

Semi-Annual Operation and Monitoring Report, January-June 2017

Former Kenosha Engine Plant, Kenosha, Wisconsin

WDNR FID 230004500, BRRTS# 02-30-000327

November 19, 2018

Mr. Dave Volkert
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
141 NW Barstow St., Room 180
Waukesha, WI 53188

**Subject: Semi-Annual Operation and Monitoring Report, January-June 2017
Former Kenosha Engine Plant, Kenosha, Wisconsin
WDNR FID 230004500, BRRTS# 02-30-000327**

Dear Mr. Volkert,

AECOM is transmitting the attached Semi-Annual Remediation Site Progress and Operation, Maintenance, Monitoring and Optimization Report (Form 4400-194) for the former Kenosha Engine Plant (KEP) for the time period January 2017 through June 2017 on behalf of the City of Kenosha.

AECOM continues operation, maintenance, and monitoring (OM&M) of three groundwater remediation systems at the KEP.

The three systems are:

- Sump 6
- The Central System: Sumps 18 & 23
- The Southern System: Sumps 7, 15, & 17R

Figures 1 and 2 depict sump locations. Treated groundwater is discharged to the Kenosha Water Utility sanitary system at three different locations near the boundary of the KEP. During this operational period remedial systems have been maintained for continued operation. A review of the current conditions of each of the systems and the measures taken during the reporting period to restore/improve operations are provided below.

System Description and Operational Status

AECOM maintained the operational status of each of the three groundwater remediation systems located at the KEP during the period from January through June 2017. The system component(s) encountered the following operational breakdowns during the period and have been restored back into working order:

- Sump 6 – The system has been functioning normally except for the following intermittent interruptions;
 - On February 14th a replacement pump was installed in sump 6 as a result of normal wear and use.
 - On March 7th loss of power occurred at the site at approximately 1:00 AM resulting in shut down of the on-site computer and remained off until 8:00 AM the same morning when power was the computer was restarted.

- On May 17th a loss of power occurred shutting down the on-site computer and was restored same day with a site visit.
- On July 21st new power service to the site was installed as result of excavation activities by a soil remediation contractor.
- Central System –The system has been operational since repairs listed below have been completed;
 - Sanitary sewer discharge line delivering effluent was damaged in early 2017 by the soil remediation contractor.
 - On March 7th loss of power occurred at the site at approximately 1:00 AM resulting in shut down of the on-site computer and remained off until 8:00 AM the same morning when power was the computer was restarted.
 - Additionally, on March 7th the system was shut down for analysis of a localized groundwater treatment study. On April 26th the system was operated to flush the discharge lines for approximately 17 hours, then shut off and remained off for the rest of the operational period.
- Southern System – The system has been operating normally except for the following intermittent interruptions;
 - On March 7th Sump 7 reported 23.40 gallons of total flow, suggesting the pump operated for approximately 30 minutes over a 30 day period. On March 9th Sump 7 system flow was recorded at 1,703.68 gallons and resumed operating as designed.
 - On March 7th loss of power occurred at the site at approximately 1:00 AM resulting in shut down of the on-site computer and remained off until 8:00 AM the same morning when power was the computer was restarted. On June 14th Sump 7 pump recorded an overload and reached the end of its usable life as evident from the observed worn impellor and was replaced on June 20th.

The conditions of the system components were reviewed on April 17, 2018 and are summarized here:

Sump 6

- Pump – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is operating.

Central System, Sumps 18 & 23

- System has been shut down for localized groundwater study analysis, shut down length to be determined during next operational periods.
- Pump – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System not operating.

Southern System, Sumps 7, 15 and 17R

- Pumps – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is operating.

Evaluation of Current Monitoring Data

A water table contour map (Figure 1) and a potentiometric map of the deeper groundwater (Figure 2, as measured by KEP piezometers at a depth of approximately 25 feet bgs) for April 2016 are attached. Due to soil remediation and concrete removal activities the April 2016 water table contour map and potentiometric map will be used until the completion of soil remediation which is expected in fall 2018. Capture zones for the Southern (Sumps 7, 15 & 17R) systems are illustrated by concentric contours

around the sumps on the water table contour map. The capture zone for Sumps 18 & 23 is illustrated by the 615 foot contour surrounding the sumps. The capture zone for Sump 6 is illustrated by the 615 foot contour.

Influent (pre-treatment) groundwater samples are collected from each individual sump and effluent (post-treatment) samples are collected from each treatment system. The samples are analyzed for volatile organic compounds (VOCs), diesel range organics (DRO) and gasoline range organics (GRO) in conformance with the Kenosha Water Utility discharge permit. Tables 1 and 2 provide a summary of influent and effluent samples (detected VOCs, DRO and GRO) collected, with the most recent results from March 2017 shown for three operating sumps (Sumps 6, 7, and 17R). Influent samples were not collected in March 2017 at Sumps 15 and 23 because the pumps were not operating at the time of sample collection.

After reviewing the influent concentrations for each sump, generally one contaminant was dominant (as evidenced by its exceedance of the NR 140 Wisconsin Administrative Code groundwater quality Enforcement Standard [ES]) in its concentration over time. The individual contaminants and their trends by sump are:

Sump 6

- Sump 6 – Trichloroethene
The TCE concentrations exceed the ES without an observable trend. Cis-1,2-dichloroethene and vinyl chloride are also present above their respective ES. Additional soil remediation (source soil excavation) to occur during in 2018 will likely address TCE concentrations.

Central System

- Sump 18 – Benzene
Benzene concentrations exceed the ES without an observable trend. Cis-1,2-dichloroethene and vinyl chloride also exceed the ES, and the parent product, TCE, was detected above the ES in the March 2017 sampling event. Cis-1,2-dichloroethene and vinyl chloride concentrations have decreased from the March 2016 sampling event. Results from Sump 18 are variable but will continue to be evaluated for future trends.

Southern System

- Sump 7 – Vinyl Chloride
Trichloroethene concentrations are slightly above the PAL, without an observable trend. Only vinyl chloride exceeds the ES, without an observable trend. Trend analysis will continue during future sampling events.
- Sump 17R – Trichloroethene
The TCE concentration is exceeds the ES without an observable trend. Cis-1,2-dichloroethene and vinyl chloride also exceed the ES at concentrations without an observable trend. Trend analysis will continue during future sampling events.

Table 3 presents a summary of the operational data collected for January through June of 2017. The treatment systems reduce influent concentrations to below the effluent concentration permit limits established by the Kenosha Water Utility. Thus, the systems are operating in compliance with discharge requirements.

Plan for Repair, Replacement and Optimization

Sump 6 groundwater extraction pump was replaced during the operational period. Biofouling reduction on the pump inlet screen and flow meter are planned during the next operational period to extend the life of the pump and ensure treatment flow is recorded.

Central System –The compressor’s oil and oil filter were replaced during this operational period. The capture zone from Sump 18 appears to be sufficient at the current time. If the capture zone needs to be increased adjustments to the pumping rate in Sump 23 will take place. Biofouling reduction on the pump inlet screen and flow meter are planned during the next operational period to ensure treatment flow is recorded.

Southern System –Sump 7 groundwater extraction pump reached the end of its usable life and was replaced during the operational period.

Optimization of the three operating groundwater recovery systems will continue in fall of 2017 with regular monitoring of flow and evaluation of nearby groundwater elevations for the control of the hydraulic gradient with the least amount of pumping required.

Closing

WDNR form 4400-194 Remediation Site Progress, and Operation, Maintenance, Monitoring & Optimization Report is attached as well as supporting tables and figures as required. The Kenosha Engine Plant groundwater remediation system effectively reduces contaminant concentration in compliance with the wastewater discharge permits.

Yours sincerely,

AECOM Technical Services, Inc.



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Scientist

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Attachments

- WDNR form 4400-194 Remediation site Progress, and Operation, Maintenance, Monitoring & Optimization Report
- Table 1 – Influent Summary (Detected VOCs, DRO and GRO)
- Table 2 – Effluent Summary
- Table 3 – Operational Summary
- Figure 1 – Potentiometric Surface in Water Table Wells (April 2016)
- Figure 2 – Potentiometric Surface in Piezometers (April 2016)
- Pace Analytical – Laboratory Report Influent and effluent samples

Cc: Shelly Billingsley MBA, PE, Director of Public Works, City of Kenosha
Katie Karow, Director of Wastewater Treatment, Kenosha Water Utility

Notice: Pursuant to ss. NR 700.11(1) and 724.13(3), Wis. Adm. Code, this form is required to be completed or a narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation and is subject to the penalties as stated in s. 292.99, Wis. Stats. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). *Unless otherwise noted, all citations refer to Wisconsin Administrative Code.*

GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM: Completion of this form is required under s. NR 700.11(1) and s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 700.11(1) and s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for remediation projects that are regulated under the NR 700 series of Wis. Adm. Code. Specifically, for sites meeting any of the following criteria:

- Any site where a discharge has occurred that report progress in accordance with s. NR 700.11(1), Wis. Adm. Code until site closure is granted. This includes sites where no response activities occurred during the six month reporting period. **Attach, if applicable, a separate brief summary of the work completed during the reporting period and the anticipated future work.**
- Soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submittal of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Only complete and submit all of page GI-1 and Section E on pages 3 and 4 for sites where a discharge has been reported but no response, monitoring or remediation has begun or occurred during the six month reporting period that are required to report only under s. NR 700.11(1), Wis. Adm. Code **and attach, if applicable, a summary of the anticipated future work.**

Section GI - General Site Information

A. General Information

1. Site name

Kenosha Engine Plant

2. Reporting period from: 01/01/2017 To: 06/30/2017 Days in period: 181

3. Regulatory agency (enter DNR, DCOM, DATCP and/or other) 4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)
 DNR 02-03-000327

5. Site location

Region	County	Address				
Southeast Region	Kenosha	5555 30th Avenue				
Municipality name	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range	<input type="radio"/> E <input checked="" type="radio"/> W	Section	¼ ¼
		N				

6. Responsible party Name	7. Consultant	
City of Kenosha	<input type="checkbox"/> Select if the following information has changed since the last submittal	
Mailing address	Company name	
625 52nd Street, Kenosha, WI 53140	AECOM	
Phone number	Mailing address	Phone number
(262) 653-4000	1555 N. RiverCenter Dr, Ste 214, 53212	(414) 944-6080

8. Contaminants
 VOCs

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9. Soil types (USCS or USDA)
Fill, Sand, Silty Sand, Silt, Clay

10. Hydraulic conductivity(cm/sec): 10-2 to 10-4	11. Average linear velocity of groundwater (ft/yr) 1.3 - 1700
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12. If soil is treated ex situ, is the treatment location off site? Yes No

If yes, give location: Region _____ County _____

Municipality name <input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range	<input type="radio"/> E	Section	¼	¼
	N		<input type="radio"/> W			

B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attenuation), complete this subsection.

1. is the system operating at design rates and specifications? Yes No

If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design. Northern Systems Sumps 4, 5, 9 and 9A operations ceased in 2015 with WDNR approval. Northern Systems Sumps 4, 5, 9 and 9A were abandoned in the fall of 2016 and buildings raised during soil remediation activities in fall and winter 2016.

2. Are modifications to the system warranted to improve effectiveness Yes No

If yes, explain:

3. Is natural attenuation an effective low cost option at this time? Yes No

4. Is closure sampling warranted at this time? Yes No

5. Are there any modifications that can be made to the remediation to improve cost effectiveness? Yes No

If yes, explain:

The pumping rates of the systems are modified seasonally to achieve optimal groundwater capture without excessive wear on the groundwater extraction systems.

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D. Economic and Cost Data to Date

1. Total investigation cost: _____
2. Implementation costs (design, capital and installation costs, excluding investigation costs): _____
3. Total costs during the previous reporting period: _____
4. Total costs during this reporting period: _____
5. Total anticipated costs for the next reporting period: _____
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above? Yes No
If yes, explain: _____

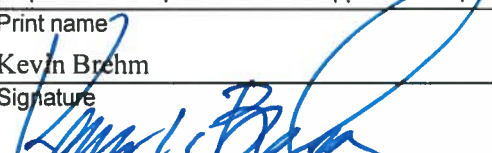
7. If closure is anticipated within 12 months, estimated costs for project closeout: _____

E. Name(s), Signature(s) and Date of Person(s) Submitting Form

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.


Registered Professional Engineers:

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

Print name Kevin Brehm	Title Associate Vice President
Signature 	Date 11/19/18

Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name Lanette Altenbach	Title Senior Hydrogeologist
Signature 	Date 11/19/18

Scientists:

I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

Other Persons:

Print name	Title
Signature	Date

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Professional Seal(s), if applicable



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Section GW-1, Groundwater Pump and Treat Systems and Free Product Recovery Systems

A. Groundwater Extraction System Operation:

1. Total number of groundwater extraction wells or trenches available: 10 and the number in use during period: 4

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain:

Sump 6 - 181 days

Central System (Sumps 18 & 23) - 67 days

Southern System (Sumps 7, 15, 17R) - 181 days

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:

Sump 6 - 100% Operational

Central System (Sumps 18 & 23) - 37%, System shutdown due to local groundwater treatment study

Southern System (Sumps 7, 15, 17R) - 100% Operational

4. Quantity of groundwater extracted during this time period: 1,587,117 gallons

5. Average groundwater extraction rate: 6 gpm

6. Quantity of dissolved phase contaminants removed during this time period in pounds: _____ lbs

B. Free Product Recovery System Operation

1. Is free product (nonaqueous phase liquid) being recovered at this site? Yes No

If yes, explain:

2. Quantity of free product extracted during this time period (enter none if none): 0 gallons

3. Average free product extraction rate: 0 gpm

C. System Effectiveness Evaluation

1. Is a contaminated groundwater plume fully contained in the capture zone? Yes No

If no, explain:

2. If free product is present, is the free product fully contained in capture zone? Yes No

If no, explain:

3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain:

Free product is trapped in the saturated zone and although each treatment train has an oil/water separator, little to no free product is recovered.

4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.

a. Contaminant: Petroleum and chlorinated VOC's

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 100 %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: _____ µg/L

d. Maximum contaminant concentration level in any extraction well of that contaminant: _____ µg/L

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e. If the maximum concentration in a monitoring well is more than one order of magnitude above the concentration measured in an extraction well, explain why the extracted groundwater contamination levels are significantly less than the levels at other locations within the aquifer.

1.) Dilution effects. 2.) Multiple source areas and remedial systems were not designed to address all areas but only 5 specific identified releases. 3.) New wells have higher concentrations in areas not within remedial capture zone.

*Only perimeter wells were sampled during this operational period.

D. Additional Attachments

Attach the following to this form:

- Most recent report to the DNR Wastewater Program, if applicable.
- Groundwater contour map with capture zone indicated.
- Groundwater contaminant distribution map (may be combined with contour map).
- Graph of cumulative contaminant removal, if both free product recovery and ground water extraction are used, provide separate graphs.
- Time versus groundwater contaminant concentration graphs for the contaminant listed in C.4.a. (above), as follows:
 - Graph of contaminant concentrations versus time for each extraction well in use during the period.
 - Graph of contaminant concentrations versus time for the monitoring well with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- System operational data table.

Table 1
Influent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	Benzene (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloro-ethane (ug/L)	1,2-Dichloro-ethane (ug/L)	1,1-Dichloro-ethene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	trans-1,2-Dichloro-ethene (ug/L)	Ethylbenzene (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propylbenzene (ug/L)	Tetra-chloro-ethene (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	Vinyl chloride (ug/L)	Xylene Totals (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)	
Northern System																							
Sump 6	1/18/11	<2.2	5.4	ND	<3.7	<3.2	ND	600	39	ND	ND	<4	<2.3	<4.8	<2.2	540	<2	<1.6	26	<4	330	0.35	
	3/24/11	<29	<29	ND	<29	<29	ND	410	36	ND	ND	<29	<29	<29	<29	830	<29	<29	19	<29	410	0.37	
	6/13/11	<1	3.3	ND	<2.5	<2.5	ND	280	17	ND	ND	<1.3	<2.5	<2.5	<2.5	370	<1	<1	6.7	<2.5	190	0.47	
	9/19/11	<1	6.1	ND	<2.5	2.8	ND	680	46	ND	ND	<1.3	<2.5	<2.5	<2.5	330	<1	<1	31	<2.5	180	0.23	
	1/15/12	<0.2	13	ND	<0.5	3.1	ND	410	47	ND	ND	0.52	<0.5	<0.5	<0.5	750	0.39	<0.2	66	0.58	410	1.2	
	3/15/12	<1	8.2	ND	<2.5	3.7	ND	620	49	ND	ND	<1.3	<2.5	<2.5	<2.5	890	<1	<1	23	<2.5	470	0.39	
	6/21/12	<0.074	8.3	ND	<0.28	3.8	ND	610	51	ND	ND	<0.16	<0.13	<0.17	<0.11	770	<0.14	<0.18	32	<0.068	420	0.22	
	9/17/12	<0.15	9.6	ND	<0.56	4.3	ND	700	53	ND	ND	<0.32	<0.26	<0.34	<0.22	780	<0.28	<0.36	49	<0.14	490	0.24	
	12/21/12	<0.074	15	ND	<0.28	0.64	ND	160	6.8	ND	ND	<0.16	<0.13	<0.17	<0.11	60	<0.14	<0.18	36	<0.068	79	0.51	
	3/26/13	<0.074	6.1	ND	<0.28	3	ND	420	47	ND	ND	<0.16	<0.13	<0.17	<0.11	1,000	<0.14	<0.18	12	<0.068	490	0.7	
	6/11/13	<0.074	7.5	ND	<0.28	4	ND	590	59	ND	ND	<0.16	<0.13	<0.17	<0.11	540	<0.14	<0.18	30	<0.068	380	0.25	
	9/24/13	<0.37	<0.95	ND	<1.4	<1.6	ND	580	54	ND	ND	<0.8	<0.65	<0.85	<0.55	1,600	<0.7	<0.9	31	<0.34	630	0.43	
	12/20/13	<0.074	4.1	ND	<0.28	2	ND	330	26	ND	ND	<0.16	<0.13	<0.17	<0.11	220	<0.14	<0.18	38	<0.068	190	0.17	
	1/6/15	<2.5	6.8	ND	<0.84	3.5	ND	568	58.2	ND	ND	<12.5	<2.5	<2.5	<2.5	712	<2.5	<2.5	25	<7.5	388	0.15	
	3/6/15	<5.0	5.4 J	ND	<1.7	<4.1	ND	363	35.4	<5.0	ND	<25.0	<5.0	<5.0	<5.0	930	<5.0	<5.0	17	<15.0	342	0.35	
	9/24/15	Discharge line blocked - not operating at the time of sample collection																					
	3/9/16	<5.0	3.2 J	ND	<1.7	<4.1	ND	439	43.5	<5.0	ND	<25.0	<5.0	<5.0	<5.0	1,010	<5.0	<5.0	17.3	<15.0	413	0.22	
9/7/16	<5.0	5.0 J	<3.7	<1.7	<4.1	<5.0	733	57.6	<5.0	<2.3	<25.0	<5.0	<5.0	<5.0	931	<5.0	<5.0	38.1	<15.0	539	0.047J		
3/7/17	<5.0	4.4 J	<3.7	<1.7	<4.1	<5.0	537	54.9	<5.0	<2.3	<25.0	<5.0	<5.0	<5.0	950	<5.0	<5.0	24.1	<15.0	0.48	0.14		
Central System																							
Sump 18	3/28/11	22	39	ND	ND	2	ND	240	<6.7	4.6	ND	6.2	3	<6.7	<6.7	<6.7	11	8	23	44	390	1.1	
	6/14/11	510	620	ND	ND	<25	ND	4,800	31	84	ND	28	<25	<25	450	<10	86	27	1,100	350	4300	1.9	
	9/23/11	74	80	ND	ND	<1	ND	160	4	35	ND	17	5.8	1.2	110	1.6	69	22	120	150	910	130	
	1/24/12	330	620	ND	ND	5	ND	3,300	22	55	ND	21	4.9	<2	270	1.2	80	28	1,000	310	3200	1.8	
	3/21/12	910	1500	ND	ND	<25	ND	9,300	64	110	ND	35	<25	<25	660	<10	130	40	940	530	8600	2.1	
	6/21/12	270	780	ND	ND	13	ND	5,600	41	19	ND	13	<1.3	<1.7	140	5	24	24	3,000	170	3100	2.6	
	9/17/12	150	900	ND	ND	<6.2	ND	5,000	32	<2.6	ND	<3.2	<2.6	<3.4	7.2	5.5	<2.8	31	1,100	77	3100	4.1	
	12/27/12	11	45	ND	ND	<0.31	ND	120	<0.25	8.2	ND	6.2	2	0.71	18	0.48	28	11	11	49	760	110	
	3/25/13	0.7	1.7	ND	ND	<0.31	ND	1	<0.25	6	ND	5.4	2.9	<0.17	4.2	<0.19	33	8.3	<0.1	19	380	23	
	6/10/13	150	350	ND	ND	3.9	ND	2,300	14	13	ND	5.2	<0.65	<0.85	79	<0.95	15	5.9	260	62	1600	1	
	9/24/13	570	970	ND	ND	18	ND	5,500	43	79	ND	29	<1.3	<1.7	370	7.1	73	17	1,600	310	4600	3	
	12/20/13	270	720	ND	ND	9.1	ND	3,200	24	41	ND	16	3.4	0.52	170	1.1	43	11	820	180	3	1	
	9/11/15	0.56 J	4.2	ND	<0.17	<0.41	ND	5	<0.26	<0.5	ND	<2.5	<0.50	<0.50	<0.50	0.36 J	<0.50	<0.50	0.81 J	<1.5	37.5 J	<0.081	
	3/9/16	357	735	ND	<4.2	<10.3	ND	3,180	44	78	ND	<62.5	<12.5	<12.5	287	<8.3	45.3	12.6 J	2,720	342	3240	2.2	
	9/7/16	277	738	37.1	<4.2	<10.3	137	2,110	40.1	45.9	37.5	<62.5	<12.5	<12.5	134	23.0 J	24.2 J	<12.5	1,950	201	2530	1.4	
	3/7/17	241	444	60.1	<4.2	<10.3	137	1,670	31.6	61.3	24.1J	<62.5	<12.5	<12.5	178	14.8J	42.8	<12.5	1,480	286	2.7	1.3	
	Sump 23	1/19/11	420	<5	ND	ND	<6.3	ND	930	<6.3	36	ND	<4.7	<4.7	ND	5.9	NPD	16 B	<3.2	500	<12.7	NT	NT
3/28/11		22	0.41	ND	ND	<1	ND	6.5	<1	1.9	ND	1	0.47	ND	0.19	NPD	0.97	0.56	2.4	2.6	94	0.91	
7/20/11		170	<1	ND	ND	<1	ND	9.2	<1	1.8	ND	1.1	<1	ND	1.5	NPD	3.2	1.2	57	3.8	360	0.63	
9/26/11		23	<0.5	ND	ND	<0.5	ND	1.7	<0.5	<0.5	ND	0.32	<0.5	ND	<0.5	0.42	0.44	<0.2	0.61	<0.5	31	0.28	
1/24/12		480	<2	ND	ND	<2	ND	930	3.6	32	ND	7.2	2.5	ND	6.9	<0.8	9.2	2.2	530	34	1700	0.78	
3/21/12		470	1.4	ND	ND	1.4	ND	580	3	69	ND	11	6.9	ND	9.5	<0.2	18	1.6	470	51	1700	1.1	
6/21/12		42	1.5	ND	ND	1.6	ND	78	2.6	61	ND	8.6	3.7	ND	7	<0.19	6.5	1.1	68	52	1100	1.2	
9/17/12		180	<0.19	ND	ND	1.1	ND	670	2.4	9.6	ND	3.2	<0.13	ND	2.6	<0.19	1.7	0.64	440	26	760	1.1	
12/27/12		160	2.3	ND	ND	<0.31	ND	530	1.5	21	ND	5.2	1.9	ND	2.7	<0.19	3.1	<0.18	170	20	580	0.78	
3/25/13		26	<0.19	ND	ND	<0.31	ND	94	<0.25	2.9	ND	2.1	<0.13	ND	0.47	<0.19	<0.14	<0.18	23	2.3	97	0.083	
6/10/13		390	<0.38	ND	ND	<0.62	ND	820	2.8	47	ND	7.9	4	ND	6.7	<0.38	2.8	<0.36	440	30	1100	0.79	
9/24/13		140	<0.19	ND	ND	1	ND	660	2.4	16	ND	7.6	1.6	ND	2.7	<0.19	2	<0.18	320	18	670	1.7	
12/20/13	1.1	1	ND	ND	<0.31	ND	9.4	<0.25	<0.13	ND	<0.16	<0.13	ND	0.33	<0.19	<0.14	<0.18	1	<0.068	10	1.1		
Pump inoperable and not replaced because groundwater capture from Sump 18 is sufficient. This sump was located close to the former UST area remediated in 2012.																							
PAL ^A		0.5	85		0.5	0.7		7	20	140		10	NE	0.5	160	0.5	96*	96*	0.02	400	NE	NE	
ES ^B		5	850		5	7		70	100	700		100	NE	5	800	5	480*	480*	0.2	2,000	NE	NE	

Table 1
Influent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	Benzene (ug/L)	1,1-Dichloroethane (ug/L)	Chloroethane (ug/L)	1,2-Dichloroethane (ug/L)	1,1-Dichloroethene (ug/L)	1,1,1-Trichloroethane (ug/L)	cis-1,2-Dichloroethene (ug/L)	trans-1,2-Dichloroethene (ug/L)	Ethylbenzene (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propylbenzene (ug/L)	Tetra-chloroethene (ug/L)	Toluene (ug/L)	Trichloroethene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	Vinyl chloride (ug/L)	Xylene Totals (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Southern System																						
Sump 7	1/19/11	<0.13	<0.15	ND	ND	<0.19	ND	<u>9.1</u>	0.4	<0.17	ND	ND	ND	ND	<0.13	0.29	<0.12	<0.096	3.1	<0.14	NT	NT
	3/24/11	<1	<1	ND	ND	<1	ND	<u>6.2</u>	0.39	<1	ND	ND	ND	ND	<1	0.43	<1	<1	2.8	<2	ND	3.3
	6/13/11	<0.2	<0.5	ND	ND	<0.5	ND	<u>16</u>	1.2	<0.5	ND	ND	ND	ND	<0.5	<u>2.6</u>	<0.2	<0.2	2.6	<0.5	ND	3.3
	9/19/11	<0.2	<0.5	ND	ND	<0.5	ND	<u>17</u>	1.2	<0.5	ND	ND	ND	ND	<0.5	<u>2</u>	<0.2	<0.2	2.8	<0.5	ND	14
	1/5/12	<0.20	<0.50	ND	ND	<0.50	ND	<u>12</u>	1.1	<0.50	ND	ND	ND	ND	<0.50	0.35 J	0.20 J	<0.20	3.3	<0.50	24	2.5
	3/20/12	<0.2	<0.5	ND	ND	<0.5	ND	<u>8.8</u>	1.1	<0.5	ND	ND	ND	ND	<0.5	<0.2	<0.2	<0.2	2.6	<0.5	11	2.1
	6/22/12	<0.074	<0.19	ND	ND	<0.31	ND	<u>8.3</u>	0.96	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	2.7	<0.068	<6.9	1.7
	9/18/12	<0.074	<0.19	ND	ND	<0.31	ND	<u>7</u>	0.93	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	2	<0.068	<6.9	2.3
	12/27/12	<0.074	<0.19	ND	ND	<0.31	ND	<u>6.7</u>	0.87	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	1.3	<0.068	<8.8	4
	3/26/13	<0.074	<0.19	ND	ND	<0.31	ND	<u>4.4</u>	<0.25	<0.13	ND	ND	ND	ND	<0.11	0.43	<0.14	<0.18	<0.1	<0.068	13	5
	6/11/13	<0.074	<0.19	ND	ND	<0.31	ND	<u>12</u>	2	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	2.9	<0.068	16	2.4
	9/23/13	<0.074	<0.19	ND	ND	<0.31	ND	<u>8.7</u>	1.5	<0.13	ND	ND	ND	ND	<0.11	0.3	<0.14	<0.18	1.5	<0.068	24	9.2
	12/20/13	<0.074	<0.19	ND	ND	<0.31	ND	<u>7.9</u>	1.2	<0.13	ND	ND	ND	ND	<0.11	0.42	<0.14	<0.18	1.3	<0.068	<8.8	2
	6/19/14	<0.50	<0.24	ND	<0.17	<0.41	ND	<u>6.3</u>	1.1	<0.50	ND	<2.5	<0.50	<0.50	<0.50	0.45 J	<0.50	<0.50	<0.18	<1.5	NT	NT
	9/5/14	<0.50	<0.24	ND	<0.17	<0.41	ND	<u>10.1</u>	2.2	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	1.5	<1.5	<29.6	3.1
	12/3/14	<0.50	0.32 J	ND	<0.17	<0.41	ND	<u>8.9</u>	1.9	<0.50	ND	<2.5	<0.50	<0.50	<0.50	0.71 J	<0.50	<0.50	1.6	<1.5	<29.6	2.6
	9/9/15	<0.50	<0.24	ND	<0.17	<0.41	ND	<u>9</u>	2.2	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	1.2	<1.5	29.9 J	0.36
	3/9/16	<0.50	0.31 J	ND	<0.17	<0.41	ND	<u>10.4</u>	2.6	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	2.3	<1.5	<29.6	1.1
	9/7/16	<0.50	<0.24	<0.50	<0.17	<0.41	<0.50	<u>9</u>	2.1	<0.50	<0.23	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	3.8	<1.5	<29.6	5.4
	3/7/17	<0.50	<0.24	<0.37	<0.17	<0.41	<0.50	<u>5.6</u>	0.76J	<0.50	<0.23	<2.5	<0.50	<0.50	<0.50	0.86 J	<0.50	<0.50	1.2	<1.5	<0.030	29.2
Sump 15	1/19/11	<0.13	<0.15	ND	ND	<0.19	ND	<0.17	<0.19	ND	ND	ND	ND	ND	<0.13	<0.17	<0.12	ND	<0.22	ND	NT	NT
	3/24/11	<1	<1	ND	ND	<1	ND	<1	<1	ND	ND	ND	ND	ND	<1	<1	<1	ND	<1	ND	<100	3.3
	6/13/11	<0.2	<0.5	ND	ND	<0.5	ND	<0.5	<0.5	ND	ND	ND	ND	ND	<0.5	<0.2	<0.2	ND	<0.2	ND	<10	3.6
	9/19/11	<0.2	<0.5	ND	ND	<0.5	ND	<0.5	<0.5	ND	ND	ND	ND	ND	<0.5	<0.2	<0.2	ND	<0.2	ND	<10	5.7
	1/5/12	<0.20	<0.50	ND	ND	<0.50	ND	<0.50	<0.50	ND	ND	ND	ND	ND	<0.50	<0.20	<0.20	ND	<0.20	ND	18J	5.9
	3/20/12	<0.2	<0.5	ND	ND	<0.5	ND	<0.5	<0.5	ND	ND	ND	ND	ND	<0.5	<0.2	<0.2	ND	<0.2	ND	<10	3.1
	6/22/12	<0.074	<0.19	ND	ND	<0.31	ND	<u>0.8</u>	<0.25	ND	ND	ND	ND	ND	<0.11	<u>1.2</u>	<0.14	ND	<0.10	ND	<6.9	4.2
	9/18/12	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	0.47	<0.14	ND	<0.1	ND	<6.9	3.7
	12/27/12	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	<u>0.62</u>	<0.14	ND	<0.1	ND	<8.8	2.8
	3/26/13	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	<0.19	<0.14	ND	<0.1	ND	11	2
	6/11/13	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	<u>1.3</u>	<0.14	ND	<0.1	ND	14	2.1
	9/23/13	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	<u>2.8</u>	<0.14	ND	<0.1	ND	43	9.2
	12/20/13	<0.074	<0.19	ND	ND	<0.31	ND	<u>6.8</u>	<0.25	ND	ND	ND	ND	ND	<0.11	<u>0.26</u>	<0.14	ND	1.1	ND	<8.8	2.9
	6/19/14	<0.50	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<u>2</u>	<0.50	<0.50	<0.18	<1.5	NT	NT
	9/5/14	<u>0.62 J</u>	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	<0.18	<1.5	<29.6	6
	12/3/14	<0.50	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	<0.18	<1.5	<29.6	2.6
	9/9/15	<0.50	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	<0.18	<1.5	<29.6	1.3
3/9/16	Pump inoperable and not sampled.																					
PAL ^A		0.5	85		0.5	0.7		7	20	140		10	NE	0.5	160	0.5	96*	96*	0.02	400	NE	NE
ES ^B		5	850		5	7		70	100	700		100	NE	5	800	5	480*	480*	0.2	2,000	NE	NE

Table 1
Influent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	Benzene (ug/L)	1,1-Dichloroethane (ug/L)	Chloroethane (ug/L)	1,2-Dichloroethane (ug/L)	1,1-Dichloroethene (ug/L)	1,1,1-Trichloroethane (ug/L)	cis-1,2-Dichloroethene (ug/L)	trans-1,2-Dichloroethene (ug/L)	Ethylbenzene (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propylbenzene (ug/L)	Tetrachloroethene (ug/L)	Toluene (ug/L)	Trichloroethene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	Vinyl chloride (ug/L)	Xylene Totals (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Sump 17R	1/19/11	ND	<6	ND	ND	<7.6	ND	1100	<u>98</u>	ND	ND	<9.6	ND	ND	<5.2	340	<4.8	ND	24	ND	NT	NT
	3/24/11	ND	<18	ND	ND	<18	ND	300	<u>35</u>	ND	ND	<18	ND	ND	<18	70	<18	ND	<18	ND	150	0.62
	6/13/11	ND	5.4	ND	ND	<2.5	ND	370	<u>34</u>	ND	ND	<1.3	ND	ND	<2.5	160	<1	ND	1.3	ND	80	1.2
	9/19/11	ND	3.1	ND	ND	<1	ND	190	<u>14</u>	ND	ND	<0.5	ND	ND	<1	25	<0.4	ND	13	ND	66	2
	1/5/12	ND	5.6	ND	ND	0.59	ND	270	<u>30</u>	ND	ND	<0.25	ND	ND	<0.50	110	<0.20	ND	1.2	ND	130	1.6
	3/20/12	ND	7.1	ND	ND	<1	ND	500	<u>39</u>	ND	ND	<0.5	ND	ND	<1	150	<0.4	ND	1.8	ND	260	1.1
	6/22/12	ND	6.3	ND	ND	<u>1.2</u>	ND	700	<u>38</u>	ND	ND	<0.16	ND	ND	<0.11	180	<0.14	ND	2.9	ND	270	1.8
	9/18/12	ND	3.8	ND	ND	<0.31	ND	180	<u>20</u>	ND	ND	<0.16	ND	ND	<0.11	35	<0.14	ND	17	ND	79	1.7
	12/27/12	ND	6.4	ND	ND	<u>1.2</u>	ND	400	<u>59</u>	ND	ND	<0.16	ND	ND	<0.11	45	<0.14	ND	55	ND	170	2.3
	3/26/13	ND	2	ND	ND	<0.31	ND	190	<u>15</u>	ND	ND	<0.16	ND	ND	<0.11	69	<0.14	ND	3.5	ND	100	1.5
	6/11/13	ND	5.3	ND	ND	<u>0.91</u>	ND	380	<u>33</u>	ND	ND	<0.16	ND	ND	<0.11	120	<0.14	ND	6.6	ND	220	0.88
	9/23/13	ND	5.4	ND	ND	<u>1.8</u>	ND	620	<u>37</u>	ND	ND	<0.16	ND	ND	<0.11	38	<0.14	ND	36	ND	290	1.9
	12/20/13	ND	8.6	ND	ND	<u>1.9</u>	ND	970	<u>79</u>	ND	ND	<0.16	ND	ND	<0.11	91	<0.14	ND	200	ND	360	2.4
	6/19/14	<2.5	5.7	ND	<0.84	2.2 J	ND	702	<u>38.1</u>	<2.5	ND	<12.5	<2.5	<2.5	<2.5	103	<2.5	<2.5	<0.88	<7.5	NT	NT
	9/5/14	<1.2	5.4	ND	<0.42	<1	ND	331	<u>20</u>	<1.2	ND	<6.2	<1.2	<1.2	<1.2	45.4	<1.2	<1.2	38	<3.8	137	2.1
	12/3/14	<2.5	4.6 J	ND	<0.84	<2.1	ND	236	<u>22.9</u>	<2.5	ND	<12.5	<2.5	<2.5	<2.5	57.7	<2.5	<2.5	17.6	<7.5	132	0.78
	9/9/15	<2.5	<0.24	ND	<0.84	<2.1	ND	4.8	1.2	<2.5	ND	<12.5	<2.5	<2.5	<2.5	<u>0.53 J</u>	<2.5	<2.5	0.71 J	<7.5	34.2 J	67
	3/9/16	<5.0	6 J	ND	<1.7	<4.1	ND	982	<u>72.3</u>	<5.0	ND	<25.0	<5.0	<5.0	<5.0	80.3	<5.0	<5.0	148	<15.0	373	0.87
9/7/16	<1.2	5.5	<0.94	<0.42	<1.0	<1.2	370	<u>24</u>	<1.2	<0.58	<6.2	<1.2	<1.2	<1.2	35.1	<1.2	<1.2	143	<3.8	143	2.2	
3/7/17	<1.2	6.6	<0.94	<0.42	<u>1.6 J</u>	<1.2	423	<u>37.3</u>	<1.2	<0.58	<6.2	<1.2	<1.2	<1.2	85.2	<1.2	<1.2	39.2	<3.8	0.18	0.86	
PAL ^A		0.5	85		0.5	0.7		7	20	140		10	NE	0.5	160	0.5	96*	96*	0.02	400	NE	NE
ES ^B		5	850		5	7		70	100	700		100	NE	5	800	5	480*	480*	0.2	2,000	NE	NE

Notes:
 ug/L = micrograms per liter *PAL & ES are for combined isomers <2.5 - not detected at the detection limit shown NT=Not Tested
 PAL - Preventive Action Limit, Wisconsin Administrative Code NR 140.10 Table 1, February 2004 e ES - Enforcement Standard, Wisconsin Administrative Code NR 140.10 Table 1, February 2004, exceedances are bold.

Table 2
Effluent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	1,1-Dichloro ethene (ug/L)	1,1-Dichloro ethane (ug/L)	trans-1,2-Dichloro ethene (ug/L)	1,2,4-Trimethyl benzene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	Benzene (ug/L)	cis-1,2-Dichloro ethene (ug/L)	Ethyl benzene (ug/L)	Methyl tert-butyl ether (ug/L)	Methylene Chloride	Isopropyl benzene (ug/L)	Naphthalene (ug/L)	N-Propyl benzene (ug/L)	Toluene (ug/L)	Trichloro ethene (ug/L)	Vinyl chloride (ug/L)	Xylenes, Total (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Sump 6	9/28/2011	ND	ND	1.9 J	ND	ND	ND	42	ND	ND	ND	ND	ND	ND	ND	18	0.81 J	ND	<10	0.22 B
	3/26/2012	1.5 J	4.6	24	ND	ND	ND	320	ND	ND	ND	ND	ND	ND	ND	430	8.5	ND	240	0.35
	7/9/2012	ND	1.7	7.8	ND	ND	ND	140	ND	ND	ND	ND	ND	ND	ND	160	3.4	ND	95	0.18
	10/2/2012	ND	2.8	13	ND	ND	ND	290	ND	ND	ND	ND	ND	ND	ND	280	8.8	ND	170	0.23
	4/4/2013	ND	1.6	9.3	ND	ND	ND	130	ND	ND	ND	ND	ND	ND	ND	230	1.5	ND	110	0.25
	6/25/2013	ND	ND	1.1	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	14 J	0.23
	10/10/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.8	ND	ND	<8.8	0.36
	1/8/2014	0.54 J	1.9	9.8	ND	ND	ND	200	ND	ND	ND	ND	ND	ND	ND	110	8.9	ND	96	0.16
	3/6/2015	<0.41	<0.24	<0.26	<0.50	ND	<0.50	0.53 J	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	1.2	<0.18	<1.5	<29.6	0.3
	3/9/2016	<0.41	<0.24	2.0	<0.50	ND	<0.50	29.3	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	56.5	0.55 J	<1.5	<29.6	0.17
	9/7/2016	<0.41	<0.24	1.5	<0.50	<0.50	<0.50	43.2	<0.50	0.48J	<0.23	<0.14	<2.5	<0.50	<0.50	27.8	<0.18	<1.5	<29.6	0.17
3/7/2017	<0.41	0.94J	8.7	<0.50	<0.50	<0.50	138	<0.50	0.71J	<0.23	<0.14	<2.5	<0.50	<0.50	175	2.4	<1.5	0.085	0.26	
Sump 18/23	3/30/2012	ND	ND	ND	ND	ND	0.62 J	5.8	ND	ND	ND	ND	0.56 J	ND	ND	ND	0.30 J	ND	26 J	2.5
	7/9/2012	ND	ND	ND	ND	ND	0.28 J	4.1	ND	ND	ND	ND	ND	ND	ND	ND	0.56	ND	<6.9	1.6
	10/2/2012	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	0.34 J	ND	<6.9	2.3
	4/4/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	0.85
	6/24/2013	ND	ND	ND	ND	ND	1.1	5.5	ND	ND	ND	ND	ND	ND	ND	ND	0.89	ND	<8.8	0.87
	10/10/2013	ND	1.1	ND	ND	ND	0.75	ND	ND	ND	ND	ND	ND	ND	0.26 J	ND	0.76	ND	<8.8	1.4
	1/8/2014	ND	2	ND	ND	ND	0.76	12	ND	ND	ND	ND	ND	ND	0.36 J	ND	0.61	0.32 J	10 J	0.92
	9/11/2015	<0.41	<0.24	<0.26	<0.50	ND	<0.50	0.59 J	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.50	<29.6	0.14 J
	3/9/2016	<0.41	25.9	0.97 J	1.6	ND	8.9	134	1.7	<0.17	ND	<0.14	3.1 J	<0.50	7.1	<0.33	22.7	10.3	123	1.3
	9/7/2016	<0.41	15.1	<0.26	<0.50	1.1	2.6	53.9	<0.50	<0.17	1.2	<0.14	<2.5	<0.50	0.73 J	<0.33	6.2	<1.5	29.9 J	1.2
3/7/2017	<0.41	17.1	0.76J	1.1	3.2	5	77	1	<0.17	1.7	<0.14	<2.5	<0.50	3.9	0.48J	15.1	6.5	0.075	1.3	
Sump 7/15/17R	9/28/2011	ND	ND	ND	ND	ND	ND	0.82 J	ND	ND	ND	ND	ND	ND	ND	ND	0.21 J	ND	47 J	1.5 B
	3/30/2012	ND	ND	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	0.62 J	ND	ND	<10	1.2
	7/11/2012	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6.9	2.2
	9/28/2012	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6.9	1.7
	4/4/2013	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	0.71
	6/25/2013	ND	ND	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	2.3
	10/10/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	3.5
	1/8/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	1.2
	6/19/2014	<0.41	0.91 J	0.83 J	<0.50	ND	<0.50	22.7	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	0.94 J	1.7	<1.5	<29.6	3.1
	9/5/2014	<0.41	0.35 J	2	<0.50	ND	<0.50	28.4	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	2.0	0.69 J	<1.5	31.8 J	1.3
	12/3/2014	<0.41	<0.24	<0.26	<0.50	ND	<0.50	<0.26	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	1.4
	9/9/2015	<0.41	<0.24	<0.26	<0.50	ND	<0.50	<0.26	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	0.32
	3/9/2016	<0.41	<0.24	<0.26	<0.50	ND	<0.50	<0.26	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	1.8
9/7/2016	<0.41	<0.24	<0.26	<0.50	0.5	<0.50	<0.26	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	0.54	
3/7/2017	<0.41	<0.24	<0.26	<0.50	<0.50	<0.50	<0.26	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<0.030	0.68	

<0.50 = not detected at the concentration shown after the less-than (<) sign.

**Table 3
Remedial Systems Operational Data
Kenosha Engine Plant
5555 30th Ave Kenosha, Wisconsin**

Sump	Date	Flow Meter Reading	Total Flow	Permits Limit Achieved by Effluent?		
				GRO	DRO	VOC's
6	2/9/2017	1,366,991.00	243,187.50	Yes	Yes	Yes
	3/7/2017	1,457,890.70	90,899.70			
	4/5/2017	1,660,744.00	202,853.30			
	5/5/2017	1,908,066.50	247,322.50			
	6/5/2017	2,085,535.50	177,469.00			
	7/6/2017*	2,328,485.00	242,949.50			
18	2/9/2017	3,414,867.50	58,837.25	Yes	Yes	Yes
	3/7/2017	3,416,422.90	1,555.40			
	4/5/2017	3,416,422.90	0.00			
	5/5/2017	3,418,447.86	2,024.96			
	6/5/2017	3,418,447.86	0.00			
	7/6/2017*	3,418,447.86	0.00			
23	2/9/2017	4,238,580.10	0.00	Pump not in operation during semi-annual period No effluent sample		
	3/7/2017	4,238,580.10	0.00			
	4/5/2017	4,238,580.10	0.00			
	5/5/2017	4,238,580.10	0.00			
	6/5/2017	4,238,580.10	0.00			
	7/6/2017*	4,238,580.10	0.00			
7	2/9/2017	99,264.72	12,023.27	Yes	Yes	Yes
	3/7/2017	99,288.12	23.4			
	4/5/2017	111,177.50	11,889.4			
	5/5/2017	150,616.50	39,439.0			
	6/5/2017	166,405.35	15,788.9			
	7/6/2017*	178,915.57	12,510.2			
15	2/9/2017	39,702.13	0.00	Pump not in operation during semi-annual period No effluent sample		
	3/7/2017	39,702.13	0.00			
	4/5/2017	39,702.13	0.00			
	5/5/2017	39,702.13	0.00			
	6/5/2017	39,702.13	0.00			
	7/6/2017*	39,702.13	0.00			
17R	2/9/2017	190,320.10	10,739.48	Yes	Yes	Yes
	3/7/2017	214,593.06	24,273.0			
	4/5/2017	231,059.11	16,466.0			
	5/5/2017	273,024.72	41,965.6			
	6/5/2017	322,708.85	49,684.1			
	7/6/2017*	407,924.02	85,215.2			

Notes:

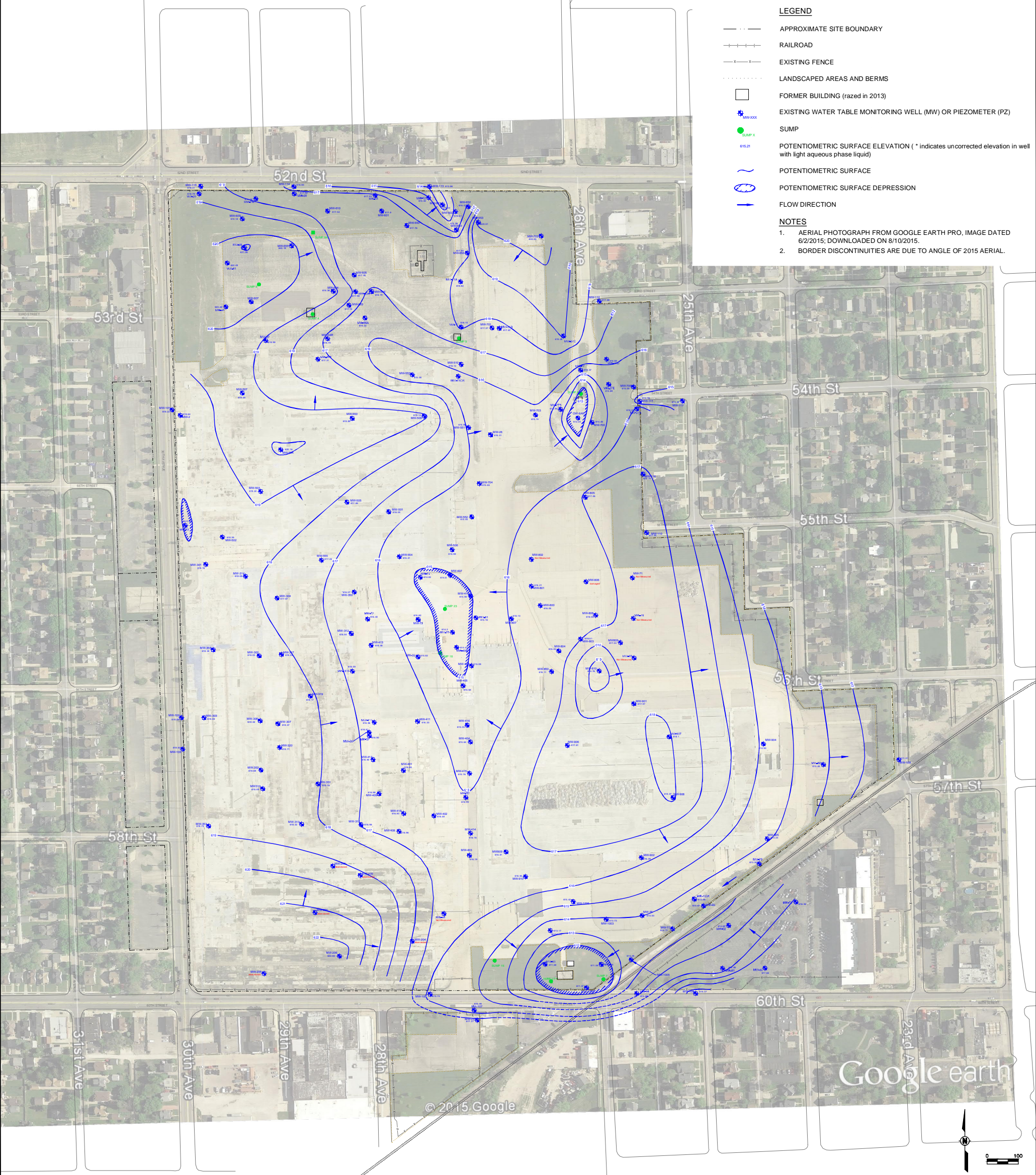
- 1) Total flow is difference of current month flow reading minus prior month flow reading, unless otherwise noted.
 - 2) No meter on effluent discharge at any of the systems
 - 3) Total flow covers the time period from 1/6/2017 to 7/6/2017.
- * Date of flow meter readings collected during next semi-annual reporting period (July through December 2017).

LEGEND

- APPROXIMATE SITE BOUNDARY
- RAILROAD
- X-X- EXISTING FENCE
- LANDSCAPED AREAS AND BERMS
- FORMER BUILDING (razed in 2013)
- MW XXXX
- SUMP
- POTENTIOMETRIC SURFACE ELEVATION (* indicates uncorrected elevation in well with light aqueous phase liquid)
- POTENTIOMETRIC SURFACE
- POTENTIOMETRIC SURFACE DEPRESSION
- FLOW DIRECTION

NOTES

1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 6/2/2015; DOWNLOADED ON 8/10/2015.
2. BORDER DISCONTINUITIES ARE DUE TO ANGLE OF 2015 AERIAL.



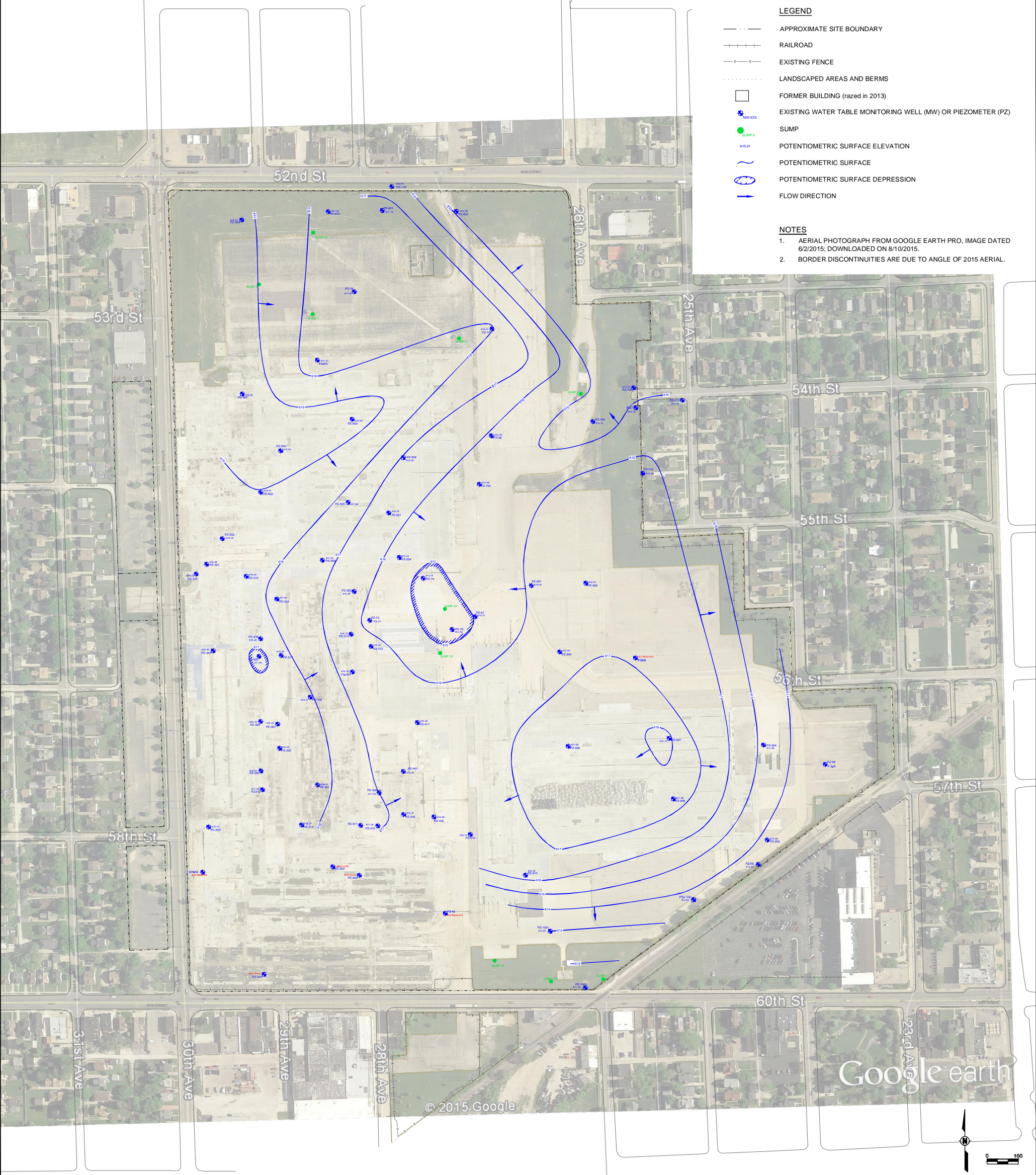
WATER TABLE GROUNDWATER CONTOURS - April 2016
KENOSHA ENGINE PLANT
CITY OF KENOSHA
KENOSHA, WISCONSIN

Drawn : SAE 7/18/2016
 Checked: LLA 7/18/2016
 Approved: KWB 7/18/2016

PROJECT NUMBER
60485212

FIGURE NUMBER
1

AECOM
 1555 RiverCenter Dr.
 Milwaukee, WI 53212
 414.944.6080
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LEGEND

- APPROXIMATE SITE BOUNDARY
- RAILROAD
- x-x- EXISTING FENCE
- LANDSCAPED AREAS AND BERMS
- FORMER BUILDING (razed in 2013)
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- SUMP
- POTENTIOMETRIC SURFACE ELEVATION
- ~ POTENTIOMETRIC SURFACE
- POTENTIOMETRIC SURFACE DEPRESSION
- FLOW DIRECTION

NOTES

1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 6/2/2015; DOWNLOADED ON 8/10/2015.
2. BORDER DISCONTINUITIES ARE DUE TO ANGLE OF 2015 AERIAL.

POTENTIOMETRIC SURFACE - KEP PIEZOMETERS - April 2016
KENOSHA ENGINE PLANT
CITY OF KENOSHA
KENOSHA, WISCONSIN

Drawn : SAE 7/18/2016
 Checked: LLA 7/18/2016
 Approved: KWB 7/18/2016
 PROJECT NUMBER **60485212**
 FIGURE NUMBER **2**

AECOM
 1555 RiverCenter Dr.
 Milwaukee, WI 53212
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March 16, 2017

Lanette Altenbach
AECOM, Inc.- Milwaukee
1555 N River Center Drive
Suite 214
Milwaukee, WI 53212

RE: Project: 60485212 KEP
Pace Project No.: 40146555

Dear Lanette Altenbach:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Paul Lindquist, AECOM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 60485212 KEP

Pace Project No.: 40146555

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 60485212 KEP

Pace Project No.: 40146555

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40146555001	SUMP 6 IN	Water	03/07/17 08:47	03/09/17 09:55
40146555002	SUMP 6 EFF	Water	03/07/17 09:07	03/09/17 09:55
40146555003	SUMP 18 IN	Water	03/07/17 09:49	03/09/17 09:55
40146555004	SUMP 18 EFF	Water	03/07/17 10:09	03/09/17 09:55
40146555005	SUMP 7 IN	Water	03/07/17 10:29	03/09/17 09:55
40146555006	SUMP 17R IN	Water	03/07/17 10:39	03/09/17 09:55
40146555007	SUMP 7/17R EFF	Water	03/07/17 10:49	03/09/17 09:55
40146555008	TRIP BLANK	Water	03/07/17 08:40	03/09/17 09:55

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 60485212 KEP

Pace Project No.: 40146555

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40146555001	SUMP 6 IN	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555002	SUMP 6 EFF	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555003	SUMP 18 IN	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555004	SUMP 18 EFF	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555005	SUMP 7 IN	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	2	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555006	SUMP 17R IN	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555007	SUMP 7/17R EFF	WI MOD DRO	ABF	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40146555008	TRIP BLANK	EPA 8260	HNW	63	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 6 IN **Lab ID: 40146555001** Collected: 03/07/17 08:47 Received: 03/09/17 09:55 Matrix: Water

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	0.14	mg/L	0.048	0.020	1	03/14/17 12:46	03/16/17 11:54		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	0.48	mg/L	0.050	0.030	1		03/10/17 14:49		G-
8260 MSV		Analytical Method: EPA 8260							
Benzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	71-43-2	
Bromobenzene	< 2.3	ug/L	10.0	2.3	10		03/10/17 10:29	108-86-1	
Bromochloromethane	< 3.4	ug/L	10.0	3.4	10		03/10/17 10:29	74-97-5	
Bromodichloromethane	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	75-27-4	
Bromoform	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	75-25-2	
Bromomethane	< 24.3	ug/L	50.0	24.3	10		03/10/17 10:29	74-83-9	
n-Butylbenzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	104-51-8	
sec-Butylbenzene	< 21.9	ug/L	50.0	21.9	10		03/10/17 10:29	135-98-8	
tert-Butylbenzene	< 1.8	ug/L	10.0	1.8	10		03/10/17 10:29	98-06-6	
Carbon tetrachloride	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	56-23-5	
Chlorobenzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	108-90-7	
Chloroethane	< 3.7	ug/L	10.0	3.7	10		03/10/17 10:29	75-00-3	
Chloroform	< 25.0	ug/L	50.0	25.0	10		03/10/17 10:29	67-66-3	
Chloromethane	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	74-87-3	
2-Chlorotoluene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	95-49-8	
4-Chlorotoluene	< 2.1	ug/L	10.0	2.1	10		03/10/17 10:29	106-43-4	
1,2-Dibromo-3-chloropropane	< 21.6	ug/L	50.0	21.6	10		03/10/17 10:29	96-12-8	
Dibromochloromethane	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	124-48-1	
1,2-Dibromoethane (EDB)	< 1.8	ug/L	10.0	1.8	10		03/10/17 10:29	106-93-4	
Dibromomethane	< 4.3	ug/L	10.0	4.3	10		03/10/17 10:29	74-95-3	
1,2-Dichlorobenzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	95-50-1	
1,3-Dichlorobenzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	541-73-1	
1,4-Dichlorobenzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	106-46-7	
Dichlorodifluoromethane	< 2.2	ug/L	10.0	2.2	10		03/10/17 10:29	75-71-8	
1,1-Dichloroethane	4.4J	ug/L	10.0	2.4	10		03/10/17 10:29	75-34-3	
1,2-Dichloroethane	< 1.7	ug/L	10.0	1.7	10		03/10/17 10:29	107-06-2	
1,1-Dichloroethene	< 4.1	ug/L	10.0	4.1	10		03/10/17 10:29	75-35-4	
cis-1,2-Dichloroethene	537	ug/L	10.0	2.6	10		03/10/17 10:29	156-59-2	
trans-1,2-Dichloroethene	54.9	ug/L	10.0	2.6	10		03/10/17 10:29	156-60-5	
1,2-Dichloropropane	< 2.3	ug/L	10.0	2.3	10		03/10/17 10:29	78-87-5	
1,3-Dichloropropane	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	142-28-9	
2,2-Dichloropropane	< 4.8	ug/L	10.0	4.8	10		03/10/17 10:29	594-20-7	
1,1-Dichloropropene	< 4.4	ug/L	10.0	4.4	10		03/10/17 10:29	563-58-6	
cis-1,3-Dichloropropene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	10061-01-5	
trans-1,3-Dichloropropene	< 2.3	ug/L	10.0	2.3	10		03/10/17 10:29	10061-02-6	
Diisopropyl ether	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	108-20-3	
Ethylbenzene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	100-41-4	
Hexachloro-1,3-butadiene	< 21.1	ug/L	50.0	21.1	10		03/10/17 10:29	87-68-3	
Isopropylbenzene (Cumene)	< 1.4	ug/L	10.0	1.4	10		03/10/17 10:29	98-82-8	
p-Isopropyltoluene	< 5.0	ug/L	10.0	5.0	10		03/10/17 10:29	99-87-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 6 IN **Lab ID: 40146555001** Collected: 03/07/17 08:47 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Methylene Chloride	<2.3	ug/L	10.0	2.3	10		03/10/17 10:29	75-09-2	
Methyl-tert-butyl ether	<1.7	ug/L	10.0	1.7	10		03/10/17 10:29	1634-04-4	
Naphthalene	<25.0	ug/L	50.0	25.0	10		03/10/17 10:29	91-20-3	
n-Propylbenzene	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	103-65-1	
Styrene	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	100-42-5	
1,1,1,2-Tetrachloroethane	<1.8	ug/L	10.0	1.8	10		03/10/17 10:29	630-20-6	
1,1,2,2-Tetrachloroethane	<2.5	ug/L	10.0	2.5	10		03/10/17 10:29	79-34-5	
Tetrachloroethene	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	127-18-4	
Toluene	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	108-88-3	
1,2,3-Trichlorobenzene	<21.3	ug/L	50.0	21.3	10		03/10/17 10:29	87-61-6	
1,2,4-Trichlorobenzene	<22.1	ug/L	50.0	22.1	10		03/10/17 10:29	120-82-1	
1,1,1-Trichloroethane	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	71-55-6	
1,1,2-Trichloroethane	<2.0	ug/L	10.0	2.0	10		03/10/17 10:29	79-00-5	
Trichloroethene	950	ug/L	10.0	3.3	10		03/10/17 10:29	79-01-6	
Trichlorofluoromethane	<1.8	ug/L	10.0	1.8	10		03/10/17 10:29	75-69-4	
1,2,3-Trichloropropane	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	96-18-4	
1,2,4-Trimethylbenzene	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	95-63-6	
1,3,5-Trimethylbenzene	<5.0	ug/L	10.0	5.0	10		03/10/17 10:29	108-67-8	
Vinyl chloride	24.1	ug/L	10.0	1.8	10		03/10/17 10:29	75-01-4	
Xylene (Total)	<15.0	ug/L	30.0	15.0	10		03/10/17 10:29	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		10		03/10/17 10:29	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		10		03/10/17 10:29	1868-53-7	
Toluene-d8 (S)	96	%	70-130		10		03/10/17 10:29	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: **SUMP 6 EFF** Lab ID: **4014655002** Collected: 03/07/17 09:07 Received: 03/09/17 09:55 Matrix: Water

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	0.26	mg/L	0.049	0.020	1	03/14/17 12:46	03/16/17 12:03		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	0.085	mg/L	0.050	0.030	1		03/10/17 11:25		
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		03/10/17 11:36	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		03/10/17 11:36	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		03/10/17 11:36	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 11:36	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		03/10/17 11:36	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		03/10/17 11:36	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		03/10/17 11:36	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		03/10/17 11:36	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		03/10/17 11:36	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		03/10/17 11:36	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		03/10/17 11:36	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		03/10/17 11:36	75-71-8	
1,1-Dichloroethane	0.94J	ug/L	1.0	0.24	1		03/10/17 11:36	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		03/10/17 11:36	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		03/10/17 11:36	75-35-4	
cis-1,2-Dichloroethene	138	ug/L	1.0	0.26	1		03/10/17 11:36	156-59-2	
trans-1,2-Dichloroethene	8.7	ug/L	1.0	0.26	1		03/10/17 11:36	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		03/10/17 11:36	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		03/10/17 11:36	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		03/10/17 11:36	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		03/10/17 11:36	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		03/10/17 11:36	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		03/10/17 11:36	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	99-87-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 6 EFF **Lab ID: 4014655002** Collected: 03/07/17 09:07 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		03/10/17 11:36	75-09-2	
Methyl-tert-butyl ether	0.71J	ug/L	1.0	0.17	1		03/10/17 11:36	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		03/10/17 11:36	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		03/10/17 11:36	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		03/10/17 11:36	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		03/10/17 11:36	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 11:36	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		03/10/17 11:36	79-00-5	
Trichloroethene	175	ug/L	1.0	0.33	1		03/10/17 11:36	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		03/10/17 11:36	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:36	108-67-8	
Vinyl chloride	2.4	ug/L	1.0	0.18	1		03/10/17 11:36	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		03/10/17 11:36	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		03/10/17 11:36	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		1		03/10/17 11:36	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		03/10/17 11:36	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 18 IN **Lab ID: 40146555003** Collected: 03/07/17 09:49 Received: 03/09/17 09:55 Matrix: Water

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	1.3	mg/L	0.050	0.020	1	03/14/17 12:46	03/16/17 12:12		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	2.7	mg/L	0.050	0.030	1		03/10/17 15:15		GO
8260 MSV		Analytical Method: EPA 8260							
Benzene	241	ug/L	25.0	12.5	25		03/10/17 10:52	71-43-2	
Bromobenzene	<5.8	ug/L	25.0	5.8	25		03/10/17 10:52	108-86-1	
Bromochloromethane	<8.5	ug/L	25.0	8.5	25		03/10/17 10:52	74-97-5	
Bromodichloromethane	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	75-27-4	
Bromoform	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	75-25-2	
Bromomethane	<60.9	ug/L	125	60.9	25		03/10/17 10:52	74-83-9	
n-Butylbenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	104-51-8	
sec-Butylbenzene	<54.7	ug/L	125	54.7	25		03/10/17 10:52	135-98-8	
tert-Butylbenzene	<4.5	ug/L	25.0	4.5	25		03/10/17 10:52	98-06-6	
Carbon tetrachloride	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	56-23-5	
Chlorobenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	108-90-7	
Chloroethane	60.1	ug/L	25.0	9.4	25		03/10/17 10:52	75-00-3	
Chloroform	<62.5	ug/L	125	62.5	25		03/10/17 10:52	67-66-3	
Chloromethane	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	74-87-3	
2-Chlorotoluene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	95-49-8	
4-Chlorotoluene	<5.3	ug/L	25.0	5.3	25		03/10/17 10:52	106-43-4	
1,2-Dibromo-3-chloropropane	<54.1	ug/L	125	54.1	25		03/10/17 10:52	96-12-8	
Dibromochloromethane	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	124-48-1	
1,2-Dibromoethane (EDB)	<4.4	ug/L	25.0	4.4	25		03/10/17 10:52	106-93-4	
Dibromomethane	<10.7	ug/L	25.0	10.7	25		03/10/17 10:52	74-95-3	
1,2-Dichlorobenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	95-50-1	
1,3-Dichlorobenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	541-73-1	
1,4-Dichlorobenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	106-46-7	
Dichlorodifluoromethane	<5.6	ug/L	25.0	5.6	25		03/10/17 10:52	75-71-8	
1,1-Dichloroethane	444	ug/L	25.0	6.0	25		03/10/17 10:52	75-34-3	
1,2-Dichloroethane	<4.2	ug/L	25.0	4.2	25		03/10/17 10:52	107-06-2	
1,1-Dichloroethene	<10.3	ug/L	25.0	10.3	25		03/10/17 10:52	75-35-4	
cis-1,2-Dichloroethene	1670	ug/L	25.0	6.4	25		03/10/17 10:52	156-59-2	
trans-1,2-Dichloroethene	31.6	ug/L	25.0	6.4	25		03/10/17 10:52	156-60-5	
1,2-Dichloropropane	<5.8	ug/L	25.0	5.8	25		03/10/17 10:52	78-87-5	
1,3-Dichloropropane	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	142-28-9	
2,2-Dichloropropane	<12.1	ug/L	25.0	12.1	25		03/10/17 10:52	594-20-7	
1,1-Dichloropropene	<11.0	ug/L	25.0	11.0	25		03/10/17 10:52	563-58-6	
cis-1,3-Dichloropropene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	10061-01-5	
trans-1,3-Dichloropropene	<5.7	ug/L	25.0	5.7	25		03/10/17 10:52	10061-02-6	
Diisopropyl ether	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	108-20-3	
Ethylbenzene	61.3	ug/L	25.0	12.5	25		03/10/17 10:52	100-41-4	
Hexachloro-1,3-butadiene	<52.6	ug/L	125	52.6	25		03/10/17 10:52	87-68-3	
Isopropylbenzene (Cumene)	<3.6	ug/L	25.0	3.6	25		03/10/17 10:52	98-82-8	
p-Isopropyltoluene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	99-87-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 18 IN **Lab ID: 40146555003** Collected: 03/07/17 09:49 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Methylene Chloride	24.1J	ug/L	25.0	5.8	25		03/10/17 10:52	75-09-2	
Methyl-tert-butyl ether	<4.4	ug/L	25.0	4.4	25		03/10/17 10:52	1634-04-4	
Naphthalene	<62.5	ug/L	125	62.5	25		03/10/17 10:52	91-20-3	
n-Propylbenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	103-65-1	
Styrene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	100-42-5	
1,1,1,2-Tetrachloroethane	<4.5	ug/L	25.0	4.5	25		03/10/17 10:52	630-20-6	
1,1,2,2-Tetrachloroethane	<6.2	ug/L	25.0	6.2	25		03/10/17 10:52	79-34-5	
Tetrachloroethene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	127-18-4	
Toluene	178	ug/L	25.0	12.5	25		03/10/17 10:52	108-88-3	
1,2,3-Trichlorobenzene	<53.3	ug/L	125	53.3	25		03/10/17 10:52	87-61-6	
1,2,4-Trichlorobenzene	<55.2	ug/L	125	55.2	25		03/10/17 10:52	120-82-1	
1,1,1-Trichloroethane	137	ug/L	25.0	12.5	25		03/10/17 10:52	71-55-6	
1,1,2-Trichloroethane	<4.9	ug/L	25.0	4.9	25		03/10/17 10:52	79-00-5	
Trichloroethene	14.8J	ug/L	25.0	8.3	25		03/10/17 10:52	79-01-6	
Trichlorofluoromethane	<4.6	ug/L	25.0	4.6	25		03/10/17 10:52	75-69-4	
1,2,3-Trichloropropane	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	96-18-4	
1,2,4-Trimethylbenzene	42.8	ug/L	25.0	12.5	25		03/10/17 10:52	95-63-6	
1,3,5-Trimethylbenzene	<12.5	ug/L	25.0	12.5	25		03/10/17 10:52	108-67-8	
Vinyl chloride	1480	ug/L	25.0	4.4	25		03/10/17 10:52	75-01-4	
Xylene (Total)	286	ug/L	75.0	37.5	25		03/10/17 10:52	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		25		03/10/17 10:52	460-00-4	
Dibromofluoromethane (S)	108	%	70-130		25		03/10/17 10:52	1868-53-7	
Toluene-d8 (S)	96	%	70-130		25		03/10/17 10:52	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 18 EFF **Lab ID: 4014655004** Collected: 03/07/17 10:09 Received: 03/09/17 09:55 Matrix: Water

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	1.3	mg/L	0.049	0.020	1	03/14/17 12:46	03/16/17 12:21		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	0.075	mg/L	0.050	0.030	1		03/10/17 13:33		G-
8260 MSV		Analytical Method: EPA 8260							
Benzene	5.0	ug/L	1.0	0.50	1		03/10/17 10:07	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		03/10/17 10:07	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		03/10/17 10:07	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		03/10/17 10:07	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 10:07	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		03/10/17 10:07	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	108-90-7	
Chloroethane	1.4	ug/L	1.0	0.37	1		03/10/17 10:07	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		03/10/17 10:07	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		03/10/17 10:07	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		03/10/17 10:07	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		03/10/17 10:07	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		03/10/17 10:07	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		03/10/17 10:07	75-71-8	
1,1-Dichloroethane	17.1	ug/L	1.0	0.24	1		03/10/17 10:07	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		03/10/17 10:07	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		03/10/17 10:07	75-35-4	
cis-1,2-Dichloroethene	77.0	ug/L	1.0	0.26	1		03/10/17 10:07	156-59-2	
trans-1,2-Dichloroethene	0.76J	ug/L	1.0	0.26	1		03/10/17 10:07	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		03/10/17 10:07	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		03/10/17 10:07	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		03/10/17 10:07	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		03/10/17 10:07	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	108-20-3	
Ethylbenzene	1.0	ug/L	1.0	0.50	1		03/10/17 10:07	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		03/10/17 10:07	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		03/10/17 10:07	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	99-87-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 18 EFF **Lab ID: 4014655004** Collected: 03/07/17 10:09 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Methylene Chloride	1.7	ug/L	1.0	0.23	1		03/10/17 10:07	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		03/10/17 10:07	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		03/10/17 10:07	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		03/10/17 10:07	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		03/10/17 10:07	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	127-18-4	
Toluene	3.9	ug/L	1.0	0.50	1		03/10/17 10:07	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		03/10/17 10:07	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 10:07	120-82-1	
1,1,1-Trichloroethane	3.2	ug/L	1.0	0.50	1		03/10/17 10:07	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		03/10/17 10:07	79-00-5	
Trichloroethene	0.48J	ug/L	1.0	0.33	1		03/10/17 10:07	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		03/10/17 10:07	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	96-18-4	
1,2,4-Trimethylbenzene	1.1	ug/L	1.0	0.50	1		03/10/17 10:07	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 10:07	108-67-8	
Vinyl chloride	15.1	ug/L	1.0	0.18	1		03/10/17 10:07	75-01-4	
Xylene (Total)	6.5	ug/L	3.0	1.5	1		03/10/17 10:07	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		03/10/17 10:07	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		03/10/17 10:07	1868-53-7	
Toluene-d8 (S)	96	%	70-130		1		03/10/17 10:07	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: **SUMP 7 IN** Lab ID: **40146555005** Collected: 03/07/17 10:29 Received: 03/09/17 09:55 Matrix: Water

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	29.2	mg/L	1.4	0.57	25	03/14/17 12:46	03/16/17 13:45		DC
WIGRO GCV Analytical Method: WI MOD GRO									
Gasoline Range Organics	<0.030	mg/L	0.050	0.030	1		03/10/17 11:50		
Surrogates									
a,a,a-Trifluorotoluene (S)	98	%	80-120		1		03/10/17 11:50	98-08-8	
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		03/10/17 11:59	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		03/10/17 11:59	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		03/10/17 11:59	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 11:59	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		03/10/17 11:59	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		03/10/17 11:59	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		03/10/17 11:59	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		03/10/17 11:59	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		03/10/17 11:59	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		03/10/17 11:59	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		03/10/17 11:59	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		03/10/17 11:59	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		03/10/17 11:59	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		03/10/17 11:59	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		03/10/17 11:59	75-35-4	
cis-1,2-Dichloroethene	5.6	ug/L	1.0	0.26	1		03/10/17 11:59	156-59-2	
trans-1,2-Dichloroethene	0.76J	ug/L	1.0	0.26	1		03/10/17 11:59	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		03/10/17 11:59	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		03/10/17 11:59	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		03/10/17 11:59	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		03/10/17 11:59	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		03/10/17 11:59	87-68-3	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 7 IN **Lab ID: 4014655005** Collected: 03/07/17 10:29 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		03/10/17 11:59	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		03/10/17 11:59	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		03/10/17 11:59	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		03/10/17 11:59	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		03/10/17 11:59	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		03/10/17 11:59	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		03/10/17 11:59	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 11:59	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		03/10/17 11:59	79-00-5	
Trichloroethene	0.86J	ug/L	1.0	0.33	1		03/10/17 11:59	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		03/10/17 11:59	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 11:59	108-67-8	
Vinyl chloride	1.2	ug/L	1.0	0.18	1		03/10/17 11:59	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		03/10/17 11:59	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		03/10/17 11:59	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		03/10/17 11:59	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		03/10/17 11:59	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 17R IN **Lab ID: 40146555006** Collected: 03/07/17 10:39 Received: 03/09/17 09:55 Matrix: Water

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	0.86	mg/L	0.048	0.020	1	03/14/17 12:46	03/16/17 13:39		
WIGRO GCV Analytical Method: WI MOD GRO									
Gasoline Range Organics	0.18	mg/L	0.050	0.030	1		03/10/17 17:48		G-
8260 MSV Analytical Method: EPA 8260									
Benzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	71-43-2	
Bromobenzene	<0.58	ug/L	2.5	0.58	2.5		03/10/17 11:14	108-86-1	
Bromochloromethane	<0.85	ug/L	2.5	0.85	2.5		03/10/17 11:14	74-97-5	
Bromodichloromethane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	75-27-4	
Bromoform	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	75-25-2	
Bromomethane	<6.1	ug/L	12.5	6.1	2.5		03/10/17 11:14	74-83-9	
n-Butylbenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	104-51-8	
sec-Butylbenzene	<5.5	ug/L	12.5	5.5	2.5		03/10/17 11:14	135-98-8	
tert-Butylbenzene	<0.45	ug/L	2.5	0.45	2.5		03/10/17 11:14	98-06-6	
Carbon tetrachloride	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	56-23-5	
Chlorobenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	108-90-7	
Chloroethane	<0.94	ug/L	2.5	0.94	2.5		03/10/17 11:14	75-00-3	
Chloroform	<6.2	ug/L	12.5	6.2	2.5		03/10/17 11:14	67-66-3	
Chloromethane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	74-87-3	
2-Chlorotoluene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	95-49-8	
4-Chlorotoluene	<0.53	ug/L	2.5	0.53	2.5		03/10/17 11:14	106-43-4	
1,2-Dibromo-3-chloropropane	<5.4	ug/L	12.5	5.4	2.5		03/10/17 11:14	96-12-8	
Dibromochloromethane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	124-48-1	
1,2-Dibromoethane (EDB)	<0.44	ug/L	2.5	0.44	2.5		03/10/17 11:14	106-93-4	
Dibromomethane	<1.1	ug/L	2.5	1.1	2.5		03/10/17 11:14	74-95-3	
1,2-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	95-50-1	
1,3-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	541-73-1	
1,4-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	106-46-7	
Dichlorodifluoromethane	<0.56	ug/L	2.5	0.56	2.5		03/10/17 11:14	75-71-8	
1,1-Dichloroethane	6.6	ug/L	2.5	0.60	2.5		03/10/17 11:14	75-34-3	
1,2-Dichloroethane	<0.42	ug/L	2.5	0.42	2.5		03/10/17 11:14	107-06-2	
1,1-Dichloroethene	1.6J	ug/L	2.5	1.0	2.5		03/10/17 11:14	75-35-4	
cis-1,2-Dichloroethene	423	ug/L	2.5	0.64	2.5		03/10/17 11:14	156-59-2	
trans-1,2-Dichloroethene	37.3	ug/L	2.5	0.64	2.5		03/10/17 11:14	156-60-5	
1,2-Dichloropropane	<0.58	ug/L	2.5	0.58	2.5		03/10/17 11:14	78-87-5	
1,3-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	142-28-9	
2,2-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	594-20-7	
1,1-Dichloropropene	<1.1	ug/L	2.5	1.1	2.5		03/10/17 11:14	563-58-6	
cis-1,3-Dichloropropene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	10061-01-5	
trans-1,3-Dichloropropene	<0.57	ug/L	2.5	0.57	2.5		03/10/17 11:14	10061-02-6	
Diisopropyl ether	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	108-20-3	
Ethylbenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	100-41-4	
Hexachloro-1,3-butadiene	<5.3	ug/L	12.5	5.3	2.5		03/10/17 11:14	87-68-3	
Isopropylbenzene (Cumene)	<0.36	ug/L	2.5	0.36	2.5		03/10/17 11:14	98-82-8	
p-Isopropyltoluene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	99-87-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 17R IN **Lab ID: 40146555006** Collected: 03/07/17 10:39 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Methylene Chloride	<0.58	ug/L	2.5	0.58	2.5		03/10/17 11:14	75-09-2	
Methyl-tert-butyl ether	<0.44	ug/L	2.5	0.44	2.5		03/10/17 11:14	1634-04-4	
Naphthalene	<6.2	ug/L	12.5	6.2	2.5		03/10/17 11:14	91-20-3	
n-Propylbenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	103-65-1	
Styrene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	100-42-5	
1,1,1,2-Tetrachloroethane	<0.45	ug/L	2.5	0.45	2.5		03/10/17 11:14	630-20-6	
1,1,2,2-Tetrachloroethane	<0.62	ug/L	2.5	0.62	2.5		03/10/17 11:14	79-34-5	
Tetrachloroethene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	127-18-4	
Toluene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	108-88-3	
1,2,3-Trichlorobenzene	<5.3	ug/L	12.5	5.3	2.5		03/10/17 11:14	87-61-6	
1,2,4-Trichlorobenzene	<5.5	ug/L	12.5	5.5	2.5		03/10/17 11:14	120-82-1	
1,1,1-Trichloroethane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	71-55-6	
1,1,2-Trichloroethane	<0.49	ug/L	2.5	0.49	2.5		03/10/17 11:14	79-00-5	
Trichloroethene	85.2	ug/L	2.5	0.83	2.5		03/10/17 11:14	79-01-6	
Trichlorofluoromethane	<0.46	ug/L	2.5	0.46	2.5		03/10/17 11:14	75-69-4	
1,2,3-Trichloropropane	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	96-18-4	
1,2,4-Trimethylbenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	95-63-6	
1,3,5-Trimethylbenzene	<1.2	ug/L	2.5	1.2	2.5		03/10/17 11:14	108-67-8	
Vinyl chloride	39.2	ug/L	2.5	0.44	2.5		03/10/17 11:14	75-01-4	
Xylene (Total)	<3.8	ug/L	7.5	3.8	2.5		03/10/17 11:14	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	91	%	70-130		2.5		03/10/17 11:14	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		2.5		03/10/17 11:14	1868-53-7	
Toluene-d8 (S)	95	%	70-130		2.5		03/10/17 11:14	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 7/17R EFF **Lab ID: 4014655007** Collected: 03/07/17 10:49 Received: 03/09/17 09:55 Matrix: Water

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	0.68	mg/L	0.050	0.020	1	03/14/17 12:46	03/16/17 12:49		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	<0.030	mg/L	0.050	0.030	1		03/10/17 12:16		
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		03/10/17 12:21	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		03/10/17 12:21	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		03/10/17 12:21	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 12:21	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		03/10/17 12:21	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		03/10/17 12:21	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		03/10/17 12:21	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		03/10/17 12:21	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		03/10/17 12:21	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		03/10/17 12:21	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		03/10/17 12:21	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		03/10/17 12:21	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		03/10/17 12:21	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		03/10/17 12:21	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		03/10/17 12:21	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		03/10/17 12:21	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		03/10/17 12:21	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		03/10/17 12:21	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		03/10/17 12:21	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		03/10/17 12:21	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		03/10/17 12:21	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		03/10/17 12:21	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		03/10/17 12:21	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	99-87-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: SUMP 7/17R EFF **Lab ID: 4014655007** Collected: 03/07/17 10:49 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		03/10/17 12:21	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		03/10/17 12:21	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		03/10/17 12:21	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		03/10/17 12:21	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		03/10/17 12:21	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		03/10/17 12:21	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 12:21	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		03/10/17 12:21	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		03/10/17 12:21	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		03/10/17 12:21	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 12:21	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/10/17 12:21	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		03/10/17 12:21	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		03/10/17 12:21	460-00-4	
Dibromofluoromethane (S)	107	%	70-130		1		03/10/17 12:21	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		03/10/17 12:21	2037-26-5	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: TRIP BLANK **Lab ID: 40146555008** Collected: 03/07/17 08:40 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		03/10/17 16:49	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		03/10/17 16:49	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		03/10/17 16:49	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 16:49	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		03/10/17 16:49	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		03/10/17 16:49	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		03/10/17 16:49	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		03/10/17 16:49	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		03/10/17 16:49	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		03/10/17 16:49	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		03/10/17 16:49	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		03/10/17 16:49	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		03/10/17 16:49	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		03/10/17 16:49	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		03/10/17 16:49	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		03/10/17 16:49	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		03/10/17 16:49	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		03/10/17 16:49	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		03/10/17 16:49	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		03/10/17 16:49	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		03/10/17 16:49	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		03/10/17 16:49	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		03/10/17 16:49	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		03/10/17 16:49	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		03/10/17 16:49	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		03/10/17 16:49	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		03/10/17 16:49	630-20-6	

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ANALYTICAL RESULTS

Project: 60485212 KEP

Pace Project No.: 40146555

Sample: TRIP BLANK **Lab ID: 4014655008** Collected: 03/07/17 08:40 Received: 03/09/17 09:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		03/10/17 16:49	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		03/10/17 16:49	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		03/10/17 16:49	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		03/10/17 16:49	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		03/10/17 16:49	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		03/10/17 16:49	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		03/10/17 16:49	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		03/10/17 16:49	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		03/10/17 16:49	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	92	%	70-130		1		03/10/17 16:49	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		03/10/17 16:49	1868-53-7	
Toluene-d8 (S)	95	%	70-130		1		03/10/17 16:49	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 60485212 KEP
Pace Project No.: 40146555

QC Batch: 250002 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40146555001, 40146555002, 40146555003, 40146555004, 40146555005, 40146555006, 40146555007, 40146555008

METHOD BLANK: 1475807 Matrix: Water
Associated Lab Samples: 40146555001, 40146555002, 40146555003, 40146555004, 40146555005, 40146555006, 40146555007, 40146555008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	03/10/17 08:17	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	03/10/17 08:17	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	03/10/17 08:17	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	03/10/17 08:17	
1,1-Dichloroethane	ug/L	<0.24	1.0	03/10/17 08:17	
1,1-Dichloroethene	ug/L	<0.41	1.0	03/10/17 08:17	
1,1-Dichloropropene	ug/L	<0.44	1.0	03/10/17 08:17	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	03/10/17 08:17	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	03/10/17 08:17	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	03/10/17 08:17	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	03/10/17 08:17	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	03/10/17 08:17	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	03/10/17 08:17	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	03/10/17 08:17	
1,2-Dichloroethane	ug/L	<0.17	1.0	03/10/17 08:17	
1,2-Dichloropropane	ug/L	<0.23	1.0	03/10/17 08:17	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	03/10/17 08:17	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	03/10/17 08:17	
1,3-Dichloropropane	ug/L	<0.50	1.0	03/10/17 08:17	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	03/10/17 08:17	
2,2-Dichloropropane	ug/L	<0.48	1.0	03/10/17 08:17	
2-Chlorotoluene	ug/L	<0.50	1.0	03/10/17 08:17	
4-Chlorotoluene	ug/L	<0.21	1.0	03/10/17 08:17	
Benzene	ug/L	<0.50	1.0	03/10/17 08:17	
Bromobenzene	ug/L	<0.23	1.0	03/10/17 08:17	
Bromochloromethane	ug/L	<0.34	1.0	03/10/17 08:17	
Bromodichloromethane	ug/L	<0.50	1.0	03/10/17 08:17	
Bromoform	ug/L	<0.50	1.0	03/10/17 08:17	
Bromomethane	ug/L	<2.4	5.0	03/10/17 08:17	
Carbon tetrachloride	ug/L	<0.50	1.0	03/10/17 08:17	
Chlorobenzene	ug/L	<0.50	1.0	03/10/17 08:17	
Chloroethane	ug/L	<0.37	1.0	03/10/17 08:17	
Chloroform	ug/L	<2.5	5.0	03/10/17 08:17	
Chloromethane	ug/L	<0.50	1.0	03/10/17 08:17	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	03/10/17 08:17	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	03/10/17 08:17	
Dibromochloromethane	ug/L	<0.50	1.0	03/10/17 08:17	
Dibromomethane	ug/L	<0.43	1.0	03/10/17 08:17	
Dichlorodifluoromethane	ug/L	<0.22	1.0	03/10/17 08:17	
Diisopropyl ether	ug/L	<0.50	1.0	03/10/17 08:17	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 60485212 KEP
Pace Project No.: 40146555

METHOD BLANK: 1475807

Matrix: Water

Associated Lab Samples: 40146555001, 40146555002, 40146555003, 40146555004, 40146555005, 40146555006, 40146555007, 40146555008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.50	1.0	03/10/17 08:17	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	03/10/17 08:17	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	03/10/17 08:17	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	03/10/17 08:17	
Methylene Chloride	ug/L	<0.23	1.0	03/10/17 08:17	
n-Butylbenzene	ug/L	<0.50	1.0	03/10/17 08:17	
n-Propylbenzene	ug/L	<0.50	1.0	03/10/17 08:17	
Naphthalene	ug/L	<2.5	5.0	03/10/17 08:17	
p-Isopropyltoluene	ug/L	<0.50	1.0	03/10/17 08:17	
sec-Butylbenzene	ug/L	<2.2	5.0	03/10/17 08:17	
Styrene	ug/L	<0.50	1.0	03/10/17 08:17	
tert-Butylbenzene	ug/L	<0.18	1.0	03/10/17 08:17	
Tetrachloroethene	ug/L	<0.50	1.0	03/10/17 08:17	
Toluene	ug/L	<0.50	1.0	03/10/17 08:17	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	03/10/17 08:17	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	03/10/17 08:17	
Trichloroethene	ug/L	<0.33	1.0	03/10/17 08:17	
Trichlorofluoromethane	ug/L	<0.18	1.0	03/10/17 08:17	
Vinyl chloride	ug/L	<0.18	1.0	03/10/17 08:17	
Xylene (Total)	ug/L	<1.5	3.0	03/10/17 08:17	
4-Bromofluorobenzene (S)	%	93	70-130	03/10/17 08:17	
Dibromofluoromethane (S)	%	104	70-130	03/10/17 08:17	
Toluene-d8 (S)	%	96	70-130	03/10/17 08:17	

LABORATORY CONTROL SAMPLE: 1475808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.1	95	70-131	
1,1,2,2-Tetrachloroethane	ug/L	20	15.6	78	67-130	
1,1,2-Trichloroethane	ug/L	20	16.8	84	70-130	
1,1-Dichloroethane	ug/L	20	19.1	95	70-133	
1,1-Dichloroethene	ug/L	20	20.0	100	70-130	
1,2,4-Trichlorobenzene	ug/L	20	15.3	76	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	14.0	70	50-150	
1,2-Dibromoethane (EDB)	ug/L	20	16.8	84	70-130	
1,2-Dichlorobenzene	ug/L	20	16.0	80	70-130	
1,2-Dichloroethane	ug/L	20	18.0	90	70-130	
1,2-Dichloropropane	ug/L	20	17.3	87	70-130	
1,3-Dichlorobenzene	ug/L	20	16.1	80	70-130	
1,4-Dichlorobenzene	ug/L	20	16.6	83	70-130	
Benzene	ug/L	20	18.5	93	60-135	
Bromodichloromethane	ug/L	20	16.9	84	70-130	
Bromoform	ug/L	20	17.0	85	70-130	

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QUALITY CONTROL DATA

Project: 60485212 KEP

Pace Project No.: 40146555

LABORATORY CONTROL SAMPLE: 1475808

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	20	11.4	57	33-130	
Carbon tetrachloride	ug/L	20	18.3	91	70-138	
Chlorobenzene	ug/L	20	18.0	90	70-130	
Chloroethane	ug/L	20	16.9	85	51-130	
Chloroform	ug/L	20	18.0	90	70-130	
Chloromethane	ug/L	20	14.7	73	25-132	
cis-1,2-Dichloroethene	ug/L	20	18.0	90	69-130	
cis-1,3-Dichloropropene	ug/L	20	17.3	86	70-130	
Dibromochloromethane	ug/L	20	16.8	84	70-130	
Dichlorodifluoromethane	ug/L	20	12.8	64	23-130	
Ethylbenzene	ug/L	20	17.9	89	70-136	
Isopropylbenzene (Cumene)	ug/L	20	18.2	91	70-140	
Methyl-tert-butyl ether	ug/L	20	21.1	106	66-138	
Methylene Chloride	ug/L	20	19.5	97	70-130	
Styrene	ug/L	20	17.8	89	70-133	
Tetrachloroethene	ug/L	20	16.9	84	70-138	
Toluene	ug/L	20	18.3	91	70-130	
trans-1,2-Dichloroethene	ug/L	20	20.4	102	70-131	
trans-1,3-Dichloropropene	ug/L	20	16.8	84	69-130	
Trichloroethene	ug/L	20	17.7	88	70-130	
Trichlorofluoromethane	ug/L	20	20.1	101	50-150	
Vinyl chloride	ug/L	20	18.7	94	49-130	
Xylene (Total)	ug/L	60	55.7	93	70-135	
4-Bromofluorobenzene (S)	%			99	70-130	
Dibromofluoromethane (S)	%			105	70-130	
Toluene-d8 (S)	%			97	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1475853 1475854

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		40146555004 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
1,1,1-Trichloroethane	ug/L	3.2	50	50	60.4	58.5	114	111	70-134	3	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	47.4	46.7	95	93	67-130	1	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	49.4	48.4	99	97	70-130	2	20	
1,1-Dichloroethane	ug/L	17.1	50	50	72.9	70.4	112	107	70-134	3	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	59.4	57.0	119	114	68-136	4	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	48.5	47.3	97	94	62-139	3	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	47.0	44.6	94	89	50-150	5	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	51.2	51.1	102	102	70-130	0	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	49.3	47.6	99	95	70-130	4	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	53.1	52.6	106	105	70-130	1	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	49.8	49.5	100	99	70-130	1	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	49.5	47.6	99	95	70-131	4	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	49.1	47.3	98	95	70-130	4	20	

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QUALITY CONTROL DATA

Project: 60485212 KEP

Pace Project No.: 40146555

Parameter	Units	1475853		1475854		MS % Rec	MSD % Rec	% Rec	Limits	RPD	Max RPD	Qual
		40146555004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Benzene	ug/L	5.0	50	50	61.0	59.0	112	108	57-138	3	20	
Bromodichloromethane	ug/L	<0.50	50	50	51.3	51.4	103	103	70-130	0	20	
Bromoform	ug/L	<0.50	50	50	44.9	45.2	90	90	70-130	1	20	
Bromomethane	ug/L	<2.4	50	50	37.1	36.4	74	73	33-130	2	27	
Carbon tetrachloride	ug/L	<0.50	50	50	52.4	50.7	105	101	70-138	3	20	
Chlorobenzene	ug/L	<0.50	50	50	53.2	51.0	106	102	70-130	4	20	
Chloroethane	ug/L	1.4	50	50	50.2	48.5	98	94	51-130	4	20	
Chloroform	ug/L	<2.5	50	50	53.3	51.9	105	102	70-130	3	20	
Chloromethane	ug/L	<0.50	50	50	44.3	43.2	89	86	25-132	2	20	
cis-1,2-Dichloroethene	ug/L	77.0	50	50	132	128	110	101	61-140	3	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	47.6	47.2	95	94	70-130	1	20	
Dibromochloromethane	ug/L	<0.50	50	50	52.7	52.2	105	104	70-130	1	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	38.5	37.6	77	75	23-130	2	20	
Ethylbenzene	ug/L	1.0	50	50	57.1	55.0	112	108	70-138	4	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	58.9	57.0	118	114	70-152	3	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	63.3	63.6	127	127	66-139	1	20	
Methylene Chloride	ug/L	1.7	50	50	57.1	55.8	111	108	70-130	2	20	
Styrene	ug/L	<0.50	50	50	58.0	55.3	116	111	70-138	5	20	
Tetrachloroethene	ug/L	<0.50	50	50	50.1	48.1	100	96	70-148	4	20	
Toluene	ug/L	3.9	50	50	58.3	56.4	109	105	70-130	3	20	
trans-1,2-Dichloroethene	ug/L	0.76J	50	50	60.4	58.6	119	116	70-133	3	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	46.6	45.7	93	91	69-130	2	20	
Trichloroethene	ug/L	0.48J	50	50	54.9	52.8	109	105	70-131	4	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	58.5	56.4	117	113	50-150	4	20	
Vinyl chloride	ug/L	15.1	50	50	69.7	68.7	109	107	49-133	1	20	
Xylene (Total)	ug/L	6.5	150	150	182	176	117	113	70-135	3	20	
4-Bromofluorobenzene (S)	%						102	101	70-130			
Dibromofluoromethane (S)	%						104	104	70-130			
Toluene-d8 (S)	%						98	96	70-130			

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 60485212 KEP

Pace Project No.: 40146555

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

DC Chromatographic pattern inconsistent with typical Diesel Fuel.

G- Early peaks present outside the GRO window.

GO Early and late peaks present outside the GRO window.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60485212 KEP

Pace Project No.: 40146555

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40146555001	SUMP 6 IN	WI MOD DRO	250198	WI MOD DRO	250268
40146555002	SUMP 6 EFF	WI MOD DRO	250198	WI MOD DRO	250268
40146555003	SUMP 18 IN	WI MOD DRO	250198	WI MOD DRO	250268
40146555004	SUMP 18 EFF	WI MOD DRO	250198	WI MOD DRO	250268
40146555005	SUMP 7 IN	WI MOD DRO	250198	WI MOD DRO	250268
40146555006	SUMP 17R IN	WI MOD DRO	250198	WI MOD DRO	250268
40146555007	SUMP 7/17R EFF	WI MOD DRO	250198	WI MOD DRO	250268
40146555001	SUMP 6 IN	WI MOD GRO	250005		
40146555002	SUMP 6 EFF	WI MOD GRO	250005		
40146555003	SUMP 18 IN	WI MOD GRO	250005		
40146555004	SUMP 18 EFF	WI MOD GRO	250005		
40146555005	SUMP 7 IN	WI MOD GRO	250005		
40146555006	SUMP 17R IN	WI MOD GRO	250005		
40146555007	SUMP 7/17R EFF	WI MOD GRO	250005		
40146555001	SUMP 6 IN	EPA 8260	250002		
40146555002	SUMP 6 EFF	EPA 8260	250002		
40146555003	SUMP 18 IN	EPA 8260	250002		
40146555004	SUMP 18 EFF	EPA 8260	250002		
40146555005	SUMP 7 IN	EPA 8260	250002		
40146555006	SUMP 17R IN	EPA 8260	250002		
40146555007	SUMP 7/17R EFF	EPA 8260	250002		
40146555008	TRIP BLANK	EPA 8260	250002		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

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

Pace Analytical™

Client Name: AECOM

Project #

WO#: **40146555**

Courier: Fed Ex UPS Client Pace Other: CS Logistic



Tracking #: _____
Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used SR-1 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: 3 /Corr: 3 Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Person examining contents:
Date: 3/9/17
Initials: BA

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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO ₃ , H ₂ SO ₄ ≤ 2; NaOH+ZnAct ≥ 9, NaOH ≥ 12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WDRGW, Phenolics, OTHER:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lab Std #/ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. <u>003 & 007 1 vial BA 3/9/17</u>
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>375</u>		

Client Notification/ Resolution:

If checked, see attached form for additional comments

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 3.9.17