

Rhode Island Airport Corporation

Second Quarter 2019 Outfall Sampling T.F. Green Airport

> Prepared by: Rhode Island Airport Corporation

> > July 2019

Background

The RIPDES permit identifies a total of 16 perimeter outfalls at PVD. Outfalls 001A, 002A, 003A, 004A and 013A discharge to tributaries of Warwick Pond. Outfalls, 006A, 006B, 006C, 006D, 007A, 007B, 008A and 009A discharge to tributaries of Buckeye Brook downstream of Warwick Pond. Outfalls 010A, 011A, and 012A discharge to Tuscatucket Brook. Major outfalls, 002A, 003A, 008A, and 010A, are those outfalls which receive or may receive drainage from areas where aircraft deicing fluid is applied. Sampling for these major outfalls is defined at Part I.A.1 of the permit. Minor outfalls drain taxiways, runways and other paved services. Outfall 005A was combined with Outfall 006A during construction of Runway 34 Safety Area Improvements. Sampling for these minor outfalls is defined at Part I.A.2. of the permit. Additional sampling requirements are defined at Part I.A.5. and Parts I.C. and I.D. Table 1 lists parameters sampled. Figure 1 identifies outfall and in-stream sampling locations.

Industrial activities at PVD with the potential to impact stormwater quality include the use of glycol-based Aircraft Deicing and Anti-icing Fluids (ADFs/AAFs) and pavement deicers. Only propylene glycol (PG)-based ADFs/AAFs are used at PVD. Pavement deicers used at PVD include solid sodium formate, and liquid potassium acetate. No aircraft or pavement deicing material was applied during this event.

Summary of Storm

Second Quarter (April 1 through June 30) sampling includes the major outfalls (002A, 003A, 008A and 010A) hourly for twelve hours, and minor outfalls (001A, 004A, 006A, 007A, 009A, 011A, 012A and 013A) for the first three hours. The sampling began upon a precipitation event of sufficient magnitude as specified in the RIPDES permit.

Light rain began falling around 8:00 PM on June 10, 2019. Sampling commenced at 10:00 PM subsequent to measurable accumulation and continued until approximately 9:20 AM June 11, 2019.

A total of 1.39 inches of precipitation (as water equivalent) was measured at PVD during this event. Precipitation data is summarized in Table 2.

Summary of Flow

Flow meters are installed at three of the major outfalls: OF-002A, OF-003A, and OF-008A. Continuous flow measurements during the 12 hours of sampling were made using these Isco 2150 area velocity meters programmed to measure level and velocity and produce flow rate (GPM) at 15 minute increments. No flow meters are installed at minor outfalls or at outfall 010A, as it is off airport property.

Maximum daily and average monthly flows for the major outfalls were calculated and are presented in Table 3. Maximum daily and average monthly flows for the minor outfalls were calculated and are presented in Table 5. Estimated runoff volumes calculated using drainage area and depth of precipitation for all outfalls are presented in Table 7.

Sample Collection

The laboratory analytical parameters for each sample for this event are listed in Table 2. For the Second Quarter sampling event the major outfalls (002A, 003A, 008A, and 010A) were sampled hourly for twelve hours. There was no observed flow at Outfall 010A. The major outfall sampling results can be found in Tables 3 and 4.

The minor outfalls (001A, 004A, 006A, 007A, 009A, 011A, 012A, and 013A) were also sampled for the first three hours of the event. There was no observed flow at Outfalls 006A, 007A, 009A 011A, and 013A. Outfall 001A did not have measurable flow during the third hour of the sampling event. The minor outfall sampling results can be found in Tables 5 and 6.

Samples were collected and decanted into sample bottles based on the analysis necessary. The bottles were then placed on ice in a cooler for transport to RIAL. Because of the short sample holding time (six hours) for some of the analytical parameters, all samples collected in the first three hours were delivered to the laboratory immediately. Samples collected in hours four through 12 were delivered at the completion of sampling.

RIAC also collected and recorded field measurements at each outfall for temperature, pH, specific conductance, and dissolved oxygen (DO).

Sampling Results

Tables 3-6 present a summary of field measurements and analytical results expressed as monthly average and maximum daily concentrations for both the major and minor outfalls. Table values presented as zero reflect data that was non-detect. Temperature and Oil and Grease are expressed as maximum daily only. pH is expressed as minimum daily and maximum daily.

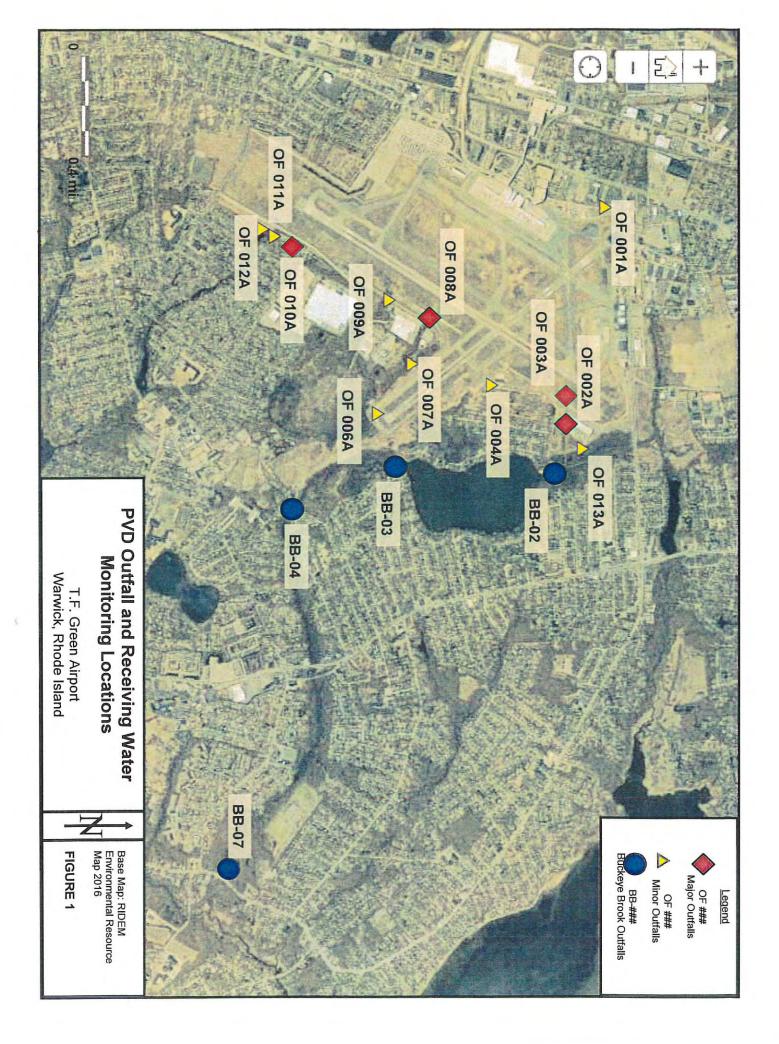


TABLE 1 LABRATORY ANALYTICAL PARAMETERS T.F. GREEN AIRPORT WARWICK, RHODE ISLAND SECOND QUARTER 2019

Sample Identification	Hours 1-3	Hours 4-12
OF-001A, OF-004A, OF-006A, OF-	 TSS, Dissolved Oxygen 	
007A, OF-009A, OF-011A, OF-	Fecal coliform	
012A, 0F-013A	Dissolved Potassium and Sodium	
	• Oil & grease - 1664	
	 BOD, pH, and Temperature 	
OF-002A, OF-003A, OF-008A, OF-	Fecal coliform	BOD,Surfactants, Dissolved Oxygen
010A	 BOD, Surfactants, Dissolved Oxygen 	pH and Temperature
	 pH and Temperature 	· COD, TOC
	- COD, TOC	Propylene glycol
	Oil & grease -1664, TSS	Dissolved Potassium and Sodium
	Propylene glycol	Total Metals (aluminum, chromium, copper, iron, lead, and zinc)
	 Dissolved Potassium and Sodium 	
	 Total Metals (aluminum, chromium, copper, iron, lead, and zinc) 	

BOD -Biological oxygen demand COD -Chemical oxygen demand TOC -Total organic carbon TSS -Total suspended solids

TABLE 2 PRECIPITATION AMOUNTS T.F. GREEN AIRPORT WARWICK, RHODE ISLAND SECOND QUARTER 2019 June 10 - 11, 2019

Date	Total Precipitation (water equivalent,in inches)
June 7, 2019	0
June 8, 2019	0
June 9, 2019	0
June 10, 2019	0.69
June 11, 2019	0.70

TABLE 3 ANALYTICAL RESULTS MAJOR OUTFALLS T.F. GREEN AIRPORT WARWICK, RHODE ISLAND SECOND QUARTER 2019

		and the second	· · · · · · · · · · · · · · · · · · ·	Major (Dutfalls			
Parameter	Outfal	1 002A	Outfal	1003A	Outfal	1 008A	Outfal	1 010A
	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Flow (gpd) ^{1, 8}	816,667	2,162,196	1,061,667	2,810,855	5,349,809	19,056,082	981,288	981,288
Oil & Grease (mg/l) ⁵		0.9		4.2		1		1
TSS (mg/l) ^{4, 5}	55.2	93	41	79	37.0	51	46.7	130
Fecal Coliform (MPN/100ml) 7,5	383	1,600	220	1,600	575	1,600	802	1600
BOD ₅ (mg/l) ^{2, 6}	1.3	9.4	1.2	5.3	3	6.4	7.2	18
Propylene Glycol (mg/l) ^{2,8}	0	0	0	0	0	0	0	0
COD (mg/l) ^{2, 6}	9	44	9	17	18	52	35.0	79
Dissolved Potassium (mg/I) 2, 8	1.90	4.45	1.69	3.68	1.93	11.10	4.01	4.88
Dissolved Sodium (mg/l) 2.8	3.87	15.80	3.40	9.11	11.87	149.00	3.8	5.39
Surfactants (ug/I) 2,6	101	410	108	260	19.8	120	120	360
Dissolved Oxygen (mg/l) ^{2,3}	6.42	7.40	6.19	6.97	5.77	6.52	5.27	5.68
TOC (mg/l) ^{2,8}	4.1	10	4.1	5.6	3.7	5.4	7.7	15
Total Aluminum (ug/l) ^{2,6}	20	272.6	13.0	219.3	213	747	134	402
Total Chromium (ug/I) 2,6	0.2	1.1	0	0	1.2	2.7	0.6	1.9
Total Copper (ug/l) ^{2,6}	2.7	23.06	2.7	13.7	4.5	17.64	5.9	17.56
Total Iron (ug/I) ^{2,6}	2,139	6,500	3,577.00	15,850.00	3,746.00	17,740.00	12,231	35,480
Total Lead (ug/I) ^{2, 6}	0.6	3.4	0.4	3.3	0.9	3.4	1.7	3.9
Total Zinc (ug/I) ^{2, 6}	0	0	0	0	47	149.9	0.0	0.0

¹ Results reported as average monthly were determined using the arithmetic average of measurement made every 15 minutes during the 12 hours of sampling. Results reported as maximum daily was the maximum flow measurements over the 12 hours of sampling. Both reported values were converted from GPM to GPD reflecting a 24 hour day

² Results reported as maximum daily were the maximum of the 12 samples collected during the 12 hours of sampling.

³ Results reported as average monthly were determined using the arithmetic average of the 12 samples collected during the 12 hours of sampling.

⁴ Results reported as average monthly were determined using the arithmetic average of the 3 samples collected (when available) during the first 3 hours of sampling.

⁵ Results reported as maximum daily were the maximum of the 3 samples collected (when available) during the first 3 hours of sampling

^e Results reported as average monthly were determined by using a flow-weighted average of the 12 samples collected during the 12 hours of sampling.

⁷ Results reported as average monthly were determined by using a geometric mean of the 3 samples collected (when available) during the 3 hours of sampling

⁸ Outfall 010A: Results reported as average monthly were determined using the arithmetic average of rainfall amount during the entire storm for the outfall drainage area. Results reported as maximum daily was determiend from maximum rainfall measurement for the duration of the storm for each outfall drainage area.

BOD₅ - Biological oxygen demand 5-day test

COD - Chemical oxygen demand

gpd - Gallons per day

mg/l - Milligrams per liter

TOC - Total organic carbon

TSS - Total suspended solids

ug/l - Micrograms per liter

TABLE 4 FIELD ANALYTICAL RESULTS MAJOR OUTFALLS T.F. GREEN AIRPORT WARWICK, RHODE ISLAND **SECOND QUARTER 2019**

				Major Outfalls	outfalls			
Decemptor	Outfall 002A	002A	Outfall 003A	1 003A	Outfall 008A	008A	14	Outfall 010A
r di dilletel	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum	_	Minimum
	Daily	Daily ²	Daily ¹	Daily ²	Daily ¹	Daily ²		Daily ¹
рH	5.79	6.68	6.13	6.55	5.84	6.72	N	2 5.90
Temperature (°F)		68.5		69.3		70.1		4

Bold text indicates exceedance of permit standards

¹ Results reported as minimum daily were the minimum of the samples collected during the 12 hours of sampling.
² Results reported as maximum daily were the maximum of the samples collected during the 12 hours of sampling.

TABLE 5 ANALYTICAL RESULTS MINOR OUTFALLS T.F. GREEN ARPORT WARWICK, RHODE ISLAND SECOND QUARTER 2019

						Minor Outfalls	lls									
Barranter	Outfall 001A	001A	Outfall 004A	1004A	Outfall 006A	1006A	Outfa	Outfall 007A	Outfa	tfall 009A	Outfa	Outfall 011A	Outfal	Outfall 012A	Outfall 013A	1013A
r diameter	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum Average		Maximum
	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily	Monthly	Daily
Flow (gpd) ¹	222,677	222,677	1,136,029	1,136,029	NO FLOW	1,136,029 NO FLOW NO FLOW NO FLOW NO FLOW NO FLOW	NO FLOW	NO FLOW	NO FLOW	NO FLOW NO FLOW NO FLOW	NO FLOW	NO FLOW	1,751,221	1,751,221	,751,221 NO FLOW NO FLOW	NO FLOW
Oil & Grease (mg/l) ³		0.0		1.7										0.0		
TSS (mg/l) ^{2, 3}	79.0	79.0	3.7	6.3									3.7	4.3		
Fecal Coliform (MPN/100ml) 2.3	22	22	165	540									0.0	0.0		
BOD ₅ (mg/l) ^{2, 3}	12.0	12.0	6.2	9.6									0.0	0.0		
Dissolved Potassium (mg/l) 2, 3	1.00	1.00	3.20	4.72									4.02	4.09		
Dissolved Sodium (mg/l) 2.3	3.00	3.00	3.00	3.00									10.50	10.80		

¹ Results reported as average monthly were determined using the arithmetic average of rainfall amount during the entire storm for the outfall drainage area. Results reported as maximum daily was determiend from maximum rainfall measurement for the duration of the storm for each outfall drainage area.

² Results reported as average monthly were determined using the arithmetic average of the 3 samples collected (when available) during the first 3 hours of sampling.

³ Results reported as maximum daily were the maximum of the 3 samples collected (when available) during the first 3 hours of sampling

gpd - Gallons per day mg/l - Milligrams per liter TSS - Total suspended solids

TABLE 6 FIELD ANALYTICAL RESULTS MINOR OUTFALLS T.F. GREEN AIRPORT WARWICK, RHODE ISLAND SECOND QUARTER 2019

Temperature (°F)	PH		, manufactor	Parameter	
	4.1	Daily ¹	Minimum	Outfall 001A	
70.9	4.1	Daily ²	Maximum	001A	
	6.18	Daily'	Minimum	Outfall 004/	
69.5	6.45	Daily ²	Maximum	1 004A	
	NO FLOW	Daily'	Minimum	Outfall 006/	
		Daily ²	Maximum	1 006A	Mino
	NO FLOW	Daily ¹	Minimum	Outfall 007A	Ninor Outfalls
		m Daily ²	Maximu	1 007A	
	NO FLOW	Daily ¹	Minimum	Outfal	
		m Daily ²	Maximu	1 009A	
	NO FLOW	Daily ¹	Minimum	Outfal	
		m Daily ²	Maximu	Outfall 011A	
	5.99	Daily*	Minimum	Outfall 012A	
58.3	6.15	m Daily ²	Maximu	012A	
	NO FLOW	Daily	Minimum	Outfall 013A	
		m Daily ²	Maximu	1013A	

Bold text indicates exceedance of permit standards ¹ Results reported as minimum daily were the minimum of the samples collected during the 3 hours of sampling. ² Results reported as maximum daily were the maximum of the samples collected during the 3 hours of sampling.

TABLE 7 PVD RUNOFF VOLUME CALCULATION T.F. GREEN AIRPORT WARWICK, RHODE ISLAND SECOND QUARTER 2019

Drainage Basin ID	Water Discharge	Receiving Water	Drainage Area (ac)	cu ft precip	gal precip
1	Outfall 001A	Warwick Pond	5.9	29,769.6	222,677
2	Outfall 002A	Warwick Pond	93.4	471,268.4	3,525,087
3	Outfall 003A	Warwick Pond	119.8	604,474.9	4,521,472
4	Outfall 004A	Warwick Pond	30.1	151,875.6	1,136,029
4B	Outfall 004B	Buckeye Brook	2	10,091.4	75,484
4C	Outfall 004C	Buckeye Brook	3	15,137.1	113,226
6	Outfall 006A	Buckeye Brook	10.7	53,989.0	403,838
6B	Outfall 006B	Buckeye Brook	1.5	7,568.6	56,613
6C	Outfall 006C	Buckeye Brook	0.8	4,036.6	30,193
6D	Outfall 006D	Buckeye Brook	0.7	3,532.0	26,419
7	Outfall 007A	Buckeye Brook	9.6	48,438.7	362,322
7B	Outfall 007B	Buckeye Brook	1.2	6,054.8	45,290
8	Outfall 008A	Buckeye Brook	240.6	1,213,995.4	9,080,680
9	Outfall 009A	Buckeye Brook	38.4	193,754.9	1,449,28
10	Outfall 010A	l uscatucket Brook	26	131,188.2	981,288
11	Outfall 011A	l uscatucket Brook	14	70,639.8	528,386
12	Outfall 012A	l uscatucket Brook	46.4	234,120.5	1,751,22
13	Outfall 013A	Warwick Pond	28	141,279.6	1,056,77
		TOTAL AREA	672.1	3,391,215.0	



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LABORATORY REPORT

Rhode Island Airport Corp. Attn: Mr. Jay Brolin 2000 Post Road Warwick, RI 02886

 Date Received:
 6/11/2019

 Date Reported:
 7/2/2019

 P.O. Number
 27599

Work Order #: 1906-10652

Project Name: T.F. GREEN RIPDES MONITORING

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department. Approved by:

Paul Perrotti President

> Laboratory Certification Numbers (as applicable to sample's origin state): Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508 Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888 Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street, Suite 105, Hudson MA 01749 Phone: 978-568-0041 Fax: 978-568-0078

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	001
Sample Description:	OUTFALL 002A-01
Sample Type :	GRAB
Sample Date / Time :	6/10/2019 @ 22:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.49		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	22	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	9.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:20	AOO
Total Suspended Solids	93	2.0	mg/l	SM2540D 2011	6/14/2019	7:50	SNI
COD	44	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	410	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	10	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	0.7	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/15/2019	0:20	AJD
Lead	2.1	1.0	ug/l	EPA 200.8	6/15/2019	0:20	AJD
Total Metals							
Aluminum	200.3	100	ug/l	EPA 200.7	6/13/2019	17:17	DDP
Copper	17.86	10	ug/l	EPA 200.7	6/13/2019	17:17	DDP
Iron	5195	100	ug/l	EPA 200.7	6/13/2019	17:17	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/14/2019	14:31	DDP
Dissolved Metals							
Potassium	4450	1000	ug/l	EPA 200.7	6/18/2019	15:59	DDP
Sodium	15800	3000	ug/l	EPA 200.7	6/18/2019	15:59	DDP
Propylene Glycol	See Attached				6/18/2019	17:58	*PA
ICPMS Digestion				EPA 200.8	6/14/2019	13:06	RB
ICP Digestion				EPA 200.7	6/13/2019	12:57	RB
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #:1906-10652 Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	002	
Sample Description:	OUTFALL 003A-01	
Sample Type :	GRAB	
Sample Date / Time :	6/10/2019 @ 22:00	

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.55		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	2.0	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	4.1	3.0	mg/l	SM5210B 21ed	6/11/2019	22:22	AOO
Total Suspended Solids	21	2.0	mg/l	SM2540D 2011	6/14/2019	7:50	SNI
COD	10	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	2.3	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	<4.2	4.2	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/15/2019	0:25	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/15/2019	0:25	AJD
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/13/2019	17:18	DDP
Copper	<10	10	ug/l	EPA 200.7	6/13/2019	17:18	DDP
Iron	8282	100	ug/l	EPA 200.7	6/13/2019	17:18	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/14/2019	14:33	DDP
Dissolved Metals							
Potassium	3660	1000	ug/l	EPA 200.7	6/18/2019	16:01	DDP
Sodium	4720	3000	ug/l	EPA 200.7	6/18/2019	16:01	DDP
Propylene Glycol	See Attached				6/18/2019	19:29	*PA
ICPMS Digestion				EPA 200.8	6/14/2019	13:06	RB
ICP Digestion				EPA 200.7	6/13/2019	12:57	RB
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Surfactants (MBAS) - Calculated as LAS, mol wt. 342.

Oil & Grease - One amber glass jar was broken upon receipt at the laboratory; limited sample available in the remaining jar for analysis. Detection limit raise to 4 2 mg/L.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Description: OUTFALL 008A-01 Sample Type : GRAB	Sample Number:	003
Sample Type : GRAB	Sample Description:	OUTFALL 008A-01
	Sample Type :	
Sample Date / Time : 6/10/2019 @ 22:00		6/10/2019 @ 22:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.72		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	220	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:22	AOO
Total Suspended Solids	35	2.0	mg/l	SM2540D 2011	6/14/2019	7:50	SNI
COD	22	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	5.4	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	0.9	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/15/2019	0:29	AJD
Lead	2.7	1.0	ug/l	EPA 200.8	6/15/2019	0:29	AJD
Total Metals							
Aluminum	232.5	100	ug/l	EPA 200.7	6/13/2019	17:20	DDP
Copper	13.82	10	ug/l	EPA 200.7	6/13/2019	17:20	DDP
Iron	17740	100	ug/l	EPA 200.7	6/13/2019	17:20	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/14/2019	14:34	DDP
Dissolved Metals							
Potassium	11100	1000	ug/l	EPA 200.7	6/18/2019	16:03	DDP
Sodium	149000	3000	ug/l	EPA 200.7	6/18/2019	16:03	DDP
Propylene Glycol	See Attached				6/18/2019	19:38	*PA
ICPMS Digestion				EPA 200.8	6/14/2019	13:06	RB
ICP Digestion				EPA 200.7	6/13/2019	12:57	RB
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

004
OUTFALL 010A-01
GRAB
6/10/2019 @ 22:35

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.49		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	>1600	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	18	8.0	mg/l	SM5210B 21ed	6/11/2019	22:22	AOO
Total Suspended Solids	130	2.0	mg/l	SM2540D 2011	6/14/2019	18:15	SAS
COD	79	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	360	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	15	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	1.0	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	1.9	1.0	ug/l	EPA 200.8	6/15/2019	0:34	AJD
Lead	3.9	1.0	ug/l	EPA 200.8	6/15/2019	0:34	AJD
Total Metals							
Aluminum	402.2	100	ug/l	EPA 200.7	6/13/2019	17:22	DDP
Copper	17.56	10	ug/l	EPA 200.7	6/13/2019	17:22	DDP
Iron	35480	100	ug/l	EPA 200.7	6/13/2019	17:22	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/14/2019	14:36	DDP
Dissolved Metals							
Potassium	4100	1000	ug/l	EPA 200.7	6/18/2019	16:04	DDP
Sodium	5390	3000	ug/l	EPA 200.7	6/18/2019	16:04	DDP
Propylene Glycol	See Attached				6/18/2019	19:47	*PA
ICPMS Digestion				EPA 200.8	6/14/2019	13:06	RB
ICP Digestion				EPA 200.7	6/13/2019	12:57	RB
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #:1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	005
Sample Description:	OUTFALL 002A-02
Sample Type :	GRAB
Sample Date / Time :	6/10/2019 @ 23:00

	SAMPLE	DET.			DATE/TI		
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.55		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	1600	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	9.4	3.0	mg/l	SM5210B 21ed	6/11/2019	22:24	AOO
Total Suspended Solids	64	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	30	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	270	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	6.7	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	0.9	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	1.1	1.0	ug/l	EPA 200.8	6/15/2019	0:43	AJD
Lead	3.4	1.0	ug/l	EPA 200.8	6/15/2019	0:43	AJD
Total Metals							
Aluminum	272.6	100	ug/l	EPA 200.7	6/18/2019	13:45	DDP
Copper	23.06	10	ug/l	EPA 200.7	6/18/2019	13:45	DDP
Iron	5959	100	ug/l	EPA 200.7	6/18/2019	13:45	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	13:45	DDP
Dissolved Metals							
Potassium	2410	1000	ug/l	EPA 200.7	6/18/2019	16:06	DDP
Sodium	7110	3000	ug/l	EPA 200.7	6/18/2019	16:06	DDP
Propylene Glycol	See Attached				6/18/2019	19:56	*PA
ICPMS Digestion				EPA 200.8	6/14/2019	13:06	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

006
OUTFALL 003A-02
GRAB
6/10/2019 @ 23:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.25		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	70	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	5.3	3.0	mg/l	SM5210B 21ed	6/11/2019	22:24	AOO
Total Suspended Solids	79	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	17	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	130	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	4.0	0.5	mg/I	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	0.8	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:16	AJD
Lead	3.3	1.0	ug/l	EPA 200.8	6/14/2019	20:16	AJD
Total Metals							
Aluminum	219.3	100	ug/l	EPA 200.7	6/18/2019	13:56	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	13:56	DDP
Iron	15850	100	ug/l	EPA 200.7	6/18/2019	13:56	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	13:56	DDP
Dissolved Metals							
Potassium	1120	1000	ug/l	EPA 200.7	6/18/2019	16:07	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:07	DDP
Propylene Glycol	See Attached				6/18/2019	20:06	*PA
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	007	
Sample Description:	OUTFALL 008A-02	
Sample Type :	GRAB	
Sample Date / Time :	6/10/2019 @ 23:14	

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.64		SU	SM4500H+B	6/11/2019	15:00	SAS
Fecal Coliform (MPN)	>1600	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	6.3	3.0	mg/l	SM5210B 21ed	6/11/2019	22:25	AOO
Total Suspended Solids	51	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	52	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	120	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	4.1	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	0.8	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Total Metals							
Chromium	2.7	1.0	ug/l	EPA 200.8	6/14/2019	20:25	AJD
Lead	3.4	1.0	ug/l	EPA 200.8	6/14/2019	20:25	AJD
Total Metals							
Aluminum	747.0	100	ug/l	EPA 200.7	6/18/2019	13:59	DDP
Copper	17.64	10	ug/l	EPA 200.7	6/18/2019	13:59	DDP
Iron	7184	100	ug/l	EPA 200.7	6/18/2019	13:59	DDP
Zinc	149.9	100	ug/l	EPA 200.7	6/18/2019	13:59	DDP
Dissolved Metals							
Potassium	1330	1000	ug/l	EPA 200.7	6/18/2019	16:09	DDP
Sodium	3400	3000	ug/l	EPA 200.7	6/18/2019	16:09	DDP
Propylene Glycol	See Attached				6/18/2019	20:04	*PA
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

008
OUTFALL 010A-02
GRAB
6/10/2019 @ 23:42

PARAMETER RESULTS LIMIT UNITS METHOD ANALYZED pH 5.90 SU SM4500H+B 6/11/2019 15:31 Fecal Coliform (MPN) 920 1.8 MPN/100 ml SM9221E2 19-21ed 6/11/2019 3:50 BOD 5 <3.0 3.0 mg/l SM5210B 21ed 6/11/2019 22:29 Total Suspended Solids 4.7 2.0 mg/l SM5240D 2011 6/14/2019 18:50 COD 10 10 mg/l SM520D 18-21ed 6/13/2019 7:30 Surfactants (MBAS) <100 100 ug/l SM5540C 18-21ed 6/12/2019 16:45 TOC 2.5 0.5 mg/l SM5310C 21 ed. 6/12/2019 14:04 Oil & Grease Gravimetric 0.5 0.5 mg/l EPA 1664A 6/20/2019 15:00 Total Metals 1.0 ug/l EPA 200.8 6/14/2019 20:29	
Fecal Coliform (MPN) 920 1.8 MPN/100 ml SM9221E2 19-21ed 6/11/2019 3:50 BOD 5 <3.0 3.0 mg/l SM5210B 21ed 6/11/2019 22:29 Total Suspended Solids 4.7 2.0 mg/l SM2540D 2011 6/14/2019 18:50 COD 10 10 mg/l SM5220D 18-21ed 6/11/2019 7:30 Surfactants (MBAS) <100 10 mg/l SM5540C 18-21ed 6/11/2019 16:45 TOC 2.5 0.5 mg/l SM5310C 21 ed. 6/12/2019 14:04 Oil & Grease Gravimetric 0.5 0.5 mg/l EPA 1664A 6/20/2019 15:00 Total Metals <1.0 1.0 ug/l EPA 200.8 6/14/2019 20:25	ANALYST
BOD 5 <3.0	SAS
Total Suspended Solids 4.7 2.0 mg/l SM2540D 2011 6/14/2019 18:50 COD 10 10 mg/l SM5220D 18-21ed 6/13/2019 7:30 Surfactants (MBAS) <100	DMC
COD 10 10 mg/l SM5220D 18-21ed 6/13/2019 7:30 Surfactants (MBAS) <100	AOO
Surfactants (MBAS) <100 100 ug/l SM5540C 18-21ed 6/11/2019 16-45 TOC 2.5 0.5 mg/l SM5310C 21 ed. 6/12/2019 14:04 Oil & Grease Gravimetric 0.5 0.5 mg/l EPA 1664A 6/20/2019 15:00 Total Metals 6/14/2019 20:25	SAS
TOC 2.5 0.5 mg/l SM5310C 21 ed. 6/12/2019 14:04 Oil & Grease Gravimetric 0.5 0.5 mg/l EPA 1664A 6/20/2019 15:00 Total Metals 1.0 ug/l EPA 200.8 6/14/2019 20:25	SNI
Oil & Grease Gravimetric 0.5 0.5 mg/l EPA 1664A 6/20/2019 15:00 Total Metals	SAS
Total Metals Chromium <1.0 1.0 ug/l EPA 200.8 6/14/2019 20:29	SAS
Chromium <1.0 1.0 ug/l EPA 200.8 6/14/2019 20:29	RMS
Lad 10 10 -// ED4 200 8 (////0010 20 20	AJD
Lead <1.0 1.0 ug/l EPA 200.8 6/14/2019 20:25	AJD
Total Metals	
Aluminum <100 100 ug/l EPA 200.7 6/18/2019 14:02	DDP
Copper <10 10 ug/l EPA 200.7 6/18/2019 14:02	DDP
Iron 513.8 100 ug/l EPA 200.7 6/18/2019 14:02	DDP
Zinc <100 100 ug/l EPA 200.7 6/18/2019 14:02	DDP
Dissolved Metals	
Potassium 3060 1000 ug/l EPA 200.7 6/18/2019 16:11	DDP
Sodium <3000 3000 ug/l EPA 200.7 6/18/2019 16:11	DDP
Propylene Glycol See Attached 6/18/2019 20:03	*PA
ICPMS Digestion EPA 200.8 6/13/2019 17:21	RB
ICP Digestion EPA 200.7 6/14/2019 17:31	MEM
ICP Digestion (Dissolved) EPA 200.7 6/14/2019 13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	009	
Sample Description:	OUTFALL 002A-03	
Sample Type :	GRAB	
Sample Date / Time :	6/11/2019	

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.19		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	>1600	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:29	AOO
Total Suspended Solids	8.7	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	12	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	140	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	4.4	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	0.9	0.5	mg/l	EPA 1664A	6/20/2019	15:00	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:43	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:43	AJD
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:05	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:05	DDP
Iron	532.1	100	ug/l	EPA 200.7	6/18/2019	14:05	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:05	DDP
Dissolved Metals							
Potassium	1690	1000	ug/l	EPA 200.7	6/18/2019	16:19	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:19	DDP
Propylene Glycol	See Attached				6/18/2019	20:42	*PA
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	010
Sample Description:	OUTFALL 003A-03
Sample Type :	GRAB
Sample Date / Time :	6/11/2019

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
рН	6.14		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	1600	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	3.6	3.0	mg/l	SM5210B 21ed	6/11/2019	22:29	AOO
Total Suspended Solids	22	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	12	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	260	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	3.6	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	1.8	0.5	mg/l	EPA 1664A	6/20/2019	15:00	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:47	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:47	AJD
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:07	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:07	DDP
Iron	3188	100	ug/l	EPA 200.7	6/18/2019	14:07	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:07	DDP
Dissolved Metals							
Potassium	1260	1000	ug/l	EPA 200.7	6/18/2019	16:22	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:22	DDP
Propylene Glycol	See Attached				6/18/2019	20:51	*PA
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	011
Sample Description:	OUTFALL 008A-03
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 00:18

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.56		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	540	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	3.2	3.0	mg/l	SM5210B 21ed	6/11/2019	22:33	AOO
Total Suspended Solids	25	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	19	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	3.1	0.5	mg/l	SM5310C 21 ed.	6/12/2019	14:04	SAS
Oil & Grease Gravimetric	1.0	0.5	mg/l	EPA 1664A	6/20/2019	15:00	RMS
Total Metals							
Chromium	1.2	1.0	ug/l	EPA 200.8	6/14/2019	20:51	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:51	AJD
Total Metals							
Aluminum	268.2	100	ug/l	EPA 200.7	6/18/2019	14:10	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:10	DDP
Iron	5097	100	ug/l	EPA 200.7	6/18/2019	14:10	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:10	DDP
Dissolved Metals							
Potassium	1310	1000	ug/l	EPA 200.7	6/18/2019	16:24	DDP
Sodium	5020	3000	ug/l	EPA 200.7	6/18/2019	16:24	DDP
Propylene Glycol	See Attached				6/18/2019	21:00	*PA
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	012
Sample Description:	OUTFALL 010A-03
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 00:50

	SAMPLE	DET.			DATE/TI		
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.19		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	350	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	3.5	3.0	mg/l	SM5210B 21ed	6/11/2019	22:33	AOO
Total Suspended Solids	5.3	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
COD	17	10	mg/l	SM5220D 18-21ed	6/13/2019	7:30	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	5.7	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Oil & Grease Gravimetric	<0.5	0.5	mg/l	EPA 1664A	6/20/2019	15:00	RMS
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	20:56	AJD
Lead	1.1	1.0	ug/l	EPA 200.8	6/14/2019	20:56	AJD
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:13	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:13	DDP
Iron	699.2	100	ug/l	EPA 200.7	6/18/2019	14:13	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:13	DDP
Dissolved Metals							
Potassium	4880	1000	ug/l	EPA 200.7	6/18/2019	16:26	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:26	DDP
Propylene Glycol	See Attached				6/18/2019	21:10	*PA
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	013
Sample Description:	OUTFALL 004A-01
Sample Type :	GRAB
Sample Date / Time :	6/10/2019 @ 22:18

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.45		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	49	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	9.6	3.0	mg/l	SM5210B 21ed	6/11/2019	22:33	AOO
Total Suspended Solids	6.3	2.0	mg/l	SM2540D 2011	6/14/2019	7:50	SNI
Oil & Grease Gravimetric	1.2	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Dissolved Metals							
Potassium	4720	1000	ug/l	EPA 200.7	6/18/2019	16:33	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:33	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Sample Number:	014
Sample Description:	OUTFALL 012A-01
Sample Type :	GRAB
Sample Date / Time :	6/10/2019 @ 22:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ	A 44.4	ANALYST
pH	6.15		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	<1.8	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:36	AOO
Total Suspended Solids	3.7	2.0	mg/l	SM2540D 2011	6/14/2019	7:50	SNI
Oil & Grease Gravimetric	<0.5	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Dissolved Metals							
Potassium	3980	1000	ug/l	EPA 200.7	6/18/2019	16:46	DDP
Sodium	10200	3000	ug/l	EPA 200.7	6/18/2019	16:46	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed

by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #: 1906-10652

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	015
Sample Description:	OUTFALL 001A-02
Sample Type :	GRAB
Sample Date / Time :	6/10/2019 @ 23:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ	CVC 33	ANALYST
A STAR D. CO. C. MARK		DANGE	2.5 W.C.C.			1983 a	
pН	4.10		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	22	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	12	8.0	mg/l	SM5210B 21ed	6/11/2019	22:36	AOO
Total Suspended Solids	79	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
Oil & Grease Gravimetric	<0.5	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Dissolved Metals							
Potassium	<1000	1000	ug/l	EPA 200.7	6/18/2019	16:48	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:48	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Sample Number:	016
Sample Description:	OUTFALL 004A-02
Sample Type :	GRAB
Sample Date / Time :	6/10/2019 @ 23:29

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.18		SU	SM4500H+B	6/11/2019	15:31	SAS
Fecal Coliform (MPN)	540	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	5.4	3.0	mg/l	SM5210B 21ed	6/11/2019	22:36	AOO
Total Suspended Solids	2.8	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
Oil & Grease Gravimetric	1.7	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Dissolved Metals							
Potassium	2020	1000	ug/l	EPA 200.7	6/18/2019	16:51	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:51	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	017	
Sample Description:	OUTFALL 012A-02	
Sample Type :	GRAB	
Sample Date / Time :	6/10/2019 @ 23:30	

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	5.99		SU	SM4500H+B	6/11/2019	16:12	SAS
Fecal Coliform (MPN)	<1.8	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:41	AOO
Total Suspended Solids	4.3	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
Oil & Grease Gravimetric	<0.5	0.5	mg/l	EPA 1664A	6/19/2019	8:15	RMS
Dissolved Metals							
Potassium	3980	1000	ug/l	EPA 200.7	6/18/2019	16:53	DDP
Sodium	10800	3000	ug/l	EPA 200.7	6/18/2019	16:53	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Sample Number:	018
Sample Description:	OUTFALL 004A-03
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 00:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.24		SU	SM4500H+B	6/11/2019	16:12	SAS
Fecal Coliform (MPN)	170	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	3.5	3.0	mg/l	SM5210B 21ed	6/11/2019	22:41	AOO
Total Suspended Solids	2.0	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
Oil & Grease Gravimetric	0.6	0.5	mg/l	EPA 1664A	6/20/2019	15:00	RMS
Dissolved Metals							
Potassium	2860	1000	ug/l	EPA 200.7	6/18/2019	16:54	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:54	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #:1906-10652

Project Name: T.F. GREEN RIPDES MONITORING

019
OUTFALL 012A-03
GRAB
6/11/2019 @ 00:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.06		SU	SM4500H+B	6/11/2019	16:12	SAS
Fecal Coliform (MPN)	<1.8	1.8	MPN/100 ml	SM9221E2 19-21ed	6/11/2019	3:50	DMC
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:41	AOO
Total Suspended Solids	3.0	2.0	mg/l	SM2540D 2011	6/14/2019	18:50	SAS
Oil & Grease Gravimetric	<0.5	0.5	mg/l	EPA 1664A	6/20/2019	15:00	RMS
Dissolved Metals							
Potassium	4090	1000	ug/l	EPA 200.7	6/18/2019	16:56	DDP
Sodium	10500	3000	ug/l	EPA 200.7	6/18/2019	16:56	DDP
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	16:09	MEM

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Sample Number: Sample Description: Sample Type : Sample Date / Time :	020 OUTFALL 001A-01 GRAB 6/10/2019 @ 22:01	Т				
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 22:01	ANALYST *CS
Sample Number: Sample Description: Sample Type :	021 OUTFALL 006A-01 GRAB					
Sample Date / Time : PARAMETER Dry - no sample	6/10/2019 @, 22:28 SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 22:28	ANALYST *CS

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652. **Project Name:** T.F. GREEN RIPDES MONITORING

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Sample Number: Sample Description: Sample Type : Sample Date / Time :	022 OUTFALL 007A-01 GRAB 6/10/2019 @ 22:32					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 22:32	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	023 OUTFALL 009A-01 GRAB 6/10/2019 @ 22:00					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 22:00	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	024 OUTFALL 011A-01 GRAB 6/10/2019 @ 22:15					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 22:15	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	025 OUTFALL 013A-01 GRAB 6/10/2019 @ 22:00					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 22:00	ANALYST *CS

Laboratory Report

Rhode Island Airport Corp. Work Order #:1906-10652 **Project Name:** T.F. GREEN RIPDES MONITORING

	Sample Number:	026					
	Sample Description:	OUTFALL 006A-02					
	Sample Type :	GRAB					
	Sample Date / Time :	6/10/2019 @ 23:50					
		SAMPLE	DET.			DATE/TIME	
	PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZED	ANALYST
	Dry - no sample	NO FLOW				6/10/2019 23:50	*CS
-	Sample Number:	027					
	Sample Description:	OUTFALL 007A-02					
	Sample Type :	GRAB					
	Sample Date / Time :	6/10/2019 @ 23:55					
		SAMPLE	DET.			DATE/TIME	
	PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZED	ANALYST
	Dry - no sample	NO FLOW				6/10/2019 23:55	*CS
Ī	Sample Number:	028					
	Sample Description:	OUTFALL 009A-02					
	Sample Type :	GRAB					
	Sample Date / Time :	6/10/2019 @ 23:00					
		SAMPLE	DET.			DATE/TIME	
	PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZED	ANALYST
	Dry - no sample	NO FLOW				6/10/2019 23:00	*CS
	Sample Number:	029					
	Sample Description:	OUTFALL 011A-02					
	Sample Type :	GRAB					
	Sample Date / Time :	6/10/2019 @ 23:15					
		SAMPLE	DET.			DATE/TIME	
	PARAMETER Dry - no sample	RESULTS NO FLOW	LIMIT	UNITS	METHOD	ANALYZED	ANALYST

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10652 Project Name: T.F. GREEN RIPDES MONITORING

Sample Number: Sample Description: Sample Type : Sample Date / Time :	030 OUTFALL 013A-02 GRAB 6/10/2019 @ 23:00					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/10/2019 23:00	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	031 OUTFALL 001A-03 GRAB 6/11/2019 @ 00:14					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/11/2019 0:14	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	032 OUTFALL 006A-03 GRAB 6/11/2019 @ 00:40					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/11/2019 0:40	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	033 OUTFALL 007A-03 GRAB 6/11/2019					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/11/2019 0:00	ANALYS' *CS

Laboratory Report

Rhode Island Airport Corp.

Work Order #: 1906-10652

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number: Sample Description: Sample Type : Sample Date / Time :	034 OUTFALL 009A-03 GRAB 6/11/2019					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/11/2019 0:00	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	035 OUTFALL 011A-03 GRAB 6/11/2019 @ 00:15					
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/11/2019 0:15	ANALYST *CS
Sample Number: Sample Description: Sample Type : Sample Date / Time :	036 OUTFALL 013A-03 GRAB 6/11/2019	ļ				
PARAMETER Dry - no sample	SAMPLE RESULTS NO FLOW	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 6/11/2019 0:00	ANALYST *CS

*CS - No sample flow per client.



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July 01, 2019

Data Reporting R.I. Analytical Laboratories 41 Illinois Avenue Warwick, RI 02888

RE: Project: 1906-10652 Pace Project No.: 7093905

Dear Data Reporting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 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,

Sophia Sparkes

Sophia Sparkes sophia.sparkes@pacelabs.com (631)694-3040 Project Manager

Enclosures

cc: Kristen Phelan, R.I. Analytical Laboratories Dawne Smart, R.I. Analytical



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC Page 23 of 47 ⁵⁷⁵ Broad Hollow Road Melville, NY 11747 (631)694-3040

CERTIFICATIONS

 Project:
 1906-10652

 Pace Project No.:
 7093905

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268 Illinois Certification #: 200074 Indiana Certification #: C-49-06 Kansas/NELAP Certification #: E-10177 Kentucky UST Certification #: 80226 Kentucky WW Certification #: 98019 Michigan Department of Environmental Quality, Laboratory #9050 Ohio VAP Certification #: CL0065 Oklahoma Certification #: 2018-101 Texas Certification #: T104704355 West Virginia Certification #: 330 Wisconsin Certification #: 999788130 USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS

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Page 24 of 47 575 Broad Hollow Road Melville, NY 11747 (631)694-3040

SAMPLE ANALYTE COUNT

Project: 1906-10652 Pace Project No.: 7093905

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7093905001	1906-10652-001	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905002	1906-10652-002	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905003	1906-10652-003	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905004	1906-10652-004	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905005	1906-10652-005	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905006	1906-10652-006	EPA 8015 Alcohol-Glycol	СРН	1	PASI-I
7093905007	1906-10652-007	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905008	1906-10652-008	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905009	1906-10652-009	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905010	1906-10652-010	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905011	1906-10652-011	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093905012	1906-10652-012	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I

REPORT OF LABORATORY ANALYSIS

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Project: Pace Project No.:	1906-10652 7093905								
Sample: 1906-100 Results reported of		Lab ID: 709 basis and are adj		Collected: 06/10/*			6/17/19 15:45 Itions.	Matrix: Other	
Parar	meters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80	15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 17:5	8 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10652								
Pace Project No .:	7093905								
Sample: 1906-106	652-002	Lab ID: 709	3905002	Collected: 06/	10/19 22:00	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are ad	iusted for p	percent moisture	e, sample siz	ze and any dilu	itions.		
Paran	neters	Results	Units	Report Lin	nit DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80)15 Alcohol-Glyco	bl				
Propylene glycol		<5.0	mg/L		5.0 1		06/18/19 19:2	9 57-55-6	





Project:	1906-10652									
Pace Project No .:	7093905									
Sample: 1906-106 Results reported of		Lab ID: 709		Collected: 00			Received: 06		Matrix: Other	
	neters	Results	Units	Report Li		DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Mether	nod: EPA 80)15 Alcohol-Gly	col					
Propylene glycol		<5.0	mg/L		5.0	1		06/18/19 19:3	8 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project: Pace Project No.:	1906-10652 7093905								
Sample: 1906-106 Results reported of		Lab ID: 709 basis and are adj	10000000	Collected: 06/1			06/17/19 15:45 <i>ilutions.</i>	Matrix: Other	
	meters	Results	Units	Report Limit		Prepared		CAS No.	Qual
8015M Glycols in	water	Analytical Mether	nod: EPA 80	15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.	0 1		06/18/19 19:4	47 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project: Pace Project No.:	1906-10652 7093905								
Sample: 1906-106	652-005	Lab ID: 709 basis and are adi		Collected: 06/10/ percent moisture, se	0.000000000			Matrix: Other	
	neters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 8	015 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 19:5	6 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10652									
Pace Project No .:	7093905									
Sample: 1906-10		Lab ID: 709		Collected:					Matrix: Other	
Results reported	on a "dry weight"	' basis and are adj	justed for p	percent mois	ture, sa	mple siz	e and any d	ilutions.		
Parar	meters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80	015 Alcohol-G	Slycol					
Propylene alvcol		<5.0	mg/L		5.0	1		06/18/19 20:06	6 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10652

 Pace Project No.:
 7093905

Sample: 1906-10652-007	Lab ID: 709	3905007	Collected: 06/10/1	9 23:14	Received: 06	6/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ht" basis and are adj	usted for pe	rcent moisture, sa	mple si	ze and any dilu	tions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Meth	od: EPA 801	5 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/18/19 20:24	4 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10652								
Pace Project No .:	7093905								
Sample: 1906-106	652-008	Lab ID: 709	3905008	Collected: 06/10/	19 23:42	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	' basis and are adj	usted for p	percent moisture, s	ample siz	e and any dilu	itions.		
Paran	meters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Metl	nod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 20:33	3 57-55-6	

REPORT OF LABORATORY ANALYSIS



1906-10652 Project: Pace Project No .: 7093905 Sample: 1906-10652-009 Lab ID: 7093905009 Collected: 06/11/19 00:00 Received: 06/17/19 15:45 Matrix: Other Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions. Parameters Results Units Report Limit DF Prepared Analyzed CAS No. Qual 8015M Glycols in water Analytical Method: EPA 8015 Alcohol-Glycol Propylene glycol <5.0 mg/L 5.0 1 06/18/19 20:42 57-55-6

REPORT OF LABORATORY ANALYSIS



Project:	1906-10652								
Pace Project No .:	7093905			and the second second					
Sample: 1906-106	52-010	Lab ID: 709	3905010	Collected: 06/11/1	19 00:00	Received: 0	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	usted for p	ercent moisture, sa	ample siz	ze and any dil	utions.		
Paran	neters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80	15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 20:5	57-55-6	

REPORT OF LABORATORY ANALYSIS



Project: Pace Project No.:	1906-10652 7093905									
Sample: 1906-106 Results reported of		Lab ID: 709 basis and are adj		Collected: ercent moist		5 (T 51 * F			Matrix: Other	
Paran	neters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80	15 Alcohol-G	lycol					
Propylene glycol		<5.0	mg/L		5.0	1		06/18/19 21:0	0 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project: Pace Project No.:	1906-10652 7093905									
Sample: 1906-100 Results reported		Lab ID: 709		Collected: (Matrix: Other	
	meters	Results	Units	Report		DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80)15 Alcohol-Gl	lycol					
Propylene glycol		<5.0	mg/L		5.0	1		06/18/19 21:1	0 57-55-6	

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA

Project: Pace Project No.:	1906-10652 7093905											
QC Batch:	507125			Analys	is Method:	E	PA 8015 Alc	ohol-Glyco	1			
QC Batch Method:	EPA 8015 Alco	hol-Glyc	ol	Analys	is Descripti		PA 8015 Mc					
Associated Lab San	nples: 709390 709390	5001, 70 5009	93905002,	7093905003	, 70939050	004, 70939	05005, 7093	3905006, 7	093905007	7, 7093905	6008,	
METHOD BLANK:	2340100			N	Aatrix: Wat	er						
Associated Lab San	nples: 709390 709390	5001, 70 5009	93905002,	7093905003	, 70939050	004, 70939	05005, 7093	3905006, 7	093905007	7, 7093905	008,	
				Blank	Re	eporting						
Paran	neter		Units	Resul	t	Limit	Analyz	ed	Qualifiers			
Propylene glycol			mg/L		<5.0	5.0	06/18/19	17:03				
Propylene glycol LABORATORY CON Paran		: 2340		Spike Conc.	<5.0 LCS Resul		06/18/19 LCS % Rec	17:03 % Rec Limits		Jalifiers		
LABORATORY CON Paran		2340	101		LCS		LCS	% Rec Limits		ualifiers		
LABORATORY COM	neter		101 Units mg/L	Conc. 25	LCS Resul	lt	LCS % Rec	% Rec Limits	Q	ualifiers		
LABORATORY COM Paran Propylene glycol	neter		101 Units mg/L	Conc. 25 102 MS	LCS Resul	lt 20.4 2340103	LCS % Rec 82	% Rec Limits 42	-141 			
LABORATORY COM Paran Propylene glycol	neter 1ATRIX SPIKE DI		101 Units mg/L TE: 23401	Conc. 25	LCS Resul	lt	LCS % Rec	% Rec Limits	Q	ualifiers % Rec Limits	RPD	Qua
LABORATORY COM Paran Propylene glycol MATRIX SPIKE & M	neter 1ATRIX SPIKE DI	JPLICAT	101 Units mg/L E: 23401 093905001	Conc. 25 102 MS Spike	LCS Resul MSD Spike	lt 20.4 2340103 MS	LCS % Rec 82 MSD	% Rec Limits 42 MS	Q	% Rec	RPD 3	Qua

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: Pace Project No.:	1906-10652 7093905										
QC Batch:	507136		Analysi	s Method:	E	PA 8015 Alc	ohol-Glycol	1			
QC Batch Method:	EPA 8015 Alcoho	ol-Glycol	Analysi	s Descripti	ion: E	PA 8015 Mo	dified				
Associated Lab Sar	mples: 70939050	010, 7093905011, 7	093905012								
METHOD BLANK:	2340144		м	atrix: Wate	er						
Associated Lab Sar	mples: 70939050	10, 7093905011, 7	093905012								
			Blank	Re	eporting						
Parar	meter	Units	Result		Limit	Analyz	ed	Qualifiers			
Propylene glycol	-	mg/L		<5.0	5.0	06/18/19	17:21				
		2340145									
LABORATORY CO	NTROL SAMPLE:	2340145	Spike	LCS		LCS	% Rec				
LABORATORY CO		2340145 Units	Spike Conc.	LCS Resul		LCS % Rec	% Rec		Qualifiers		
Parar							Limits		Qualifiers		
Parar Propylene glycol	meter	Units mg/L	Conc. 25 46	Resul	lt	% Rec	Limits	C	Qualifiers		
Parar Propylene glycol	meter	Units mg/L PLICATE: 23401	46 MS	Resul	21.3 2340147	% Rec 85	Limits 42	-141			
LABORATORY COL Parar Propylene glycol MATRIX SPIKE & M Parame	meter MATRIX SPIKE DUP	Units mg/L	Conc. 25 46	Resul	lt 21.3	% Rec	Limits	C	Qualifiers % Rec Limits	RPD	Qual

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



QUALIFIERS

Project: 1906-10652 Pace Project No.: 7093905

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 NELAC Institute.

LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA CROSS REFERENCE TABLE

 Project:
 1906-10652

 Pace Project No.:
 7093905

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
7093905001	1906-10652-001	EPA 8015 Alcohol-Glycol	507125		
7093905002	1906-10652-002	EPA 8015 Alcohol-Glycol	507125		
7093905003	1906-10652-003	EPA 8015 Alcohol-Glycol	507125		
7093905004	1906-10652-004	EPA 8015 Alcohol-Glycol	507125		
7093905005	1906-10652-005	EPA 8015 Alcohol-Glycol	507125		
7093905006	1906-10652-006	EPA 8015 Alcohol-Glycol	507125		
7093905007	1906-10652-007	EPA 8015 Alcohol-Glycol	507125		
7093905008	1906-10652-008	EPA 8015 Alcohol-Glycol	507125		
7093905009	1906-10652-009	EPA 8015 Alcohol-Glycol	507125		
7093905010	1906-10652-010	EPA 8015 Alcohol-Glycol	507136		
7093905011	1906-10652-011	EPA 8015 Alcohol-Glycol	507136		
7093905012	1906-10652-012	EPA 8015 Alcohol-Glycol	507136		

REPORT OF LABORATORY ANALYSIS

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					905								1							Turn Around Time		X Normal	Rush (Days)	Date Shipped: 6/12/2019	X Fedex-rec. lab	X Overnight	Shippe	WO #: 1906-10652
	- 11				WO#:7093905								Subcontractor Information:	rvices-IN		5268		acelabs,com		Time		905						5. / °C
					- #OM				TANADAR				Subcontra	Pace Analytical Services-IN	7726 Moller Road	Indianapolis, IN 46268	Sophia Sparkes	Sophia.Sparkes@pacelabs.com	317-228-3100	Date		6113119						Temperature Upon Receipt
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	Suite 105 749-1331 -2580 -0078	fication																ytical.com		Time	1155			Project Comments		illa (800-937		
ries, Inc	131 Coolidge St, Suite 105 Hudson, MA 01749-1331 Tel: 800-937-2580 Fax: 978-568-0078	Sample Identification	Outfall 002A-01	Outfall 003A-01	Outfall 008A-01	Outfall 010A-01	Outfall 002A-02	I 003A-02	Outfall 008A-02	1010A-02	1 002A-03	1 003A-03	oice to:					reporting@rianal		Date	613-19			å		and Ruben Pan		
rato	131 Hu	S	Outfal	Outfal	Outfal	Outfal	Outfal	Outfal	Outfal	Outfal	Outfal	Outfal	oval ba	ries, Inc				m; data		Sector Sector						×109)		
R.I. Analytical Laboratories, Inc.	enue 88-3007 2580 1970	Lab ID	1906-10652-001	1906-10652-002	1906-10652-003	1906-10652-004	1906-10652-005	1906-10652-006 Outfall 003A-02	1906-10652-007	1906-10652-008 Outfall 010A-02	1906-10652-009 Outfall 002A-03	1906-10652-010 Outfall 003A-03	Sena Report and Invoice to:	Company Name: R.I. Analytical Laboratories, Inc.	Address: 41 Illinois Avenue	City/State/Zip: Warwick, RI 02888	cristen Phelan	Email: kphelan@riasalytical.com; datareporting@rianalyti	Telephone: 401-737-8500 x 116	ed By		×				If MCL is exceeded, notify Kristen Mayo (800-937-2580 ×109) and Ruben Parrilla (800-937-2580 ×160/cell 批(617) 893-0257)		397
. Analy	41 Illinois Avenue Warwick, RI 02888-3007 Tel: 800-937-2580 Fax: 401-738-1970	Time Collected	22:00	22:00	22:00	22:35	23:00	23:00	23:14	23:42	0:00	0:00		ompany Namer E	Address: 4	City/State/Zip: V	Contact Person: Kristen Phelan	Email: k	Telephone: 4	Relinquished By	termans	Feder				1, notify Kristen		「二十二」「二
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Page 20 of 25

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Inc.	Coolidge St, Suite dson, MA 01749-13 Tel: 800-937-2580 Fax: 978-568-0078	Sample Identification	3	33												grianalyt		le	12.19		_	Proj		en Parril		
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LAIN OF CUSTODY RECO R.I. Analytical Laboratories. Inc.	41 Illinois Avenue Warwick, RI 02888-3007 Tel: 800-937-2580 Fax: 401-738-1970	Time Collected	0:18	0:50								Company Name: R.I. Analytical Laboratorics, Inc.	Address: 41 Illinois Avenue	City/State/Zip: Warwick, R102888	Contact Person: Kristen Phelan	Email:	Telephone: 401-737-8500 x 116	Relinquished By	At war	Verlex				y Kristel		Sec. 1
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PaceAnalytical			Date/Time and Initials of person examining conte	Date/Time and Initials of berson examining contents: (T 6/13/19 1222	121	12	
Courier: K Fed Ex UPS USPS Client			C Pace Other				
	X Yes INo X Bubble Bags	None	Seals Intact:	📈 Yes 🔲 No			
Thermorneter: 123(956ABCDEF Cooler Temperature: 4.6 S.1	Ice Type	Ú Wet		K Blue I None Samples collected today and on ice: Ice Visible in Sample Containers?	Υes Υes		NID NO NIA
(Initial/Corrected) Temp should be above freezing to 5°C	6ªC		If temp. is Over 6°C or u	If temp. is Over 6°C or under 0°C, was the PM Notified?	□ Yes		X N/A
All di	screpancies /	vill be writt	All discrepancies will be written out in the comments section below.	section below.		Ny any design of the second second	in the second
	Yes	No			Yes	No	N/A
Are samples from West Virginia? Document any containers out of temp		×	All containers needing ac	All containers needing acid/base pres. Have been checked? excentions: VOA_coliform 11Hd_O&G_and and			
USDA Regutated Soils? (ID, NY, WA, OR,CA, NM, T) OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)	TX,	×	container with a septum of All containers needing pres with EPA recommendation	container with a septum cap or preserved with HCI. All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.			\times
Chain of Custody Present	×		Circle: HNO3 H2:	H2SO4 NaOH NaOH/ZnAc			
Chain of Custody Filled Out	×		Dissofved Metals field filtered?	ered?			×
Short Hold Time Analysis (<72hr)?: Analysis:		×	Headspace Wisconsin Sulfide	ulfide			X
Time 5035A TC placed in Freezer or Short Holds To Lab:	135.		Residual Chlorine Check	Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	[∰] X ×
Rush TAT Requested:		×	Headspace in VOA Vials (>6mm)	(>6mm);			X
Containers Intact?	×		Trip Blank Present?:		×	X	
Sample Label (IDs/Dates/Times) Match COC? Except TCs, which only require sample ID	×		Trip Blank Custody Seals?:	2.		\times	Page
Comments							43 of 47
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Sample Container Count

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cid plastic	BP3Z 250mL NaOH, Zn Ac plastic		AF Air Filter	C Air Cassettes	R Terra core kit	SP5T 120mL Coliform Na Thiosulfate	U Summa Can	ZPLC Ziploc Bag							
cid plastic	BP3Z	-	AF	U	R	10	MALL PROPERTY								
H, Asc Acid plastic						SP	0	ZPLC	-		Winserig	a variabilit			
BP1A 1 liter NaO	BP1N 1 liter HNO3 plastic	BP1S 1 liter H2SO4 plastic	BP1U 1 liter unpreserved plastic	BP12 1 liter NaOH, Zn, Ac	BP2A 500mL NaOH, Asc Acid plastic	BP2N 500mL HNO3 plastic	BP20 500mL NaOH plastic	BP2S 500mL H2SO4 plastic	BP2U 500mL unpreserved plastic	BP2Z 500mL NaOH, Zn Ac	BP3B 250mL NaOH plastic	BP3N 250mL HNO3 plastic	BP3S 250mL H2SO4 plastic		
AGOU 100mL unpreserved amber glass	AG1H 1 liter HCL amber glass	AG1S 1 liter H2SO4 amber glass	AG1T 1 liter Na Thiosulfate amber glass	AG1U 1liter unpreserved amber glass	AG2N 500mL HNO3 amber glass	AG2S 500mL H2SO4 amber glass	AG2U 500mL unpreserved amber glass	AG3S 250mL H2SO4 glass amber	AG3U 250mL unpreserved amber glass	BG1H 1 liter HCL clear glass	BG1S 1 liter H2SO4 clear glass	BG1T 1 liter Na Thiosulfate clear glass	BG1U 1 liter unpreserved glass	BG3H 250mL HCI Clear Glass	BG3U 250mL Unpreserved Clear Glass
DG98 40mL Na Bisulfate amber vial					eggeners	* PARTICI	Tanaire						a a south the	-	
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F-IN-12-270-FEV. 10, 31Aug2017

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Sample Container Count

CLIENT: V.J. PAUPLI T.L.P.L COC Date: Lot J Coc Copie: Coc Coc Copie: Coc Copie: Coc Copie: Coc

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Container Codes

				Γ		Pa	٢	45	٥f ٩	7						
isc.	BP3U 250mL unpreserved plastic	BP3Z 250mL NaOH, Zn Ac plastic		AF Air Filter	C Air Cassettes	R Terra core kit	SP5T 120mL Coliform Na Thiosulfate	U Summa Can	ZPLC Ziploc Bag							
	BP3U	BP3Z		AF	U	x	SP5T	n	ZPLC			1	r		1	
Plastic / Misc.	BP1A 1 liter NaOH, Asc Acid plastic	BP1N 1 liter HNO3 plastic	1 liter H2SO4 plastic	1 liter unpreserved plastic	1 liter NaOH, Zn, Ac	BP2A 500mL NaOH, Asc Acid plastic	BP2N 500mL HNO3 plastic	BP20 500mL NaOH plastic	BP2S 500mL H2SO4 plastic	BP2U 500mL unpreserved plastic	500mL NaOH, Zn Ac	BP3B 250mL NaOH plastic	BP3N 250mL HNO3 plastic	BP3S 250mL H2SO4 plastic	The second se	
	BP1A	BP1N	BP1S	BP1U	BP1Z	BP2A	BP2N	BP20	BP2S	BP2U	BP2Z	BP3B	BP3N	BP3S		1.000
Glass	AGOU 100mL unpreserved amber glass	AG1H 1 liter HCL amber glass	AG1S 1 liter H2SO4 amber glass	AG1T 1 fiter Na Thiosulfate amber glass	AG1U 11iter unpreserved amber glass	AG2N 500mL HNO3 amber glass	AG2S 500mL H2SO4 amber glass	AG2U 500mL unpreserved amber glass	AG3S 250mL H2SO4 glass amber	AG3U 250mL unpreserved amber glass	BG1H 1 liter HCL clear glass	BG1S 1 liter H2SO4 clear glass	BG1T 1 liter Na Thiosulfate clear glass	BG1U 1 liter unpreserved glass	BG3H 250mL HCI Clear Glass	BG3U 250mL Unpreserved Clear Glass
Q	DG98 40mL Na Bisulfate amber vial	DG9H 40mL HCL amber voa vial	DG9M 40mL MeOH clear vial	DG9P 40mL TSP amber vial	DG9S 40rnL H2SO4 amber vial	DG9T 40mL Na Thio amber vial	DG9U 40mL unpreserved amber vial	VG9H 40mL HCL clear vial	40mL Na Thio. clear vial	VG9U 40mL unpreserved clear vial	VGFX 40mL w/hexane wipe vial	Headspace septa vial & HCL	WGKU 8oz unpreserved clear jar	WGFU 4oz clear soil jar	JGFU 4oz unpreserved amber wide	
And South Street Street of A 2000	DG9B	DG9H	DG9M	DG9P	DG9S	DG9T	DG9U	VG9H	VG9T	VGBU	VGFX	VSG	WGKU	WGFU	JGFU	

R 41 Wa Tel		02888 Hudson, MA 01749 -2580 Tel: 888-228-3334	or Composite	Containers & Type	Preservation Code P	Matrix Code ^M	Fecal Coliform	,TSS, Surfactants,	age DOL	Grease 1664	Propylene Glyca	Total Metals	Dissolved K & Na	
Date	Time Collected	Field Sample Identification	Grab	# of	Prese	Matr	Feca	BOD	COD	Oil &	Prop	Tota	Disse	
col 10		Outfall 002A-01	G	*	×	0	X	X	X	X	X	X	X	
6/10	2200	Outfall 003A-01 🐥	G	*	*	0	X	X	x	X	X	X	X	
elio	2200	Outfall 008A-01	G	*	*	0	X	X	X	X	X	X	X	
0100	2235	Outfall 010A-01	G	•	*	0	×	X	X	X	Х	X	X	
6/10	23:00	Outfall 002A-02	G	•	*	0	X	X	X	X	X	X	X	-
6/10	2300	Outfall 003A-02	G	*	*	0	X	X	X	Y	X	X	X	
eluo	2314	Outfall 008A-02	G	*	*	0	X	X	X	Y	X	X	X	
also	2342	Outfall 010A-02	G	*	•	0	X		X	X	X	X	X	
elu	0000	Outfall 002A-03	G		•	0	X	X	X	X	X	×	x	-
6/11	0000	Outfall 003A-03	G	•		0	X	X	X	X	X	X	X	
114	0018	Outfall 008A-03	G	*	*	0	X	X	X	X	X	X	X	
14	00.50	Outfall 010A-03	G	•	•	0	X	X	X	X	X	X	X	

*Fecal Coliform – 1 Sterile Non Preserved BOD, TSS, Surfactants, pH – 1 500mL Non Preserved COD, TOC – 1 250mL Sulfiric Acid Preserved Oil & Grease 1664 – 32 oz Amber Glass Sulfuric Preserved Propylene Glycol – 2 40mL Non-Preserved VOA Vial Metals – 250mL Nitric Preserved Dissolved Metals – 250ml Non Preserved

Total Metals: Aluminum – 200.7 Chromium – 200.8 Copper – 200.7 fron – 200.7 Lead – 200.7 Zinc – 200.7

and the second	Client Inform	and the second se			Project Information
Company	Rhode Island	Airport Corp	_	ProjectName:	T.F. Green RIPDES Monitoring
Address:	2000 Post Ro			P.O. Number:	Project Number:
City / State /	Warwick, RI ()2886		Sampled by:	
Telephone:	691-2490	Fax: 691-2	2560	Email :address:	jbrolin@pvdairport.com
Contact Person:	Jay Brolin			Email :address:	

Relinquished By Date Time Received By Turn Around Time) EMAIL 0151 X Normal 0681119 alians 5 Business days. Possible Rush (business

Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SI=Sludge, A=Air, B=Bulk/Solid, O=__Storm Water_

+ broke O+G upon receipt in lab Brnc 1 mited scripple in remaining/01119

	Lab Use Only
	Sample Pick Up Only
X	RIAL sampled; attach field hours
X	Shipped on ice
Wo	rkorder No: 006-10652

Page | of 2-

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Te	1: 800-937-	.2580		Hu	dson, l	MA 01749		Con	aine	n C	le w	for	pt	80 Se	Met		
	x: 401-738-			l'e.	1: 888-	228-3334		OL	Containers	atic	Cot	Coli	SS	rea	ed		
Date Time 14X. 578-508-00/8								Grab	of C	Preservation	Matrix Code ^M	Fecal Coliform	BOD, TSS, pH	l & Grease 1664	Dissolved Metals**		
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		tfall 012A-		104	3m. C.4		G-	-								-	-
r		tfall 013A-		NO	Fca	1	G	*		0	X	X	X	X			
al Coliform -	- 1 Sterile Non Pr						G			10							
U, 155, DH-	- 1000ml Man	Draganet				** Po	tassium	- 200	0.7								
oc Grease 160	64 – 32 oz Amber L Nitric Preserve	Ar Close Pult	ric Preser	ved		Sc	dium – :	200.7									
	Client	Information				1							_				
Compan		sland Airp)		DrojostM		-	Pr	oject	Inform	natio	ш				
Address	s: 2000 Po	st Rd				ProjectName P.O. Number		.F. (Green	RIPI	DES						
City / State		, RI 02886	3			Sampled by	- line				Proje	ct Nu	mbe	r:			
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LABORATORY REPORT

Rhode Island Airport Corp. Attn: Mr. Jay Brolin 2000 Post Road Warwick, RI 02886

 Date Received:
 6/11/2019

 Date Reported:
 7/8/2019

 P.O. Number
 27599

Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Enclosed are the analytical results and Chain of Custody for your project referenced above. The sample(s) were analyzed by our Warwick, RI laboratory unless noted otherwise. When applicable, indication of sample analysis at our Hudson, MA laboratory and/or subcontracted results are noted and subcontracted reports are enclosed in their entirety.

All samples were analyzed within the established guidelines of US EPA approved methods with all requirements met, unless otherwise noted at the end of a given sample's analytical results or in a case narrative.

The Detection Limit is defined as the lowest level that can be reliably achieved during routine laboratory conditions.

These results only pertain to the samples submitted for this Work Order # and this report shall not be reproduced except in its entirety.

We certify that the following results are true and accurate to the best of our knowledge. If you have questions or need further assistance, please contact our Customer Service Department. Approved by:

Jane Smart

Dawne E. Smart Data Reporting Manager

Laboratory Certification Numbers (as applicable to sample's origin state): Warwick RI * RI LAI00033, MA M-RI015, CT PH-0508 Hudson MA * M-MA1117, RI LAO00319

41 Illinois Avenue, Warwick, RI 02888 Phone: 401-737-8500 Fax: 401-738-1970

www.rianalytical.com

131 Coolidge Street. Suite 105, Hudson MA 01749 Phone: 978-568-0041 Fax: 978-568-0078

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	001
Sample Description:	OUTFALL 002A-04
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 01:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pН	6.68		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:45	AOO
COD	15	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	140	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	5.4	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	2770	1000	ug/l	EPA 200.7	6/18/2019	15:28	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	15:28	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:16	DDP
Copper	<10	10	ug/I	EPA 200.7	6/18/2019	14:16	DDP
Iron	671.3	100	ug/l	EPA 200.7	6/18/2019	14:16	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:16	DDP
Total Metals							
Chromium	<1.0	1.0	ug/I	EPA 200.8	6/14/2019	21:00	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:00	AJD
Propylene Glycol	See Attached				6/18/2019	18:25	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	002	
Sample Description:	OUTFALL 003A-04	
Sample Type :	GRAB	
Sample Date / Time :	6/11/2019 @ 01:00	

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.45		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	22:45	AOO
COD	10	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	260	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	4.1	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	1660	1000	ug/l	EPA 200.7	6/18/2019	15:39	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	15:39	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:19	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:19	DDP
Iron	1966	100	ug/l	EPA 200.7	6/18/2019	14:19	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:19	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:14	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:14	AJD
Propylene Glycol	See Attached				6/18/2019	21:19	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number: 003	3
Sample Description: OU	TFALL 008A-04
Sample Type : GR	AB
Sample Date / Time : 6/1	1/2019 @ 01:40

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	CED	ANALYST
pH	6.45		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	6.3	3.0	mg/l	SM5210B 21ed	6/11/2019	22:45	AOO
COD	17	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	5.0	0.5	mg/l	SM5310C 21 ed	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	2400	1000	ug/l	EPA 200.7	6/18/2019	15:42	DDP
Sodium	8520	3000	ug/l	EPA 200.7	6/18/2019	15:42	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:37	DDP
Copper	10.17	10	ug/l	EPA 200.7	6/18/2019	14:37	DDP
Iron	1014	100	ug/l	EPA 200.7	6/18/2019	14:37	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:37	DDP
Total Metals							
Chromium	1.1	1.0	ug/l	EPA 200.8	6/14/2019	21:18	AJD
Lead	1.4	1.0	ug/l	EPA 200.8	6/14/2019	21:18	AJD
Propylene Glycol	See Attached				6/18/2019	21:28	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	004
Sample Description:	OUTFALL 002A-05
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 02:00

pH 6.52 SU SM4500H+B 6/11/2019 16:40 SAS BOD 5 3.5 3.0 mg/l SM5210B 21ed 6/11/2019 2:48 AOO COD 11 10 mg/l SM5220D 18-21ed 6/11/2019 8:00 SNI Surfactants (MBAS) <100 100 ug/l SM5540C 18-21ed 6/11/2019 16:45 SAS TOC 4.3 0.5 mg/l SM5310C 21 ed. 6/13/2019 21:25 SAS Dissolved Metals	SALESSALS -	SAMPLE	DET.			DATE/TI	ME	
BOD 5 3.5 3.0 mg/l SM5210B 21ed 6/11/2019 22:48 AOO COD 11 10 mg/l SM5210B 21ed 6/11/2019 22:48 AOO Surfactants (MBAS) <100 100 ug/l SM5210B 12ed 6/11/2019 8:00 SNI Surfactants (MBAS) <100 100 ug/l SM5310C 21 ed 6/13/2019 21:25 SAS Dissolved Metals BOD 5 6/18/2019 15:45 DDP Sodium 3660 1000 ug/l EPA 200.7 6/18/2019 15:45 DDP Sodium 4720 3000 ug/l EPA 200.7 6/18/2019 14:40 DDP Total Metals DP 15:45 DDP Iron 1184 100 ug/l EPA 200.7 6/18/2019 14:40 DDP Iron 1184 100 ug/l EPA 200.7 6/18/2019 14:40 DDP Zinc <100 100 ug/l EPA	PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
COD 11 10 mg/l SM520D 18-21ed 6/17/2019 8:00 SNI Surfactants (MBAS) <100 100 ug/l SM5240C 18-21ed 6/17/2019 16:45 SAS TOC 4.3 0.5 mg/l SM5340C 18-21ed 6/13/2019 21:25 SAS Dissolved Metals 3660 1000 ug/l EPA 200.7 6/18/2019 15:45 DDP Sodium 3660 1000 ug/l EPA 200.7 6/18/2019 15:45 DDP Sodium 4720 3000 ug/l EPA 200.7 6/18/2019 14:40 DDP Total Metals 10 ug/l EPA 200.7 6/18/2019 14:40 DDP Copper <10 10 ug/l EPA 200.7 6/18/2019 14:40 DDP Zinc <100 100 ug/l EPA 200.7 6/18/2019 14:40 DDP Zinc <100 100 ug/l	pH	6.52		SU	SM4500H+B	6/11/2019	16:40	SAS
Surfactants (MBAS) <100 100 ug/l SM5240C 18-21ed 6/11/2019 16.45 SAS TOC 4.3 0.5 mg/l SM5310C 21 ed 6/13/2019 21.25 SAS Dissolved Metals 6/18/2019 15.45 DDP Sodium 3660 1000 ug/l EPA 200.7 6/18/2019 15.45 DDP Sodium 4720 3000 ug/l EPA 200.7 6/18/2019 15.45 DDP Total Metals 10 ug/l EPA 200.7 6/18/2019 14:40 DDP Copper <10	BOD 5	3.5	3.0	mg/l	SM5210B 21ed	6/11/2019	22:48	AOO
TOC 4.3 0.5 mg/l SM5310C 21 ed. 6/13/2019 21.25 SAS Dissolved Metals Potassium 3660 1000 ug/l EPA 200.7 6/18/2019 15.45 DDP Sodium 4720 3000 ug/l EPA 200.7 6/18/2019 15.45 DDP Total Metals	COD	11	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Dissolved Metals Beach and the left of	Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
Potassium 3660 1000 ug/l EPA 200.7 6/18/2019 15:45 DDP Sodium 4720 3000 ug/l EPA 200.7 6/18/2019 15:45 DDP Total Metals	TOC	4.3	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Sodium 4720 3000 ug/l EPA 200.7 6/18/2019 15:45 DDP Total Metals Aluminum <100	Dissolved Metals							
Total Metals 100 100 ug/l EPA 200.7 6/18/2019 14:40 DDP Copper <10	Potassium	3660	1000	ug/l	EPA 200.7	6/18/2019	15:45	DDP
Aluminum <100 100 ug/l EPA 200.7 6/18/2019 14:40 DDP Copper <10	Sodium	4720	3000	ug/l	EPA 200.7	6/18/2019	15:45	DDP
Copper <10	Total Metals							
In In <th< td=""><td>Aluminum</td><td><100</td><td>100</td><td>ug/l</td><td>EPA 200.7</td><td>6/18/2019</td><td>14:40</td><td>DDP</td></th<>	Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:40	DDP
Zinc <100 100 ug/l EPA 200.7 6/18/2019 14:40 DDP Total Metals Chromium <1.0	Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:40	DDP
Total Metals EPA 200.8 6/14/2019 21:23 A JD Lead <1.0	Iron	1184	100	ug/l	EPA 200.7	6/18/2019	14:40	DDP
Chromium <1.0 1.0 ug/l EPA 200.8 6/14/2019 21:23 AJD Lead <1.0	Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:40	DDP
Lead <1.0 1.0 ug/l EPA 200.8 6/14/2019 21:23 AJD Propylene Glycol See Attached 6/18/2019 21:37 *PA ICP Digestion (Dissolved) EPA 200.7 6/14/2019 13:03 MEM ICP Digestion EPA 200.7 6/14/2019 17:31 MEM	Total Metals							
Propylene Glycol See Attached 6/18/2019 21:37 *PA ICP Digestion (Dissolved) EPA 200.7 6/14/2019 13:03 MEM ICP Digestion EPA 200.7 6/14/2019 17:31 MEM	Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:23	AJD
ICP Digestion (Dissolved) EPA 200.7 6/14/2019 13:03 MEM ICP Digestion EPA 200.7 6/14/2019 17:31 MEM	Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:23	AJD
ICP Digestion EPA 200.7 6/14/2019 17:31 MEM	Propylene Glycol	See Attached				6/18/2019	21:37	*PA
	ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
	ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICPMS Digestion EPA 200.8 6/13/2019 17:21 RB	ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	005
Sample Description:	OUTFALL 003A-05
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 02:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.26		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	23:25	AOO
COD	11	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	4.1	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	1840	1000	ug/l	EPA 200.7	6/18/2019	15:47	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	15:47	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:43	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:43	DDP
Iron	2239	100	ug/l	EPA 200.7	6/18/2019	14:43	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:43	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:36	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:36	AJD
Propylene Glycol	See Attached				6/18/2019	21:46	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

06
UTFALL 008A-05
RAB
/11/2019 @ 02:15

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	5.84		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	6.4	3.0	mg/l	SM5210B 21ed	6/11/2019	23:25	AOO
COD	13	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	4.3	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	2600	1000	ug/l	EPA 200.7	6/18/2019	15:50	DDP
Sodium	13000	3000	ug/l	EPA 200.7	6/18/2019	15:50	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/18/2019	14:46	DDP
Copper	<10	10	ug/l	EPA 200.7	6/18/2019	14:46	DDP
Iron	1100	100	ug/l	EPA 200.7	6/18/2019	14:46	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/18/2019	14:46	DDP
Total Metals							
Chromium	0.1	1.0	ug/l	EPA 200.8	6/14/2019	21:40	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:40	AJD
Propylene Glycol	See Attached				6/18/2019	22:04	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/14/2019	17:31	MEM
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	007	
Sample Description:	OUTFALL 002A-06	
Sample Type :	GRAB	
Sample Date / Time :	6/11/2019 @ 03:00	

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZED		ANALYST
pH	6.33		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	4.7	3.0	mg/l	SM5210B 21ed	6/11/2019	23:25	AOO
COD	12	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	5.1	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	2220	1000	ug/l	EPA 200.7	6/18/2019	16:02	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:02	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	15:50	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	15:50	DDP
Iron	3240	100	ug/l	EPA 200.7	6/20/2019	13:42	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	15:50	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:45	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:45	AJD
Propylene Glycol	See Attached				6/18/2019	22:14	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

BOD 5 - Greater than 30% difference in dilution results, highest sample volume reported.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	008
Sample Description:	OUTFALL 003A-06
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 03:00

	SAMPLE	DET.			DATE/TI		ANALYST
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ANALYZED	
pH	6.52		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	23:29	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	16:45	SAS
TOC	3.8	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	3680	1000	ug/l	EPA 200.7	6/18/2019	16:04	DDP
Sodium	9110	3000	ug/l	EPA 200.7	6/18/2019	16:04	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200 7	6/19/2019	15:52	DDP
Copper	10.5	10	ug/l	EPA 200.7	6/19/2019	15:52	DDP
Iron	966	100	ug/l	EPA 200.7	6/20/2019	13:44	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	15:52	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:49	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:49	AJD
Propylene Glycol	See Attached				6/18/2019	22:23	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 Project Name: T.F. GREEN RIPDES MONITORING

009
OUTFALL 008A-06
GRAB
6/11/2019 @ 03:05

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.47		SU	SM4500H+B	6/11/2019	16:40	SAS
BOD 5	5.8	3.0	mg/l	SM5210B 21ed	6/11/2019	23:29	AOO
COD	15	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	4.2	0.5	mg/l	SM5310C 21 ed.	6/13/2019	21:25	SAS
Dissolved Metals							
Potassium	2940	1000	ug/l	EPA 200.7	6/18/2019	16:07	DDP
Sodium	22200	3000	ug/l	EPA 200.7	6/18/2019	16:07	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	15:53	DDP
Copper	10.6	10	ug/l	EPA 200.7	6/19/2019	15:53	DDP
Iron	2170	100	ug/l	EPA 200.7	6/20/2019	13:46	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	15:53	DDP
Total Metals							
Chromium	1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:54	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:54	AJD
Propylene Glycol	See Attached				6/18/2019	22:32	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

010
OUTFALL 002A-07
GRAB
6/11/2019 @ 04:00

	SAMPLE	DET.			DATE/TIME		
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.35		SU	SM4500H+B	6/11/2019	17:00	SAS
BOD 5	5.7	3.0	mg/l	SM5210B 21ed	6/11/2019	23:29	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	4.7	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	2530	1000	ug/l	EPA 200.7	6/18/2019	16:10	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:10	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:03	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:03	DDP
Iron	6500	100	ug/l	EPA 200.7	6/20/2019	13:47	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:03	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:58	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	21:58	AJD
Propylene Glycol	See Attached				6/18/2019	22:41	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

BOD 5 - Greater than 30% difference in dilution results, highest sample volume reported.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

011
OUTFALL 003A-07
GRAB
6/11/2019 @ 04:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.36		SU	SM4500H+B	6/11/2019	17:00	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/11/2019	23:32	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	5.0	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	3180	1000	ug/l	EPA 200.7	6/18/2019	16:13	DDP
Sodium	4690	3000	ug/l	EPA 200.7	6/18/2019	16:13	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:04	DDP
Copper	13.7	10	ug/l	EPA 200.7	6/19/2019	16:04	DDP
Iron	914	100	ug/l	EPA 200.7	6/20/2019	13:49	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:04	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	22:03	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	22:03	AJD
Propylene Glycol	See Attached				6/18/2019	22:50	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	012
Sample Description:	OUTFALL 008A-07
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 04:10

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.45		SU	SM4500H+B	6/11/2019	17:00	SAS
BOD 5	6.0	3.0	mg/l	SM5210B 21ed	6/11/2019	23:32	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/17/2019	8:00	SNI
Surfactants (MBAS)	100	100	ug/I	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	4.5	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	2750	1000	ug/l	EPA 200.7	6/18/2019	16:16	DDP
Sodium	12400	3000	ug/l	EPA 200.7	6/18/2019	16:16	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:06	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:06	DDP
Iron	928	100	ug/l	EPA 200.7	6/20/2019	13:50	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:06	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	22:07	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/14/2019	22:07	AJD
Propylene Glycol	See Attached				6/18/2019	22:59	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/13/2019	17:21	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	013
Sample Description:	OUTFALL 002A-08
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 05:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.49		SU	SM4500H+B	6/11/2019	17:00	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:26	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	110	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	3.1	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	3720	1000	ug/l	EPA 200.7	6/18/2019	16:19	DDP
Sodium	6970	3000	ug/l	EPA 200.7	6/18/2019	16:19	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:08	DDP
Copper	11.3	10	ug/l	EPA 200.7	6/19/2019	16:08	DDP
Iron	703	100	ug/l	EPA 200.7	6/20/2019	13:52	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:08	DDP
Total Metals							
Chromium	1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:17	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:17	AJD
Propylene Glycol	See Attached				6/18/2019	23:08	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	014	
Sample Description:	OUTFALL 003A-08	
Sample Type :	GRAB	
Sample Date / Time :	6/11/2019 @ 05:00	
Sumple Dite / Fille !	01112013 (0 05100	

PARAMETER RESULTS LIMIT UNITS METHOD ANALYZED pH 6.31 SU SM4500H+B 6/11/2019 17:00 BOD 5 <3.0 3.0 mg/l SM5210B 21ed 6/12/2019 17:26	ANALYST SAS AOO SNI SAS
	AOO SNI
BOD 5 <3.0 3.0 mg/l SM5210B.21gd 6/12/2019 17:26	SNI
5.0 5.0 Ingr 5.05210521052105	
COD 12 10 mg/l SM5220D 18-21ed 6/18/2019 8:00	SAS
Surfactants (MBAS) 120 100 ug/l SM5540C 18-21ed 6/11/2019 19:00	
TOC 3.0 0.5 mg/l SM5310C 21 ed. 6/17/2019 17:52	SAS
Dissolved Metals	
Potassium 1460 1000 ug/l EPA 200.7 6/18/2019 16:22	DDP
Sodium <3000 3000 ug/l EPA 200.7 6/18/2019 16:22	DDP
Total Metals	
Aluminum <100 100 ug/l EPA 200.7 6/19/2019 16:09	DDP
Copper <10 10 ug/l EPA 200.7 6/19/2019 16:09	DDP
Iron 14200 100 ug/l EPA 200.7 6/20/2019 13:54	DDP
Zinc <100 100 ug/l EPA 200.7 6/19/2019 16:09	DDP
Total Metals	
Chromium <1.0 1.0 ug/l EPA 200.8 6/20/2019 20:26	AJD
Lead 1.5 1.0 ug/l EPA 200.8 6/20/2019 20:26	AJD
Propylene Glycol See Attached 6/18/2019 23:17	*PA
ICP Digestion (Dissolved) EPA 200.7 6/14/2019 13:03	MEM
ICP Digestion EPA 200.7 6/18/2019 13:27	RB
ICPMS Digestion EPA 200.8 6/19/2019 13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

015
OUTFALL 008A-08
GRAB
6/11/2019 @ 05:10

SAMPLE	DET.			DATE/TI	ME	
RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
6.40		SU	SM4500H+B	6/11/2019	17:38	SAS
3.6	3.0	mg/l	SM5210B 21ed	6/12/2019	17:26	AOO
16	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
3.5	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
1300	1000	ug/l	EPA 200.7	6/18/2019	16:24	DDP
6880	3000	ug/l	EPA 200.7	6/18/2019	16:24	DDP
180	100	ug/l	EPA 200.7	6/19/2019	16:13	DDP
12.3	10	ug/l	EPA 200.7	6/19/2019	16:13	DDP
2160	100	ug/l	EPA 200.7	6/20/2019	13:57	DDP
<100	100	ug/l	EPA 200.7	6/19/2019	16:13	DDP
1.8	1.0	ug/l	EPA 200.8	6/20/2019	20:30	AJD
1,6	1.0	ug/l	EPA 200.8	6/20/2019	20:30	AJD
See Attached				6/18/2019	23:26	*PA
			EPA 200.7	6/14/2019	13:03	MEM
			EPA 200.7	6/18/2019	13:27	RB
			EPA 200.8	6/19/2019	13:27	RB
	RESULTS 6.40 3.6 16 <100 3.5 1300 6880 180 12.3 2160 <100 1.8 1.8 1.6	RESULTS LIMIT 6,40 3.6 3.0 3.6 3.0 16 10 <100	RESULTS LIMIT UNITS 6.40 SU 3.6 3.0 mg/l 16 10 mg/l <100	RESULTS LIMIT UNITS METHOD 6,40 SU SM4500H+B 3.6 3.0 mg/l SM5210B 21ed 16 10 mg/l SM520D 18-21ed <100	RESULTS LIMIT UNITS METHOD ANALYZ 6.40 SU SM4500H+B $6/11/2019$ 3.6 3.0 mg/l SM5210B 21ed $6/12/2019$ 16 10 mg/l SM520D 18-21ed $6/18/2019$ <100 100 ug/l SM5540C 18-21ed $6/11/2019$ 3.5 0.5 mg/l SM5310C 21 ed. $6/17/2019$ 3.5 0.5 mg/l EPA 200.7 $6/18/2019$ 1300 1000 ug/l EPA 200.7 $6/18/2019$ 1300 100 ug/l EPA 200.7 $6/19/2019$ 12.3 10 ug/l EPA 200.7 $6/19/2019$ 2160 100 ug/l EPA 200.7 $6/19/2019$ 1.8 1.0 ug/l EPA 200.8 $6/20/2019$ 1.6 1.0 ug/l EPA 200.8 $6/20/2019$ $8e$ Attached $EPA 200.7$ $6/18/2019$ $6/18/2019$ $EPA 200.7$ $6/1$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	016
Sample Description:	OUTFALL 002A-09
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 06:00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	5.79		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:28	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	130	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	3.0	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1120	1000	ug/l	EPA 200.7	6/18/2019	16:27	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:27	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:14	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:14	DDP
Iron	2180	100	ug/l	EPA 200.7	6/20/2019	14:32	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:14	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:35	AJD
Lead	1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:35	AJD
Propylene Glycol	See Attached				6/18/2019	23:45	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	017
Sample Description:	OUTFALL 003A-09
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 06:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
		LINI		SM4500H+B	6/11/2019	17:38	SAS
pH	6.26	2.0	SU		6/12/2019		AOO
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed		17:28	1000
COD	14	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	4.5	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1690	1000	ug/l	EPA 200.7	6/18/2019	16:38	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	16:38	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:17	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:17	DDP
Iron	356	100	ug/l	EPA 200.7	6/20/2019	14:36	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:17	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:39	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:39	AJD
Propylene Glycol	See Attached				6/18/2019	23:54	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	018
Sample Description:	OUTFALL 008A-09
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 06:05

DADAMETED	SAMPLE	DET.	UNITO	METHOD	DATE/TI		
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	CED	ANALYST
pH	6.47		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:28	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	3.6	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1580	1000	ug/l	EPA 200.7	6/18/2019	16:41	DDP
Sodium	6240	3000	ug/l	EPA 200.7	6/18/2019	16:41	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:41	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:41	DDP
Iron	1290	100	ug/l	EPA 200.7	6/20/2019	14:37	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:41	DDP
Total Metals							
Chromium	1.3	1.0	ug/l	EPA 200.8	6/20/2019	20:44	AJD
Lead	<1.0	10	ug/l	EPA 200.8	6/20/2019	20:44	AJD
Propylene Glycol	See Attached				6/19/2019	0:03	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:03	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	019
Sample Description:	OUTFALL 002A-10
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 07:00

SAMPLE	DET.			DATE/TI	ME	
RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
6.16		SU	SM4500H+B	6/11/2019	17:38	SAS
<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:31	AOO
<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
3.2	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
1250	1000	ug/l	EPA 200.7	6/18/2019	16:44	DDP
<3000	3000	ug/l	EPA 200.7	6/18/2019	16:44	DDP
<100	100	ug/l	EPA 200.7	6/19/2019	16:43	DDP
<10	10	ug/l	EPA 200.7	6/19/2019	16:43	DDP
1330	100	ug/l	EPA 200.7	6/20/2019	14:39	DDP
<100	100	ug/l	EPA 200.7	6/19/2019	16:43	DDP
<1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:48	AJD
<1.0	1.0	ug/l	EPA 200.8	6/20/2019	20:48	AJD
See Attached				6/19/2019	0:12	*PA
			EPA 200.7	6/14/2019	13:03	MEM
			EPA 200.7	6/18/2019	13:27	RB
			EPA 200.8	6/19/2019	13:27	RB
	RESULTS 6.16 <3.0 <10 <100 3.2 1250 <3000 <100 <100 <100 <100 <100 <1.0 <1.0 <1.0	RESULTS LIMIT 6.16 3.0 <3.0 3.0 <10 10 <10 10 <100 100 3.2 0.5 1250 1000 <3000 3000 <100 100 <100 100 <100 100 <100 100 <100 100 <1.0 1.0	RESULTS LIMIT UNITS 6.16 SU <3.0	RESULTS LIMIT UNITS METHOD 6.16 SU SM4500H+B <3.0	RESULTS LIMIT UNITS METHOD ANALYZ 6.16 SU SM4500H+B 6/11/2019 <3.0	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #:1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	020
Sample Description:	OUTFALL 003A-10
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 07:00
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PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.37	LIMIT	SU				
BOD 5		2.0		SM4500H+B	6/11/2019	17:38	SAS
	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:31	AOO
COD	11	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	5.6	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	3190	1000	ug/l	EPA 200.7	6/18/2019	15:36	DDP
Sodium	3680	3000	ug/l	EPA 200.7	6/18/2019	15:36	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:46	DDP
Copper	11.1	10	ug/l	EPA 200.7	6/19/2019	16:46	DDP
Iron	909	100	ug/l	EPA 200.7	6/20/2019	14:42	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:46	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:01	AJD
Lead	<1.0	0.1	ug/l	EPA 200.8	6/20/2019	21:01	AJD
Propylene Glycol	See Attached				6/19/2019	0:21	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	021
Sample Description:	OUTFALL 008A-10
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 07:05

	SAMPLE	DET.		Superstandards	DATE/TI		
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	CED	ANALYST
pH	6.31		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:31	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	3.4	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	2330	1000	ug/l	EPA 200.7	6/18/2019	15:42	DDP
Sodium	10400	3000	ug/l	EPA 200.7	6/18/2019	15:42	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:50	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:50	DDP
Iron	699	100	ug/I	EPA 200.7	6/20/2019	14:53	DDP
Zine	<100	100	ug/I	EPA 200.7	6/19/2019	16:50	DDP
Total Metals							
Chromium	1.1	1.0	ug/l	EPA 200.8	6/20/2019	21:06	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:06	AJD
Propylene Glycol	See Attached				6/19/2019	0:30	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

022	
OUTFALL 002A-11	
GRAB	
6/11/2019 @ 08:00	
	OUTFALL 002A-11 GRAB

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE/TI ANALYZ		ANALYST
pH	6.10		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:35	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	3.1	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	<1000	1000	ug/l	EPA 200.7	6/18/2019	15:43	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	15:43	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:52	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:52	DDP
Iron	2490	100	ug/l	EPA 200.7	6/20/2019	14:55	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:52	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:10	AJD
Lead	1.6	1.0	ug/l	EPA 200.8	6/20/2019	21:10	AJD
Propylene Glycol	See Attached				6/18/2019	0:39	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	023
Sample Description:	OUTFALL 003A-11
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 08:00
Sample Date / Time .	0/11/2013 @ 00.00

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.20		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:35	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/I	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	4.3	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1290	1000	ug/l	EPA 200.7	6/18/2019	15:45	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	15:45	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	16:53	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:53	DDP
Iron	894	100	ug/l	EPA 200.7	6/20/2019	14:57	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:53	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:15	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:15	AJD
Propylene Glycol	See Attached				6/18/2019	0:49	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp.

Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	024	
Sample Description:	OUTFALL 008A-11	
Sample Type :	GRAB	
Sample Date / Time :	6/11/2019 @ 08:05	

	SAMPLE	DET.			DATE/TI	ME	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ZED	ANALYST
pH	6.33		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:35	AOO
COD	11	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/11/2019	19:00	SAS
TOC	3.7	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1210	1000	ug/l	EPA 200.7	6/18/2019	15:46	DDP
Sodium	4070	3000	ug/l	EPA 200.7	6/18/2019	15:46	DDP
Total Metals							
Aluminum	102	100	ug/l	EPA 200.7	6/19/2019	16:55	DDP
Copper	<10	10	ug/l	EPA 200.7	6/19/2019	16:55	DDP
Iron	882	100	ug/l	EPA 200.7	6/20/2019	14:58	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	16:55	DDP
Total Metals							
Chromium	1.6	1.0	ug/l	EPA 200.8	6/20/2019	21:19	AJD
Lead	1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:19	AJD
Propylene Glycol	See Attached				6/19/2019	0:58	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/18/2019	13:27	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

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Sample Description: OUTFALL 002A-12	
Sample Type : GRAB	
Sample Date / Time : 6/11/2019 @ 09:00	

SAMPLE	DET.			DATE/TIME		
RESULTS	LIMIT	UNITS	METHOD	ANALYZ	ED	ANALYST
6.07		SU	SM4500H+B	6/11/2019	17:38	SAS
<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:38	A00
14	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
110	100	ug/l	SM5540C 18-21ed	6/12/2019	19:30	DMC
3.2	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
1200	1000	ug/l	EPA 200.7	6/18/2019	15:48	DDP
<3000	3000	ug/l	EPA 200.7	6/18/2019	15:48	DDP
<100	100	ug/l	EPA 200.7	6/19/2019	17:03	DDP
<10	10	ug/l	EPA 200.7	6/19/2019	17:03	DDP
2230	100	ug/l	EPA 200.7	6/20/2019	15:00	DDP
<100	100	ug/l	EPA 200.7	6/19/2019	17:03	DDP
<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:24	AJD
<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:24	AJD
See Attached				6/19/2019	1:07	*PA
			EPA 200.7	6/14/2019	13:23	MEM
			EPA 200.7	6/18/2019	13:27	RB
			EPA 200.8	6/19/2019	13:27	RB
	RESULTS 6.07 <3.0 14 110 3.2 1200 <3000 <100 <100 <100 2230 <100 <1.0 <1.0	RESULTS LIMIT 6.07 3.0 <3.0	RESULTS LIMIT UNITS 6.07 SU <3.0	RESULTS LIMIT UNITS METHOD 6.07 SU SM4500H+B <3.0	RESULTS LIMIT UNITS METHOD ANALYZ 6.07 SU SM4500H+B 6/11/2019 <3.0	NAME LIMIT UNITS METHOD ANALYZED 6.07 SU SM4500H+B 6/11/2019 17:38 <3.0

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #:1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number:	026
Sample Description:	OUTFALL 003A-12
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 09:00
Sample Date / Thire .	0/11/2019 (0.09.00

	SAMPLE	DET.			DATE/TI	21332	
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.13		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:38	AOO
COD	11	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	150	100	ug/l	SM5540C 18-21ed	6/12/2019	19:30	DMC
TOC	4.7	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1420	1000	ug/I	EPA 200.7	6/18/2019	15:56	DDP
Sodium	<3000	3000	ug/l	EPA 200.7	6/18/2019	15:56	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/19/2019	12:44	DDP
Copper	12.3	10	ug/l	EPA 200.7	6/19/2019	12:44	DDP
Iron	385	100	ug/l	EPA 200.7	6/19/2019	12:44	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/19/2019	12:44	DDP
Total Metals							
Chromium	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:33	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:33	AJD
Propylene Glycol	See Attached				6/19/2019	1:25	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/18/2019	16:25	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number:	027
Sample Description:	OUTFALL 008A-12
Sample Type :	GRAB
Sample Date / Time :	6/11/2019 @ 09:00

	SAMPLE	DET.			DATE/TIME		
PARAMETER	RESULTS	LIMIT	UNITS	METHOD	ANALYZ	LED	ANALYST
pH	6.32		SU	SM4500H+B	6/11/2019	17:38	SAS
BOD 5	<3.0	3.0	mg/l	SM5210B 21ed	6/12/2019	17:38	AOO
COD	<10	10	mg/l	SM5220D 18-21ed	6/18/2019	8:00	SNI
Surfactants (MBAS)	<100	100	ug/l	SM5540C 18-21ed	6/12/2019	19:30	DMC
TOC	3.8	0.5	mg/l	SM5310C 21 ed.	6/17/2019	17:52	SAS
Dissolved Metals							
Potassium	1690	1000	ug/l	EPA 200.7	6/18/2019	15:58	DDP
Sodium	12000	3000	ug/l	EPA 200.7	6/18/2019	15:58	DDP
Total Metals							
Aluminum	<100	100	ug/l	EPA 200.7	6/21/2019	12:40	DDP
Copper	<10	10	ug/l	EPA 200.7	6/21/2019	12:40	DDP
Iron	865	100	ug/l	EPA 200.7	6/21/2019	12:40	DDP
Zinc	<100	100	ug/l	EPA 200.7	6/21/2019	12:40	DDP
Total Metals							
Chromium	1.8	1.0	ug/l	EPA 200.8	6/20/2019	21:37	AJD
Lead	<1.0	1.0	ug/l	EPA 200.8	6/20/2019	21:37	AJD
Propylene Glycol	See Attached				6/18/2019	19:01	*PA
ICP Digestion (Dissolved)				EPA 200.7	6/14/2019	13:23	MEM
ICP Digestion				EPA 200.7	6/19/2019	12:13	RB
ICPMS Digestion				EPA 200.8	6/19/2019	13:27	RB

*PA Propylene Glycol analyzed by Pace Analytical Services.

The pH analysis ideally should be performed in the field. The pH analysis was performed by the laboratory as soon as possible after receipt.

Sample Number: Sample Description: Sample Type : Sample Date / Time :	028 OUTFALL 0010A-04 GRAB 6/11/2019 @ 01:56					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYST DMC

Laboratory Report

Rhode Island Airport Corp. Work Order #:1906-10661

Project Name: T.F. GREEN RIPDES MONITORING

Sample Number: Sample Description: Sample Type : Sample Date / Time :	029 OUTFALL 0010A-05 GRAB 6/11/2019 @ 02:40					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYST DMC
Sample Number: Sample Description: Sample Type : Sample Date / Time :	030 OUTFALL 0010A-06 GRAB 6/11/2019 @ 03:30					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYST DMC
Sample Number: Sample Description: Sample Type : Sample Date / Time :	031 OUTFALL 0010A-07 GRAB 6/11/2019 @ 04:30					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYST DMC
Sample Number: Sample Description: Sample Type : Sample Date / Time :	032 OUTFALL 0010A-08 GRAB 6/11/2019 @ 05:20					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYST DMC

Laboratory Report

Rhode Island Airport Corp. Work Order #: 1906-10661 **Project Name:** T.F. GREEN RIPDES MONITORING

Sample Number: Sample Description: Sample Type : Sample Date / Time :	033 OUTFALL 0010A-09 GRAB 6/11/2019 @ 06:20					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYS DMC
Sample Number: Sample Description: Sample Type : Sample Date / Time :	034 OUTFALL 0010A-10 GRAB 6/11/2019 @ 07:20					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYS DMC
Sample Number: Sample Description: Sample Type : Sample Date / Time :	035 OUTFALL 0010A-11 GRAB 6/11/2019 @ 08:20					
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYS' DMC
Sample Number: Sample Description: Sample Type : Sample Date / Time :	036 OUTFALL 0010A-12 GRAB 6/11/2019 @ 09:20	1				
PARAMETER Dry - no sample	SAMPLE RESULTS Complete	DET. LIMIT	UNITS	METHOD	DATE/TIME ANALYZED 7/8/2019 15:52	ANALYS DMC



Pace Analytical Services, LLC Page 31 of 70 ⁵⁷⁵ Broad Hollow Road Melville, NY 11747 (631)694-3040

July 01, 2019

Data Reporting R.I. Analytical Laboratories 41 Illinois Avenue Warwick, RI 02888

RE: Project: 1906-10661 Pace Project No.: 7093907

Dear Data Reporting:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 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,

Sophia Sparkes

Sophia Sparkes sophia.sparkes@pacelabs.com (631)694-3040 Project Manager

Enclosures

cc: Kristen Phelan, R.I. Analytical Laboratories Dawne Smart, R.I. Analytical



REPORT OF LABORATORY ANALYSIS



Pace Analytical Services, LLC Page 32 of 70 575 Broad Hollow Road Melville, NY 11747 (631)694-3040

CERTIFICATIONS

 Project:
 1906-10661

 Pace Project No.:
 7093907

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268 Illinois Certification #: 200074 Indiana Certification #: C-49-06 Kansas/NELAP Certification #: E-10177 Kentucky UST Certification #: 80226 Kentucky WW Certification #: 98019 Michigan Department of Environmental Quality, Laboratory #9050 Ohio VAP Certification #: CL0065 Oklahoma Certification #: 2018-101 Texas Certification #: T104704355 West Virginia Certification #: 330 Wisconsin Certification #: 999788130 USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS



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SAMPLE ANALYTE COUNT

 Project:
 1906-10661

 Pace Project No.:
 7093907

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7093907001	1906-10661-001	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907002	1906-10661-002	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907003	1906-10661-003	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907004	1906-10661-004	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907005	1906-10661-005	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907006	1906-10661-006	EPA 8015 Alcohol-Glycol	СРН	1	PASI-I
7093907007	1906-10661-007	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907008	1906-10661-008	EPA 8015 Alcohol-Glycol	СРН	1	PASI-I
7093907009	1906-10661-009	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907010	1906-10661-010	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907011	1906-10661-011	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907012	1906-10661-012	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907013	1906-10661-013	EPA 8015 Alcohol-Glycol	СРН	1	PASI-I
7093907014	1906-10661-014	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907015	1906-10661-015	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907016	1906-10661-016	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907017	1906-10661-017	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907018	1906-10661-018	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907019	1906-10661-019	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907020	1906-10661-020	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907021	1906-10661-021	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907022	1906-10661-022	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907023	1906-10661-023	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907024	1906-10661-024	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907025	1906-10661-025	EPA 8015 Alcohol-Glycol	СРН	1	PASI-I
7093907026	1906-10661-026	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I
7093907027	1906-10661-027	EPA 8015 Alcohol-Glycol	CPH	1	PASI-I

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907								
Sample: 1906-106	61-001	Lab ID: 709	3907001	Collected: 06/1	1/19 01:00	Received:	06/17/19 15:45	Matrix: Other	
Results reported of		' basis and are adj	usted for p	ercent moisture,	sample siz	ze and any di	lutions.		
Paran	neters	Results	Units	Report Limi	t DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80	15 Alcohol-Glyco					
Propylene glycol		<5.0	mg/L	5	.0 1		06/18/19 18:2	5 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-002	Lab ID: 709	3907002	Collected: 06/11/1	9 01:00	Received: 0	6/17/19 15:45 M	Matrix: Other	
Results reported on a "dry weig	pht" basis and are ad	justed for pe	ercent moisture, sa	mple siz	e and any dilu	itions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Met	hod: EPA 801	5 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/18/19 21:19	57-55-6	

REPORT OF LABORATORY ANALYSIS



Project: Pace Project No.:	1906-10661 7093907								
Sample: 1906-106		Lab ID: 709		Collected: 06/11/				Matrix: Other	
	meters	Results	Units	Report Limit	DF	Prepaçed	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 21:2	8 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907								
Sample: 1906-100 Results reported		Lab ID: 709 basis and are adj		Collected: 06/11/1				Matrix: Other	
Parar	meters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80	015 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 21:37	7 57-55-6	

REPORT OF LABORATORY ANALYSIS

Date: 07/01/2019 02:58 PM



Project:	1906-10661									
Pace Project No .:	7093907									
Sample: 1906-106	661-005	Lab ID: 709	3907005	Collected:	06/11/1	9 02:00	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	' basis and are adj	iusted for p	percent mois	ture, sa	mple siz	e and any dilu	utions.		
Paran	neters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80)15 Alcohol-G	ilycol					
Propylene glycol		<5.0	mg/L		5.0	1		06/18/19 21:4	6 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-006	Lab ID: 709	3907006	Collected: 06/11/1	9 02:15	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ght" basis and are adj	usted for pe	ercent moisture, sa	mple si	ze and any dilu	itions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Meth	nod: EPA 801	5 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/18/19 22:04	57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No.: Sample: 1906-106		Lab ID: 709		Collected: 06/11			06/17/19 15:45	Matrix: Other	
Results reported o		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in v	water	Analytical Meth	nod: EPA 80	15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 22:1	4 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-008	Lab ID: 7093	3907008	Collected: 06/11/1	9 03:00	Received: 06	6/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ght" basis and are adj	usted for pe	rcent moisture, sa	mple si	ze and any dilu	tions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Meth	od: EPA 801	5 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/18/19 22:23	3 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661									
Pace Project No .:	7093907									
Sample: 1906-106	661-009	Lab ID: 709	3907009	Collected:	06/11/1	9 03:05	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	usted for p	ercent mois	ture, sa	mple siz	e and any d	ilutions.		
Paran	neters	Results	Units	Report	t Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80)15 Alcohol-G	Blycol					
Propylene glycol		<5.0	mg/L		5.0	1		06/18/19 22:3	2 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-010	Lab ID: 709	3907010	Collected: 06/11/1	9 04:00	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ght" basis and are adj	usted for pe	ercent moisture, sa	mple si	ze and any dilu	itions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Meth	nod: EPA 80'	15 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/18/19 22:4	1 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907								
Sample: 1906-106	661-011	Lab ID: 709	3907011	Collected: 06	6/11/19 04:00	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	iusted for p	ercent moistur	e, sample s	ize and any di	lutions.		
Parar	neters	Results	Units	Report Lir	mit DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80	15 Alcohol-Glyc	ol				
Propylene glycol		<5.0	mg/L		5.0 1		06/18/19 22:5	50 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661									
Pace Project No.:	7093907									
Sample: 1906-100 Results reported		Lab ID: 709 basis and are ad		Collected: percent moist			0.90.8.8.9.9.8.8.9.		Matrix: Other	
Parar	meters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 80)15 Alcohol-G	lycol					
Propylene glycol		<5.0	mg/L		5.0	1		06/18/19 22:59	9 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No.:	7093907								
Sample: 1906-10661-013		Lab ID: 709	3907013	Collected: 06/11/	19 05:00	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	' basis and are adj	usted for p	percent moisture, s	ample siz	ze and any di	lutions.		
Paran	neters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	nod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/18/19 23:0)8 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907								
Sample: 1906-10661-014		Lab ID: 709		Collected: 06/11			6/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are ad	usted for p	ercent moisture,	sample si	ize and any dilu	utions.		
Paran	neters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	nod: EPA 80	15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0) 1		06/18/19 23:1	7 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907							A	
Sample: 1906-10661-015		Lab ID: 709	3907015	Collected: 06/	11/19 05:10	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	usted for p	ercent moisture	, sample siz	ze and any dil	lutions.		
Paran	neters	Results	Units	Report Lim	it DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met)15 Alcohol-Glycc	ol					
Propylene glycol		<5.0	mg/L	Ę	5.0 1		06/18/19 23:2	6 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

and the state of t								
Sample: 1906-10661-016	Lab ID: 709	3907016	Collected: 06/11/1	9 06:00	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	pht" basis and are ad	justed for p	ercent moisture, sa	ample siz	e and any dilu	itions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Met	hod: EPA 80	15 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/18/19 23:45	5 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No.:	7093907								
Sample: 1906-106	61-017	Lab ID: 709	3907017	Collected: 06/1	1/19 06:00	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	usted for p	ercent moisture,	sample si	ze and any di	lutions.		
Param	neters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in v	water	Analytical Meth	nod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.	0 1		06/18/19 23:5	54 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-018	Lab ID: 709	3907018	Collected: 06/11/1	9 06.05	Received: 06	/17/19 15:45	Matrix: Other	
Results reported on a "dry weig							Matrix. Other	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Meth	nod: EPA 801	15 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/19/19 00:0	3 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661									
Pace Project No.:	7093907									
Sample: 1906-106	61-019	Lab ID: 709	3907019	Collected:	06/11/1	9 07:00	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	usted for p	ercent mois	sture, sa	mple siz	e and any d	ilutions.		
Paran	neters	Results	Units	Report	t Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80)15 Alcohol-G	Blycol					
Propylene glycol		<5.0	mg/L		5.0	1		06/19/19 00:1	12 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-020	Lab ID: 709	3907020	Collected: 06/11/1	9 07:00	Received: 0	06/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ght" basis and are adj	usted for pe	rcent moisture, sa	mple si	ze and any dilu	utions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Meth	nod: EPA 801	5 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/19/19 00:21	1 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-021	Lab ID: 709	3907021	Collected: 06/11/1	19 07:05	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ght" basis and are ad	justed for pe	ercent moisture, sa	ample si	ze and any dilu	utions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Met	hod: EPA 80	15 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/19/19 00:30) 57-55-6	

REPORT OF LABORATORY ANALYSIS



 Project:
 1906-10661

 Pace Project No.:
 7093907

Sample: 1906-10661-022	Lab ID: 709	3907022	Collected: 06/11/	19 08:00	Received: (06/17/19 15:45	Matrix: Other	
Results reported on a "dry weig	ght" basis and are ad	justed for p	ercent moisture, sa	ample si	ze and any dil	utions.		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in water	Analytical Met	thod: EPA 80	15 Alcohol-Glycol					
Propylene glycol	<5.0	mg/L	5.0	1		06/19/19 00:3	9 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907								
Sample: 1906-106	661-023	Lab ID: 709	3907023	Collected: 06/11/	19 08:00	Received: 0	6/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight'	' basis and are adj	usted for p	ercent moisture, s	ample siz	ze and any dilu	utions.		
Paran	meters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/19/19 00:4	9 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No.:	7093907								
Sample: 1906-100	661-024	Lab ID: 709	3907024	Collected: 0	6/11/19 08:0	05 Received: 0	06/17/19 15:45	Matrix: Other	
Results reported	on a "dry weight"	basis and are ad	justed for pe	rcent moistu	ire, sample	size and any dil	utions.		
Parameters		Results	Units	Report L	imit DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	hod: EPA 801	5 Alcohol-Gly	rcol				
Propylene alvcol		<5.0	ma/L		5.0 1		06/19/19 00:	58 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No.:	7093907								
Sample: 1906-106	61-025	Lab ID: 709	3907025	Collected: 06/11/	19 09:00	Received:	06/17/19 15:45	Matrix: Other	
Results reported of	on a "dry weight"	basis and are adj	usted for p	percent moisture, s	ample siz	e and any dil	lutions.		
Paran	neters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Meth	nod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.0	1		06/19/19 01:0	7 57-55-6	

REPORT OF LABORATORY ANALYSIS



CAS No.

Qual

Analyzed

ANALYTICAL RESULTS

Project: 1906-10661 Pace Project No .: 7093907 Lab ID: 7093907026 Sample: 1906-10661-026 Collected: 06/11/19 09:00 Received: 06/17/19 15:45 Matrix: Other Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions. Parameters Units Results Report Limit DF Prepared

8015M Glycols in water	Analytical Meth	od: EPA 8015 Alc	ohol-Glycol				
Propylene glycol	<5.0	mg/L	5.0	1	06/19/19 01:2	5 57-55-6	

REPORT OF LABORATORY ANALYSIS



Project:	1906-10661								
Pace Project No .:	7093907								
Sample: 1906-10	661-027	Lab ID: 709	3907027	Collected: 06/11	/19 09:20	Received: C	06/17/19 15:45	Matrix: Other	
Results reported	on a "dry weight"	' basis and are adj	usted for p	ercent moisture,	sample si	ze and any dil	utions.		
Parar	meters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015M Glycols in	water	Analytical Met	nod: EPA 80)15 Alcohol-Glycol					
Propylene glycol		<5.0	mg/L	5.) 1		06/18/19 19:01	1 57-55-6	

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA

Project:	1906-1	0661										
Pace Project No.:	709390	7										
QC Batch:	50713	36		Analys	is Method:	E	PA 8015 Ald	cohol-Glyco	d			
QC Batch Method:	EPA 8	015 Alcohol-C	Glycol	Analys	sis Descript	ion: E	PA 8015 M	odified				
Associated Lab San	nples:	7093907001 7093907009 7093907017	, 7093907002, , 7093907010,	, 7093907003 , 7093907011	, 70939070 , 70939070	004, 70939 012, 70939	07005, 709 07013, 709	3907006, 7 3907014, 7	093907007 093907018	7, 7093907 5, 7093907	7008, 7016,	
METHOD BLANK:	234014	4		N	Aatrix: Wat	er						
Associated Lab San	nples:	7093907001, 7093907009, 7093907017	7093907002, 7093907010,	7093907003 7093907011	, 70939070 , 70939070	004, 70939 012, 70939	07005, 709 07013, 709	3907006, 7 3907014, 7	093907007 093907015	7, 7093907 5, 7093907	7008, 7016,	
				Blank	R	eporting						
Paran	neter		Units	Resul	t	Limit	Analyz	zed	Qualifiers			
Propylene glycol			mg/L		<5.0	5.0	06/18/19	17:21		_		
LABORATORY COM	NTROL S	SAMPLE: 2	340145			_						
				Spike	LCS		LCS	% Rec	-			
Paran	neter	-	Units	Conc.	Resu	lt	% Rec	Limits	Q	ualifiers		
Propylene glycol			mg/L	25		21.3	85	42	-141			
MATRIX SPIKE & M	IATRIX S		CATE: 2340)146		2340147						
				MS	MSD							
			7093907001	I Spike	Spike	MS	MSD	MS	MSD	% Rec		
Paramet	er	Unit		Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qua

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: Pace Project No.:	1906-10661 7093907											
QC Batch:	507138			Analysi	s Method:	E	PA 8015 Alc	ohol-Glyco	1			
QC Batch Method:	EPA 8015	Alcohol-Gly	col	Analysi	s Descript	ion: E	PA 8015 Mc	dified				
Associated Lab San		3907018, 70 3907026, 70		7093907020,	70939070	021, 70939	07022, 7093	3907023, 70	093907024	, 7093907	025,	
METHOD BLANK:	2340152			M	latrix: Wat	ter				-		
Associated Lab Sar		3907018, 70 3907026, 70		7093907020,	70939070	021, 70939	07022, 7093	3907023, 70	093907024	, 7093907	025,	
				Blank	R	eporting						
Parar	neter		Units	Result		Limit	Analyz	ed	Qualifiers	_		
Propylene glycol			mg/L		<5.0	5.0	06/18/19	17:39				
LABORATORY CO	NTROL SAM	PLE: 2340	0153									
				Spike	LCS		LCS	% Rec				
Parar	neter		Units	Conc.	Resu	ılt	% Rec	Limits	Qu	ualifiers		
Propylene glycol	2		mg/L	25		20.8	83	42	-141			
MATRIX SPIKE & N	MATRIX SPIK	E DUPLICA	TE: 2340	10100		2340155	-					
			7000007007	MS	MSD	MS	MSD	MS	MSD	% Rec		
Parame	ter	Units	7093907027 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qual
				and the second se							3	

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



QUALIFIERS

Project:	1906-10661
Pace Project No .:	7093907

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 NELAC Institute.

LABORATORIES

PASI-I Pace Analytical Services - Indianapolis

REPORT OF LABORATORY ANALYSIS



QUALITY CONTROL DATA CROSS REFERENCE TABLE

 Project:
 1906-10661

 Pace Project No.:
 7093907

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
7093907001	1906-10661-001	EPA 8015 Alcohol-Glycol	507136		
7093907002	1906-10661-002	EPA 8015 Alcohol-Glycol	507136		
7093907003	1906-10661-003	EPA 8015 Alcohol-Glycol	507136		
7093907004	1906-10661-004	EPA 8015 Alcohol-Glycol	507136		
7093907005	1906-10661-005	EPA 8015 Alcohol-Glycol	507136		
7093907006	1906-10661-006	EPA 8015 Alcohol-Glycol	507136		
7093907007	1906-10661-007	EPA 8015 Alcohol-Glycol	507136		
7093907008	1906-10661-008	EPA 8015 Alcohol-Glycol	507136		
7093907009	1906-10661-009	EPA 8015 Alcohol-Glycol	507136		
7093907010	1906-10661-010	EPA 8015 Alcohol-Glycol	507136		
7093907011	1906-10661-011	EPA 8015 Alcohol-Glycol	507136		
7093907012	1906-10661-012	EPA 8015 Alcohol-Glycol	507136		
7093907013	1906-10661-013	EPA 8015 Alcohol-Glycol	507136		
7093907014	1906-10661-014	EPA 8015 Alcohol-Glycol	507136		
7093907015	1906-10661-015	EPA 8015 Alcohol-Glycol	507136		
7093907016	1906-10661-016	EPA 8015 Alcohol-Glycol	507136		
7093907017	1906-10661-017	EPA 8015 Alcohol-Glycol	507136		
7093907018	1906-10661-018	EPA 8015 Alcohol-Glycol	507138		
7093907019	1906-10661-019	EPA 8015 Alcohol-Glycol	507138		
7093907020	1906-10661-020	EPA 8015 Alcohol-Glycol	507138		
7093907021	1906-10661-021	EPA 8015 Alcohol-Glycol	507138		
7093907022	1906-10661-022	EPA 8015 Alcohol-Glycol	507138		
7093907023	1906-10661-023	EPA 8015 Alcohol-Glycol	507138		
7093907024	1906-10661-024	EPA 8015 Alcohol-Glycol	507138		
7093907025	1906-10661-025	EPA 8015 Alcohol-Glycol	507138		
7093907026	1906-10661-026	EPA 8015 Alcohol-Glycol	507138		
7093907027	1906-10661-027	EPA 8015 Alcohol-Glycol	507138		

REPORT OF LABORATORY ANALYSIS

an boung of the orthogonal						11			1											Turn Around Time		Normai	Rush (Days) a	6/12/2019	c. lab	Overnight Shinned on Ice	1906-10661
					-000002 · #UM	JADAU			7002007				Subcontractor Information:	Pace Analytical Services-IN	7726 Moller Road	Indianapolis, IN 46268	Sophia Sparkes	Sophia.Sparkes@pacetabs.com	317-228-3100	Date Time		6/13/19 905 X N		Date Shipped:	XFe	XX	5.) °
	na konstanta konstanta antana antana konstanta 1 - Alfana Igo Mana Konstanta antana di majaraka 1 - Alfana Igo Mana Konstanta (Mana Konstanta)																					24					Temperature Upon Receipt
	fooyID ana	Propy	×	X	×	X	X	×	X	X	X	X		Company Name:	Address	City/State/Zip.	Contact Person:	Email:	Telephone:	yd b		Tur			14	1.0	Temp
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51	or <u>C</u> omposi	Crab	U	υ	U	υ	G	0	0	0	C	U										V		nts	0050	0007-	
KECUKU ies, Inc.	 I.31 Coolidge St, Suite 105 Hudson, MA 01749-1331 Tel: 800-937-2580 Fax: 978-568-0078 	Sample Identification	Outfall 002A-04	Outfall 003A-04	Outfail 008A-04	Outfall 002A-05	Outfall 003A-05	Outfall 008A-05	Outfall 002A-06	Outfall 003A-06	Outfall 008A-06	02A-07	10:					orting@rianalytical.com		Date Time	5511 11-119			Project Comments	lf MCL is evreeded in thir Kristen Moun (800.027.5580 v100) in Buiton Config (800.027.5580 v180). 2527.5580 v100		
ator	131 C Huds T FR	Sar	Jutfall (Dutfall (Dutfall (Dutfall (Dutfall (Dutfall (Jutfall C	Dutfall (Dutfall C	Dutfall C	d Invoic	ics. Inc.				n; datarep							1001 an	in fores	
R.I. Analytical Laboratories, Inc.	renue 188-3007 2580 1970	Lab ID	1906-10661-001	1906-10661-002	1906-10661-003 0	1906-10661-004 0	1906-10661-005 0	1906-10661-006 0	1906-10661-007	1906-10661-008 0	1906-10661-009 0	1906-10661-010 Outfall 002A-07	Send Report and Invoice to:	Company Name: R.I. Analytical Laboratories, Inc.	Address: 41 Illinois Avenue	City/State/Zip: Warwick, RI 02888	Kristen Phelan 2	Email: kphelan@rianalytical.com; datareporting@rianalytical.com	Telephone: 401-737-8500 x 116	hed By					Marin (800-037-2580	1007-100-000) of Built	398
. Analy	41 Illinois Avenue Warwick, RJ 02888-3007 Tcl: 800-937-2580 Fax: 401-738-1970	Time Collected	00:10	01:00	01:40	02:00	02:00	02:15	03:00	03:00	03:05	04:00		ompany Name:	Address:	City/State/Zip:	Contact Person: Kristen Phelan	Email:	Telephone:	Relinquished By	5-4-025	FLACK			notifu Krieten	ment final f	
L R.I	war T F	Date Collected	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019		Ċ.		Y.	C				Diete				is evocated		PO # :

Page 35 of 37

					WU#:/093907	Due Date: 07/01/10	IAL TITUTION TO TATILES						ntion:					u		Turn Around Time		X Normal	Rush (Days)	Date Shipped: 6/12/2019	T	X Ovenight	X Shippe	°c WO #: 1906-10661
na gana ang kana kana kana kana kana kan					WO#:	PM: STS	CLIENT: RIAL						Subcontractor Information:	Pace Analytical Services-IN	7726 Moller Road	Indianapolis, IN 46268	Sophia Sparkes	Sophia Sparkes@pacelabs.com	317-228-3100	Date Time		6-13-19 905						Temperature Upon Receipt S.) °
	lene Glycol	Adou	X	×	X	X					X	X		Company Name:	Address: 7	City/State/Zip: 1	Contact Person: S	Email: 5	Telephone: 3	Received by		rur				1257)		Temperature
	trix Code ^M		0	0	0	0	0	0	0	0	0	0								Receiv	Feder	174				617) 893-(
	servation Code		V NP	VP NP	V NP	V NP	V NP	V NP	V NP	V NP	V NP	V NP								1000	E	5	-			1/cell #(
	o or Composi Containers &		1	G 2V	G 2V	G 2V	G 2V	G 2V	G 2V	G 2V	G 2V	G 2V										62				80 ×160		
R.I. Analytical Laboratories, Inc.	131 Coolidge St, Suite 105 Hudson, MA 01749-1331 Tel: 800-937-2580 Fax: 978-568-0078	Sample Identification	Outfall 003A-07	Outfall 008A-07	Outfall 002A-08	Outfall 003A-08	Outfall 008A-08	Outfall 002A-09	Outfall 003A-09	Outfall 008A-09	Outfall 002A-10	Outfall 003A-10	Send Report and Invoice to:	ories, Inc.				Emuil: kphelan@rianalytical.com; datareporting@rianalytical.com		Date Time	5511 4.819			Project Comments		If MCL is exceeded, notify Kristen Mayo (800-937-2580 x109) and Ruben Parrilla (800-937-2580 x160/cell #(617) 893-0257)		
tical Labo	enue 88-3007 2580 1970	Lab ID	1906-10661-011	1906-10661-012	1906-10661-013	1906-10661-014	1906-10661-015	1906-10661-016	1906-10661-017	1906-10661-018	1906-10661-019	1906-10661-020	Send Report	Company Name: R.I. Analytical Laboratories, Inc.	Address: 41 Illinois Avenue	City/State/Zip: Warwick, RI 02888	Kristen Phelan	kphelan@rianalytical.c	Telephone: 401-737-8500 x 116	hed By	5	LK -				n Mayo (800-937-258		PO # : 398
Analy	41 Illinois Avenue Warwick, RI 02888-3007 Tel: 800-937-2580 Fax: 401-738-1970	Time Collected	04:00	04:10	05:00	05:00	05:10	06:00	06:00	06:05	00:70	07:00		ompany Name:	Address:	City/State/Zip:	Contact Person: Kristen Phelan	Email:	Telephone:	Relinquished By	Ferture.	Pechek				d, notify Krister		States and the
R.I	A War T F	Date Collected	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019		C			3				10000					MCL is exceeded		: # Od

Page 36 of 37

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						W0#:7093907	Due Date: 07/01/19														Turn Around Time		X Normal	Rush (Days)	Date Shipped: 6/12/2019	X Fedex-rec. lab	X Overnight	de	WO #: 1906-10661
						709	Due	RTAI						formation	N				s.com		Time		5						ç
	antinyaria				T :	:#0	PM. STS							Subcontractor Information:	I Services-	bad	N 46268		(@pacelah			-	1 905						at S.
						M	Md	1		-				Subcor	Pace Analytical Services-IN	7726 Moller Road	Indianapolis. IN 46268	Sophia Sparkes	Sophia, Sparkes@pacelubs.com	317-228-3100	Date		6/15/12						Temperature Upon Receipt
		sintenni jaata maana asaanna mi											-		Pace	772	Indi	Sopi	Sop	317-	a falsa		3						erature Up
		looyiD ana	Propyl	X	X	X	X	X	X	X	X	X	X		Company Name:	Address:	City/State/Zip:	Contact Person:	Email:	Telephone:	¥ 2010		Tun				-		Tempe
															Comp		City	Cont			Received by	72027	11	/			93-0257)		
	0	servation Cod nx Code ^M		NP 0		NP O	NP 0	NP 0	NP 0	NP O	NP 0	NP 0	0 dN			<u> </u>		<u> </u>			R	N	2				#(617) 8		
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		or Compos		Ð	0	0	0	υ	Ð	Ð	D	U	0														580 ×16		
Y KECUKU	K.I. Analytical Laboratories, Inc.	131 Coolidge St, Suite 105 Hudson, MA 01749-1331 Tel: 800-937-2580 Fax: 978-568-0078	Sample Identification	Outfall 008A-10	Outfall 002A-11	hutfall 003A-11	utfall 008A-11	hutfall 002A-12	utfall 003A-12	Outfall 008A-12				l Invoice to:	s, Inc.				Email: kphelan@rianalytical.com; datareporting@rianalytical.com		Date Time	6-124 1155			Project Comments		if MCL is exceeded, notify Kristen Mayo (800-937-2580 x109) and Ruben Parrilla (800-937-2580 x160/cell #(617) 893-0257)		
CHAIN OF CUSTODY REC	tical Labor	anue 58-3007 2580 1970	Lab ID	1906-10661-021 C	1906-10661-022 C	1906-10661-023 Outfall 003A-11	1906-10661-024 Outfall 008A-11	1906-10661-025 Outfall 002A-12	1906-10661-026 Outfall 003A-12	1906-10661-027 C				Send Report and Invoice to:	Company Name: R.I. Analytical Laboratories, Inc.	Address: 41 Illinois Avenue	City/State/Zip: Warwick, RI 02888	risten Phelan	phelan@rianalytical.com	Telephone: 401-737-8500 x 116	ed By	1	2X				Mayo (800-937-2580 x		398
N OF	. Analy	41 Illinois Avenue Warwick, RI 02888-3007 Tel: 800-937-2580 Fax: 401-738-1970	Time Collected	07:05	08:00	08:00	08:05	00:60	00:60	09:20					ompany Name: F	Address: 4	City/State/Zip: V	Contact Person: Kristen Phelan	Email: k	Telephone: 4	Relinquished By	Etereno. S	FERRY				, notify Kristen		
CHA	K.I	War 1 F	Date Collected	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019	6/11/2019					Ŭ			9				James					MCL is exceeded		: # Od

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R 41 Wa Tel Fax		02888Hudson, MA 01749-2580Tel: 888-228-3334-1970Fax: 978-568-0078	Grab or Composite	of Containers & Type	Preservation Code P	Matrix Code ^M	BOD, Surfactants, pH	cob, Toc	Propylene Glycol	Metals**	Dissolved K & Na			
Date Collected	Collected	Field Sample Identification	1.00	#	*		2.22	-	_	x	×	-		+
celu	0100	Outfall 002A-04	G			0	X	×	X			-		-
614	0100	Outfall 003A-04	G		*	0	X	X	X	×	X		-	+
6111	0140	Outfall 008A-04	G			0	X	X	×	×	_	-		+
6/11	0156	Outfall 010A-04 No FLON -	G	+	-				-	×	×			+
Celu	0200	Outfall 002A-05	G			0	X	X	×	X	10000	-	-	+
celu	0200	Outfall 003A-05	G			0	X	X	×		X			+
6/11	0215	Outfall 008A-05	G			0	X	×	X	×	x			-
6/11	0240	Outfall 010A-05 Mrs FLow		-	-	-0-		_	1				-	+
Lel 11	0300	Outfall 002A-06	G		*	0	X	X	×	X	X	-		+
(ely	0300	Outfall 003A-06	G	*	*	0		X	×	x	×		-	-
6111	0305	Outfall 008A-06	G	*	*	0	X	X	×	×	×			-
6/11	0330	Outfall 010A-06 No FLOW			-	0								-
Gu	04.00	Outfall 002A-07	G		*	0	×	X	x	×	X	-		-
6/11	0400	Outfall 003A-07	G	•		0	X	×	X	X	X			_
Celu	0410	Outfall 008A-07	G	*	*	0	X	X	X	×	X	-	-	_
Glu	0430	Outfall 010A-07 NO FLW	-6-	*	-	10			-	-				-

*BOD, Surfactants, pH - 1 1000mL Non Preserved COD, TOC – 1 250mL Sulfuric Acid Preserved Propylene Glycol – 2 40mL Non-Preserved VOA Vial Metals - 250mL Nitric Preserved Dissolved Metals - 250ml Non Preserved

Total Metals: Aluminum - 200.7 Aluminum – 200.7 Chromium – 200.8 Copper – 200.7 Iron – 200.7 Lead – 200.7 Zinc – 200.7

	Client Inform	ation			Project Information
Company	Rhode Island	Airport Co	orp	ProjectName:	T.F. Green RIPDES Monitoring
Address:	2000 Post Rd			P.O. Number:	Project Number:
City / State /	Warwick, RI 0	2886		Sampled by:	
Telephone:	691-2490	Fax:	691-2560	Email :address:	jbrolin@pvdairport.com
Contact Person:	Jay Brolin		14 million (1997)	Email :address:	
					onice 4.6 c- 5.4

Relinguished By	Date	Time	Received By	Turn Ai	ound Time
Ju Py	6/11/14	0953	Lac	X Normal 5 Business	A EMAIL Report days. Possible
				Rush	(business

Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SI=Sludge, A=Air, B=Bulk/Solid, O=__Storm Water_

	Lab Use Only
	Sample Pick Up Only
	RIAL sampled; attach field hours
-	Shipped on ice
Wo	orkorder No: 1956-1066

Illinois A rwick, RI : 800-937 : 401-738	venue 131 Coolidge St, Bldg. 2 02888 Hudson, MA 01749 -2580 Tel: 888-228-3334	ab or Composite	of Containers & Type	eservation Code P	atrix Code ^M	DD, Surfactants, pH	DD, TOC	opylene Glycol	etals**	ssolved K & Na			
Collected	Field Sample Identification	GI	#	Pr	M	B	ŏ	ď	ž	-			
0500	Outfall 002A-08	G	•	•	0	X	X	X	X	Х			
0500	Outfall 003A-08	G	*	*	0	X	х	×	x	X			
0510	Outfall 008A-08	G	*	•	0	X	X	×	X	×			
2012	Outfall 010A-08 NO FLOW	-G-		*	0=	-							
0600	Outfall 002A-09	G		•	0	X	х	×	X	×			
0600	Outfall 003A-09	G			0	×	×	х	X	×			
06.05	Outfall 008A-09	G	*		0	×	X	×	X	X			
Olezo	Outfall 010A-09 NO FLOW	-0-	t		0				-				
0700	Outfall 002A-10	G	1.0	•	0	X	X	x	X	x	-		
0700	Outfall 003A-10	G		•	0	X	X	×	×	×			
0705	Outfall 008A-10	G	*	*	0	X	×	\times	×	x			
0720	Outfall 010A-10 No From	6-			0>								
	Illinois A rwick, RI : 800-937 : 401-738 Time Collected 0500 0500 0500 0500 0500 0500 0520 052	rwick, RI 02888 Hudson, MA 01749 : $800-937-2580$ Tel: $888-228-3334$: $401-738-1970$ Fax: $978-568-0078$ Time Field Sample Identification 0500 Outfall 002A-08 0500 Outfall 003A-08 0500 Outfall 008A-08 0510 Outfall 010A-08 0520 Outfall 002A-09 0600 Outfall 003A-09 0600 Outfall 008A-09 0600 Outfall 008A-09 0605 Outfall 002A-10 0700 Outfall 002A-10 0700 Outfall 003A-10 0700 Outfall 003A-10	Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 800-937-2580 Tel: 888-228-3334 : 401-738-1970 Fax: 978-568-0078 Time Collected Field Sample Identification 0500 Outfall 002A-08 G 0500 Outfall 003A-08 G 0500 Outfall 008A-08 G 05200 Outfall 002A-09 G 05200 Outfall 002A-09 G 05200 Outfall 002A-09 G 05200 Outfall 002A-09 G 06000 Outfall 003A-09 G 06000 Outfall 003A-09 G 04000 Outfall 003A-09 G 04000 Outfall 003A-09 G 040000 Outfall 003A-10 G 07000 Outfall 003A-10	Illinois Avenue 131 Coolidge St, Bldg. 2 Image: rwick, RI 02888 Hudson, MA 01749 $300-937-2580$ Tel: 888-228-3334 $300-937-2580$ Outfall 002A-08 0500 Outfall 003A-08 G 0500 Outfall 003A-08 G 05200 Outfall 002A-09 G 0600 Outfall 003A-09 G 0600 Outfall 003A-09 G 0600 Outfall 003A-09 G 0600 Outfall 003A-09 G 06000 Outfall 003A-10 G $0600000000000000000000000000000000000$	Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 $300^{-937-2580}$ Tel: 888-228-3334 $300^{-937-2568-0078}$ Tel: 888-228-3334 300^{-970} Outfall 002A-08 G 050^{-90} Outfall 003A-08 G 300^{-970} 050^{-90} Outfall 002A-09 G 300^{-970} 060^{-90} Outfall 003A-09 G 300^{-970} 060^{-90} Outfall 003A-09 G 300^{-970} 060^{-90} Outfall 003A-10 G 300^{-970} 060^{-90}	Time Collected Field Sample Identification G \cdot <td>Illinois Avenue 131 Coolidge St, Bldg. 2 Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 401-738-1970 Fax: 978-568-0078 Time Field Sample Identification 0500 Outfall 002A-08 0500 Outfall 003A-08 G · · 0500 Outfall 008A-08 G · · 0500 Outfall 002A-08 G G · · 0500 Outfall 008A-08 G 0510 Outfall 002A-09 G · · 0600 Outfall 002A-09 G · · · 0600 Outfall 003A-09 G · · ·<td>Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 $2800-937-2580$ Tel: 888-228-3334 $2900-97$ Outfall 002A-08 $0500-900$ Outfall 002A-08 $0500-0$ Outfall 002A-08 $0500-0$ Outfall 002A-08 $0500-0$ Outfall 008A-08 $0510-0$ Outfall 008A-08 $05200-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 003A-09 $06 00-0$ Outfall 003A-09 $06 00-0$ Outfall 003A-09 $06 0-0$ $0 0 \times \times \times$ $0600-0$ Outfall 003A-09 $06 0-0$ $0 \times \times \times$ $0600-0$ Outfall 003A-09 $0000-0$</td><td>Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : $401-738-1970$ Fax: 978-568-0078 Time Field Sample Identification 0500 Outfall 002A-08 0500 Outfall 002A-08 0500 Outfall 002A-08 0510 Outfall 002A-08 05200 Outfall 002A-09 06 · · 06000 Outfall 002A-09 06 · · 06005 Outfall 002A-10 <td>All al y fie al Laboratorites, fine. Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 800-937-2580 Tel: 888-228-3334 : 401-738-1970 Fax: 978-568-0078 get 0 $050^{\circ 0}$ Outfall 002A-08 G : 0 X X $050^{\circ 0}$ Outfall 008A-08 G : 0 X X $050^{\circ 0}$ Outfall 002A-09 G · 0 X X $060^{\circ 0}$ Outfall 008A-08 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 003A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-10 G · 0 X X X</td><td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--><td>Time Collected Field Sample Identification G \cdot \circ \circ<td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--></td></td></td></td></td>	Illinois Avenue 131 Coolidge St, Bldg. 2 Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 401-738-1970 Fax: 978-568-0078 Time Field Sample Identification 0500 Outfall 002A-08 0500 Outfall 003A-08 G · · 0500 Outfall 008A-08 G · · 0500 Outfall 002A-08 G G · · 0500 Outfall 008A-08 G 0510 Outfall 002A-09 G · · 0600 Outfall 002A-09 G · · · 0600 Outfall 003A-09 G · · · <td>Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 $2800-937-2580$ Tel: 888-228-3334 $2900-97$ Outfall 002A-08 $0500-900$ Outfall 002A-08 $0500-0$ Outfall 002A-08 $0500-0$ Outfall 002A-08 $0500-0$ Outfall 008A-08 $0510-0$ Outfall 008A-08 $05200-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 003A-09 $06 00-0$ Outfall 003A-09 $06 00-0$ Outfall 003A-09 $06 0-0$ $0 0 \times \times \times$ $0600-0$ Outfall 003A-09 $06 0-0$ $0 \times \times \times$ $0600-0$ Outfall 003A-09 $0000-0$</td> <td>Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : $401-738-1970$ Fax: 978-568-0078 Time Field Sample Identification 0500 Outfall 002A-08 0500 Outfall 002A-08 0500 Outfall 002A-08 0510 Outfall 002A-08 05200 Outfall 002A-09 06 · · 06000 Outfall 002A-09 06 · · 06005 Outfall 002A-10 <td>All al y fie al Laboratorites, fine. Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 800-937-2580 Tel: 888-228-3334 : 401-738-1970 Fax: 978-568-0078 get 0 $050^{\circ 0}$ Outfall 002A-08 G : 0 X X $050^{\circ 0}$ Outfall 008A-08 G : 0 X X $050^{\circ 0}$ Outfall 002A-09 G · 0 X X $060^{\circ 0}$ Outfall 008A-08 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 003A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-10 G · 0 X X X</td><td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--><td>Time Collected Field Sample Identification G \cdot \circ \circ<td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--></td></td></td></td>	Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 $2800-937-2580$ Tel: 888-228-3334 $2900-97$ Outfall 002A-08 $0500-900$ Outfall 002A-08 $0500-0$ Outfall 002A-08 $0500-0$ Outfall 002A-08 $0500-0$ Outfall 008A-08 $0510-0$ Outfall 008A-08 $05200-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 002A-09 $0600-0$ Outfall 003A-09 $06 00-0$ Outfall 003A-09 $06 00-0$ Outfall 003A-09 $06 0-0$ $0 0 \times \times \times$ $0600-0$ Outfall 003A-09 $06 0-0$ $0 \times \times \times$ $0600-0$ Outfall 003A-09 $0000-0$	Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : $401-738-1970$ Fax: 978-568-0078 Time Field Sample Identification 0500 Outfall 002A-08 0500 Outfall 002A-08 0500 Outfall 002A-08 0510 Outfall 002A-08 05200 Outfall 002A-09 06 · · 06000 Outfall 002A-09 06 · · 06005 Outfall 002A-10 <td>All al y fie al Laboratorites, fine. Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 800-937-2580 Tel: 888-228-3334 : 401-738-1970 Fax: 978-568-0078 get 0 $050^{\circ 0}$ Outfall 002A-08 G : 0 X X $050^{\circ 0}$ Outfall 008A-08 G : 0 X X $050^{\circ 0}$ Outfall 002A-09 G · 0 X X $060^{\circ 0}$ Outfall 008A-08 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 003A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-10 G · 0 X X X</td> <td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--><td>Time Collected Field Sample Identification G \cdot \circ \circ<td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--></td></td></td>	All al y fie al Laboratorites, fine. Illinois Avenue 131 Coolidge St, Bldg. 2 rwick, RI 02888 Hudson, MA 01749 : 800-937-2580 Tel: 888-228-3334 : 401-738-1970 Fax: 978-568-0078 get 0 $050^{\circ 0}$ Outfall 002A-08 G : 0 X X $050^{\circ 0}$ Outfall 008A-08 G : 0 X X $050^{\circ 0}$ Outfall 002A-09 G · 0 X X $060^{\circ 0}$ Outfall 008A-08 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-09 G · 0 X X X $060^{\circ 0}$ Outfall 003A-09 G · 0 X X X $060^{\circ 0}$ Outfall 002A-10 G · 0 X X X	Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · </td <td>Time Collected Field Sample Identification G \cdot \circ \circ<td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--></td></td>	Time Collected Field Sample Identification G \cdot \circ <td>Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · ·<!--</td--></td>	Time Collected Field Sample Identification G · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · · </td

*BOD, Surfactants, pH – 1 1000mL Non Preserved COD, TOC – 1 250mL Sulfuric Acid Preserved Propylene Glycol – 2 40mL Non-Preserved VOA Vial Metals – 250mL Nitric Preserved Dissolved Metals – 250ml Non Preserved Total Metals: Aluminum - 200.7 Chromium - 200.8 Copper - 200.7 Iron - 200.7 Lead - 200.7 Zinc - 200.7

	Client Inform	nation		Project Information
Company	Rhode Island Airport Corp		ProjectName:	T.F. Green RIPDES Monitoring
Address:	2000 Post Ro	1	P.O. Number:	Project Number:
City / State /	Warwick, RI	02886	Sampled by:	
Telephone:	691-2490	Fax: 691-2560	Email :address:	jbrolin@pvdairport.com
Contact Person:	Jay Brolin		Email :address:	

				MILL 4	46C-5.4°C
Relinquished By	Date	Time	Received By	Turn	Around Time
fer Brit	6/11/m	0953	Laure	X Normal	X EMAIL
			0		ess days. Possible
				Rush	(business

Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SI=Sludge, A=Air, B=Bulk/Solid, O=__Storm Water_

1	Lab Use Only
Sample Pic	k Up Only
RIAL samp	oled; attach field hours
Shipped or	ice
Workorder No:	1906-10661

R 41 Was Tel	.I. Ana Illinois A		Grab or Composite	# of Containers & Type ^T	Preservation Code ^P	Matrix Code ^M	BOD, Surfactants, pH	COD, TOC	Propylene Glycol 6	Metals**	Dissolved K & Na			
Collected	Collected	Outfall 002A-11	G	•	•	0	X	X	X	X	X			
(elu	0800	Outfall 002A-11	G	*		0	X	X	×	X	×			
telu	08:00	Outfall 008A-11	G			0	X	X	X	×	×			
Celu Celu	0805	Outfall 010A-11 Wa FLOW	-6-		-	0					-			
Coln	0900	Outfall 002A-12	G			0	X	X	X	X	×			_
6/11	0900	Outfall 003A-12	G			0	×	X	X	×	X		_	_
Colt	0900	Outfall 008A-12	G	*	*	0	X	×	X	x	×	_		_
lem	0920	Outfall 010A-12 WO FLOW	6	-	-	0					-	-	-	
•														
													-	
								-		-				

*BOD, Surfactants, pH – 1 1000mL Non Preserved COD, TOC – 1 250mL Sulfuric Acid Preserved Propylene Glycol – 2 40mL Non-Preserved VOA Vial Metals – 250mL Nitric Preserved Dissolved Metals – 250ml Non Preserved

Total Metals: Aluminum – 200.7 Chromium – 200.8 Copper – 200.7 Iron – 200.7 Lead – 200.7 Zinc – 200.7

	Client Information		Project Information
Company	Rhode Island Airport Corp	ProjectName:	T.F. Green RIPDES Monitoring
	2000 Post Rd	P.O. Number:	Project Number:
City / State /	Warwick, RI 02886	Sampled by:	
Telephone:	691-2490 Fax: 691-2560	Email :address:	jbrolin@pvdairport.com
Contact Person:	Jay Brolin	Email :address:	

Date	Time	Received By
6/11/17	0953	lac
	1.111/19	1.111/19 0953

onice 4.6°C-5.4°C

	Turn Ar	ound Time
X	Normal	X EMAIL
T	5 Business	days. Possible
1	Rush	(business

Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SI=Sludge, A=Air, B=Bulk/Solid, O=_Storm Water_

	Lab Use Only
	Sample Pick Up Only
	RIAL sampled; attach field hours
	Shipped on ice
Wor	korder No: 1906 - 10661

Page & of 3