

Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR)

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST		SW-001
Site Address: 402 S Dawson St		Permit Number
City: Seattle	County: King	DEPARTMENT OF ECOLOGY

Submit one DMR per sampling point.

SEP 03 2019

WATER QUALITY PROGRAM

Reporting Period			
Quarter (circle one) Year: 2019			
1 st	2 nd	3 rd	4 th
Jan/Feb/Mar	Apr/May/Jun	Jul/Aug/Sept	Oct/Nov/Dec

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level	SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE (If more than one sample collected, complete additional sampling log on next page.)	CONSISTENT ATTAINMENT? (Condition S4.B.6) (✓ for yes)
Turbidity	NTU	25	EPA 180.1, Meter	0.5	28.3	04/19	N/A	<input type="checkbox"/>
pH	S.U.	5 - 9	Paper	N/A	6.25	04/19	N/A	<input type="checkbox"/>
Zinc, Total	µg/L	117	EPA 200.8	2.5	47.7	04/19	N/A	<input type="checkbox"/>
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? Yes (NO) (circle)	04/19	N/A	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	4.7	04/19	N/A	<input type="checkbox"/>
Diesel	mg/L	10	NWTPH-DX	0.1 mg/L	2.6	04/19	N/A	<input type="checkbox"/>
Oil	mg/L	10	NWTPH-DX	0.1 mg/L	5.9	04/19	N/A	<input type="checkbox"/>
TSS	mg/L	30	SM2540	5 mg/L	11	04/19	N/A	<input type="checkbox"/>

☐ No sample collected – No stormwater was discharged during normal working hours. (See ADDITIONAL COMMENTS below.)
☐ No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).

ADDITIONAL COMMENTS: Treatment system was maintained after sample event. No additional samples for confirmation were collected during the rest of the quarter due to insufficient precipitation for discharge during normal working hours.

Certification Statement: I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Amber Nickens / Director H2O UPS Name / Title (printed)	Signature (not valid unless signed). See Permit Condition G2 for signature requirements. <i>AEV-L</i>	Date Signed 8/27/19
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Mail your DMR to: Department of Ecology, Water Quality Program – Industrial Stormwater, P.O. Box 47696, Olympia, WA 98504-7696

Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR)

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST	WAR001155	SW-002
Site Address: 402 S Dawson St	Permit Number	Sampling Point
City: Seattle	County: King	

Submit one DMR per sampling point.


Reporting Period			
Quarter (circle one)		Year: 2019	
1 st	2 nd	3 rd	4 th
Jan/Feb/Mar	Apr/May/June	Jul/Aug/Sept	Oct/Nov/Dec

Parameter	Units	Benchmark Value	Analytical Method	Quantitation Level Laboratory	SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE (If more than one sample collected, complete additional sampling log on next page.)	CONSISTENT ATTAINMENT? (Condition 54.B.6) (✓ for yes)
Turbidity	NTU	25	EPA 180.1, Meter	0.5	37.2	04/19	N/A	<input type="checkbox"/>
pH	s. u.	5 - 9	Paper	N/A	6.25	04/19	N/A	<input type="checkbox"/>
Zinc, Total	µg/L	117	EPA 200.8	2.5	70.6	04/19	N/A	<input type="checkbox"/>
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? Yes (No (circle))	04/19	N/A	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	4.6	04/19	N/A	<input type="checkbox"/>
Diesel	mg/L	10	NWTPH-DX	0.1 mg/L	0.56	04/19	N/A	<input type="checkbox"/>
Oil	mg/L	10	NWTPH-DX	0.1 mg/L	1.1	04/19	N/A	<input type="checkbox"/>
TSS	mg/L	30	SM2540	5 mg/l	10	04/19	N/A	<input type="checkbox"/>

☐ No sample collected – No stormwater was discharged during normal working hours. (See ADDITIONAL COMMENTS below.)
☐ No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).

ADDITIONAL COMMENTS: Treatment system was maintained after sample event. No additional samples for confirmation were collected during the rest of the quarter due to insufficient precipitation for discharge during normal working hours.

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Amber Nickens / Director Field Ops Name / Title (printed)	 Signature (not valid unless signed). See Permit Condition G2 for signature requirements.	Date Signed 8/27/19
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Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR)

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST		WAR001155	
Site Address: 402 S Dawson St		Permit Number	
City: Seattle	County: King	SW-003	
		Sampling Point	

Submit one DMR per sampling point.


Reporting Period			
Quarter (circle one)		Year: 2019	
1 st	2 nd	3 rd	4 th
Jan/Feb/Mar	Apr/May/Jun	Jul/Aug/Sept	Oct/Nov/Dec

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level	Sample Results			
					SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE (if more than one sample collected, complete additional sampling log on next page.)	CONSISTENT ATTAINMENT? (Condition S4.B.6) (✓ for yes)
Turbidity	NTU	25	EPA 180.1, Meter	0.5	1.6	04/19	N/A	<input type="checkbox"/>
pH	s.u.	5 - 9	Paper	N/A	6.25	04/19	N/A	<input type="checkbox"/>
Zinc, Total	µg/L	117	EPA 200.8	2.5	9.7	04/19	N/A	<input type="checkbox"/>
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? Yes (No circle)	04/19	N/A	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	1.1	04/19	N/A	<input type="checkbox"/>
Diesel	mg/L	10	NWTPH-DX	0.1 mg/L	<0.39	04/19	N/A	<input type="checkbox"/>
Oil	mg/L	10	NWTPH-DX	0.1 mg/L	<0.39	04/19	N/A	<input type="checkbox"/>
TSS	mg/L	30	SM2540	5 mg/l	<10	04/19	N/A	<input type="checkbox"/>

☐ No sample collected – No stormwater was discharged during normal working hours. (See ADDITIONAL COMMENTS below.)
☐ No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).

ADDITIONAL COMMENTS:

Certification Statement: I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Amber Nickens / Director Field Ops Name / Title (printed)	 Signature (not valid unless signed). See Permit Condition G2 for signature requirements.	Date Signed 8/27/19
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Industrial Stormwater General Permit National Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR)

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST		WAR001155	SW-004
Site Address: 402 S Dawson St		Permit Number	Sampling Point
City: Seattle	County: King		

Submit one DMR per sampling point.

Reporting Period			
Quarter (circle one) Year: 2019			
1 st	2 nd	3 rd	4 th
Jan/Feb/Mar	Apr/May/Jun	Jul/Aug/Sept	Oct/Nov/Dec

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level	Sample Results		
					SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE (if more than one sample collected, complete additional sampling log on next page.)
Turbidity	NTU	25	EPA 180.1, Meter	0.5	166	04/19	N/A
pH	s.u.	5 - 9	Paper	N/A	6.75	04/19	N/A
Zinc, Total	µg/L	117	EPA 200.8	2.5	355	04/19	N/A
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? Yes(No(circle)	04/19	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	36.4	04/19	N/A
Diesel	mg/L	10	NWTPH-DX	0.1 mg/L	1.9	04/19	N/A
Oil	mg/L	10	NWTPH-DX	0.1 mg/L	5.1	04/19	N/A
TSS	mg/L	30	SM2540	5 mg/l	95	04/19	N/A
<input type="checkbox"/> No sample collected – No stormwater was discharged during normal working hours. (See ADDITIONAL COMMENTS below.) <input type="checkbox"/> No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).							
ADDITIONAL COMMENTS: Conveyance piping, catch basins, and manholes were jetted cleaned after sampling event to mitigate exceedance. Additional Samples were not collected during the quarter due to insufficient precipitation for discharge during normal hours.							
Certification Statement I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.							
Amber Nickens / Director Field Ops Name / Title (printed)			Signature (not valid unless signed). See Permit Condition G2 for signature requirements.		Date Signed		

Discharge Monitoring Report (DMR)

If you collect more than one sample per quarter, report the results in the table below. Include the date the sample was collected, and the results of the analysis. Calculate the average (mean) for each parameter (except pH and oil sheen) and report the value in the AVERAGE column on the front page. Attach additional sheets if necessary.

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST		WAR001155	SW-004
Site Address: 402 S Dawson St		Permit Number	Sampling Point
City: Seattle	County: King		

[illegible]

Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR)

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST	WAR001155	SW-005
Site Address: 402 S Dawson St	Permit Number	Sampling Point
City: Seattle	County: King	

Submit one DMR per sampling point.

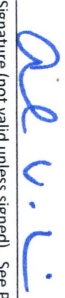
Reporting Period			
Quarter (circle one) Year: 2019			
1 st	2 nd	3 rd	4 th
Jan/Feb/Mar	Apr/May/June	Jul/Aug/Sept	Oct/Nov/Dec

Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level	Sample Results			
					SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE (if more than one sample collected, complete additional sampling log on next page.)	CONSISTENT ATTAINMENT? (Condition S4.B.6) (✓ for yes)
Turbidity	NTU	25	EPA 180.1, Meter	0.5	100	04/19	N/A	<input type="checkbox"/>
pH	s.u.	5 - 9	Paper	N/A	6.00	04/19	N/A	<input type="checkbox"/>
Zinc, Total	µg/L	117	EPA 200.8	2.5	263	04/19	N/A	<input type="checkbox"/>
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? (Yes / No (circle))	04/19	N/A	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	22	04/19	N/A	<input type="checkbox"/>
Diesel	mg/L	10	NWTPH-DX	0.1 mg/L	1.7	04/19	N/A	<input type="checkbox"/>
Oil	mg/L	10	NWTPH-DX	0.1 mg/L	4.6	04/19	N/A	<input type="checkbox"/>
TSS	mg/L	30	SM2540	5 mg/l	49	04/19	N/A	<input type="checkbox"/>

- ☐ No sample collected – No stormwater was discharged during normal working hours. (See ADDITIONAL COMMENTS below.)
- ☐ No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).

ADDITIONAL COMMENTS: Conveyance piping, catch basins, and manholes were jetted cleaned after sampling event to mitigate exceedance. Additional Samples were not collected during the quarter due to insufficient precipitation for discharge during normal hours.

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Discharge Monitoring Report (DMR)

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[illegible]

Industrial Stormwater General Permit National Pollutant Discharge Elimination System (NPDES) Discharge Monitoring Report (DMR)

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST	WAR001155	SW-006
Site Address: 402 S Dawson St	Permit Number	Sampling Point
City: Seattle	County: King	

Submit one DMR per sampling point.

Reporting Period			
Quarter (circle one) Year: 2019			
1 st	2 nd	3 rd	4 th
Jan/Feb/Mar	Apr/May/Jun	Jul/Aug/Sept	Oct/Nov/Dec


Parameter	Units	Benchmark Value	Analytical Method	Laboratory Quantitation Level	Sample Results			
					SINGLE SAMPLE RESULT	SINGLE SAMPLE DATE (MM/DD)	AVERAGE (if more than one sample collected, complete additional sampling log on next page.)	CONSISTENT ATTAINMENT? (Condition 54.B.6) (✓ for yes)
Turbidity	NTU	25	EPA 180.1, Meter	0.5	103	04/19	N/A	<input type="checkbox"/>
pH	s.u.	5 - 9	Paper	N/A	6.75	04/19	N/A	<input type="checkbox"/>
Zinc, Total	µg/L	117	EPA 200.8	2.5	268	04/19	N/A	<input type="checkbox"/>
Oil Sheen	Yes/No	No visible oil sheen	N/A	N/A	Sheen Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (circle)	04/19	N/A	N/A
Copper, Total	µg/L	Western WA: 14 Eastern WA: 32	EPA 200.8	2.0	22.6	04/19	N/A	<input type="checkbox"/>
Diesel	mg/L	10	NWTPH-DX	0.1 mg/L	1.8	04/19	N/A	<input type="checkbox"/>
Oil	mg/L	10	NWTPH-DX	0.1 mg/L	3.2	04/19	N/A	<input type="checkbox"/>
TSS	mg/L	30	SM2540	5 mg/l	55	04/19	N/A	<input type="checkbox"/>

☐ No sample collected – No stormwater was discharged during normal working hours. (See ADDITIONAL COMMENTS below.)

☐ No sample collected – Stormwater was discharged during normal working hours, but a sample wasn't collected (explain in comments section).

ADDITIONAL COMMENTS: Conveyance piping, catch basins, and manholes were jetted cleaned after sampling event to mitigate exceedance. Additional Samples were not collected during the quarter due to insufficient precipitation for discharge during normal hours.

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Amber Nickens / Director Field Ops Name / Title (printed)	Signature (not valid unless signed). See Permit Condition G2 for signature requirements.	Date Signed
		8/27/19

Discharge Monitoring Report (DMR)

If you collect more than one sample per quarter, report the results in the table below. Include the date the sample was collected, and the results of the analysis. Calculate the average (mean) for each parameter (except pH and oil sheen) and report the value in the AVERAGE column on the front page. Attach additional sheets if necessary.

Site Name: UNION PACIFIC RAILROAD CO DAWSON ST		WAR001155	SW-006
Site Address: 402 S Dawson St		Permit Number	Sampling Point
City: Seattle	County: King		

[illegible]

Date	Hi/Lo	Precip	Avg. HI / LO
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Mon4/1	68°/47°	0 in	56°/43°
Tue4/2	67°/50°	0 in	56°/43°
Wed4/3	60°/48°	0.01 in	56°/43°
Thu4/4	65°/43°	0.07 in	57°/43°
Fri4/5	57°/47°	0.41 in	57°/43°
Sat4/6	58°/44°	0.21 in	57°/43°
Sun4/7	56°/45°	0.24 in	57°/43°
Mon4/8	62°/48°	0.07 in	57°/44°
Tue4/9	58°/47°	0.19 in	57°/44°
Wed4/10	54°/47°	0.14 in	58°/44°
Thu4/11	56°/46°	0.54 in	58°/44°
Fri4/12	59°/48°	0.16 in	58°/44°
Sat4/13	52°/46°	0.05 in	58°/44°
Sun4/14	52°/44°	0.01 in	58°/44°
Mon4/15	56°/43°	0 in	58°/44°
Tue4/16	57°/45°	0.16 in	59°/44°
Wed4/17	63°/49°	0 in	59°/44°
Thu4/18	64°/53°	0.10 in	59°/44°
Fri4/19	57°/51°	0.20 in	59°/44°
Sat4/20	61°/45°	0.01 in	60°/44°
Sun4/21	61°/45°	0 in	60°/44°
Mon4/22	59°/44°	0.13 in	60°/44°
Tue4/23	63°/50°	0 in	60°/44°
Wed4/24	61°/47°	0 in	60°/44°
Thu4/25	60°/43°	0 in	60°/44°
Fri4/26	64°/46°	0 in	61°/44°
Sat4/27	56°/43°	0 in	61°/45°
Sun4/28	62°/36°	0 in	61°/45°
Mon4/29	65°/45°	0 in	61°/45°
Tue4/30	67°/41°	0 in	62°/45°

Source:

<https://www.accuweather.com/en/us/seattle-wa/98104/april-weather/351409?monyr=4/1/2019&view=table>

AccuWeather Monthly Weather Forecast May 2019 - Seattle, WA

Date	Hi/Low	Precip	Avg. HI / LO
Wed5/1	64°/42°	0 in	62°/45°
Thu5/2	58°/48°	0 in	62°/45°
Fri5/3	62°/46°	0 in	63°/45°
Sat5/4	67°/47°	0 in	63°/46°
Sun5/5	68°/46°	0 in	63°/46°
Mon5/6	74°/47°	0 in	63°/46°
Tue5/7	73°/53°	0 in	63°/46°
Wed5/8	73°/50°	0 in	64°/46°
Thu5/9	82°/57°	0 in	64°/46°
Fri5/10	84°/54°	0 in	64°/46°
Sat5/11	83°/54°	0 in	64°/46°
Sun5/12	67°/53°	0 in	64°/47°
Mon5/13	67°/49°	0 in	64°/47°
Tue5/14	62°/53°	0.05 in	65°/47°
Wed5/15	67°/53°	0.03 in	65°/47°
Thu5/16	65°/54°	0.15 in	65°/47°
Fri5/17	65°/53°	0.16 in	65°/48°
Sat5/18	71°/51°	0 in	66°/48°
Sun5/19	71°/55°	0 in	66°/48°
Mon5/20	59°/52°	0 in	66°/48°
Tue5/21	62°/51°	0 in	66°/48°
Wed5/22	74°/51°	0 in	66°/49°
Thu5/23	78°/53°	0 in	66°/49°
Fri5/24	61°/54°	0 in	66°/49°
Sat5/25	57°/53°	0.23 in	67°/49°
Sun5/26	71°/54°	0 in	67°/50°
Mon5/27	78°/54°	0 in	67°/50°
Tue5/28	66°/56°	0 in	67°/50°
Wed5/29	71°/54°	0 in	67°/50°
Thu5/30	76°/55°	0 in	68°/50°
Fri5/31	77°/56°	0 in	68°/51°

Source: <https://www.accuweather.com/en/us/seattle-wa/98104/may-weather/351409?monyr=5/1/2019&view=table>

AccuWeather Monthly Weather Forecast June 2019 - Seattle, WA

Date	Hi/Lo	Precip	Avg. HI / LO
Sat6/1	75°/51°	0 in	68°/51°
Sun6/2	75°/55°	0 in	68°/51°
Mon6/3	70°/45°	0 in	68°/51°
Tue6/4	74°/51°	0 in	68°/52°
Wed6/5	67°/51°	0 in	68°/52°
Thu6/6	65°/50°	0 in	69°/52°
Fri6/7	61°/51°	0.05 in	69°/52°
Sat6/8	69°/52°	0 in	69°/52°
Sun6/9	73°/51°	0 in	69°/52°
Mon6/10	78°/55°	0 in	69°/53°
Tue6/11	82°/60°	0 in	69°/53°
Wed6/12	94°/66°	0 in	70°/53°
Thu6/13	80°/58°	0 in	70°/53°
Fri6/14	70°/57°	0 in	70°/54°
Sat6/15	75°/54°	0 in	70°/54°
Sun6/16	77°/56°	0 in	70°/54°
Mon6/17	76°/56°	0 in	70°/54°
Tue6/18	65°/57°	0 in	71°/54°
Wed6/19	70°/53°	0.14 in	71°/54°
Thu6/20	69°/50°	0.12 in	71°/54°
Fri6/21	72°/56°	0 in	71°/55°
Sat6/22	67°/55°	0 in	72°/55°
Sun6/23	64°/54°	0 in	72°/55°
Mon6/24	70°/53°	0 in	72°/55°
Tue6/25	75°/52°	0 in	72°/55°
Wed6/26	72°/54°	0 in	72°/55°
Thu6/27	72°/57°	0.04 in	72°/56°
Fri6/28	74°/56°	0 in	73°/56°
Sat6/29	77°/56°	0 in	73°/56°
Sun6/30	80°/57°	0 in	73°/56°

Source:

<https://www.accuweather.com/en/us/seattle-wa/98104/june-weather/351409?monyr=6/1/2019&view=table>

April 26, 2019

Candice Schwartz
CH2M Hill
1100 112th Ave NE
Suite 500
Bellevue, WA 98004

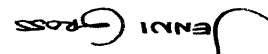
RE: Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Dear Candice Schwartz:

Enclosed are the analytical results for sample(s) received by the laboratory on April 20, 2019. 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,



Jennifer Gross
jennifer.gross@pacelabs.com
(206)957-2426
Project Manager

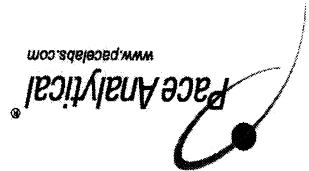
Enclosures

cc: Mario Lopez, CH2M Hill
UPRR-Sysdat@gnd.com, UPRR

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.





CERTIFICATIONS

Project: Seattle WA-Argo Yard SW
 Pace Project No.: 10471602

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485	Minnesota Dept of Ag Certification #: via MN 027-053-137
A2LA Certification #: 2926.01	Minnesota Petrofund Certification #: 1240
Alabama Certification #: 40770	Mississippi Certification #: MN00064
Alaska Contaminated Sites Certification #: 17-009	Missouri Certification #: 10100
Alaska DW Certification #: MN00064	Montana Certification #: CERT0092
Arizona Certification #: AZ0014	Nebraska Certification #: NE-OS-18-06
Arkansas DW Certification #: MN00064	Nevada Certification #: MN00064
Arkansas VW Certification #: 88-0680	New Hampshire Certification #: 2081
California Certification #: 2929	New Jersey Certification #: MN002
CNMI Saipan Certification #: MP0003	New York Certification #: 11647
Colorado Certification #: MN00064	North Carolina DW Certification #: 27700
Connecticut Certification #: PH-0256	North Carolina VW Certification #: 530
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137	North Dakota Certification #: R-036
Florida Certification #: E87605	Ohio DW Certification #: 41244
Georgia Certification #: 959	Ohio VAP Certification #: CL101
Guam EPA Certification #: MN00064	Oklahoma Certification #: 9507
Hawaii Certification #: MN00064	Oregon Primary Certification #: MN300001
Idaho Certification #: MN00064	Oregon Secondary Certification #: MN200001
Illinois Certification #: 200011	Pennsylvania Certification #: 68-00563
Indiana Certification #: C-MN-01	Puerto Rico Certification #: MN00064
Iowa Certification #: 368	South Carolina Certification #: 74003001
Kansas Certification #: E-10167	Tennessee Certification #: TN02818
Kentucky DW Certification #: 90062	Texas Certification #: T104704192
Kentucky VW Certification #: 90062	Utah Certification #: MN00064
Louisiana DEQ Certification #: 03086	Vermont Certification #: VT-027053137
Louisiana DW Certification #: MN00064	Virginia Certification #: 460163
Maine Certification #: MN00064	Washington Certification #: C486
Maryland Certification #: 322	West Virginia DEP Certification #: 382
Massachusetts Certification #: M-MN064	West Virginia DW Certification #: 9952 C
Michigan Certification #: 9909	Wisconsin Certification #: 999407970
Minnesota Certification #: 027-053-137	Wyoming UST Certification #: via A2LA 2926.01

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Seattle WA-Argo Yard SW
 Pace Project No.: 10471602

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10471602001	AY-SW-006-1904	Water	04/19/19 13:30	04/20/19 09:30
10471602002	AY-SW-003-Effluent-1904	Water	04/19/19 13:45	04/20/19 09:30
10471602003	AY-SW-003-Influent-1904	Water	04/19/19 14:05	04/20/19 09:30
10471602004	AY-SW-004-1904	Water	04/19/19 14:30	04/20/19 09:30
10471602005	AY-SW-005-1904	Water	04/19/19 15:00	04/20/19 09:30
10471602006	AY-SW-001-Effluent-1904	Water	04/19/19 15:35	04/20/19 09:30
10471602007	AY-SW-001-Influent-1904	Water	04/19/19 15:40	04/20/19 09:30
10471602008	AY-SW-002-Effluent-1904	Water	04/19/19 15:55	04/20/19 09:30
10471602009	AY-SW-002-Influent-1904	Water	04/19/19 16:05	04/20/19 09:30

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SAMPLE ANALYTE COUNT

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Lab ID	Sample ID	Method	Analysts	Analyses Reported	Laboratory
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10471602001	AY-SW-006-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	DCL	1	PASI-M
10471602002	AY-SW-003-Effluent-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	DCL	1	PASI-M
10471602003	AY-SW-003-Influent-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	DCL	1	PASI-M
10471602004	AY-SW-004-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	DCL	1	PASI-M
10471602005	AY-SW-005-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	DCL	1	PASI-M
10471602006	AY-SW-001-Effluent-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	DCL	1	PASI-M
10471602007	AY-SW-001-Influent-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	JFP	1	PASI-M
10471602008	AY-SW-002-Effluent-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	JFP	1	PASI-M
10471602009	AY-SW-002-Influent-1904	NWTPH-DX	JVM	4	PASI-M
		EPA 200.8	PW1	2	PASI-M
		EPA 180.1	JFP	1	PASI-M
		SM 2540D	JFP	1	PASI-M

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PROJECT NARRATIVE

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Method: NWTPH-DX
Description: NWTPH-DX GCS LV
Client: UPRR-CH2M/Jacobs
Date: April 26, 2019

General Information:
9 samples were analyzed within the method required hold times with any exceptions noted below. The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA Mod. 3510C with any exceptions noted below.

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

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

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

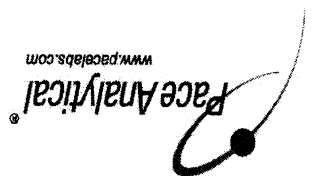
Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

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

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

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

Additional Comments:



PROJECT NARRATIVE

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Method: EPA 200.8
Description: 200.8 MET ICPMS
Client: UPRR-CH2M/Jacobs
Date: April 26, 2019

General Information:
9 samples were analyzed for EPA 200.8. All samples were received in acceptable condition with any exceptions noted below or on the chain-of-custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

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

Sample Preparation:
The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

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

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

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

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

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

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

Additional Comments:
Analyte Comments:

QC Batch: 600770
E: Analyte concentration exceeded the calibration range. The reported result is estimated.
• MS (Lab ID: 3247885)
• Zinc

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PROJECT NARRATIVE

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Method: EPA 180.1
Description: 180.1 Turbidity
Client: UPRR, CH2M/Jacobs
Date: April 26, 2019

General Information:
9 samples were analyzed for EPA 180.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of-custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.
Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

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

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

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

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

Additional Comments:



PROJECT NARRATIVE

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Method: SM 2540D
Description: 2540D Total Suspended Solids
Client: UPRR_CH2M/Jacobs
Date: April 26, 2019

General Information:
9 samples were analyzed for SM 2540D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of-custody and/or the sample receipt form (SCUR) attached at the end of this report.

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

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

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

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

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

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

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ANALYTICAL RESULTS

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Sample: AY-SW-006-1904									
Lab ID: 10471602001									
Collected: 04/19/19 13:30 Received: 04/20/19 09:30 Matrix: Water									
NWTPH-Dx GCS LV									
Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C									
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
Diesel Fuel Range	1.8	mg/L	0.39	1	04/23/19 11:03	04/24/19 15:58	68334-30-5		
Motor Oil Range	3.2	mg/L	0.39	1	04/23/19 11:03	04/24/19 15:58	68334-30-5		
Surrogates									
o-Terphenyl (S)	98	%	50-150	1	04/23/19 11:03	04/24/19 15:58	84-15-1		
n-Tricontane (S)	103	%	50-150	1	04/23/19 11:03	04/24/19 15:58	638-68-6		
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Copper	22.6	ug/L	1.0	1	04/23/19 09:37	04/24/19 15:37	7440-50-8		
Zinc	268	ug/L	5.0	1	04/23/19 09:37	04/24/19 15:37	7440-66-6		
180.1 Turbidity									
Analytical Method: EPA 180.1									
Turbidity	103	NTU	6.0	10		04/20/19 20:59			
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Total Suspended Solids	55.0	mg/L	10.0	1		04/25/19 13:48			
Sample: AY-SW-003-Effluent-1904									
Lab ID: 10471602002									
Collected: 04/19/19 13:45 Received: 04/20/19 09:30 Matrix: Water									
NWTPH-Dx GCS LV									
Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C									
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
Diesel Fuel Range	ND	mg/L	0.39	1	04/23/19 11:03	04/24/19 17:16	68334-30-5		
Motor Oil Range	ND	mg/L	0.39	1	04/23/19 11:03	04/24/19 17:16	68334-30-5		
Surrogates									
o-Terphenyl (S)	86	%	50-150	1	04/23/19 11:03	04/24/19 17:16	84-15-1		
n-Tricontane (S)	96	%	50-150	1	04/23/19 11:03	04/24/19 17:16	638-68-6		
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8									
Copper	1.1	ug/L	1.0	1	04/23/19 09:37	04/24/19 15:43	7440-50-8		
Zinc	9.7	ug/L	5.0	1	04/23/19 09:37	04/24/19 15:43	7440-66-6		
180.1 Turbidity									
Analytical Method: EPA 180.1									
Turbidity	1.6	NTU	0.60	1		04/20/19 21:02			
2540D Total Suspended Solids									
Analytical Method: SM 2540D									
Total Suspended Solids	ND	mg/L	10.0	1		04/25/19 13:48			

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ANALYTICAL RESULTS

Project: Seattle WA-Argo Yard SW

Pace Project No.: 10471602

Sample: AY-SW-003-Influent-1904		Lab ID: 10471602003	Collected: 04/19/19 14:05	Received: 04/20/19 09:30	Matrix: Water	CAS No.	Qual
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed

NWTPH-DX GCS LV

Analytical Method: NWTPH-DX Preparation Method: EPA Mod. 3510C

Surrogates

o-Terphenyl (S) 91 %

n-Triacontane (S) 101 %

200.8 MET ICPMS

Analytical Method: EPA 200.8 Preparation Method: EPA 200.8

Copper 38.8 ug/L

Zinc 540 ug/L

180.1 Turbidity

Analytical Method: EPA 180.1

Turbidity 190 NTU

2540D Total Suspended Solids

Analytical Method: SM 2540D

Total Suspended Solids 139 mg/L

Sample: AY-SW-004-1904

Lab ID: 10471602004

Collected: 04/19/19 14:30

Received: 04/20/19 09:30

Matrix: Water

Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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NWTPH-DX GCS LV

Analytical Method: NWTPH-DX Preparation Method: EPA Mod. 3510C

Diesel Fuel Range

Motor Oil Range

Surrogates

o-Terphenyl (S) 96 %

n-Triacontane (S) 99 %

200.8 MET ICPMS

Analytical Method: EPA 200.8 Preparation Method: EPA 200.8

Copper 36.4 ug/L

Zinc 355 ug/L

180.1 Turbidity

Analytical Method: EPA 180.1

Turbidity 166 NTU

2540D Total Suspended Solids

Analytical Method: SM 2540D

Total Suspended Solids 95.0 mg/L

Sample: AY-SW-005-1904

Lab ID: 10471602005

Collected: 04/19/19 15:00

Received: 04/20/19 09:30

Matrix: Water

Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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ANALYTICAL RESULTS

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Sample: AY-SW-005-1904 Lab ID: 10471602005 Collected: 04/19/19 15:00 Received: 04/20/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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NWTPH-Dx GCS LV

Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C

Surrogates
n-Triacontane (S)

99 % 50-150 1 04/23/19 11:03 04/24/19 16:31 638-68-6

200.8 MET ICPPMS

Analytical Method: EPA 200.8 Preparation Method: EPA 200.8

Copper 22.0 ug/L 1.0 1 04/23/19 09:37 04/24/19 16:11 7440-50-8
Zinc 263 ug/L 5.0 1 04/23/19 09:37 04/24/19 16:11 7440-66-6

180.1 Turbidity

Analytical Method: EPA 180.1

100 NTU 6.0 10 04/20/19 21:10

2540D Total Suspended Solids

Analytical Method: SM 2540D

49.0 mg/L 10.0 1 04/25/19 13:48

Sample: AY-SW-001-Effluent-1904 Lab ID: 10471602006 Collected: 04/19/19 15:35 Received: 04/20/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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NWTPH-Dx GCS LV

Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C

Surrogates
Diesel Fuel Range
Motor Oil Range

2.6 mg/L 0.39 1 04/23/19 11:03 04/24/19 16:43 68334-30-5
5.9 mg/L 0.39 1 04/23/19 11:03 04/24/19 16:43 68334-30-5

Surrogates
o-Terphenyl (S)
n-Triacontane (S)

97 % 50-150 1 04/23/19 11:03 04/24/19 16:43 84-15-1
103 % 50-150 1 04/23/19 11:03 04/24/19 16:43 638-68-6

200.8 MET ICPPMS

Analytical Method: EPA 200.8 Preparation Method: EPA 200.8

Copper 4.7 ug/L 1.0 1 04/23/19 09:37 04/24/19 16:17 7440-50-8
Zinc 47.7 ug/L 5.0 1 04/23/19 09:37 04/24/19 16:17 7440-66-6

180.1 Turbidity

Analytical Method: EPA 180.1

28.4 NTU 0.60 1 04/20/19 21:11

2540D Total Suspended Solids

Analytical Method: SM 2540D

11.0 mg/L 10.0 1 04/26/19 12:11

Sample: AY-SW-001-Influent-1904 Lab ID: 10471602007 Collected: 04/19/19 15:40 Received: 04/20/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
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NWTPH-Dx GCS LV

Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C

Surrogates
Diesel Fuel Range
Motor Oil Range

2.5 mg/L 0.39 1 04/23/19 11:03 04/24/19 17:38 68334-30-5
7.7 mg/L 0.39 1 04/23/19 11:03 04/24/19 17:38 68334-30-5

Surrogates
o-Terphenyl (S)
n-Triacontane (S)

104 % 50-150 1 04/23/19 11:03 04/24/19 17:38 84-15-1
104 % 50-150 1 04/23/19 11:03 04/24/19 17:38 638-68-6

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ANALYTICAL RESULTS

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Sample: AY-SW-001-Influent-1904		Lab ID: 10471602007	Collected: 04/19/19 15:40	Received: 04/20/19 09:30	Matrix: Water				
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

200.8 MET ICPPMS

Analytical Method: EPA 200.8 Preparation Method: EPA 200.8

Copper	29.7	ug/L	1.0	1	04/23/19 09:37	04/24/19 16:23	7440-50-8		
Zinc	401	ug/L	5.0	1	04/23/19 09:37	04/24/19 16:23	7440-66-6		
180.1 Turbidity		Analytical Method: EPA 180.1							
Turbidity		157	NTU	6.0	10		04/20/19 21:14		
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids		109	mg/L	10.0	1		04/26/19 12:11		

NWTFPH-DX GCS LV

Analytical Method: NWTFPH-DX Preparation Method: EPA Mod. 3510C

Diesel Fuel Range	0.56	mg/L	0.38	1	04/23/19 11:03	04/24/19 17:05	68334-30-5		
Motor Oil Range	1.1	mg/L	0.38	1	04/23/19 11:03	04/24/19 17:05			
Surrogates									
o-Terphenyl (S)	93	%	50-150	1	04/23/19 11:03	04/24/19 17:05	84-15-1		
n-Triacontane (S)	96	%	50-150	1	04/23/19 11:03	04/24/19 17:05	638-68-6		
200.8 MET ICPPMS		Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Copper	4.6	ug/L	1.0	1	04/23/19 09:37	04/24/19 16:29	7440-50-8		
Zinc	70.6	ug/L	5.0	1	04/23/19 09:37	04/24/19 16:29	7440-66-6		
180.1 Turbidity		Analytical Method: EPA 180.1							
Turbidity		37.2	NTU	0.60	1		04/20/19 21:15		
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids		10.0	mg/L	10.0	1		04/26/19 12:11		

Sample: AY-SW-002-Influent-1904

Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Lab ID: 10471602009		Collected: 04/19/19 16:05	Received: 04/20/19 09:30	Matrix: Water					

NWTFPH-DX GCS LV

Analytical Method: NWTFPH-DX Preparation Method: EPA Mod. 3510C

Diesel Fuel Range	2.6	mg/L	0.38	1	04/23/19 11:03	04/24/19 16:54	68334-30-5		
Motor Oil Range	7.9	mg/L	0.38	1	04/23/19 11:03	04/24/19 16:54			
Surrogates									
o-Terphenyl (S)	102	%	50-150	1	04/23/19 11:03	04/24/19 16:54	84-15-1		
n-Triacontane (S)	100	%	50-150	1	04/23/19 11:03	04/24/19 16:54	638-68-6		
200.8 MET ICPPMS		Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
Copper	27.9	ug/L	1.0	1	04/23/19 09:37	04/24/19 16:35	7440-50-8		
Zinc	427	ug/L	100	20	04/23/19 09:37	04/24/19 16:38	7440-66-6		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project: Seattle WA-Argo Yard SW
 Pace Project No.: 10471602

Sample: AY-SW-002-Influent-1904							
Lab ID: 10471602009		Collected: 04/19/19 16:05		Received: 04/20/19 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.
<hr/>							
180.1 Turbidity	Analytical Method: EPA 180.1						
Turbidity	186	NTU	6.0	10		04/20/19 21:18	
2540D Total Suspended Solids	Analytical Method: SM 2540D						
Total Suspended Solids	132	mg/L	10.0	1		04/26/19 12:11	

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QUALITY CONTROL DATA

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

QC Batch:	600770	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Samples: 10471602001, 10471602002, 10471602003, 10471602004, 10471602005, 10471602006, 10471602007, 10471602008, 10471602009			

METHOD BLANK: 3247881	Matrix: Water	Associated Lab Samples: 10471602001, 10471602002, 10471602003, 10471602004, 10471602005, 10471602006, 10471602007, 10471602008, 10471602009
-----------------------	---------------	---

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
Copper	ug/L	ND	1.0	04/24/19 14:28	
Zinc	ug/L	ND	5.0	04/24/19 14:28	

LABORATORY CONTROL SAMPLE: 3247882					
Parameter	Units	Spike	LCS	% Rec	Qualifiers
Copper	ug/L	100	107	85-115	
Zinc	ug/L	100	101	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3247883 3247884											
Parameter	Units	MS	Spike	Conc.	Result	MSD	MS	% Rec	MSD	% Rec	Qual
Copper	ug/L	100	100	100	130	128	104	98	102	70-130	1 20
Zinc	ug/L	100	100	100	289	286	98	95	102	70-130	1 20

MATRIX SPIKE SAMPLE: 3247885											
Parameter	Units	10471602003	Spike	Conc.	Result	MS	MS	% Rec	% Rec	Limits	Qualifiers
Copper	ug/L	38.8	100	100	147	108	108	127	108	70-130	
Zinc	ug/L	540	100	100	667	127	127	127	127	70-130 E	

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REPORT OF LABORATORY ANALYSIS

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Date: 04/26/2019 05:17 PM

QUALITY CONTROL DATA

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

QC Batch: 601110	Analysis Method: NMTPH-DX
QC Batch Method: EPA Mod. 3510C	Analysis Description: NMTPH-DX GCS LV
Associated Lab Samples: 10471602001, 10471602002, 10471602003, 10471602004, 10471602005, 10471602006, 10471602007, 10471602008, 10471602009	

METHOD BLANK: 3248973

Matrix: Water

Associated Lab Samples: 10471602001, 10471602002, 10471602003, 10471602004, 10471602005, 10471602006, 10471602007, 10471602008, 10471602009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	mg/L	ND	0.40	04/24/19 15:12	
Motor Oil Range	mg/L	ND	0.40	04/24/19 15:12	
n-Triacotane (S)	%	93	50-150	04/24/19 15:12	
o-Terphenyl (S)	%	94	50-150	04/24/19 15:12	

LABORATORY CONTROL SAMPLE & LCSD: 3248974

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	% Rec	LCS % Rec	LCSD % Rec	Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	mg/L	2	1.8	2.0	91	98	98	50-150	7		
Motor Oil Range	mg/L	2	1.9	2.1	96	104	104	50-150	8		
n-Triacotane (S)	%				99	102	102	50-150			
o-Terphenyl (S)	%				89	96	96	50-150			

SAMPLE DUPLICATE: 3248976

Parameter	Units	10471602001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	mg/L	1.8	1.7	2	30	
Motor Oil Range	mg/L	3.2	3.0	6	30	
n-Triacotane (S)	%	103	102			
o-Terphenyl (S)	%	98	97			

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QUALITY CONTROL DATA

Project: Seattle WA-Argo Yard SW
Face Project No.: 10471602

QC Batch:	600751	Analysis Method:	EPA 180.1
QC Batch Method:	EPA 180.1	Analysis Description:	180.1 Turbidity
Associated Lab Samples: 10471602001, 10471602002, 10471602003, 10471602004, 10471602005, 10471602006, 10471602007, 10471602008, 10471602009			

METHOD BLANK: 3247806			
Matrix: Water			
Associated Lab Samples: 10471602001, 10471602002, 10471602003, 10471602004, 10471602005, 10471602006, 10471602007, 10471602008, 10471602009			
Parameter	Units	Blank Result	Reporting Limit
Turbidity	NTU	ND	0.60
		Analyzed	04/20/19 21:01
		Qualifiers	

LABORATORY CONTROL SAMPLE: 3247807			
Parameter	Units	Spike Conc.	LCS Result
Turbidity	NTU	10.1	9.5
		% Rec	LCS
		% Rec Limits	94
		Qualifiers	90-110

SAMPLE DUPLICATE: 3247808			
Parameter	Units	Dup Result	Max RPD
Turbidity	NTU	103	100
		Result	RPD
		Qualifiers	3
		Qualifiers	20

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

REPORT OF LABORATORY ANALYSIS

QUALITY CONTROL DATA

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

QC Batch:	601671	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples:	10471602001, 10471602002, 10471602003, 10471602004, 10471602005		

METHOD BLANK:	3251779	Matrix:	Water
Associated Lab Samples:	10471602001, 10471602002, 10471602003, 10471602004, 10471602005		
Parameter	Units	Blank Reporting Limit	Analyzed
Total Suspended Solids	mg/L	ND	10.0 04/25/19 13:48

LABORATORY CONTROL SAMPLE:	3251780	Spike	LCS	Result	% Rec	Limits	Qualifiers
Parameter	Units	Conc.	Result	% Rec	108	80-120	
Total Suspended Solids	mg/L	100	108	108			

SAMPLE DUPLICATE:	3251781	10471565004	Dup	Result	ND	Max	Qualifiers
Parameter	Units	Result	Dup	Result	ND	RPD	
Total Suspended Solids	mg/L	5.0J	ND			RPD	5

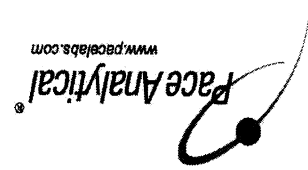
SAMPLE DUPLICATE:	3251782	10471565005	Dup	Result	8.0J	Max	Qualifiers
Parameter	Units	Result	Dup	Result	8.0J	RPD	
Total Suspended Solids	mg/L	13.0				RPD	5

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QUALITY CONTROL DATA

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

QC Batch:	602021	Analysis Method:	SM 2540D
QC Batch Method:	SM 2540D	Analysis Description:	2540D Total Suspended Solids
Associated Lab Samples: 10471602006, 10471602007, 10471602008, 10471602009			

METHOD BLANK: 3254036			
Matrix: Water			
Associated Lab Samples: 10471602006, 10471602007, 10471602008, 10471602009			
Parameter	Units	Blank Result	Reporting Limit
Total Suspended Solids	mg/L	ND	10.0
04/26/19 12:11			
Parameter	Units	Max RPD	Qualifiers
Total Suspended Solids	mg/L	0	5

LABORATORY CONTROL SAMPLE: 3254037			
Parameter	Units	Spike Conc.	LCS Result
Total Suspended Solids	mg/L	100	94.0
Parameter	Units	% Rec	Limits
Total Suspended Solids	mg/L	94	80-120
Qualifiers			

SAMPLE DUPLICATE: 3254038			
Parameter	Units	Dup Result	RPD
Total Suspended Solids	mg/L	11.0	0
Parameter	Units	Max RPD	Qualifiers
Total Suspended Solids	mg/L	11.0	5

SAMPLE DUPLICATE: 3254039			
Parameter	Units	Dup Result	RPD
Total Suspended Solids	mg/L	ND	ND
Parameter	Units	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	5

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QUALIFIERS

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAP Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

ANALYTE QUALIFIERS

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Seattle WA-Argo Yard SW
Pace Project No.: 10471602

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10471602001	AY-SW-006-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602002	AY-SW-003-Effluent-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602003	AY-SW-003-Influent-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602004	AY-SW-004-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602005	AY-SW-005-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602006	AY-SW-001-Effluent-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602007	AY-SW-001-Influent-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602008	AY-SW-002-Effluent-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602009	AY-SW-002-Influent-1904	EPA Mod. 3510C	601110	NWTPH-DX	601466
10471602001	AY-SW-006-1904	EPA 200.8	600770	EPA 200.8	601548
10471602002	AY-SW-003-Effluent-1904	EPA 200.8	600770	EPA 200.8	601548
10471602003	AY-SW-003-Influent-1904	EPA 200.8	600770	EPA 200.8	601548
10471602004	AY-SW-004-1904	EPA 200.8	600770	EPA 200.8	601548
10471602005	AY-SW-005-1904	EPA 200.8	600770	EPA 200.8	601548
10471602006	AY-SW-001-Effluent-1904	EPA 200.8	600770	EPA 200.8	601548
10471602007	AY-SW-001-Influent-1904	EPA 200.8	600770	EPA 200.8	601548
10471602008	AY-SW-002-Effluent-1904	EPA 200.8	600770	EPA 200.8	601548
10471602009	AY-SW-002-Influent-1904	EPA 200.8	600770	EPA 200.8	601548
10471602001	AY-SW-006-1904	EPA 180.1	600751		600751
10471602002	AY-SW-003-Effluent-1904	EPA 180.1	600751		600751
10471602003	AY-SW-003-Influent-1904	EPA 180.1	600751		600751
10471602004	AY-SW-004-1904	EPA 180.1	600751		600751
10471602005	AY-SW-005-1904	EPA 180.1	600751		600751
10471602006	AY-SW-001-Effluent-1904	EPA 180.1	600751		600751
10471602007	AY-SW-001-Influent-1904	EPA 180.1	600751		600751
10471602008	AY-SW-002-Effluent-1904	EPA 180.1	600751		600751
10471602009	AY-SW-002-Influent-1904	EPA 180.1	600751		600751
10471602001	AY-SW-006-1904	SM 2540D	601671		601671
10471602002	AY-SW-003-Effluent-1904	SM 2540D	601671		601671
10471602003	AY-SW-003-Influent-1904	SM 2540D	601671		601671
10471602004	AY-SW-004-1904	SM 2540D	601671		601671
10471602005	AY-SW-005-1904	SM 2540D	601671		601671
10471602006	AY-SW-001-Effluent-1904	SM 2540D	602021		602021
10471602007	AY-SW-001-Influent-1904	SM 2540D	602021		602021
10471602008	AY-SW-002-Effluent-1904	SM 2540D	602021		602021
10471602009	AY-SW-002-Influent-1904	SM 2540D	602021		602021

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTO

WO# : 10471602



Page : 1 Of 1

Section A

Required Client Information:

Company: Jacobs
Address: 1100 112th Ave NE
Suite 500, Bellevue, WA 98004
Email: mario.lopez@jacobs.com
Phone: 425-530-1143
Fax: Standard
Requested Due Date: Standard

Section B

Required Project Information:

Report To: Candice Schwartz@jacobs.com
Copy To: Mario.Lopez@jacobs.com
Purchase Order #: PEDD# 2356-01
Project Name: Seattle WA-Argo Yard SW
Project #:

Section C

Invoice Info

Attention: UPRR
Company Name: UPRR
Address: 301 NE 2nd Ave, Portland, OR 97232
Pace Quote: 758938
Pace Project Manager: Jennifer.gross@pacelabs.com
Pace Profile #: 31423 #1

Regulatory Agency
WA Dept of Ecology
State / Location
WA / Seattle

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX		CODE		COLLECTED		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	DATE		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analyses Test	Y/N	Residual Chlorine (Y/N)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Drinking Water	Waste Water	Product	Seawater	Oil	Mix			Other	TS			DW	WT	P	SL	OL	WP	AR				OT	TS	START	END																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER: MARIO LOPEZ PAVAS			
SIGNATURE of SAMPLER:	DATE Signed: 4/19/2019		
TEMP IN C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Document Name: Sample Condition Upon Receipt Form
Document No.: F-MN-L-213-rev.27
Document Revised: 05Apr.2019
Page 1 of 1
Issuing Authority: Pace Minnesota Quality Office

Client Name: **Jacobs**
Sample Condition Upon Receipt

Counter: **Jacobs**
Tracking Number: **1867 6466 3289/3278**
Client: ☒ Red Ex ☐ UPS ☐ USPS ☐ Client ☐ See Exception

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No
Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ Other: ☐ None
Thermometer: ☒ T1(0461) ☐ T2(1336) ☐ T3(0459) ☐ T4(0254) ☐ T5(0048)
Note: Each West Virginia Sample must have temp taken (no temp blanks)
Temp should be above freezing to 6°C
Cooler Temp Read w/temp blank: **0.1, 0.5 °C**
Cooler Temp Corrected w/temp blank: **0.1, 0.5 °C**

Correction Factor: **None**
USDA Regulated Soil: ☒ N/A, water sample/Other:
Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, HI, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☒ No
If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

Date/Initials of Person Examining Contents: **4/26/19**
Date/Initials of Person Examining Contents: **4/26/19**
Average Corrected Temp (no temp blank only): ☐ See Exceptions

Chain of Custody Present and Filled Out? ☒ Yes ☐ No
Chain of Custody Relinquished? ☒ Yes ☐ No
Sampler Name and/or Signature on COC? ☒ Yes ☐ No
Samples Arrived within Hold Time? ☒ Yes ☐ No
Short Hold Time Analysis (<72 hr)? ☒ Yes ☐ No
Rush Turn Around Time Requested? ☒ Yes ☐ No
Correct Containers Used? ☒ Yes ☐ No
-Pace Containers Used? ☒ Yes ☐ No
Containers Intact? ☒ Yes ☐ No
Field Filtered Volume Received for Dissolved Tests? ☒ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? ☒ Yes ☐ No
Matrix: ☒ Water ☐ Soil ☐ Other
All containers needing acid/base preservation have been checked? ☒ Yes ☐ No
All containers needing preservation are found to be in compliance with EPA recommendation? ☒ Yes ☐ No
(HNO₃, H₂SO₄, <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, ORP/8015 (water) and Dioxin/PFAS
Headspace in VOA Vials (greater than 6mm)? ☒ Yes ☐ No
Trip Blank Present? ☒ Yes ☐ No
Trip Blank Custody Seals Present? ☒ Yes ☐ No

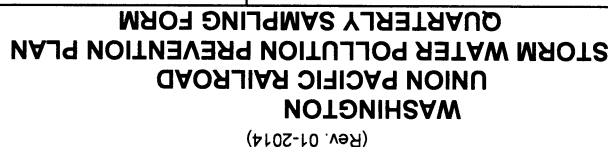
CLIENT NOTIFICATION/RESOLUTION
1. Chain of Custody Present and Filled Out? ☒ Yes ☐ No
2. Chain of Custody Relinquished? ☒ Yes ☐ No
3. Sampler Name and/or Signature on COC? ☒ Yes ☐ No
4. Samples Arrived within Hold Time? ☒ Yes ☐ No
5. Short Hold Time Analysis (<72 hr)? ☒ Yes ☐ No
6. Rush Turn Around Time Requested? ☒ Yes ☐ No
7. Correct Containers Used? ☒ Yes ☐ No
8. -Pace Containers Used? ☒ Yes ☐ No
9. Containers Intact? ☒ Yes ☐ No
10. Field Filtered Volume Received for Dissolved Tests? ☒ Yes ☐ No
11. Is sufficient information available to reconcile the samples to the COC? ☒ Yes ☐ No
12. Matrix: ☒ Water ☐ Soil ☐ Other
13. All containers needing acid/base preservation have been checked? ☒ Yes ☐ No
14. All containers needing preservation are found to be in compliance with EPA recommendation? ☒ Yes ☐ No
(HNO₃, H₂SO₄, <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, ORP/8015 (water) and Dioxin/PFAS
15. Headspace in VOA Vials (greater than 6mm)? ☒ Yes ☐ No
16. Trip Blank Present? ☒ Yes ☐ No
17. Trip Blank Custody Seals Present? ☒ Yes ☐ No
18. 12. Sample #
19. Positive for Res. Chlorine? ☒ Yes ☐ No
20. Res. Chlorine 0-6 Roll ☒ Yes ☐ No
21. pH Paper Lot# **203619**
22. 0-6 Strip ☒ Yes ☐ No
23. 0-14 Strip ☒ Yes ☐ No
24. Pace Trip Blank Lot # (if purchased): ☒ See Exception
25. Field Data Required? ☐ Yes ☒ No
26. Date/Time: **04/22/2019**
27. Project #: **W0#: 10471602**
28. PM: **JMG**
29. Due Date: **05/03/19**
30. CLIENT: **UPRR-CH2M**



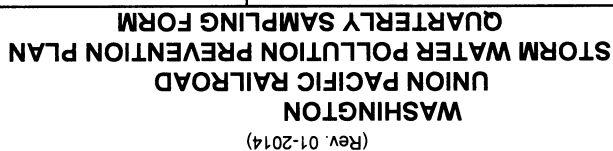
WASHINGTON
UNION PACIFIC RAILROAD
STORM WATER POLLUTION PREVENTION PLAN
QUARTERLY SAMPLING FORM

(Rev. 01-2014)

Location: Seattle, WA		Facility Name: Argo Yard		System A	
Date: 4/19/2019		Name: Mario Lopez Ramos, Candice Schwartz		Sample: Quarterly	
Sample date: 4/19/2019		Date of last sample: 1/9/2019		Proposed date of next sample: 2nd QTR or Additional if needed	
Sample ID: AY-SW-001-Influent-1904		Sample Time: 1540		Method (grab or composite): Grab	
Additional Sample IDs: AY-SW-001-Effluent-1904		(Vault A)		Grab	
Date and time samples were sent to lab: 4/19/2019 17:00:00 PM					
Example Sample ID: AY-SW-001-YYMM					
COMMENTS ~ 54°F, Light Rain					
Relinquished to Federal Express for Saturday delivery to lab.					
OBSERVATION OF DISCHARGE					
Visible observe the sample for the following: For any YES response describe the type of pollution, source, and corrective action.					
Influent		Effluent		Influent	
Oil sheen?	X	N	X	Slight sheen	
Turbidity?	X	X	X	High	
Discoloration?	X	X	X	Dark gray	Slightly cloudy
Floating material?	X	X	X	White specks	
Odor?	X	X	X		
Other?	X	X	X		
STORM EVENT INFORMATION					
Permittees shall collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why samples could not be collected. Sampling is not required outside of regular business hours or in unsafe conditions.					
Time storm event began: 4/19/2019 12:53					
12 hours after storm event began: 4/20/2019 0:53					
Storm rainfall amount at the time of sampling (inches): 0.08					
Sample collected in first 12 hours of discharge? X YES NO					
If no, describe why sample could not be collected.					
SAMPLE FIELD READINGS					
Oil Sheen (REQUIRED): Was and oil sheen observed in the sample? Benchmark: Visible Oil Sheen					
pH (REQUIRED): Was the field reading taken using a meter or pH paper? (METER/PAPER)					
Turbidity: What was the field reading? Benchmark: 5.0-9.0 SU					
Turbidity: Was a turbidity field reading taken? (YES/NO)					
Turbidity: If YES, what was the field reading? Benchmark: 25 NTU					
Other: Were other field readings taken? (YES/NO)					
If yes, describe: Visual: oil sheen, discoloration, floating material, and odors.					
SAMPLE LABORATORY ANALYSIS					
Parameter					
Method					
Preservation					
Container					
Influent					
Effluent					
Turbidity					
EPA 180.1					
None					
(shared with TSS)					
1 - 500 ml, non-preserved poly					
Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.					
HNO3 to pH less than 2.4°C					
1 - 250 ml HNO3 poly - shared					
EPA 200.8					
HNO3 to pH less than 2.4°C					
1 - 250 ml HNO3 poly - shared					
Copper, Total (REQUIRED)					
EPA 200.8					
HNO3 to pH less than 2.4°C					
1 - 250 ml Amber HCL					
Other					
NMTPH-DX					
SM2540					
None					
1 - 500 ml, non-preserved poly					
(shared with Turbidity)					
Other					
TSS					



Date:		4/19/2019		Mario Lopez Ramos, Candice Schwartz		First Fall Event		Other	
Sample ID:		AY-SW-002-Influent-1904		AY-SW-002-Effluent-1904		(Vault B)		(Vault B)	
Sample date		4/19/2019		Date of last sample		1/9/2019		Proposed date of next sample	
2nd QTR or Additional if needed									
Method (grab)		Grab		Grab		or composite)		Grab	
Sample ID		AY-SW-002-Influent-1904		AY-SW-002-Effluent-1904		(Vault B)		(Vault B)	
Additional Sample IDs									
Date and time samples were sent to lab		4/19/2019 17:00:00 PM		Example Sample ID: AY-SW-001-YYMM					
COMMENTS		~ 54°F, Light Rain		Reinquished to Federal Express for Saturday delivery to lab					
OBSERVATION OF DISCHARGE									
Visible observe the sample for the following:									
For any YES response describe the type of pollution, source, and corrective action:									
STORM EVENT INFORMATION									
Permittees shall collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why samples could not be collected. Sampling is not required outside of regular business hours or in unsafe conditions.									
Time storm event began									
12 hours after storm event began									
Storm rainfall amount at the time of sampling (inches)									
Sample collected in first 12 hours of discharge?									
If no, describe why sample could not be collected.									
STORM FIELD READINGS									
pH (REQUIRED):									
Was the field reading taken using a meter or pH paper? (METER/PAPER)									
Oil Sheen (REQUIRED):									
Was and oil sheen observed in the sample?									
Benchmark: Visible Oil Sheen									
Turbidity*:									
Was a turbidity field reading taken? (YES/NO)									
Benchmark: 25 NTU									
If YES, what was the field reading?									
Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.									
Other:									
Were other field readings taken? (YES/NO)									
If Yes, describe:									
SAMPLE LABORATORY ANALYSIS									
Parameter									
Method									
Preservation									
Container									
Influent									
Effluent									



Source Area:	System E	Sample:	Quarterly
Facility Name:	Argo Yard	Name:	Mario Lopez Ramos, Candice Schwartz
Location:	Seattle, WA	Date:	4/19/2019
			First Fall Event
			Other

Sample date	Sample ID	Additional Sample IDs
4/19/2019	AY-SW-005-1904	
Date of last sample	Sample Time	Method (grab or composite)
N/A	15:00	Grab
Proposed date of next sample		
2nd Q TR or additional if needed		

COMMENTS ~ 54°F, Light Rain
Relinquished to Federal Express for Saturday delivery to lab.
Very deep Sample location, Need an extra large sample pole to collect sample.

Oil sheen?	Y	N
slight oil sheen observed	X	

Visible observe the sample for the following:

For any YES response describe the type of pollution, source, and corrective action:

<p>stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling</p>
<p>Permittees shall collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a</p>
<p>STORM EVENT INFORMATION</p>

Permittees shall collect samples within the first 12 hours of stormwater discharge events, if it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why samples could not be collected. Sampling is not required outside of regular business hours or in unsafe conditions.

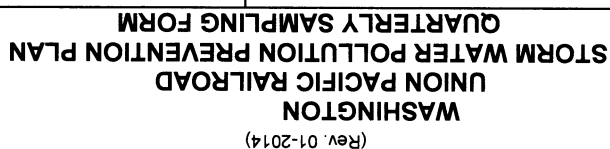
SAMPLE FIELD READINGS	

Oil Sheen (REQUIRED):	Was and oil sheen observed in the sample?	Benchmark: Visible Oil Sheen	Yes
pH (REQUIRED):	Was the field reading taken using a meter or pH paper? (METER/PAPER)	Paper	

Parameter	Method	Preservation	Container
SAMPLE LABORATORY ANALYSIS			

Parameter	Method	Preservation	Container
Turbidity*	EPA 180.1	None	1 - 500 ml, non-preserved poly (shared with TSS)
*Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.			
			X

Other	TSS	SM2540	None	1 - 500 ml, non-pressured poly (shared with Turbidity)	X
Other	NWTPH/DX	NWTPH-DX	HCL to pH less than 2, 4°C	2 - 250 ml Amber HCL	X
Copper, Total (REQUIRED)	EPA 200.8		HN03 to pH less than 2, 4°C	1 - 250 ml HN03 poly - shared	X
Zinc, Total (REQUIRED)	EPA 200.8		HN03 to pH less than 2, 4°C	1 - 250 ml HN03 poly - shared	X



WASHINGTON UNION PACIFIC RAILROAD STORM WATER POLLUTION PREVENTION PLAN QUARTERLY SAMPLING FORM									
Date: 4/19/2019		Name: Mario Lopez Ramos, Candice Schwartz		Sample: Quarterly		First Fall Event		Other	
Location: Seattle, WA		Facility Name: Argo Yard		System F		Source Area:		Sample ID: AY-SW-003-Influent-1904	
Date of last sample: 1/9/2019		Proposed date of next sample: 4/19/2019		Sample Time: 14:05		Method (grab or composite): Grab		2nd QTR or Additional if needed	
Date and time samples were sent to lab: 4/19/2019 17:00:00 PM		Example Sample ID: AY-SW-001-YYMM		COMMENTS ~ 55°F, Light Rain		Relinquished to Federal Express for Saturday delivery to lab.		Additional Sample IDs	
OBSERVATION OF DISCHARGE									
Visible observe the sample for the following: For any YES response describe the type of pollution, source, and corrective action:									
Influent		Effluent		Influent		Effluent		Influent	
Oil sheen?	X	Y	N	Visual sheen	X	Y	N	Dark brown	X
Turbidity?	X			Significant turbid	X				
Discoloration?	X				X				
Floating material?	X				X				
Odors?	X				X				
Other?	X				X				
SAMPLE FIELD READINGS									
Permittees shall collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why samples could not be collected. Sampling is not required outside of regular business hours or in unsafe conditions.									
Time storm event began 4/19/2019 12:53									
12 hours after storm event began 4/20/2019 0:53									
Storm rainfall amount at the time of sampling (inches) 0.06									
Sample collected in first 12 hours of discharge? X YES NO									
If no, describe why sample could not be collected.									
SAMPLE LABORATORY ANALYSIS									
Parameter									
Method	Preservation	Container	Influent	Effluent	Parameter	Method	Preservation	Container	Influent
EPA 180.1	None	1 - 500 ml, non-preserved poly (shared with TSS)	X	X	Turbidity*	EPA 180.1	None	1 - 500 ml, non-preserved poly (shared with TSS)	X
EPA 200.8	HNO3 to pH less than 2; 4°C	1 - 250 ml HNO3 poly - shared	X	X	Zinc, Total (REQUIRED)	EPA 200.8	HNO3 to pH less than 2; 4°C	1 - 250 ml HNO3 poly - shared	X
EPA 200.8	HNO3 to pH less than 2; 4°C	1 - 250 ml HNO3 poly - shared	X	X	Copper, Total (REQUIRED)	EPA 200.8	HNO3 to pH less than 2; 4°C	1 - 250 ml HNO3 poly - shared	X
NWTPH-DX	HCL to pH less than 2; 4°C	2 - 250 ml Amber HCL	X	X	Other	NWTPH-DX	HCL to pH less than 2; 4°C	2 - 250 ml Amber HCL	X
TSMS40	None	1 - 500 ml, non-preserved poly (shared with Turbidity)	X	X	Other	TSMS40	None	1 - 500 ml, non-preserved poly (shared with Turbidity)	X
If YES, describe: Visual: oil sheen, discoloration, floating material, and odors.									
Turbidity*: Was a turbidity field reading taken? (YES/NO) No									
If YES, what was the field reading? Benchmark: 25 NTU									
*Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.									
Other: Were other field readings taken? (YES/NO) Yes									
pH (REQUIRED): Was the field reading taken using a meter or pH paper? (METER/PAPER) Paper									
Oil Sheen (REQUIRED): Was and oil sheen observed in the sample? Benchmark: Visible Oil Sheen Yes									
pH (REQUIRED): Was the field reading taken using a meter or pH paper? (METER/PAPER) Paper									
What was the field reading? Benchmark: 5.0-9.0 SU									
Turbidity*: Was a turbidity field reading taken? (YES/NO) No									
If YES, what was the field reading? Benchmark: 25 NTU									
*Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.									
Other: Were other field readings taken? (YES/NO) Yes									
If YES, describe: Visual: oil sheen, discoloration, floating material, and odors.									



WASHINGTON
UNION PACIFIC RAILROAD
STORM WATER POLLUTION PREVENTION PLAN
QUARTERLY SAMPLING FORM

(Rev. 01-2014)

Location: Seattle, WA		Facility Name: Argo Yard		System G		Sample: Quarterly		Date: 4/19/2019		Name: Mario Lopez Ramos, Candice Schwartz		Other: First Fall Event	
Sample date		4/19/2019		Date of last sample		N/A		Proposed date of next sample		2nd QTR or Additional if needed		Sample ID	
AY-SW-004-1904								Sample Time		14:30		Method (grab or composite)	
Grab													
Additional Sample IDs													
Date and time samples were sent to lab		4/19/2019 17:00:00 PM		Example Sample ID: AY-SW-001-YMM									
COMMENTS ~ 55°F, Light Rain													
Reinforced to Federal Express for Saturday delivery to lab													
OBSERVATION OF DISCHARGE													
Visible observe the sample for the following: For any YES response describe the type of pollution, source, and corrective action.													
Oil sheen? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N													
Turbidity? <input checked="" type="checkbox"/> X <input type="checkbox"/>													
Discoloration? <input checked="" type="checkbox"/> X <input type="checkbox"/>													
Floating material? <input checked="" type="checkbox"/> X <input type="checkbox"/>													
Odors? <input checked="" type="checkbox"/> X <input type="checkbox"/>													
Other? <input checked="" type="checkbox"/> X <input type="checkbox"/>													
Permittees shall collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why samples could not be collected. Sampling is not required outside of regular business hours or in unsafe conditions.													
Time storm event began 4/19/2019 12:53													
12 hours after storm event began 4/20/2019 0:53													
Storm rainfall amount at the time of sampling (inches) 0.06													
Sample collected in first 12 hours of discharge? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO													
If no, describe why sample could not be collected.													
SAMPLE FIELD READINGS													
Oil Sheen (REQUIRED): Was and oil sheen observed in the sample? Benchmark: Visible Oil Sheen <input type="checkbox"/> No <input type="checkbox"/> Paper													
pH (REQUIRED): Was the field reading taken using a meter or pH paper? (METER/PAPER) <input type="checkbox"/> Paper													
Turbidity*: Was a turbidity field reading taken? (YES/NO) Benchmark: 5.0-9.0 SU 6.75 SU <input type="checkbox"/> No <input type="checkbox"/> NA NTU													
Other: Were other field readings taken? (YES/NO) <input type="checkbox"/> Yes <input type="checkbox"/> No													
If YES, what was the field reading? Benchmark: 25 NTU													
*Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.													
SAMPLE LABORATORY ANALYSIS													
Parameter Method Preservation Container													
Turbidity* EPA 180.1 None 1 - 500 mL, non-preserved poly (shared with TSS) <input type="checkbox"/> X													
*Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.													
Zinc, Total (REQUIRED) EPA 200.8 HNO3 to pH less than 2; 4°C 1 - 250 mL HNO3 poly - shared <input type="checkbox"/> X													
Copper, Total (REQUIRED) EPA 200.8 HNO3 to pH less than 2; 4°C 1 - 250 mL HNO3 poly - shared <input type="checkbox"/> X													
Other NMT/PH/DX NMT/PH-DX HCL to pH less than 2; 4°C 2 - 250 mL Amber HCL <input type="checkbox"/> X													
Other TSS SM2540 None 1 - 500 mL, non-preserved poly (shared with Turbidity) <input type="checkbox"/> X													



WASHINGTON
UNION PACIFIC RAILROAD
STORM WATER POLLUTION PREVENTION PLAN
QUARTERLY SAMPLING FORM

(Rev. 01-2014)

Location:	Seattle, WA	Date:	4/19/2019
Facility Name:	Argo Yard	Name:	Mario Lopez Ramos, Candice Schwartz
Source Area:	System H	Sample:	Quarterly

SAMPLE REPORT

Sample date	4/19/2019	Date of last sample	N/A	Proposed date of next sample	13:30	2nd QTR or Additional if needed	Grab
Sample ID	AY-SW-006-1904	Sample Time		Method (grab or composite)			
Additional Sample IDs							

Date and time samples were sent to lab	4/19/2019 17:00:00 PM	Example Sample ID: AY-SW-001-YYMM
COMMENTS	~ 55°F, Light Rain Relinquished to Federal Express for Saturday delivery to lab.	

OBSERVATION OF DISCHARGE

Visible observe the sample for the following:

Oil sheen?	X
Turbidity?	X
Discoloration?	X
Floating material?	X
Odors?	X
Other?	X

For any YES response describe the type of pollution, source, and corrective action:

High	Light brown

STORM EVENT INFORMATION

Permittees shall collect samples within the first 12 hours of stormwater discharge events. If it is not possible to collect a sample within the first 12 hours of a stormwater discharge event, the Permittee must collect the sample as soon as practicable after the first 12 hours, and keep documentation with the sampling records explaining why samples could not be collected. Sampling is not required outside of regular business hours or in unsafe conditions.

Time storm event began 4/19/2019 12:53

12 hours after storm event began 4/20/2019 0:53

Storm rainfall amount at the time of sampling (inches) 0.03

Sample collected in first 12 hours of discharge? X YES NO

If no, describe why sample could not be collected:

SAMPLE FIELD READINGS

Oil Sheen (REQUIRED):	Was and oil sheen observed in the sample?	Benchmark: Visible Oil Sheen	No
pH (REQUIRED):	Was the field reading taken using a meter or pH paper? (METER/PAPER)	Paper	
Turbidity:	What was the field reading?	Benchmark: 5.0-9.0 SU	6.75 SU
	Was a turbidity field reading taken? (YES/NO)		No
Other:	If YES, what was the field reading?	Benchmark: 25 NTU	NA NTU
	Turbidity is a required reporting parameter. If a field reading is NOT taken, submit a sample for laboratory analysis.		
	Were other field readings taken? (YES/NO)		Yes
	If yes, describe:	Visual: oil sheen, discoloration, floating material, and odors.	

SAMPLE LABORATORY ANALYSIS

Parameter	Method	Preservation	Container
Turbidity*	EPA 180.1	None	1 - 500 ml, non-preserved poly (shared with TSS)
Zinc, Total (REQUIRED)	EPA 200.8	HNO3 to pH less than 2, 4°C	1 - 250 ml HNO3 poly - shared
Copper, Total (REQUIRED)	EPA 200.8	HNO3 to pH less than 2, 4°C	1 - 250 ml HNO3 poly - shared
Other	NWTPH/DX	HCL to pH less than 2, 4°C	2 - 250 ml Amber HCL
TSS	SM2540	None	1 - 500 ml, non-preserved poly (shared with Turbidity)



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DEPARTMENT OF ECOLOGY

SEP 03 2019

WATER QUALITY PROGRAM

August 27, 2019

Mr. Jeff Killela
Department of Ecology
PO Box 47600
Olympia, WA 98504-7600

Facility Permit No: WAR001155

Dear Jeff:

Attached please find the 2Q2019 Discharge Monitoring Report for Union Pacific Railroad CO Dawson St Argo facility, permit No. WAR001155. Union Pacific recently added additional regulated outfalls to the SWPPP and has updated the Department of Ecology with those changes. We are currently unable to upload the full report to the Water Quality Permitting Portal due to a validation error and needing the additional outfalls to be added.

Please reach out to Rachael Fisher and myself with any questions. Rachael is our new environmental manager for the Pacific Northwest and will be your point of contact regarding this facility going forward.

Rachael Fisher
301 NE 2nd Avenue
Portland, OR, 97232
Phone: 503-249-3042
Email: rafisher@up.com

Sincerely,

Amber Nickens
Director – Fuel and Environmental Operations
Northwest
916-261-9553
avnicken@up.com