3'-4')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083014	DP21-7 (8'-9')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083015	DP21-8 (1'-2')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083016	DP21-8 (7'-8')	TPH GRO/PVOC WI ext.	229707	WI MOD GRO	229761
40135083017	DP21-9 (2'-3')	TPH GRO/PVOC WI ext.	229708	WI MOD GRO	229762
40135083018	DP21-9 (5'-6')	TPH GRO/PVOC WI ext.	229708	WI MOD GRO	229762
40135083019	WASTE CHAR (SITE 21)	TPH GRO/PVOC WI ext.	229708	WI MOD GRO	229762
40135083020	TRIP BLANK	WI MOD GRO	229824		
40135086001	DP21-2	WI MOD GRO	229970		
40135086002	DP21-3	WI MOD GRO	229970		
40135086003	DP21-4	WI MOD GRO	229824		
40135086004	DP21-5	WI MOD GRO	229970		
40135086005	DP21-6	WI MOD GRO	229970		
40135086006	DP21-7	WI MOD GRO	229824		
40135086007	DP21-8	WI MOD GRO	229970		
40135086008	DP21-9	WI MOD GRO	229970		
40135083001	DP21-1 (2'-4')	EPA 3050	229805	EPA 6010	229873
40135083003	DP21-2 (2'-4')	EPA 3050	229805	EPA 6010	229873
40135083006	DP21-3 (7'-8')	EPA 3050	229805	EPA 6010	229873
40135083007	DP21-4 (2'-4')	EPA 3050	229805	EPA 6010	229873
40135083010	DP21-5 (7'-8')	EPA 3050	229805	EPA 6010	229873
40135083011	DP21-6 (2'-3')	EPA 3050	229805	EPA 6010	229873
40135083013	DP21-7 (3'-4')	EPA 3050	229805	EPA 6010	229873
40135083015	DP21-8 (1'-2')	EPA 3050	229805	EPA 6010	229873
40135083018	DP21-9 (5'-6')	EPA 3050	229805	EPA 6010	229873
40135083019	WASTE CHAR (SITE 21)	EPA 3050	229805	EPA 6010	229873
40135083001	DP21-1 (2'-4')	ASTM D2974-87	230202		
40135083002	DP21-1 (8'-10')	ASTM D2974-87	230202		
40135083003	DP21-2 (2'-4')	ASTM D2974-87	230202		
40135083004	DP21-2 (7'-8')	ASTM D2974-87	230202		
40135083005	DP21-3 (4'-6')	ASTM D2974-87	230202		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60492955 STH23-DARLINGTON
Pace Project No.: 40135083

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40135083006	**DP21-3 (7'-8')**	ASTM D2974-87	230202		
40135083007	**DP21-4 (2'-4')**	ASTM D2974-87	230202		
40135083008	**DP21-4 (8.5'-9.5')**	ASTM D2974-87	230202		
40135083009	**DP21-5 (2'-4')**	ASTM D2974-87	230202		
40135083010	**DP21-5 (7'-8')**	ASTM D2974-87	230202		
40135083011	**DP21-6 (2'-3')**	ASTM D2974-87	230202		
40135083012	**DP21-6 (5'-6')**	ASTM D2974-87	230202		
40135083013	**DP21-7 (3'-4')**	ASTM D2974-87	230202		
40135083014	**DP21-7 (8'-9')**	ASTM D2974-87	230202		
40135083015	**DP21-8 (1'-2')**	ASTM D2974-87	230202		
40135083016	**DP21-8 (7'-8')**	ASTM D2974-87	230202		
40135083017	**DP21-9 (2'-3')**	ASTM D2974-87	230202		
40135083018	**DP21-9 (5'-6')**	ASTM D2974-87	230202		
40135083019	**WASTE CHAR (SITE 21)**	ASTM D2974-87	230202		
40135083019	**WASTE CHAR (SITE 21)**	EPA 1010	229732		
40135083019	**WASTE CHAR (SITE 21)**	EPA 9095	229870		

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

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

40135083

(Please Print Clearly)	
Company Name:	AECOM
Branch/Location:	STEVENS POINT
Project Contact:	KYLE WAGONER
Phone:	(715) 342-3038
Project Number:	60492955
Project Name:	STH 23 - Darlington
Project State:	WI
Sampled By (Print):	Marcus Hopkins
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	KYLE WAGONER
Mail To Company:	AECOM
Mail To Address:	200 Indiana Ave Stevens Pont, WI 54481
Invoice To Contact:	Same
Invoice To Company:	
Invoice To Address:	
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	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	PVOCs + Nap	Lead	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
						F	A				
001	DP21-1 (2-4')	7/6/16	1410	S			X	X		1-40zpA	1-40mlvF
002	DP21-1 (8-10')	7/6/16	1420	S			X				
003	DP21-2 (2-4')	7/6/16	1455	S			X	X			
004	DP21-2 (7-8')	7/6/16	1505	S			X				
005	DP21-3 (4-6')	7/6/16	1555	S			X				
006	DP21-3 (7-8')	7/6/16	1600	S			X	X			
007	DP21-4 (2-4')	7/7/16	0855	S			X	X			
008	DP21-4 (8.5-9.5)	7/7/16	0910	S			X				
009	DP21-5 (2-4')	7/7/16	0943	S			X				
010	DP21-5 (7-8')	7/7/16	0953	S			X	X			
011	DP21-6 (2-3')	7/7/16	1035	S			X	X			
012	DP21-6 (5-6)	7/7/16	1035	S			X				

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

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

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
	7/11/16 1700		
UPS	7/12/16 1010		
		Pace	7/12/16 1010

PACE Project No.
40135083

Receipt Temp = ROI °C

Sample Receipt pH
~~OK / Adjusted~~

Cooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

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

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

*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

(Please Print Clearly)	
Company Name:	AECOM
Branch/Location:	STEVENS POINT
Project Contact:	KYLE WAGONER
Phone:	(715) 342-7038
Project Number:	60492955
Project Name:	STH 23 - Darlington
Project State:	WI
Sampled By (Print):	Marcus Hopkins
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	KYLE WAGONER
Mail To Company:	AECOM
Mail To Address:	200 Indiana Ave Stevens Point WI 54481
Invoice To Contact:	Same
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

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

FILTERED? (YES/NO) — Y / N
PRESERVATION (CODE)* — Pick Letter: F A

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Analyses Requested: PVOCs + Map	Lead	Protocol TI	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
013	DP21-7 (3'-4')	7/7/16	1105	S	X	X		1-40zpA	1-40mlvF	
014	DP21-7 (8'-9')	7/7/16	1116	S	X					
015	DP21-8 (1-2')	7/7/16	1155	S	X	X				
016	DP21-8 (7'-8')	7/7/16	1200	S	X					
017	DP21-9 (2'-3')	7/7/16	1215	S	X					
018	DP21-9 (5'-6')	7/7/16	1220	S	X	X				
019	Waste Char (Site 21)	7/7/16	1048	S			X	Run 1-40zpA 1-40zagA 1-40zcgA 2-40mlvF		
020	Trip Blank	5/10/16	-	W	X			2-40mlvB		

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

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

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
	7/7/16 1700		
UPS	7/12/16 1010	pace	7/12/16 1010

PACE Project No.: 40135083
Receipt Temp = ROT °C
Sample Receipt pH: OK / Adjusted
Cooler Custody Seal: Present / Not Present, Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

Sample Condition Upon Receipt

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

Pace Analytical™

Client Name: AECOM

Project # **WO#: 40135083**

40135083

Courier: ☐ Fed Ex ☑ UPS ☐ Client ☐ Pace Other:

Tracking #: 1Z A47 8E9 01 9987 1207

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 NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 7/12/16
Initials: BH

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1. Client sent carbon copy BH 7/12/16
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
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 ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐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	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: SW		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	7-12-16 MV ☑Yes ☐No	Initial when completed: 7-12-16 MV; Lab Std #ID of preservative: 0; Date/Time:
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	14.
Trip Blank Present:	BH 7/12/16 ☑Yes ☐No ☐N/A	15.
Trip Blank Custody Seals Present	☐Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased):	Blocked by customer label BH 7/12/16	

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: CMS **Date:** 7-12-16

UPPER MIDWEST REGION

MN: 612-607-1700 **WI:** 920-469-2436

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

OMA

401350860

(Please Print Clearly)	
Company Name:	AECOM
Branch/Location:	STEVENS POINT
Project Contact:	KYLE WAGONER
Phone:	(715) 342-3038
Project Number:	60492955
Project Name:	STH 23 - Darlington
Project State:	WI
Sampled By (Print):	Marcus Hopkins
Sampled By (Sign):	Marcus Hopkins
PO #:	**Regulatory Program:**

Quote #:	
Mail To Contact:	KYLE WAGONER
Mail To Company:	AECOM
Mail To Address:	kyle.wagoner@aecom.com
Invoice To Contact:	Same
Invoice To Company:	
Invoice To Address:	
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	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PVOCs + Nap	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001 0921	DP21-2	7/6/16	1620	GW	N	B	X		3-40mlVB	
002 0922	DP21-3	7/7/16	0754	GW			X		OMA 7/12/16	
003 0923	DP21-4	7/7/16	1234	GW			X		BH 7/12/16 ~~2-40mlVB~~ 2-40mlVB	
004 0924	DP21-5	7/7/16	1250	GW			X			
005 0925	DP21-6	7/7/16	1242	GW			X			
006 0926	DP21-7	7/7/16	1259	GW			X			
007 0927	DP21-8	7/7/16	1310	GW			X			
008 0928	DP21-9	7/7/16	1320	GW			X			
BH 7/12/16										

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

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

Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
Marcus Hopkins	7/11/16 1720		
UPS	7/12/16 1010	PACE	7/12/16 1010

PACE Project No. 40135086

Receipt Temp = RUT °C

Sample Receipt pH ~~OK / Adjusted~~

Cooler Custody Seal Present / Not Present Intact / Not Intact

Version ~~6.0 08/14/06~~

C019a(27Jun2006)

Sample Condition Upon Receipt

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

Pace Analytical™

Client Name: AECOM

Project #: **WO#: 40135086**

40135086

Courier: ☐ Fed Ex ☑ UPS ☐ Client ☐ Pace Other:

Tracking #: 1Z A47 8E9 01 9987 1207

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 NA **Type of Ice:** (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr: **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Person examining contents:
Date: 7/12/16
Initials: BH

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1. Client sent carbon copy BH 7/12/16
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
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 ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐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	
-Pace IR Containers Used:	☐Yes ☐No ☐N/A	
Containers Intact:	☐Yes ☑No ☐N/A	10. 003 1-40mlV* received half full BH 7/12/16
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☑No ☐N/A	12. 003 collect time "1235" BH 7/12/16
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☑N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☑N/A	
exceptions: (VOA) coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	☑Yes ☐No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☑Yes ☐No ☐N/A	14. 002 - 1 vial 005 2 vials BH 7/12/16
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: If checked, see attached form for additional comments ☐

Person Contacted: Date/Time:

Comments/ Resolution: 002, 004, 005, 008 vials have a lot of Sediment BH 7/12/16

Project Manager Review: CSS **Date:** 7-12-16

About AECOM

AECOM (NYSE: ACM) is built to deliver a better world. We design, build, finance and operate infrastructure assets for governments, businesses and organizations in more than 150 countries.

As a fully integrated firm, we connect knowledge and experience across our global network of experts to help clients solve their most complex challenges.

From high-performance buildings and infrastructure, to resilient communities and environments, to stable and secure nations, our work is transformative, differentiated and vital. A Fortune 500 firm, AECOM companies had revenue of approximately US$19 billion during the 12 months ended June 30, 2015.

See how we deliver what others can only imagine at aecom.com and @AECOM.

Contact
Kyle Wagoner
Project Manager
T 715-342-3038
E kyle.wagoner@aecom.com