

DMR Copy of Record

Permit																				
Permit #:		MA0003298		Permittee:						GLOBAL COMPANIES, LLC						Facility:		GLOBAL REVCO TERMINAL, LLC		
Major:		No		Permittee Address:						800 South Streete Suite 500 Waltham, MA 02454						Facility Location:		186 LEE BURBANK HIGHWAY REVERE, MA 02151		
Permitted Feature:		005 External Outfall		Discharge:						005-M QUARTERLY METHYL TERT-BUTYL ETHER MONITORING OUTFALL 005										
Report Dates & Status																				
Monitoring Period:				From 10/01/21 to 12/31/21				DMR Due Date:				01/15/22				Status:		NetDMR Validated		
Considerations for Form Completion																				
Principal Executive Officer																				
First Name:		Tom		Title:						VP Env. H and S						Telephone:		781-398-4132		
Last Name:		Keefe																		
No Data Indicator (NODI)																				
Form NODI:		--																		
Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type			
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units				
22417	Methyl tert-butyl ether [MTBE]	GW - Groundwater	0	--	Sample					=	0.0			=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB	
					Permit Req.					<=	20.0 MO AVG				Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB	
					Value NODI															
Submission Note																				
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.																				
Edit Check Errors																				
No errors.																				
Comments																				
Attachments																				
Name											Type				Size					
MA0003298-005_Lab(2)_2021_12.pdf											pdf				667793.0					
Report Last Saved By																				
GLOBAL COMPANIES, LLC																				
User:		BRADLEY1.CONNOR																		
Name:		Connor Bradley																		
E-Mail:		cbradley@rouxinc.com																		
Date/Time:		2022-01-07 12:10 (Time Zone: -05:00)																		
Report Last Signed By																				
User:		SCHARRON@GLOBALP.COM																		
Name:		Steven Charron																		
E-Mail:		scharron@globalp.com																		
Date/Time:		2022-01-13 13:10 (Time Zone: -05:00)																		

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Permit																				
Permit #:	MA0000825			Permittee:	GLOBAL COMPANIES LLC				Facility:	GLOBAL SOUTH TERMINAL										
Major:	No			Permittee Address:	800 SOUTH STREET SUITE 500 WALTHAM, MA 02454				Facility Location:	96 LEE BURBANK HIGHWAY REVERE, MA 02150										
Permitted Feature:	001 External Outfall			Discharge:	001-O QUARTERLY OXYGENATES FROM OUTFALL 001															
Report Dates & Status																				
Monitoring Period:	From 10/01/21 to 12/31/21			DMR Due Date:	01/15/22				Status:	NetDMR Validated										
Considerations for Form Completion																				
Principal Executive Officer																				
First Name:	Tom			Title:	VP Env. H and S				Telephone:	781-398-4132										
Last Name:	Keefe																			
No Data Indicator (NODI)																				
Form NODI:	--																			
Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type			
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units				
22417	Methyl tert-butyl ether [MTBE]	1 - Effluent Gross	0	--	Sample					=	2.25				28 - ug/L		0	01/90 - Quarterly	GR - GRAB	
					Permit Req.										Req Mon DAILY MX	28 - ug/L			01/90 - Quarterly	GR - GRAB
					Value NODI															
77004	Ethanol	1 - Effluent Gross	0	--	Sample					=	0.0				28 - ug/L		0	01/90 - Quarterly	GR - GRAB	
					Permit Req.										Req Mon DAILY MX	28 - ug/L			01/90 - Quarterly	GR - GRAB
					Value NODI															
Submission Note																				
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.																				
Edit Check Errors																				
No errors.																				
Comments																				
Attachments																				
Name											Type			Size						
MA0000825_Lab(1)_2021_12.pdf											pdf			873603.0						
Report Last Saved By																				
GLOBAL COMPANIES LLC																				
User:	BRADLEY1.CONNOR																			
Name:	Connor Bradley																			
E-Mail:	cbradley@rouxinc.com																			
Date/Time:	2022-01-07 11:24 (Time Zone: -05:00)																			
Report Last Signed By																				
User:	SCHARRON@GLOBALP.COM																			
Name:	Steven Charron																			
E-Mail:	scharron@globalp.com																			
Date/Time:	2022-01-13 08:40 (Time Zone: -05:00)																			

DMR Copy of Record

Permit																			
Permit #:	MA0003425			Permittee:	GLOBAL COMPANIES LLC					Facility:	GLOBAL PETROLEUM CORP - REVERE								
Major:	No			Permittee Address:	800 SOUTH STREET SUITE 500 WALTHAM, MA 02454					Facility Location:	140 LEE BURBANK HIGHWAY REVERE, MA 02151								
Permitted Feature:	001 External Outfall			Discharge:	001-Q QUARTERLY MONITORING FROM OUTFALL 001 (OXYGENATES)														
Report Dates & Status																			
Monitoring Period:	From 10/01/21 to 12/31/21			DMR Due Date:	01/15/22					Status:	NetDMR Validated								
Considerations for Form Completion																			
Principal Executive Officer																			
First Name:	Tom			Title:	VP Env. H and S					Telephone:	781-398-4132								
Last Name:	Keefe																		
No Data Indicator (NODI)																			
Form NODI:	--																		
Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type		
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3	Value 3	Units			
22417	Methyl tert-butyl ether [MTBE]	1 - Effluent Gross	0	--	Sample					=	0.0			=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.					<=	20.0 MO AVG				Req Mon DAILY MX	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Value NODI														
77004	Ethanol	1 - Effluent Gross	0	--	Sample					=	0.0				19 - mg/L	0	01/90 - Quarterly	GR - GRAB	
					Permit Req.										Req Mon DAILY MX	19 - mg/L	0	01/90 - Quarterly	GR - GRAB
					Value NODI														
Submission Note																			
If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.																			
Edit Check Errors																			
No errors.																			
Comments																			
Outfall 001 data consists of data collected at Outfall 002 as a commingled discharge from Outfall 002 and Outfall 003. Discharge from Outfall 003 did not occur at the time of sampling. The data from GP-002 is, therefore, representative of the discharge at Outfall 001.																			
Attachments																			
										Name					Type	Size			
										MA0003425-001_Lab(1)_2021_11.pdf					pdf	893758.0			
Report Last Saved By																			
GLOBAL COMPANIES LLC																			
User:	SBARRIENTOS@ROUXINC.COM																		
Name:	Sara Barrientos																		
E-Mail:	sbarrientos@rouxinc.com																		
Date/Time:	2022-01-13 12:38 (Time Zone: -05:00)																		
Report Last Signed By																			
User:	SCHARRON@GLOBALP.COM																		
Name:	Steven Charron																		
E-Mail:	scharron@globalp.com																		
Date/Time:	2022-01-13 12:46 (Time Zone: -05:00)																		

DMR Copy of Record

Permit					
Permit #:	MA0003425	Permittee:	GLOBAL COMPANIES LLC	Facility:	GLOBAL PETROLEUM CORP - REVERE
Major:	No	Permittee Address:	800 SOUTH STREET SUITE 500 WALTHAM, MA 02454	Facility Location:	140 LEE BURBANK HIGHWAY REVERE, MA 02151
Permitted Feature:	001 External Outfall	Discharge:	001-P QUARTERLY EFFLUENT/ RECEIVING H2O POLLUTANT SCAN FROM OUTFALL 001		

Report Dates & Status					
Monitoring Period:	From 10/01/21 to 12/31/21	DMR Due Date:	01/15/22	Status:	NetDMR Validated

Considerations for Form Completion

Principal Executive Officer					
First Name:	Tom	Title:	VP Env. H and S	Telephone:	781-398-4132
Last Name:	Keefe				

No Data Indicator (NODI)
Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3			
00619	Ammonia, unionized	1 - Effluent Gross	0	--	Sample						=	0.014	19 - mg/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	19 - mg/L				
					Value NODI												
01034	Chromium, total [as Cr]	1 - Effluent Gross	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
01046	Iron, dissolved [as Fe]	1 - Effluent Gross	0	--	Sample						=	2680.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34010	Toluene	1 - Effluent Gross	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34010	Toluene	RW - Receiving Water	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34030	Benzene	1 - Effluent Gross	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34030	Benzene	RW - Receiving Water	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34200	Acenaphthylene	1 - Effluent Gross	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34200	Acenaphthylene	RW - Receiving Water	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34205	Acenaphthene	1 - Effluent Gross	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34205	Acenaphthene	RW - Receiving Water	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34220	Anthracene	1 - Effluent Gross	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												
34220	Anthracene	RW - Receiving Water	0	--	Sample						=	0.0	28 - ug/L		0	01/90 - Quarterly	GR - GRAB
					Permit Req.							Req Mon DAILY MX	28 - ug/L				
					Value NODI												

34230	Benzo[b]fluoranthene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34230	Benzo[b]fluoranthene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34242	Benzo[k]fluoranthene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34242	Benzo[k]fluoranthene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34247	Benzo[a]pyrene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34247	Benzo[a]pyrene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34320	Chrysene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34320	Chrysene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34371	Ethylbenzene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34371	Ethylbenzene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34376	Fluoranthene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34376	Fluoranthene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34381	Fluorene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34381	Fluorene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34403	Indeno[1,2,3-cd]pyrene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34403	Indeno[1,2,3-cd]pyrene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34461	Phenanthrene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34461	Phenanthrene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34469	Pyrene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34469	Pyrene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						

34521	Benzo[ghi]perylene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34521	Benzo[ghi]perylene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34526	Benzo[a]anthracene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34526	Benzo[a]anthracene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34556	Dibenz[a,h]anthracene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34556	Dibenz[a,h]anthracene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34694	Phenol	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34696	Naphthalene	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
34696	Naphthalene	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
51008	tert-Butyl alcohol [TBA]	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
74056	Coliform, total general	1 - Effluent Gross	0	--	Sample	=	130.0	3Z - CFU/100mL	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	3Z - CFU/100mL		01/90 - Quarterly	GR - GRAB
					Value NODI						
81551	Xylene [mix of m+o+p]	1 - Effluent Gross	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						
81551	Xylene [mix of m+o+p]	RW - Receiving Water	0	--	Sample	=	0.0	28 - ug/L	0	01/90 - Quarterly	GR - GRAB
					Permit Req.		Req Mon DAILY MX	28 - ug/L		01/90 - Quarterly	GR - GRAB
					Value NODI						

Submission Note

If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors

No errors.

Comments

Outfall 001 data consists of data collected at Outfall 002 as a commingled discharge from Outfall 002 and Outfall 003. Discharge from Outfall 003 did not occur at the time of sampling. The data from GP-002 is, therefore, representative of the discharge at Outfall 001.

Attachments

Name	Type	Size
MA0003425-001_Lab_(Coliform)_2021_11.pdf	pdf	315829.0
MA0003425-001_Lab(1)_2021_11.pdf	pdf	893758.0
MA0003425_001_T_2021_11.pdf	pdf	3933652.0
MA0003425-001_Lab_(LC50)_2021_11.pdf	pdf	1649501.0

Report Last Saved By

GLOBAL COMPANIES LLC

User: SBARRIENTOS@ROUXINC.COM
Name: Sara Barrientos
E-Mail: sbarrientos@rouxinc.com

Date/Time: 2022-01-13 12:38 (Time Zone: -05:00)

Report Last Signed By

User: SCHARRON@GLOBALP.COM

Name: Steven Charron

E-Mail: scharron@globalp.com

Date/Time: 2022-01-13 12:46 (Time Zone: -05:00)

DISCHARGE MONITORING REPORT (DMR)

NAME Global Companies LLC
ADDRESS 800 South Street Suite 500
Waltham, MA 02454

MA0003425-001
PERMIT NUMBER

001-T
DISCHARGE NUMBER

FACILITY LOCATION 140 Lee Burbank Highway
Revere, MA 02151

MONITORING PERIOD							
FROM				TO			
YEAR	MO	DAY		YEAR	MO	DAY	
2021	10	01		2021	12	31	

NOTE: Read instructions before

PARAMETER	SAMPLE PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
00400 - pH 1 - Effluent Gross	SAMPLE						8.35	SU		1/90	GR-Grab
	PERMIT REQUIREMENT										
00400 - pH RW - Receiving Water	SAMPLE						8.11	SU		1/90	GR-Grab
	PERMIT REQUIREMENT										
00480 - Salinity 1 - Effluent Gross	SAMPLE						0.0	g/g		1/90	GR-Grab
	PERMIT REQUIREMENT										
00480 - Salinity RW - Receiving Water	SAMPLE						0.0233	g/g		1/90	GR-Grab
	PERMIT REQUIREMENT										
00500 - Solids, total 1 - Effluent Gross	SAMPLE						342	mg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
00500 - Solids, total RW - Receiving Water	SAMPLE						25400	mg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
00530 - Solids, total suspended 1 - Effluent Gross	SAMPLE						16.7	mg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Tom Keefe / VP Env. H and S TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE		DATE		
		781	398-4132			
		AREA	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Outfall 001 data consists of data collected at Outfall 002 as a commingled discharge from Outfall 002 and Outfall 003 did not occur at the time of sampling. The data is representative of the discharge at Outfall 001.

DISCHARGE MONITORING REPORT (DMR)

NAME Global Companies LLC
ADDRESS 800 South Street Suite 500
Waltham, MA 02454

MA0003425-001
PERMIT NUMBER

001-T
DISCHARGE NUMBER

FACILITY LOCATION 140 Lee Burbank Highway
Revere, MA 02151

MONITORING PERIOD						
FROM			TO			
YEAR	MO	DAY	YEAR	MO	DAY	
2021	10	01	2021	12	31	

NOTE: Read instructions before

PARAMETER	SAMPLE PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
00530 - Solids, total suspended RW - Receiving Water							27.3	mg/L		1/90	GR-Grab
00609 - Ammonia nitrogen, total [as N] 30 day 1 - Effluent Gross							0.32	mg/L		1/90	GR-Grab
00609 - Ammonia nitrogen, total [as N] 30 day RW - Receiving Water							0.21	mg/L		1/90	GR-Grab
00680 - Carbon, tot organic [TOC] 1 - Effluent Gross							3.6	mg/L		1/90	GR-Grab
00680 - Carbon, tot organic [TOC] RW - Receiving Water							3.3	mg/L		1/90	GR-Grab
01027 - Cadmium, total [as Cd] 1 - Effluent Gross							0	µg/L		1/90	GR-Grab
01027 - Cadmium, total [as Cd] RW - Receiving Water							0	µg/L		1/90	GR-Grab

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER Tom Keefe / VP Env. H and S TYPED OR PRINTED	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	TELEPHONE		DATE		
		781	398-4132			
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA	NUMBER	YEAR	MO	DAY

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
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DISCHARGE NUMBER

FACILITY LOCATION 140 Lee Burbank Highway
Revere, MA 02151

MONITORING PERIOD						
FROM			TO			
YEAR	MO	DAY	YEAR	MO	DAY	
2021	10	01	2021	12	31	

NOTE: Read instructions before

PARAMETER	SAMPLE PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
01042 - Copper, total [as Cu] 1 - Effluent Gross	SAMPLE						3.8	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
01042 - Copper, total [as Cu] RW - Receiving Water	SAMPLE						7.5	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
01051 - Lead, total [as Pb] 1 - Effluent Gross	SAMPLE						4.6	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
01051 - Lead, total [as Pb] RW - Receiving Water	SAMPLE						1.1	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
01067 - Nickel, total [as Ni] 1 - Effluent Gross	SAMPLE						2.8	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
01067 - Nickel, total [as Ni] RW - Receiving Water	SAMPLE						18.3	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
01092 - Zinc, total [as Zn] 1 - Effluent Gross	SAMPLE						29	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										

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		781	398-4132			
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA	NUMBER	YEAR	MO	DAY

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ADDRESS 800 South Street Suite 500
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Revere, MA 02151

MONITORING PERIOD							
FROM				TO			
YEAR	MO	DAY		YEAR	MO	DAY	
2021	10	01		2021	12	31	

NOTE: Read instructions before

PARAMETER	SAMPLE PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
01092 - Zinc, total [as Zn] RW - Receiving Water	SAMPLE						20	µg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
50060 - Chlorine, total residual 1 - Effluent Gross	SAMPLE						0.03	mg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
50060 - Chlorine, total residual RW - Receiving Water	SAMPLE						0	mg/L		1/90	GR-Grab
	PERMIT REQUIREMENT										
TAA3E - LC50 Static 48Hr Acute Mysid. Bahia 1 - Effluent Gross	SAMPLE						> 100%	%		1/90	GR-Grab
	PERMIT REQUIREMENT										
TAA3E - LC50 Static 48Hr Acute Menidia 1 - Effluent Gross	SAMPLE						> 100%	%		1/90	GR-Grab
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										
	SAMPLE										
	PERMIT REQUIREMENT										

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		781	398-4132			
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA	NUMBER	YEAR	MO	DAY

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ANALYTICAL REPORT

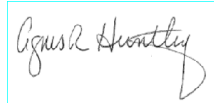
Eurofins Environment Testing New England
646 Camp Ave
North Kingstown, RI 02852
Tel: (413)789-9018

Laboratory Job ID: 620-1926-1
Client Project/Site: Global Revere

For:

Roux Associates, Inc.
12 Gill St., Suite 4700
Woburn, Massachusetts 01801

Attn: Tom Henderson



*Authorized for release by:
12/1/2021 3:39:18 PM*

Agnes Huntley, Project Manager
(401)372-3482
agnes.huntley@eurofinset.com

..... LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low biased.

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Job ID: 620-1926-1

Laboratory: Eurofins Environment Testing New England

Narrative

Job Narrative 620-1926-1

Comments

No additional comments.

Receipt

The samples were received on 11/16/2021 3:11 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.6° C.

Receipt Exceptions

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. The field sampler's name and the # of containers submitted per sample are not listed on the CoC.

The lab split a 500ml from one of the Unpreserved plastic liters for each sample to subcontract TRC and Salinity to a different lab.

GP-001 Outfall (620-1926-1) and GP-001 Receiving Water (620-1926-2)

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method 625.1 SIM: The laboratory control sample (LCS) associated with preparation batch 620-5912 and analytical batch 620-5949 was outside acceptance criteria. The batch laboratory control sample duplicate (LCSD) was within acceptance limits and may be used to evaluate performance.

Method 625.1 SIM: Surrogate recovery for the following sample was outside control limits: GP-001 Receiving Water (620-1926-2). Evidence of matrix interference in the extraction is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry

Method SM 2540B: Reanalysis of the following sample was performed outside of the analytical holding time due to the need for a dilution to be within method range : GP-001 Receiving Water (620-1926-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work

Methods 350.1 Ammonia, 5310B TOC, Cd,Cu,Pb,Ni,Zn by 200.8, Cr,Fe,Cd,Cu,Pb,Ni,Zn by 200.8, Salinity, Total Phenol (low-level), Total Residual Chlorine: These methods were subcontracted to Phoenix Environmental Laboratories, Inc.. The subcontract laboratory certifications are different from that of the facility issuing the final report.

Detection Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Outfall

Lab Sample ID: 620-1926-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Total Solids	342		5.00	mg/L	1		SM 2540B	Total/NA
Total Suspended Solids	16.7		1.67	mg/L	1		SM 2540D	Total/NA
Ammonia as Nitrogen	0.32		0.05	mg/L	1		350.1 Ammonia	Total/NA
Total Organic Carbon	3.6		1.0	mg/L	1		5310B TOC	Total/NA
Copper	0.0038		0.0025	mg/L	5		Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	Total/NA
Iron	2.68		0.050	mg/L	5		Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	Total/NA
Lead	0.0046		0.0005	mg/L	5		Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	Total/NA
Nickel	0.0028		0.0025	mg/L	5		Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	Total/NA
Zinc	0.029		0.005	mg/L	5		Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	Total/NA
Chlorine Residual	0.03		0.02	mg/L	1		SM4500Cl-G Total Residual Chlorine	Total/NA

Client Sample ID: GP-001 Receiving Water

Lab Sample ID: 620-1926-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Total Solids	25100	E	5.00	mg/L	1		SM 2540B	Total/NA
Total Solids	25400	H	100	mg/L	1		SM 2540B	Total/NA
Total Suspended Solids	27.3		1.67	mg/L	1		SM 2540D	Total/NA
Ammonia as Nitrogen	0.21		0.05	mg/L	1		350.1 Ammonia	Total/NA
Total Organic Carbon	3.3		1.0	mg/L	1		5310B TOC	Total/NA
Copper	0.0075		0.0025	mg/L	5		Cd,Cu,Pb,Ni,Zn by 200.8	Total/NA
Lead	0.0011		0.0005	mg/L	5		Cd,Cu,Pb,Ni,Zn by 200.8	Total/NA
Nickel	0.0183		0.0025	mg/L	5		Cd,Cu,Pb,Ni,Zn by 200.8	Total/NA
Zinc	0.020		0.005	mg/L	5		Cd,Cu,Pb,Ni,Zn by 200.8	Total/NA
Salinity	23.3		0.5	ppt	1		SM2520B-10 Salinity	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Outfall

Lab Sample ID: 620-1926-1

Date Collected: 11/16/21 10:00

Matrix: Water

Date Received: 11/16/21 15:11

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	ug/L			11/30/21 10:40	1
Ethylbenzene	ND		1.00	ug/L			11/30/21 10:40	1
Methyl tert-butyl ether	ND		1.00	ug/L			11/30/21 10:40	1
Toluene	ND		1.00	ug/L			11/30/21 10:40	1
m-Xylene & p-Xylene	ND		2.00	ug/L			11/30/21 10:40	1
o-Xylene	ND		1.00	ug/L			11/30/21 10:40	1
Xylenes, Total	ND		3.00	ug/L			11/30/21 10:40	1
Naphthalene	ND		2.00	ug/L			11/30/21 10:40	1
Ethanol	ND		200	ug/L			11/30/21 10:40	1
t-Butyl alcohol	ND		10.0	ug/L			11/30/21 10:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130		11/30/21 10:40	1
Toluene-d8 (Surr)	104		70 - 130		11/30/21 10:40	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		11/30/21 10:40	1
Dibromofluoromethane (Surr)	106		70 - 130		11/30/21 10:40	1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Acenaphthylene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
1-Methylnaphthalene	ND	*1	0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Anthracene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Benzo[a]anthracene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Benzo[a]pyrene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Benzo[b]fluoranthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Benzo[g,h,i]perylene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Benzo[k]fluoranthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Chrysene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Dibenz(a,h)anthracene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Fluoranthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Fluorene	ND	*- *1	0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Indeno[1,2,3-cd]pyrene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
2-Methylnaphthalene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Naphthalene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Phenanthrene	ND	*- *1	0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1
Pyrene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		30 - 130	11/22/21 10:14	11/23/21 13:27	1
Terphenyl-d14	36		30 - 130	11/22/21 10:14	11/23/21 13:27	1
Benzo(e)pyrene-d12	30		30 - 130	11/22/21 10:14	11/23/21 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Oil & Grease	ND		2.0	mg/L		11/29/21 10:31	11/29/21 12:59	1
SGT-HEM	ND		2.0	mg/L		11/29/21 10:31	11/29/21 12:59	1
Total Solids	342		5.00	mg/L			11/23/21 14:21	1
Total Suspended Solids	16.7		1.67	mg/L			11/22/21 18:10	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Outfall

Lab Sample ID: 620-1926-1

Date Collected: 11/16/21 10:00

Matrix: Water

Date Received: 11/16/21 15:11

Method: 350.1 Ammonia - Ammonia

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as Nitrogen	0.32		0.05		mg/L		11/23/21 07:33	11/23/21 07:33	1

Method: 5310B TOC - SM 5310B TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	3.6		1.0		mg/L		11/18/21 16:56	11/18/21 16:56	1

Method: Cr,Fe,Cd,Cu,Pb,Ni,Zn by 200.8 - EPA 200.8 Metals by ICPMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0010		mg/L		11/18/21 00:00	11/23/21 22:33	5
Chromium	ND		0.010		mg/L		11/18/21 00:00	11/23/21 22:33	5
Copper	0.0038		0.0025		mg/L		11/18/21 00:00	11/23/21 22:33	5
Iron	2.68		0.050		mg/L		11/18/21 00:00	11/24/21 09:42	5
Lead	0.0046		0.0005		mg/L		11/18/21 00:00	11/23/21 22:33	5
Nickel	0.0028		0.0025		mg/L		11/18/21 00:00	11/23/21 22:33	5
Zinc	0.029		0.005		mg/L		11/18/21 00:00	11/23/21 22:33	5

Method: E420.4 Total Phenol (low-level) - Phenolics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics	ND		0.015		mg/L		11/19/21 11:49	11/19/21 11:49	1

Method: SM2520B-10 Salinity - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	ND		0.5		ppt		11/24/21 15:25	11/24/21 15:25	1

Method: SM4500Cl-G Total Residual Chlorine - SM 4500 CL Residual Chlorine

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine Residual	0.03		0.02		mg/L		11/17/21 18:27	11/17/21 18:27	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Receiving Water

Lab Sample ID: 620-1926-2

Date Collected: 11/16/21 10:05

Matrix: Water

Date Received: 11/16/21 15:11

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	ug/L			11/30/21 11:05	1
Ethylbenzene	ND		1.00	ug/L			11/30/21 11:05	1
Toluene	ND		1.00	ug/L			11/30/21 11:05	1
m-Xylene & p-Xylene	ND		2.00	ug/L			11/30/21 11:05	1
o-Xylene	ND		1.00	ug/L			11/30/21 11:05	1
Xylenes, Total	ND		3.00	ug/L			11/30/21 11:05	1
Naphthalene	ND		2.00	ug/L			11/30/21 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	108		70 - 130		11/30/21 11:05	1
1,2-Dichloroethane-d4 (Surr)	111		70 - 130		11/30/21 11:05	1
4-Bromofluorobenzene (Surr)	90		70 - 130		11/30/21 11:05	1
Toluene-d8 (Surr)	104		70 - 130		11/30/21 11:05	1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Acenaphthylene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
1-Methylnaphthalene	ND	*1	0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Anthracene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Benzo[a]anthracene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Benzo[a]pyrene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Benzo[b]fluoranthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Benzo[g,h,i]perylene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Benzo[k]fluoranthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Chrysene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Dibenz(a,h)anthracene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Fluoranthene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Fluorene	ND	*- *1	0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Indeno[1,2,3-cd]pyrene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
2-Methylnaphthalene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Naphthalene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Phenanthrene	ND	*- *1	0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1
Pyrene	ND		0.0476	ug/L		11/22/21 10:14	11/23/21 13:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		30 - 130	11/22/21 10:14	11/23/21 13:56	1
Terphenyl-d14	21	S1-	30 - 130	11/22/21 10:14	11/23/21 13:56	1
Benzo(e)pyrene-d12	2	S1-	30 - 130	11/22/21 10:14	11/23/21 13:56	1

General Chemistry

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	25100	E	5.00	mg/L			11/23/21 14:21	1
Total Solids	25400	H	100	mg/L			11/24/21 21:06	1
Total Suspended Solids	27.3		1.67	mg/L			11/22/21 18:10	1

Method: 350.1 Ammonia - Ammonia

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as Nitrogen	0.21		0.05		mg/L		11/24/21 07:34	11/24/21 07:34	1

Client Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Receiving Water

Lab Sample ID: 620-1926-2

Date Collected: 11/16/21 10:05

Matrix: Water

Date Received: 11/16/21 15:11

Method: 5310B TOC - SM 5310B TOC

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	3.3		1.0		mg/L		11/18/21 17:11	11/18/21 17:11	1

Method: Cd,Cu,Pb,Ni,Zn by 200.8 - EPA 200.8 Metals by ICPMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0010		mg/L		11/18/21 00:00	11/23/21 20:00	5
Copper	0.0075		0.0025		mg/L		11/18/21 00:00	11/23/21 20:00	5
Lead	0.0011		0.0005		mg/L		11/18/21 00:00	11/23/21 20:00	5
Nickel	0.0183		0.0025		mg/L		11/18/21 00:00	11/23/21 20:00	5
Zinc	0.020		0.005		mg/L		11/18/21 00:00	11/23/21 20:00	5

Method: SM2520B-10 Salinity - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Salinity	23.3		0.5		ppt		11/24/21 15:26	11/24/21 15:26	1

Method: SM4500CI-G Total Residual Chlorine - General Subcontract Method

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine Residual	ND		0.02		mg/L		11/17/21 18:32	11/17/21 18:32	1

Surrogate Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (70-130)	TOL (70-130)	DCA (70-130)	DBFM (70-130)
620-1926-1	GP-001 Outfall	91	104	108	106
620-1926-2	GP-001 Receiving Water	90	104	111	108
LCS 620-6099/4	Lab Control Sample	102	103	108	107
LCSD 620-6099/5	Lab Control Sample Dup	101	103	106	104
MB 620-6099/7	Method Blank	92	103	108	105

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane (Surr)

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (30-130)	TPHL (30-130)	BePd12 (30-130)
620-1926-1	GP-001 Outfall	76	36	30
620-1926-2	GP-001 Receiving Water	54	21 S1-	2 S1-
LCS 620-5912/2-A	Lab Control Sample	63	78	89
LCSD 620-5912/3-A	Lab Control Sample Dup	87	85	85
MB 620-5912/1-A	Method Blank	84	50	57

Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

TPHL = Terphenyl-d14

BePd12 = Benzo(e)pyrene-d12

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 620-6099/7
Matrix: Water
Analysis Batch: 6099

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.00	ug/L			11/30/21 09:51	1
Ethylbenzene	ND		1.00	ug/L			11/30/21 09:51	1
Methyl tert-butyl ether	ND		1.00	ug/L			11/30/21 09:51	1
Toluene	ND		1.00	ug/L			11/30/21 09:51	1
m-Xylene & p-Xylene	ND		2.00	ug/L			11/30/21 09:51	1
o-Xylene	ND		1.00	ug/L			11/30/21 09:51	1
Xylenes, Total	ND		3.00	ug/L			11/30/21 09:51	1
Naphthalene	ND		2.00	ug/L			11/30/21 09:51	1
Ethanol	ND		200	ug/L			11/30/21 09:51	1
t-Butyl alcohol	ND		10.0	ug/L			11/30/21 09:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	105		70 - 130		11/30/21 09:51	1
1,2-Dichloroethane-d4 (Surr)	108		70 - 130		11/30/21 09:51	1
4-Bromofluorobenzene (Surr)	92		70 - 130		11/30/21 09:51	1
Toluene-d8 (Surr)	103		70 - 130		11/30/21 09:51	1

Lab Sample ID: LCS 620-6099/4
Matrix: Water
Analysis Batch: 6099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.84		ug/L		99	65 - 135
Ethylbenzene	20.0	20.10		ug/L		100	60 - 140
Methyl tert-butyl ether	20.0	19.63		ug/L		98	60 - 140
Toluene	20.0	21.00		ug/L		105	70 - 130
m-Xylene & p-Xylene	40.0	44.73		ug/L		112	60 - 140
o-Xylene	20.0	19.50		ug/L		97	60 - 140
Naphthalene	20.0	12.23		ug/L		61	60 - 140
Ethanol	400	494.1		ug/L		124	60 - 140
t-Butyl alcohol	200	246.0		ug/L		123	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	107		70 - 130
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Lab Sample ID: LCSD 620-6099/5
Matrix: Water
Analysis Batch: 6099

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	20.0	19.06		ug/L		95	65 - 135	4	
Ethylbenzene	20.0	19.89		ug/L		99	60 - 140	1	
Methyl tert-butyl ether	20.0	19.43		ug/L		97	60 - 140	1	
Toluene	20.0	19.86		ug/L		99	70 - 130	6	
m-Xylene & p-Xylene	40.0	43.76		ug/L		109	60 - 140	2	

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 620-6099/5
Matrix: Water
Analysis Batch: 6099

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
o-Xylene	20.0	19.20		ug/L		96	60 - 140	2	
Naphthalene	20.0	11.92		ug/L		60	60 - 140	3	
Ethanol	400	464.8		ug/L		116	60 - 140	6	
t-Butyl alcohol	200	241.5		ug/L		121	60 - 140	2	

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Dibromofluoromethane (Surr)	104		70 - 130
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Toluene-d8 (Surr)	103		70 - 130

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Lab Sample ID: MB 620-5912/1-A
Matrix: Water
Analysis Batch: 5949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5912

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Acenaphthylene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
1-Methylnaphthalene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Anthracene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Benzo[a]anthracene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Benzo[a]pyrene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Benzo[b]fluoranthene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Benzo[g,h,i]perylene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Benzo[k]fluoranthene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Chrysene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Dibenz(a,h)anthracene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Fluoranthene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Fluorene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Indeno[1,2,3-cd]pyrene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
2-Methylnaphthalene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Naphthalene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Phenanthrene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1
Pyrene	ND		0.0500	ug/L		11/22/21 10:14	11/23/21 11:05	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	84		30 - 130	11/22/21 10:14	11/23/21 11:05	1
Terphenyl-d14	50		30 - 130	11/22/21 10:14	11/23/21 11:05	1
Benzo(e)pyrene-d12	57		30 - 130	11/22/21 10:14	11/23/21 11:05	1

Lab Sample ID: LCS 620-5912/2-A
Matrix: Water
Analysis Batch: 5949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.00	0.4744		ug/L		47	47 - 145

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QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCS 620-5912/2-A
Matrix: Water
Analysis Batch: 5949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5912

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.00	0.4449		ug/L		44	33 - 145
1-Methylnaphthalene	1.00	0.4785		ug/L		48	40 - 140
Anthracene	1.00	0.6475		ug/L		65	27 - 133
Benzo[a]anthracene	1.00	0.6470		ug/L		65	33 - 143
Benzo[a]pyrene	1.00	0.8381		ug/L		84	17 - 163
Benzo[b]fluoranthene	1.00	0.5260		ug/L		53	24 - 159
Benzo[g,h,i]perylene	1.00	0.6816		ug/L		68	10 - 219
Benzo[k]fluoranthene	1.00	0.6802		ug/L		68	11 - 162
Chrysene	1.00	0.7011		ug/L		70	17 - 168
Dibenz(a,h)anthracene	1.00	0.6364		ug/L		64	10 - 227
Fluoranthene	1.00	0.6966		ug/L		70	26 - 137
Fluorene	1.00	0.4810	*-	ug/L		48	59 - 121
Indeno[1,2,3-cd]pyrene	1.00	0.6447		ug/L		64	10 - 171
2-Methylnaphthalene	1.00	0.4105		ug/L		41	40 - 140
Naphthalene	1.00	0.4396		ug/L		44	21 - 133
Phenanthrene	1.00	0.4638	*-	ug/L		46	54 - 120
Pyrene	1.00	0.7604		ug/L		76	52 - 120

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	63		30 - 130
Terphenyl-d14	78		30 - 130
Benzo(e)pyrene-d12	89		30 - 130

Lab Sample ID: LCSD 620-5912/3-A
Matrix: Water
Analysis Batch: 5949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5912

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	1.00	0.7491		ug/L		75	47 - 145	45	48
Acenaphthylene	1.00	0.7043		ug/L		70	33 - 145	45	74
1-Methylnaphthalene	1.00	0.6112	*1	ug/L		61	40 - 140	24	20
Anthracene	1.00	0.8059		ug/L		81	27 - 133	22	66
Benzo[a]anthracene	1.00	0.9332		ug/L		93	33 - 143	36	53
Benzo[a]pyrene	1.00	0.9101		ug/L		91	17 - 163	8	72
Benzo[b]fluoranthene	1.00	0.7282		ug/L		73	24 - 159	32	71
Benzo[g,h,i]perylene	1.00	0.7585		ug/L		76	10 - 219	11	97
Benzo[k]fluoranthene	1.00	0.9893		ug/L		99	11 - 162	37	63
Chrysene	1.00	0.9130		ug/L		91	17 - 168	26	87
Dibenz(a,h)anthracene	1.00	0.6417		ug/L		64	10 - 227	1	126
Fluoranthene	1.00	0.8538		ug/L		85	26 - 137	20	66
Fluorene	1.00	0.7996	*1	ug/L		80	59 - 121	50	38
Indeno[1,2,3-cd]pyrene	1.00	0.7073		ug/L		71	10 - 171	9	99
2-Methylnaphthalene	1.00	0.4815		ug/L		48	40 - 140	16	20
Naphthalene	1.00	0.5512		ug/L		55	21 - 133	23	65
Phenanthrene	1.00	0.7444	*1	ug/L		74	54 - 120	46	39
Pyrene	1.00	0.9295		ug/L		93	52 - 120	20	49

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: 625.1 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

Lab Sample ID: LCSD 620-5912/3-A
Matrix: Water
Analysis Batch: 5949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5912

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	87		30 - 130
Terphenyl-d14	85		30 - 130
Benzo(e)pyrene-d12	85		30 - 130

Method: 1664B - HEM and SGT-HEM

Lab Sample ID: MB 620-6058/1-A
Matrix: Water
Analysis Batch: 6072

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6058

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Oil & Grease	ND		2.0	mg/L		11/29/21 10:31	11/29/21 12:59	1
SGT-HEM	ND		2.0	mg/L		11/29/21 10:31	11/29/21 12:59	1

Lab Sample ID: LCS 620-6058/2-A
Matrix: Water
Analysis Batch: 6072

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6058

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
SGT-HEM	20.0	17.60		mg/L		88	64 - 132

Lab Sample ID: LCSD 620-6058/3-A
Matrix: Water
Analysis Batch: 6072

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 6058

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
SGT-HEM	20.0	15.40		mg/L		77	64 - 132	NaN	28

Method: SM 2540B - Solids, Total

Lab Sample ID: MB 620-5967/1
Matrix: Water
Analysis Batch: 5967

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Total Solids	ND		5.00	mg/L			11/23/21 14:21	1

Lab Sample ID: LCS 620-5967/2
Matrix: Water
Analysis Batch: 5967

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: SM 2540B - Solids, Total (Continued)

Lab Sample ID: 620-1926-1 DU
Matrix: Water
Analysis Batch: 5967

Client Sample ID: GP-001 Outfall
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Solids	342		343.0		mg/L		1	5

Lab Sample ID: MB 620-6026/1
Matrix: Water
Analysis Batch: 6026

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Solids	ND		5.00	mg/L			11/24/21 21:06	1

Lab Sample ID: LCS 620-6026/2
Matrix: Water
Analysis Batch: 6026

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Solids	1100	1078		mg/L		98	90 - 110

Lab Sample ID: 620-1926-2 DU
Matrix: Water
Analysis Batch: 6026

Client Sample ID: GP-001 Receiving Water
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Solids	25400	H	25080		mg/L		1	5

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 620-5940/1
Matrix: Water
Analysis Batch: 5940

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		5.00	mg/L			11/22/21 18:10	1

Lab Sample ID: LCS 620-5940/2
Matrix: Water
Analysis Batch: 5940

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	100	94.00		mg/L		94	90 - 110

Method: 350.1 Ammonia - Ammonia

Lab Sample ID: CJ79107-BLK
Matrix: WATER
Analysis Batch: 601816A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601816A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as Nitrogen	ND		0.05		mg/L		11/22/21 00:00	11/23/21 07:02	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: 350.1 Ammonia - Ammonia (Continued)

Lab Sample ID: CJ79107-LCS
Matrix: WATER
Analysis Batch: 601816A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601816A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as Nitrogen	3.12	3.160		mg/L		101	90 - 110

Lab Sample ID: CJ79845-BLK
Matrix: WATER
Analysis Batch: 601989A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601989A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as Nitrogen	ND		0.05		mg/L		11/23/21 00:00	11/24/21 07:30	1

Lab Sample ID: CJ79845-LCS
Matrix: WATER
Analysis Batch: 601989A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601989A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as Nitrogen	3.12	3.000		mg/L		96.2	90 - 110

Method: 5310B TOC - SM 5310B TOC

Lab Sample ID: CJ79996-BLK
Matrix: DRINKING WATER
Analysis Batch: 601438A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601438A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND		1.0		mg/L		11/18/21 14:45	11/18/21 14:45	1

Lab Sample ID: CJ79996-LCS
Matrix: DRINKING WATER
Analysis Batch: 601438A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601438A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	8.22	7.275		mg/L		89	85 - 115

Method: Cd,Cu,Pb,Ni,Zn by 200.8 - EPA 200.8 Metals by ICPMS

Lab Sample ID: CJ81000-BLK
Matrix: WATER
Analysis Batch: 601329A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601329A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		0.0010		mg/L		11/18/21 00:00	11/23/21 19:48	5
Chromium	ND		0.010		mg/L		11/18/21 00:00	11/23/21 19:48	5
Copper	ND		0.0025		mg/L		11/18/21 00:00	11/23/21 19:48	5
Lead	ND		0.0005		mg/L		11/18/21 00:00	11/23/21 19:48	5
Nickel	ND		0.0025		mg/L		11/18/21 00:00	11/23/21 19:48	5
Zinc	ND		0.005		mg/L		11/18/21 00:00	11/23/21 19:48	5

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: Cd,Cu,Pb,Ni,Zn by 200.8 - EPA 200.8 Metals by ICPMS (Continued)

Lab Sample ID: CJ81000-BLK
Matrix: WATER
Analysis Batch: 601329A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601329A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.050		mg/L		11/18/21 00:00	11/24/21 09:35	5

Lab Sample ID: CJ81000-LCS
Matrix: WATER
Analysis Batch: 601329A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601329A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	0.05	0.05240		mg/L		105	80 - 120
Chromium	0.05	0.05480		mg/L		110	80 - 120
Copper	0.05	0.05320		mg/L		106	80 - 120
Lead	0.05	0.05200		mg/L		104	80 - 120
Nickel	0.05	0.05310		mg/L		106	80 - 120
Zinc	0.05	0.06010		mg/L		120	80 - 120

Lab Sample ID: CJ81000-LCS
Matrix: WATER
Analysis Batch: 601329A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601329A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2	2.317		mg/L		116	80 - 120

Lab Sample ID: CJ81000-LCSD
Matrix: WATER
Analysis Batch: 601329A

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601329A_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	0.05	0.05190		mg/L		104	80 - 120	1.0	20
Chromium	0.05	0.05120		mg/L		102	80 - 120	7.5	20
Copper	0.05	0.05240		mg/L		105	80 - 120	0.9	20
Lead	0.05	0.05240		mg/L		105	80 - 120	1.0	20
Nickel	0.05	0.05200		mg/L		104	80 - 120	1.9	20
Zinc	0.05	0.05990		mg/L		120	80 - 120	0.0	20

Lab Sample ID: CJ81000-LCSD
Matrix: WATER
Analysis Batch: 601329A

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601329A_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Iron	2	2.353		mg/L		118	80 - 120	1.7	20

Method: E420.4 Total Phenol (low-level) - Phenolics

Lab Sample ID: CJ79630-BLK
Matrix: WATER
Analysis Batch: 601436A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601436A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenolics	ND		0.015		mg/L		11/19/21 00:00	11/19/21 11:35	1

QC Sample Results

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method: E420.4 Total Phenol (low-level) - Phenolics (Continued)

Lab Sample ID: CJ79630-LCS
Matrix: WATER
Analysis Batch: 601436A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601436A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phenolics	0.272	0.2880		mg/L		106	90 - 110

Method: SM4500CI-G Total Residual Chlorine - General Subcontract Method

Lab Sample ID: CJ79735-BLK
Matrix: DRINKING WATER
Analysis Batch: 601186A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601186A_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorine Residual	ND		0.02		mg/L		11/17/21 00:00	11/17/21 18:08	1

Lab Sample ID: CJ79735-LCS
Matrix: DRINKING WATER
Analysis Batch: 601186A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601186A_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chlorine Residual	0.26	0.2803		mg/L		108	

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

GC/MS VOA

Analysis Batch: 6099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	624.1	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	624.1	
MB 620-6099/7	Method Blank	Total/NA	Water	624.1	
LCS 620-6099/4	Lab Control Sample	Total/NA	Water	624.1	
LCSD 620-6099/5	Lab Control Sample Dup	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 5912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	625	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	625	
MB 620-5912/1-A	Method Blank	Total/NA	Water	625	
LCS 620-5912/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 620-5912/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 5949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	625.1 SIM	5912
620-1926-2	GP-001 Receiving Water	Total/NA	Water	625.1 SIM	5912
MB 620-5912/1-A	Method Blank	Total/NA	Water	625.1 SIM	5912
LCS 620-5912/2-A	Lab Control Sample	Total/NA	Water	625.1 SIM	5912
LCSD 620-5912/3-A	Lab Control Sample Dup	Total/NA	Water	625.1 SIM	5912

General Chemistry

Analysis Batch: 5940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM 2540D	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM 2540D	
MB 620-5940/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 620-5940/2	Lab Control Sample	Total/NA	Water	SM 2540D	

Analysis Batch: 5967

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM 2540B	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM 2540B	
MB 620-5967/1	Method Blank	Total/NA	Water	SM 2540B	
LCS 620-5967/2	Lab Control Sample	Total/NA	Water	SM 2540B	
620-1926-1 DU	GP-001 Outfall	Total/NA	Water	SM 2540B	

Analysis Batch: 6026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM 2540B	
MB 620-6026/1	Method Blank	Total/NA	Water	SM 2540B	
LCS 620-6026/2	Lab Control Sample	Total/NA	Water	SM 2540B	
620-1926-2 DU	GP-001 Receiving Water	Total/NA	Water	SM 2540B	

Prep Batch: 6058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	1664B	
MB 620-6058/1-A	Method Blank	Total/NA	Water	1664B	

Eurofins Environment Testing New England

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

General Chemistry (Continued)

Prep Batch: 6058 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 620-6058/2-A	Lab Control Sample	Total/NA	Water	1664B	
LCSD 620-6058/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	

Analysis Batch: 6072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	1664B	6058
MB 620-6058/1-A	Method Blank	Total/NA	Water	1664B	6058
LCS 620-6058/2-A	Lab Control Sample	Total/NA	Water	1664B	6058
LCSD 620-6058/3-A	Lab Control Sample Dup	Total/NA	Water	1664B	6058

Subcontract

Prep Batch: _P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM2520B-10	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM2520B-10	

Analysis Batch:

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM2520B-10	_P
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM2520B-10 Salinity	_P

Analysis Batch: 601186A

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM4500CI-G Total Residual Chlorine	601186A_P
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM4500CI-G Total Residual Chlorine	601186A_P
CJ79735-BLK	Method Blank	Total/NA	DRINKING WATEF	SM4500CI-G Total Residual Chlorine	601186A_P
CJ79735-LCS	Lab Control Sample	Total/NA	DRINKING WATEF	SM4500CI-G Total Residual Chlorine	601186A_P

Analysis Batch: 601329A

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	601329A_P
620-1926-1	GP-001 Outfall	Total/NA	Water	Cr,Fe,Cd,Cu,Pb, Ni,Zn by 200.8	601329A_P
620-1926-2	GP-001 Receiving Water	Total/NA	Water	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P
CJ81000-BLK	Method Blank	Total/NA	WATER	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P
CJ81000-BLK	Method Blank	Total/NA	WATER	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P
CJ81000-LCS	Lab Control Sample	Total/NA	WATER	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P
CJ81000-LCS	Lab Control Sample	Total/NA	WATER	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P

Eurofins Environment Testing New England

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Subcontract (Continued)

Analysis Batch: 601329A (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CJ81000-LCSD	Lab Control Sample Dup	Total/NA	WATER	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P
CJ81000-LCSD	Lab Control Sample Dup	Total/NA	WATER	Cd,Cu,Pb,Ni,Zn by 200.8	601329A_P

Analysis Batch: 601436A

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	E420.4 Total Phenol (low-level)	601436A_P
CJ79630-BLK	Method Blank	Total/NA	WATER	E420.4 Total Phenol (low-level)	601436A_P
CJ79630-LCS	Lab Control Sample	Total/NA	WATER	E420.4 Total Phenol (low-level)	601436A_P

Analysis Batch: 601438A

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	5310B TOC	601438A_P
620-1926-2	GP-001 Receiving Water	Total/NA	Water	5310B TOC	601438A_P
CJ79996-BLK	Method Blank	Total/NA	DRINKING WATER	5310B TOC	601438A_P
CJ79996-LCS	Lab Control Sample	Total/NA	DRINKING WATER	5310B TOC	601438A_P

Analysis Batch: 601816A

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	350.1 Ammonia	601816A_P
CJ79107-BLK	Method Blank	Total/NA	WATER	350.1 Ammonia	601816A_P
CJ79107-LCS	Lab Control Sample	Total/NA	WATER	350.1 Ammonia	601816A_P

Analysis Batch: 601989A

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-2	GP-001 Receiving Water	Total/NA	Water	350.1 Ammonia	601989A_P
CJ79845-BLK	Method Blank	Total/NA	WATER	350.1 Ammonia	601989A_P
CJ79845-LCS	Lab Control Sample	Total/NA	WATER	350.1 Ammonia	601989A_P

Prep Batch: 601186A_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM4500CI-G	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM4500CI-G	
CJ79735-BLK	Method Blank	Total/NA	DRINKING WATER	SM4500CI-G	
CJ79735-LCS	Lab Control Sample	Total/NA	DRINKING WATER	SM4500CI-G	

Prep Batch: 601329A_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SW6020B/E200.8	
620-1926-1	GP-001 Outfall	Total/NA	Water	SW6020B/E200.8	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SW6020B/E200.8	
CJ81000-BLK	Method Blank	Total/NA	WATER	SW6020B/E200.8	

QC Association Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Subcontract (Continued)

Prep Batch: 601329A_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CJ81000-BLK	Method Blank	Total/NA	WATER	SW6020B/E200.8	
CJ81000-LCS	Lab Control Sample	Total/NA	WATER	SW6020B/E200.8	
CJ81000-LCS	Lab Control Sample	Total/NA	WATER	SW6020B/E200.8	
CJ81000-LCSD	Lab Control Sample Dup	Total/NA	WATER	SW6020B/E200.8	
CJ81000-LCSD	Lab Control Sample Dup	Total/NA	WATER	SW6020B/E200.8	

Prep Batch: 601436A_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	E420.4	
CJ79630-BLK	Method Blank	Total/NA	WATER	E420.4	
CJ79630-LCS	Lab Control Sample	Total/NA	WATER	E420.4	

Prep Batch: 601438A_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	SM5310B-11	
620-1926-2	GP-001 Receiving Water	Total/NA	Water	SM5310B-11	
CJ79996-BLK	Method Blank	Total/NA	DRINKING WATEF	SM5310B-11	
CJ79996-LCS	Lab Control Sample	Total/NA	DRINKING WATEF	SM5310B-11	

Prep Batch: 601816A_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-1	GP-001 Outfall	Total/NA	Water	E350.1	
CJ79107-BLK	Method Blank	Total/NA	WATER	E350.1	
CJ79107-LCS	Lab Control Sample	Total/NA	WATER	E350.1	

Prep Batch: 601989A_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
620-1926-2	GP-001 Receiving Water	Total/NA	Water	E350.1	
CJ79845-BLK	Method Blank	Total/NA	WATER	E350.1	
CJ79845-LCS	Lab Control Sample	Total/NA	WATER	E350.1	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Outfall
Date Collected: 11/16/21 10:00
Date Received: 11/16/21 15:11

Lab Sample ID: 620-1926-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	6099	11/30/21 10:40	DDP	ENE
Total/NA	Prep	625			5912	11/22/21 10:14	BMH	ENE
Total/NA	Analysis	625.1 SIM		1	5949	11/23/21 13:27	BJJ	ENE
Total/NA	Prep	1664B			6058	11/29/21 10:31	AEK	ENE
Total/NA	Analysis	1664B		1	6072	11/29/21 12:59	AEK	ENE
Total/NA	Analysis	SM 2540B		1	5967	11/23/21 14:21	KFS	ENE
Total/NA	Analysis	SM 2540D		1	5940	11/22/21 18:10	KFS	ENE
Total/NA	Prep	E350.1		1	601816A_P	11/23/21 07:33		
Total/NA	Analysis	350.1 Ammonia		1	601816A	11/23/21 07:33	CT007	
Total/NA	Prep	SM5310B-11		1	601438A_P	11/18/21 16:56		
Total/NA	Analysis	5310B TOC		1	601438A	11/18/21 16:56	CT007	
Total/NA	Prep	SW6020B/E200.8		1	601329A_P	11/18/21 00:00		
Total/NA	Analysis	Cr,Fe,Cd,Cu,Pb,Ni,Zn by 200.8		5	601329A	11/23/21 22:33	CT007	
Total/NA	Prep	SW6020B/E200.8		1	601329A_P	11/18/21 00:00		
Total/NA	Analysis	Cr,Fe,Cd,Cu,Pb,Ni,Zn by 200.8		5	601329A	11/24/21 09:42	CT007	
Total/NA	Prep	E420.4		1	601436A_P	11/19/21 11:49		
Total/NA	Analysis	E420.4 Total Phenol (low-level)		1	601436A	11/19/21 11:49	CT007	
Total/NA	Prep	SM2520B-10		1	_P	11/24/21 15:25		
Total/NA	Analysis	SM2520B-10 Salinity		1		11/24/21 15:25	CT007	
Total/NA	Prep	SM4500CI-G		1	601186A_P	11/17/21 18:27		
Total/NA	Analysis	SM4500CI-G Total Residual Chlorine		1	601186A	11/17/21 18:27	CT007	

Client Sample ID: GP-001 Receiving Water
Date Collected: 11/16/21 10:05
Date Received: 11/16/21 15:11

Lab Sample ID: 620-1926-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	6099	11/30/21 11:05	DDP	ENE
Total/NA	Prep	625			5912	11/22/21 10:14	BMH	ENE
Total/NA	Analysis	625.1 SIM		1	5949	11/23/21 13:56	BJJ	ENE
Total/NA	Analysis	SM 2540B		1	5967	11/23/21 14:21	KFS	ENE
Total/NA	Analysis	SM 2540B		1	6026	11/24/21 21:06	PN	ENE
Total/NA	Analysis	SM 2540D		1	5940	11/22/21 18:10	KFS	ENE
Total/NA	Prep	E350.1		1	601989A_P	11/24/21 07:34		
Total/NA	Analysis	350.1 Ammonia		1	601989A	11/24/21 07:34	CT007	
Total/NA	Prep	SM5310B-11		1	601438A_P	11/18/21 17:11		
Total/NA	Analysis	5310B TOC		1	601438A	11/18/21 17:11	CT007	
Total/NA	Prep	SW6020B/E200.8		1	601329A_P	11/18/21 00:00		
Total/NA	Analysis	Cd,Cu,Pb,Ni,Zn by 200.8		5	601329A	11/23/21 20:00	CT007	

Lab Chronicle

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Client Sample ID: GP-001 Receiving Water

Lab Sample ID: 620-1926-2

Date Collected: 11/16/21 10:05

Matrix: Water

Date Received: 11/16/21 15:11

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	SM2520B-10		1	_P	11/24/21 15:26		
Total/NA	Analysis	SM2520B-10 Salinity		1		11/24/21 15:26	CT007	
Total/NA	Prep	SM4500CI-G		1	601186A_P	11/17/21 18:32		
Total/NA	Analysis	SM4500CI-G Total Residual Chlorine		1	601186A	11/17/21 18:32	CT007	

Laboratory References:

= Manchester, CT, 587 East Middle Turnpike, Manchester, CT 06040, TEL (860)645-8726

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018



Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Laboratory: Eurofins Environment Testing New England

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Massachusetts	State	M-RI907	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1664B	1664B	Water	SGT-HEM
624.1		Water	Ethanol
624.1		Water	Naphthalene
624.1		Water	t-Butyl alcohol
625.1 SIM	625	Water	1-Methylnaphthalene
625.1 SIM	625	Water	2-Methylnaphthalene
625.1 SIM	625	Water	Acenaphthene
625.1 SIM	625	Water	Acenaphthylene
625.1 SIM	625	Water	Anthracene
625.1 SIM	625	Water	Benzo[a]anthracene
625.1 SIM	625	Water	Benzo[a]pyrene
625.1 SIM	625	Water	Benzo[b]fluoranthene
625.1 SIM	625	Water	Benzo[g,h,i]perylene
625.1 SIM	625	Water	Benzo[k]fluoranthene
625.1 SIM	625	Water	Chrysene
625.1 SIM	625	Water	Dibenz(a,h)anthracene
625.1 SIM	625	Water	Fluoranthene
625.1 SIM	625	Water	Fluorene
625.1 SIM	625	Water	Indeno[1,2,3-cd]pyrene
625.1 SIM	625	Water	Naphthalene
625.1 SIM	625	Water	Phenanthrene
625.1 SIM	625	Water	Pyrene
SM 2540B		Water	Total Solids

New York	NELAP	11393	04-01-22
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The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
1664B	1664B	Water	SGT-HEM
624.1		Water	Ethanol
624.1		Water	Methyl tert-butyl ether
624.1		Water	Naphthalene
624.1		Water	t-Butyl alcohol
625.1 SIM	625	Water	1-Methylnaphthalene
625.1 SIM	625	Water	2-Methylnaphthalene
625.1 SIM	625	Water	Acenaphthene
625.1 SIM	625	Water	Acenaphthylene
625.1 SIM	625	Water	Anthracene
625.1 SIM	625	Water	Benzo[a]anthracene
625.1 SIM	625	Water	Benzo[a]pyrene
625.1 SIM	625	Water	Benzo[b]fluoranthene
625.1 SIM	625	Water	Benzo[g,h,i]perylene
625.1 SIM	625	Water	Benzo[k]fluoranthene
625.1 SIM	625	Water	Chrysene
625.1 SIM	625	Water	Dibenz(a,h)anthracene
625.1 SIM	625	Water	Fluoranthene

Accreditation/Certification Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Laboratory: Eurofins Environment Testing New England (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
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The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

<u>Analysis Method</u>	<u>Prep Method</u>	<u>Matrix</u>	<u>Analyte</u>
625.1 SIM	625	Water	Fluorene
625.1 SIM	625	Water	Indeno[1,2,3-cd]pyrene
625.1 SIM	625	Water	Naphthalene
625.1 SIM	625	Water	Phenanthrene
625.1 SIM	625	Water	Pyrene
SM 2540B		Water	Total Solids



Method Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	ENE
625.1 SIM	Semivolatile Organic Compounds GC/MS (SIM)	40CFR136A	ENE
1664B	HEM and SGT-HEM	1664B	ENE
SM 2540B	Solids, Total	SM	ENE
SM 2540D	Solids, Total Suspended (TSS)	SM	ENE
200.8	EPA 200.8 Metals by ICPMS	EPA	
350.1	Ammonia	EPA	
420.1	Phenolics	EPA	
4500 CL	SM 4500 CL Residual Chlorine	SM18	
5310B	SM 5310B TOC	SM	
Subcontract	Salinity	None	
Subcontract	Total Residual Chlorine	None	
1664B	HEM and SGT-HEM (Aqueous)	1664B	ENE
625	Liquid-Liquid Extraction	40CFR136A	ENE

Protocol References:

1664B = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SM18 = "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

Laboratory References:

= Manchester, CT, 587 East Middle Turnpike, Manchester, CT 06040, TEL (860)645-8726

ENE = Eurofins Environment Testing New England, 646 Camp Ave, North Kingstown, RI 02852, TEL (413)789-9018

Sample Summary

Client: Roux Associates, Inc.
Project/Site: Global Revere

Job ID: 620-1926-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
620-1926-1	GP-001 Outfall	Water	11/16/21 10:00	11/16/21 15:11
620-1926-2	GP-001 Receiving Water	Water	11/16/21 10:05	11/16/21 15:11

1

2

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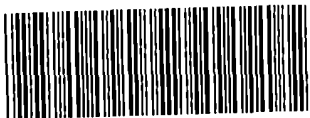
11

12

13

14

15



Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

Standard TAT - 7 to 10 business days

Rush TAT - Date Needed _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed

Report To: Roux Associates
12 Gill St, Ste. 4700
Woburn, MA 01801

Telephone #: (781)-569-4000
Project Mgr: Tom Henderson

Invoice To: Global Partners, L.P., Attn Steven Charron

e-mail invoice to: scharron@globalp.com

P.O No. _____ Quote #: _____

Project No. 1629 0007M003

Site Name: Global Revere

Location: 140 Lee Burbank Highway, Revere State: MA

Sampler(s): _____

F=Field Filtered 1=Na₂S₂O₃ 2=HCl 3=H₂SO₄ 4=HNO₃ 5=NaOH 6=Ascorbic Acid
7=CH₃OH 8=NaHSO₄ 9=Deionized Water 10=H₃PO₄ 11= _____ 12= _____

List Preservative Code below:

- 2 10 3 3 - 3 2 - 2 4 - 2

QA/QC Reporting Notes:

* additional charges may apply

MA DEP MCP CAM Report? Yes No
CT DPH RCP Report? Yes No

Standard No QC

DQA*

ASP A* ASP B*

NJ Reduced* NJ Full*

Tier II* Tier IV*

Other: _____
State-specific reporting standards

Field pH = 8.35

Field Temperature = 8.9°C

Field pH = 8.11

Field Temperature = 8.1°C

Check if chlorinated

Minimum Levels (CRLs) required:
BTEX compounds: 2 ug/l
benzo(a)anthracene, benzo(a)pyrene,
benzo(h)fluoranthene, benzo(k)fluoranthene,
chrysene, dbenzo(a,h)anthracene, and
indeno(1,2,3-cd)pyrene 0.1 ug/l;
acenaphthene, acenaphthylene, anthracene,
benzo(g,h,i)perylene, fluoranthene, fluorene
naphthalene, phenanthrene, and pyrene: 5 ug/l;
Cr: 1 ug/l, Fe: 50 ug/l; Cd, Pb, and Ni: 0.2 ug/l; Cu:
0.5 ug/l; Zn: 5 ug/l
Phenol: 5 ug/l, TBA: 10 ug/l

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water

O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas

X1= _____ X2= _____ X3= _____

G= Grab

C=Composite

Containers:

Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic
G	WW				
G	WW				

Analys:

TSS	Ethanol, MTBE (624)	Total Organic Carbon (SM5310B)	Ammonia (350.1)*	Total phenol (low-level, 420.1)	Total solids, salinity (g/g)	TPH (1664); Oil & Grease (1664)	BTEX (624)	PAHs (625 SIM)*	Naphthalene (624)	Tot. recoverable metals (200.8)*	Tot. residual chlorine (4500 CL-G)	Tert-butyl alcohol (624)
X	X	X	X	X	X	X	X	X	X	X	X	X
X		X	X		X		X	X	X	X	X	

PCL (DU) for ethanol must be no greater than 400 ug/l

Outlier report: Cr, Fe, Cu, Cd, Pb, Ni, Zn; Receiving Water report: Cd, Cu, Pb, Ni, Zn

Relinquished by:

Received by:

Date:

Time:

Temp °C

EDD format: Excel

E-mail to: thenderson@rouxinc.com, bcrowley@rouxinc.com

cbradley@rouxinc.com

Condition upon receipt* Custody Seals: Present Intact Broken

Ambient Iced Refrigerated DI VOA Frozen Soil Jar Frozen

Observed

Correction Factor

Corrected

IR ID #



Login Sample Receipt Checklist

Client: Roux Associates, Inc.

Job Number: 620-1926-1

Login Number: 1926

List Source: Eurofins Environment Testing New England

List Number: 1

Creator: Makhoul, Elie

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
Is the Field Sampler's name present on COC?	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





New England Bioassay Inc.

Aquatic Toxicity Testing Services

77 Batson Drive
Manchester, CT 06042
(860)-643-9560
www.nebio.com

ACUTE AQUATIC TOXICITY TEST REPORT

Permitee: Global Companies LLC (GP-001) NPDES # MA0003425
 Report submitted to: Roux Associates
12 Gill Street, Suite 4700 Woburn, MA
 Sample ID: GP-001
 Test Month/Year: November 2021
 NEB Proj # 899156

Test Type / Method: *Mysidopsis bahia* Acute Static Non-Renewal Saltwater
 Test Method 2007.0; EPA 821-R-02-012
Menidia beryllina Acute Static Non-Renewal Saltwater
 Test Method 2006.0; EPA 821-R-02-012

Effluent Sample Date (s): 11/16/21 Time (s): 1000
 Receiving Water Sample Date: 11/16/21 Time: 1005
 Test Start Date: 11/17/21

Results Summary

Your results were as follows:

Monitoring Only

Acute Test Results

Species	LC50	A-NOEC	Permit Limit	Pass / Fail
<i>Mysidopsis bahia</i>	>100%	100%	N/A	monitor only
<i>Menidia beryllina</i>	>100%	100%	N/A	monitor only

Data Qualifiers affecting this test:

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

This report shall not be reproduced, except in its entirety, without approval of NEB. NEB is the sole authority for authorizing edits or modifications to the data contained in this report. NEB holds no responsibility for results and/or data that are not consistent with the original. Please contact the Lab Director, Kimberly Wills, at 860-643-9560 or kimberly.wills@nebio.com if you have questions concerning these results.

TEST REPORT CERTIFICATION

Permittee name: Global Companies LLC (GP-001) Permit number: MA0003425
Client sample ID: GP-001 Test Start Date: 11/17/21

Whole Effluent Toxicity Test Report Certification (Permittee)

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

Executed on: _____
(Date)

Authorized Signature

Print or Type Name and Title

Print or Type the Permittee's Name

MA0003425

Print or Type the NPDES Permit Number

Whole Effluent Toxicity Test Report Certification (Bioassay Laboratory)

The results reported relate only to the samples submitted as received

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

Executed on: 12/8/21
(Date)

Kimberly Wills

Kimberly Wills
Laboratory Director
New England Bioassay Inc.

GENERAL TEST CONDITIONS

Permittee name: Global Companies LLC (GP-001) Permit number: MA0003425
Client sample ID: GP-001 Test Start Date: 11/17/21

Sample Collection Information

Effluent Sample Date(s): 11/16/21 @ 1000 Receiving Water Sample Date: 11/16/21 @ 1005

Were samples used within the first 36 hours of collection? Yes No * (see note below)

* sample collection note:

Test Conditions

Permittee's Receiving Water: Chelsea River

Mysidopsis bahia

- Dilution water: Receiving water collected at a point immediately upstream of or away from the discharge
- Control water: Laboratory artificial saltwater (salinity 25 ± 2 ppt)

Aeration: Did Dissolved Oxygen levels fall below 40% saturation?

No Yes, test Aerated at <100 bubbles/minute as o N/A Yes, only at 48 hrs (no aeration)

Menidia beryllina

- Dilution water: Receiving water collected at a point immediately upstream of or away from the discharge
- Control water: Laboratory artificial saltwater (salinity 25 ± 2 ppt)

Aeration: Did Dissolved Oxygen levels fall below 40% saturation?

No Yes, test Aerated at <100 bubbles/minute as o N/A Yes, only at 48 hrs (no aeration)

Effluent concentrations tested: 0%, 6.25%, 12.5%, 25%, 50%, 100%

Was effluent salinity adjusted? No Yes with Instant Ocean sea salts to 25 ppt

Dechlorination procedures: Chlorine is measured using 4500 CL-G DPD Colorimetric Method

- Dechlorination was not required

TRC results and further information about aeration of samples can be found attached in "sample receipt chemistry"

Reference Toxicant Data

Mysidopsis bahia

Date: 11/1/21

Toxicant: Sodium Dodecyl Sulfate

Dilution Water: Artificial Saltwater

Organism Source: NEB

Survival 48-h LC50: 18.3 mg/L

Results within range Yes No

Menidia beryllina

Date: 11/3/21

Toxicant: Sodium Dodecyl Sulfate

Dilution Water: Artificial Saltwater

Organism Source: Aquatic Indicators

Survival 48-h LC50: 8.06 mg/L

Results within range Yes No

TEST RESULTS

Permittee name: Global Companies LLC (GP-001) Permit number: MA0003425
 Client sample ID: GP-001 Test Start Date: 11/17/21

Test Acceptability Criteria

<i>Mysidopsis bahia</i>	<i>Menidia beryllina</i>
Lab Control Survival: <u>100</u> %	Lab Control Survival: <u>100</u> %
Diluent Control Survival: <u>97.5</u> %	Diluent Control Survival: <u>100</u> %
Thiosulfate Control Survival: <u>N/A</u> %	Thiosulfate Control Survival: <u>N/A</u> %

Presence of an asterisk (*) indicates EPA criteria was not met, see explanation in the "Results Discussion" section at the bottom of the following page.

Test Results

	<i>Mysidopsis bahia</i>			<i>Menidia beryllina</i>		
	Results	Permit Limit	Pass/Fail	Results	Permit Limit	Pass/Fail
48 hr LC50	>100%			>100%		
Upper Confidence Limit	$\pm\infty$			$\pm\infty$		
Lower Confidence Limit	100%			100%		
Method Used	Graphical			Graphical		
48 hr A-NOEC	100%			100%		

Presence of an asterisk (*) indicates qualified data, see explanation in the "Results Discussion" section at the bottom of the following page.

Concentration - Response Evaluation

Mysids: #11 No concentration-response curve: no mortality observed at any concentration.

Menidia: #12 No significant effects at any test concentration with a flat concentration-response curve. Test concentrations performed very similarly to dilution control.

The concentration - response relationship was reviewed and the following determination was made:

Mysids	Menidia	
<u>X</u>	<u>X</u>	Results are reliable and reportable
_____	_____	Results are anomalous (see explanation below)
_____	_____	Results are inconclusive - retest (see explanation below)

TEST RESULTS

Permittee name: Global Companies LLC (GP-001) Permit number: MA0003425
Client sample ID: GP-001 Test Start Date: 11/17/21

Results Discussion (if applicable):

TEST METHODS

Mysidopsis bahia

Test type:	Acute Static Non-Renewal Saltwater Test
Test Reference Manual:	EPA-821-R-02-012 "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater Organisms and Marine Organisms"
Test Method:	<i>Mysidopsis bahia</i> Survival Acute Toxicity Test - EPA 2007.0
Temperature:	25 °C ± 1°C (Temperatures should not deviate by more than 3°C during the test) (required)
Light Quality:	Ambient Laboratory Illumination (recommended)
Light Intensity:	10-20 µE/m ² /s, or 50-100 ft-c (recommended)
Photoperiod:	16 hours light, 8 hours dark (recommended)
Test chamber size:	250-500 mL (recommended minimum)
Test solution volume:	200 mL (recommended minimum)
Age of Test Organisms:	1-5 days; less than or equal to 24-h range in age (required)
Number of Organisms Per Test Chamber:	10 (required minimum)
Number of Replicate Test Chambers Per Treatment:	4 (required minimum)
Number of Organisms Per Test Concentration:	40 (required minimum)
Feeding Regime:	<i>Artemia</i> nauplii are made available while holding prior to the test; feed 0.1 ml of concentrated suspension of nauplii ≤ 24-h old, 3 times daily
Aeration:	None, unless DO concentration falls below 4.0 mg/L, at which point the rate should not exceed 100 bubbles/minute. (recommended)
Test Duration:	48 hours (required)
Endpoints:	Survival - 48 hour LC50 and NOAEL
Test Acceptability:	≥ 90% survival of test organisms in controls
Sampling Requirements:	Maximum holding time of 36 hours before first use
Sample volume required:	1 L Effluent, 2 L Receiving (recommended)

Menidia beryllina

Test type:	Acute Static Non-Renewal Saltwater Test
Test Reference Manual:	EPA-821-R-02-012 "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater Organisms and Marine Organisms"
Test Method:	<i>Menidia beryllina</i> Survival Acute Toxicity Test - EPA 2006.0
Temperature:	25 °C ± 1 °C (Temperatures should not deviate by more than 3 °C during the test) (required)
Light Quality:	Ambient Laboratory Illumination (recommended)
Light Intensity:	10-20 µE/m ² /s, or 50-100 ft-c (recommended)
Photoperiod:	16 hours light, 8 hours dark (recommended)
Test chamber size:	1 L (250 mL is the recommended minimum)
Test solution volume:	700 mL (200 mL is the recommended minimum)
Age of Test Organisms:	9-14 days; less than or equal to 24-h range in age (required)
Number of Organisms Per Test Chamber:	10 (recommended)
Number of Replicate Test Chambers Per Treatment:	4 (required minimum)
Number of Organisms Per Test Concentration:	40 (required minimum)
Feeding Regime:	<i>Artemia</i> nauplii are made available while holding prior to the test
Aeration:	None, unless DO concentration falls below 4.0 mg/L, at which point the rate should not exceed 100 bubbles/minute. (recommended)
Test Duration:	48 hours (required)
Endpoints:	Survival - 48 hour LC50 and NOAEL
Test Acceptability:	≥ 90% survival of test organisms in controls (required)
Sampling Requirements:	Maximum holding time of 36 hours before first use
Sample volume required:	2 L (recommended)

DATASHEETS & STATISTICAL ANALYSIS

**NEW ENGLAND BIOASSAY
ACUTE TOXICITY DATA FORM**

CLIENT: Roux Associates
 ADDRESS: 12 Gill Street, Suite 4700
Woburn, MA 01801
 PERMITTEE: Global Companies LLC (GP-001)
 PERMIT NUMBER: MA0003425
 DILUTION WATER: Chelsea River

M.bahia TEST ID # 21-1725a
M.beryllina TEST ID # 21-1725b
 CHAIN OF CUSTODY # C41-4500/01
 NEB PROJECT # 899156
 SAMPLE ID: GP-001

INVERTEBRATES

VERTEBRATES

TEST SET-UP TECHNICIAN: PD
 TEST SPECIES: *Mysidopsis bahia*
 NEB LOT # Mb2(11-13)
 AGE: 4 days
 TEST SOLUTION VOLUME (mls): 200
 ORGANISMS PER TEST CHAMBER: 10
 ORGANISMS PER CONCENTRATION: 40

TEST SET-UP TECHNICIAN: PD
 TEST SPECIES: *Menidia beryllina*
 NEB LOT # Ss21A(11-17)A
 AGE: 9 days
 TEST SOLUTION VOLUME (mls): 700
 ORGANISMS PER TEST CHAMBER: 10
 ORGANISMS PER CONCENTRATION: 40

	DATE	TIME
TEST START:	11/17/21	1419
TEST END:	11/19/21	1401

	DATE	TIME
TEST START:	11/17/21	1404
TEST END:	11/19/21	1349

LABORATORY CONTROL WATER (ASW 25 ppt ± 2)

Lot Number	Salinity (ppt)	Alkalinity mg/L CaCO3
CRIO41-038	24	125

COMMENTS: _____

REVIEWED BY: Kimberly Wills DATE: 12/8/21

NEW ENGLAND BIOASSAY
***Mysidopsis bahia* TEST DATASHEET**

Facility Name: Global Companies LLC (GP-001) NEB Test ID: 21-1725a
 NEB Project # 899156 Test Start Date: 11/17/21

Effluent Conc. (%)	Number of Surviving Organisms (%)			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (s.u.)			Salinity (ppt)		
	hour	0	24	48	0	24	48	0	24	48	0	24	48	0	24
Control A	10	10	10	7.3	6.5	5.8	25.0	25.6	24.8	8.1	8.0	8.0	25	26	27
Control B	10	10	10		6.5	5.5		25.7	25.2		8.0	7.9		26	27
Control C	10	10	10		6.5	5.4		25.4	25.1		8.0	7.9		26	27
Control D	10	10	10		6.5	5.3		25.5	25.1		8.0	7.9		26	27
Diluent A	10	10	10	7.7	6.3	4.9	24.5	25.9	25.4	7.8	7.9	7.8	25	25	26
Diluent B	10	10	10		6.2	4.8		25.9	25.4		7.9	7.8		25	26
Diluent C	10	10	10		6.2	4.7		25.9	25.4		7.9	7.8		25	26
Diluent D	10	9	9		6.3	4.8		25.8	25.3		7.9	7.8		25	26
6.25 A	10	10	10	8.1	6.4	5.2	24.3	25.6	25.1	7.8	7.9	7.9	25	26	27
6.25 B	10	10	10		6.2	4.0		26.0	25.5		7.9	7.7		25	26
6.25 C	10	10	10		6.2	4.0		26.0	25.6		7.9	7.7		25	26
6.25 D	10	10	10		6.2	4.4		26.0	25.4		7.9	7.8		25	26
12.5 A	10	10	10	8.1	6.4	5.0	24.2	25.6	25.1	7.8	7.9	7.9	25	26	27
12.5 B	10	10	10		6.5	5.0		25.5	25.3		7.9	7.9		26	27
12.5 C	10	10	10		6.5	5.0		25.6	25.2		7.9	7.9		26	27
12.5 D	10	10	10		6.4	5.1		25.7	25.0		7.9	7.9		25	27
25 A	10	10	10	8.0	6.6	5.4	24.3	25.3	25.4	7.8	8.0	8.0	25	26	27
25 B	10	10	10		6.5	4.8		25.4	25.5		8.0	8.0		26	27
25 C	10	10	10		6.6	5.2		25.4	25.3		8.0	8.0		26	27
25 D	10	10	10		6.6	5.2		25.3	25.0		8.0	7.9		26	27
50 A	10	10	10	7.9	6.5	5.2	24.4	25.3	25.1	7.9	8.0	8.0	25	26	27
50 B	10	10	10		6.5	5.3		25.3	25.1		8.0	8.0		26	27
50 C	10	10	10		6.5	5.1		25.4	25.2		8.0	8.0		26	27
50 D	10	10	10		6.4	5.1		25.4	24.8		8.0	8.0		26	27
100 A	10	10	10	7.9	6.5	5.9	24.5	25.3	25.1	7.9	8.1	8.2	25	26	27
100 B	10	10	10		6.5	5.7		25.3	25.3		8.1	8.2		26	27
100 C	10	10	10		6.4	5.2		25.5	25.4		8.1	8.2		26	26
100 D	10	10	10		6.3	4.9		25.5	25.5		8.1	8.2		25	26
Tech Initials	PD	DB	CMH	AG	DB	DB	AG	DB	DB	AG	DB	DB	AG	DB	DB

D.O. concentration fell below 4.0 mg/L N/A
 All test solutions were aerated at <100 bubbles/minute starting on N/A

CETIS Analytical Report

Report Date: 06 Dec-21 06:57 (p 1 of 2)
Test Code/ID: 21-1725a / 10-2766-5153

Mysidopsis 96-h Acute Survival Test

New England Bioassay

Analysis ID: 11-0931-7067	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.7
Analyzed: 06 Dec-21 6:56	Analysis: Nonparametric-Control vs Treatments	Status Level: 1
Edit Date: 06 Dec-21 6:56	MD5 Hash: B0DF58A8E1F3ECAE2505912A23AA3D76	Editor ID: 002-997-881-4
Batch ID: 03-9925-4936	Test Type: Survival (48h)	Analyst:
Start Date: 17 Nov-21 14:19	Protocol: EPA/821/R-02-012 (2002)	Diluent: Receiving Water
Ending Date: 19 Nov-21 14:01	Species: Mysidopsis bahia	Brine:
Test Length: 48h	Taxon: Malacostraca	Source: In-House Culture Age: 4d
Sample ID: 20-6444-7634	Code: 7B0CF892	Project:
Sample Date: 16 Nov-21 10:00	Material: Industrial Effluent	Source: Global Petroleum (MA0003425)
Receipt Date: 16 Nov-21 12:57	CAS (PC):	Station:
Sample Age: 28h	Client: Roux	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	MSDu	PMSD
Angular (Corrected)	C > T	100	>100	---	1	0.03919	4.02%

Steel Many-One Rank Sum Test

Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Dilution Water		6.25	20	10	1	6	CDF	0.9516	Non-Significant Effect
		12.5	20	10	1	6	CDF	0.9516	Non-Significant Effect
		25	20	10	1	6	CDF	0.9516	Non-Significant Effect
		50	20	10	1	6	CDF	0.9516	Non-Significant Effect
		100	20	10	1	6	CDF	0.9516	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0055332	0.0011066	5	1	0.4457	Non-Significant Effect
Error	0.0199195	0.0011066	18			
Total	0.0254527		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
Distribution	Shapiro-Wilk W Normality Test	0.4634	0.884	<1.0E-05	Non-Normal Distribution

48h Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	D	4	0.9750	0.8954	1.0000	1.0000	0.9000	1.0000	0.0250	5.13%	0.00%
6.25		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-2.56%
12.5		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-2.56%
25		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-2.56%
50		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-2.56%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	-2.56%

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	D	4	1.3710	1.2420	1.5010	1.4120	1.2490	1.4120	0.0407	5.94%	0.00%
6.25		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	-2.97%
12.5		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	-2.97%
25		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	-2.97%
50		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	-2.97%
100		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	-2.97%

CETIS Analytical Report

Report Date: 06 Dec-21 06:57 (p 2 of 2)
 Test Code/ID: 21-1725a / 10-2766-5153

Mysidopsis 96-h Acute Survival Test

New England Bioassay

Analysis ID: 11-0931-7067 Endpoint: 48h Survival Rate CETIS Version: CETISv1.9.7
 Analyzed: 06 Dec-21 6:56 Analysis: Nonparametric-Control vs Treatments Status Level: 1
 Edit Date: 06 Dec-21 6:56 MD5 Hash: B0DF58A8E1F3ECAE2505912A23AA3D76 Editor ID: 002-997-881-4

48h Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.0000	1.0000	1.0000	0.9000
6.25		1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

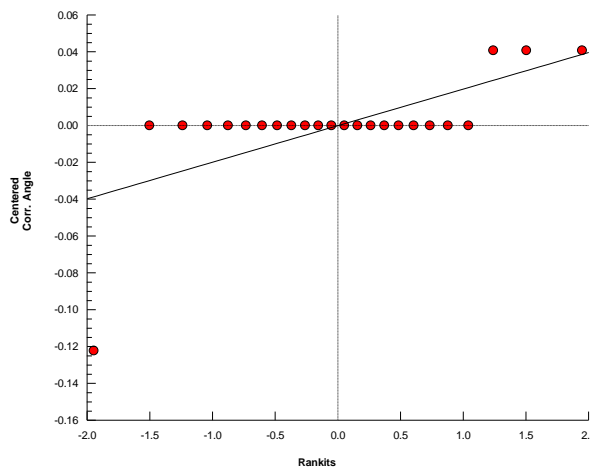
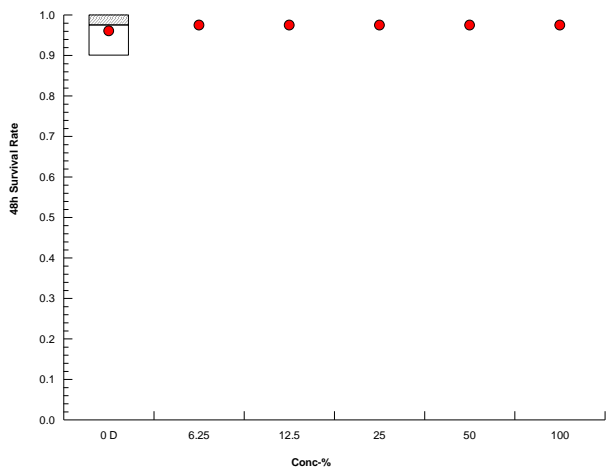
Angular (Corrected) Transformed Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.4120	1.4120	1.4120	1.2490
6.25		1.4120	1.4120	1.4120	1.4120
12.5		1.4120	1.4120	1.4120	1.4120
25		1.4120	1.4120	1.4120	1.4120
50		1.4120	1.4120	1.4120	1.4120
100		1.4120	1.4120	1.4120	1.4120

48h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	10/10	10/10	10/10	9/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		10/10	10/10	10/10	10/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	10/10	10/10

Graphics



CETIS Analytical Report

Report Date: 06 Dec-21 06:57 (p 1 of 2)
Test Code/ID: 21-1725a / 10-2766-5153

Mysidopsis 96-h Acute Survival Test

New England Bioassay

Analysis ID: 05-0565-2272	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.7
Analyzed: 06 Dec-21 6:56	Analysis: Linear Interpolation (ICPIN)	Status Level: 1
Edit Date: 06 Dec-21 6:56	MD5 Hash: B0DF58A8E1F3ECAE2505912A23AA3D76	Editor ID: 002-997-881-4
Batch ID: 03-9925-4936	Test Type: Survival (48h)	Analyst:
Start Date: 17 Nov-21 14:19	Protocol: EPA/821/R-02-012 (2002)	Diluent: Receiving Water
Ending Date: 19 Nov-21 14:01	Species: Mysidopsis bahia	Brine:
Test Length: 48h	Taxon: Malacostraca	Source: In-House Culture Age: 4d
Sample ID: 20-6444-7634	Code: 7B0CF892	Project:
Sample Date: 16 Nov-21 10:00	Material: Industrial Effluent	Source: Global Petroleum (MA0003425)
Receipt Date: 16 Nov-21 12:57	CAS (PC):	Station:
Sample Age: 28h	Client: Roux	

Linear Interpolation Options

X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X)	Linear	322068	200	Yes	Two-Point Interpolation

Point Estimates

Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
LC50	>100	---	---	<1	---	---

48h Survival Rate Summary

Conc-%	Code	Count	Calculated Variate(A/B)						Isotonic Variate		
			Mean	Median	Min	Max	CV%	%Effect	A/B	Mean	%Effect
0	D	4	0.9750	1.0000	0.9000	1.0000	5.13%	0.00%	39/40	0.9958	0.00%
6.25		4	1.0000	1.0000	1.0000	1.0000	0.00%	-2.56%	40/40	0.9958	0.00%
12.5		4	1.0000	1.0000	1.0000	1.0000	0.00%	-2.56%	40/40	0.9958	0.00%
25		4	1.0000	1.0000	1.0000	1.0000	0.00%	-2.56%	40/40	0.9958	0.00%
50		4	1.0000	1.0000	1.0000	1.0000	0.00%	-2.56%	40/40	0.9958	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	0.00%	-2.56%	40/40	0.9958	0.00%

48h Survival Rate Detail

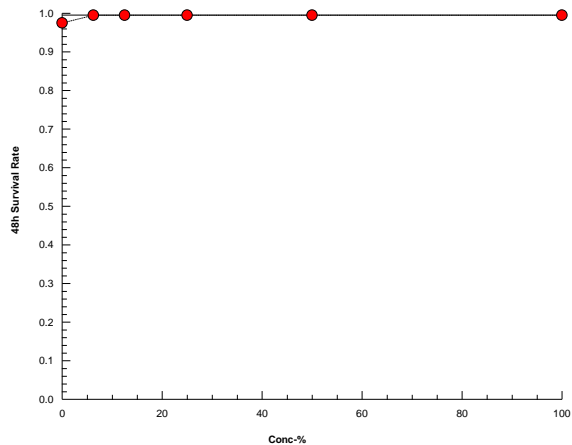
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.0000	1.0000	1.0000	0.9000
6.25		1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		1.0000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

48h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	10/10	10/10	10/10	9/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		10/10	10/10	10/10	10/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	10/10	10/10

Mysidopsis 96-h Acute Survival Test		New England Bioassay	
Analysis ID: 05-0565-2272	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.7	
Analyzed: 06 Dec-21 6:56	Analysis: Linear Interpolation (ICPIN)	Status Level: 1	
Edit Date: 06 Dec-21 6:56	MD5 Hash: B0DF58A8E1F3ECAE2505912A23AA3D76	Editor ID: 002-997-881-4	

Graphics



NEW ENGLAND BIOASSAY
***Menidia beryllina* TEST DATASHEET**

Facility Name: Global Companies LLC (GP-001) NEB Test ID: 21-1725b
NEB Project # 899156 Test Start Date: 11/17/21

Effluent Conc. (%)	Number of Surviving Organisms (%)			Dissolved Oxygen (mg/L)			Temperature (°C)			pH (s.u.)			Salinity (ppt)		
	hour	0	24	48	0	24	48	0	24	48	0	24	48	0	24
Control A	10	10	10	7.3	5.6	5.9	25.0	25.5	25.2	8.1	7.8	7.9	25	25	25
Control B	10	10	10		5.5	5.7		25.6	25.5		7.9	7.9		25	25
Control C	10	10	10		5.5	5.8		25.5	25.4		7.9	7.9		25	25
Control D	10	10	10		5.6	5.9		25.4	25.3		7.9	7.9		25	25
Diluent A	10	10	10	7.7	5.8	6.0	24.5	25.4	25.2	7.8	7.8	7.8	25	25	25
Diluent B	10	10	10		5.7	5.6		25.4	25.4		7.8	7.8		25	25
Diluent C	10	10	10		5.6	5.5		25.7	25.5		7.7	7.8		25	25
Diluent D	10	10	10		5.8	5.9		25.3	25.2		7.7	7.9		25	25
6.25 A	10	10	10	8.1	5.8	5.8	24.3	25.5	25.3	7.8	7.8	7.9	25	25	25
6.25 B	10	10	10		5.7	5.7		25.6	25.6		7.8	7.9		25	25
6.25 C	10	10	10		5.7	5.3		25.6	25.7		7.8	7.8		25	25
6.25 D	10	10	10		5.7	5.5		25.5	25.4		7.8	7.9		25	25
12.5 A	10	10	10	8.1	5.4	5.4	24.2	25.9	25.7	7.8	7.8	7.9	25	25	25
12.5 B	10	10	10		5.1	4.6		26.0	25.9		7.8	7.8		25	25
12.5 C	10	10	10		5.5	5.0		25.9	25.8		7.8	7.8		25	25
12.5 D	10	10	10		5.5	5.5		25.8	25.6		7.8	7.9		25	25
25 A	10	10	9	8.0	5.2	5.3	24.3	26.0	25.7	7.8	7.8	7.9	25	25	25
25 B	10	10	10		5.4	5.4		25.8	25.6		7.9	7.9		25	25
25 C	10	10	10		5.7	5.5		25.7	25.6		7.9	7.9		25	25
25 D	10	10	10		5.6	5.4		25.5	25.4		7.9	7.9		25	25
50 A	10	10	10	7.9	5.8	5.9	24.4	25.5	25.3	7.9	7.9	8.0	25	25	25
50 B	10	10	10		5.8	5.8		25.6	25.3		7.9	8.0		25	25
50 C	10	10	10		5.8	5.7		25.4	25.2		7.9	8.0		25	25
50 D	10	10	10		5.9	5.7		25.3	25.1		7.9	8.0		25	25
100 A	10	10	10	7.9	5.9	5.9	24.5	25.2	25.1	7.9	8.0	8.2	25	25	25
100 B	10	10	10		5.8	5.7		25.4	25.2		8.0	8.1		25	25
100 C	10	10	10		5.8	5.7		25.4	25.2		8.0	8.1		25	25
100 D	10	10	10		5.9	5.9		25.3	25.1		8.0	8.2		25	25
Tech Initials	PD	DB	CMH	AG	DB	DB	AG	DB	DB	AG	DB	DB	AG	DB	DB

D.O. concentration fell below 4.0 mg/L N/A
All test solutions were aerated at <100 bubbles/minute starting on N/A

CETIS Analytical Report

Report Date: 06 Dec-21 07:01 (p 1 of 2)
Test Code/ID: 21-1725b / 17-8728-3612

Inland Silverside 96-h Acute Survival Test

New England Bioassay

Analysis ID: 05-6316-3013	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.7
Analyzed: 06 Dec-21 7:00	Analysis: Nonparametric-Control vs Treatments	Status Level: 1
Edit Date: 06 Dec-21 7:00	MD5 Hash: 4638443CA2126CA0EA6DF8D7AED12606	Editor ID: 002-997-881-4
Batch ID: 21-1365-2776	Test Type: Survival (48h)	Analyst:
Start Date: 17 Nov-21 14:04	Protocol: EPA/821/R-02-012 (2002)	Diluent: Receiving Water
Ending Date: 19 Nov-21 13:49	Species: Menidia beryllina	Brine:
Test Length: 48h	Taxon: Actinopterygii	Source: Aquatic Indicators, FL Age: 9d
Sample ID: 09-3667-8680	Code: 37D49518	Project:
Sample Date: 16 Nov-21 10:00	Material: Industrial Effluent	Source: Global Petroleum (MA0003425)
Receipt Date: 16 Nov-21 12:57	CAS (PC):	Station:
Sample Age: 28h	Client: Roux	

Data Transform	Alt Hyp	NOEL	LOEL	TOEL	TU	MSDu	PMSD
Angular (Corrected)	C > T	100	>100	---	1	0.04568	4.57%

Steel Many-One Rank Sum Test

Control	vs	Conc-%	Test Stat	Critical	Ties	DF	P-Type	P-Value	Decision(α:5%)
Dilution Water		6.25	18	10	1	6	CDF	0.8333	Non-Significant Effect
		12.5	18	10	1	6	CDF	0.8333	Non-Significant Effect
		25	16	10	1	6	CDF	0.6105	Non-Significant Effect
		50	18	10	1	6	CDF	0.8333	Non-Significant Effect
		100	18	10	1	6	CDF	0.8333	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0055332	0.0011066	5	1	0.4457	Non-Significant Effect
Error	0.0199195	0.0011066	18			
Total	0.0254527		23			

ANOVA Assumptions Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variance	Bartlett Equality of Variance Test				Indeterminate
Distribution	Shapiro-Wilk W Normality Test	0.4634	0.884	<1.0E-05	Non-Normal Distribution

48h Survival Rate Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	D	4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
6.25		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
12.5		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
25		4	0.9750	0.8954	1.0000	1.0000	0.9000	1.0000	0.0250	5.13%	2.50%
50		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%
100		4	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.00%	0.00%

Angular (Corrected) Transformed Summary

Conc-%	Code	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	D	4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	0.00%
6.25		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	0.00%
12.5		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	0.00%
25		4	1.3710	1.2420	1.5010	1.4120	1.2490	1.4120	0.0407	5.94%	2.89%
50		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	0.00%
100		4	1.4120	1.4120	1.4120	1.4120	1.4120	1.4120	0.0000	0.00%	0.00%

CETIS Analytical Report

Report Date: 06 Dec-21 07:01 (p 2 of 2)
 Test Code/ID: 21-1725b / 17-8728-3612

Inland Silverside 96-h Acute Survival Test

New England Bioassay

Analysis ID: 05-6316-3013 Endpoint: 48h Survival Rate CETIS Version: CETISv1.9.7
 Analyzed: 06 Dec-21 7:00 Analysis: Nonparametric-Control vs Treatments Status Level: 1
 Edit Date: 06 Dec-21 7:00 MD5 Hash: 4638443CA2126CA0EA6DF8D7AED12606 Editor ID: 002-997-881-4

48h Survival Rate Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		0.9000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

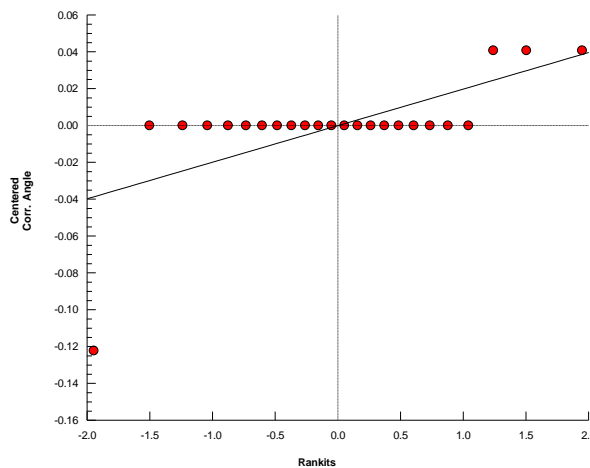
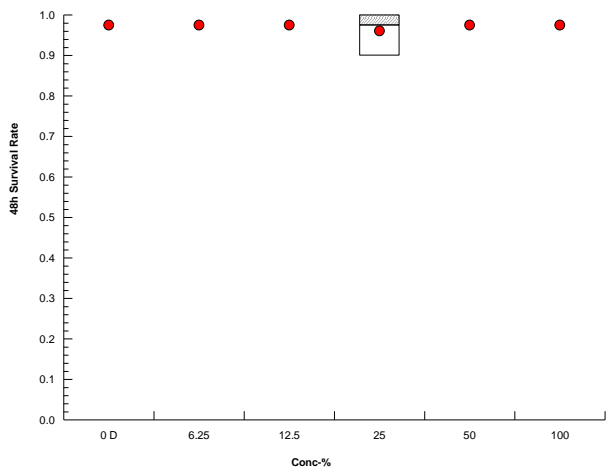
Angular (Corrected) Transformed Detail

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.4120	1.4120	1.4120	1.4120
6.25		1.4120	1.4120	1.4120	1.4120
12.5		1.4120	1.4120	1.4120	1.4120
25		1.2490	1.4120	1.4120	1.4120
50		1.4120	1.4120	1.4120	1.4120
100		1.4120	1.4120	1.4120	1.4120

48h Survival Rate Binomials

Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	10/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		9/10	10/10	10/10	10/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	10/10	10/10

Graphics



CETIS Analytical Report

Report Date: 06 Dec-21 07:01 (p 1 of 2)
Test Code/ID: 21-1725b / 17-8728-3612

Inland Silverside 96-h Acute Survival Test				New England Bioassay			
Analysis ID: 01-4696-3180	Endpoint: 48h Survival Rate	CETIS Version: CETISv1.9.7					
Analyzed: 06 Dec-21 7:01	Analysis: Linear Interpolation (ICPIN)	Status Level: 1					
Edit Date: 06 Dec-21 7:00	MD5 Hash: 4638443CA2126CA0EA6DF8D7AED12606	Editor ID: 002-997-881-4					
Batch ID: 21-1365-2776	Test Type: Survival (48h)	Analyst:					
Start Date: 17 Nov-21 14:04	Protocol: EPA/821/R-02-012 (2002)	Diluent: Receiving Water					
Ending Date: 19 Nov-21 13:49	Species: Menidia beryllina	Brine:					
Test Length: 48h	Taxon: Actinopterygii	Source: Aquatic Indicators, FL	Age: 9d				
Sample ID: 09-3667-8680	Code: 37D49518	Project:					
Sample Date: 16 Nov-21 10:00	Material: Industrial Effluent	Source: Global Petroleum (MA0003425)					
Receipt Date: 16 Nov-21 12:57	CAS (PC):	Station:					
Sample Age: 28h	Client: Roux						

Linear Interpolation Options					
X Transform	Y Transform	Seed	Resamples	Exp 95% CL	Method
Log(X)	Linear	1854544	200	Yes	Two-Point Interpolation

Point Estimates						
Level	%	95% LCL	95% UCL	TU	95% LCL	95% UCL
LC50	>100	---	---	<1	---	---

48h Survival Rate Summary			Calculated Variate(A/B)							Isotonic Variate	
Conc-%	Code	Count	Mean	Median	Min	Max	CV%	%Effect	A/B	Mean	%Effect
0	D	4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	40/40	1.0000	0.00%
6.25		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	40/40	1.0000	0.00%
12.5		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	40/40	1.0000	0.00%
25		4	0.9750	1.0000	0.9000	1.0000	5.13%	2.50%	39/40	0.9917	0.83%
50		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	40/40	0.9917	0.83%
100		4	1.0000	1.0000	1.0000	1.0000	0.00%	0.00%	40/40	0.9917	0.83%

48h Survival Rate Detail					
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	1.0000	1.0000	1.0000	1.0000
6.25		1.0000	1.0000	1.0000	1.0000
12.5		1.0000	1.0000	1.0000	1.0000
25		0.9000	1.0000	1.0000	1.0000
50		1.0000	1.0000	1.0000	1.0000
100		1.0000	1.0000	1.0000	1.0000

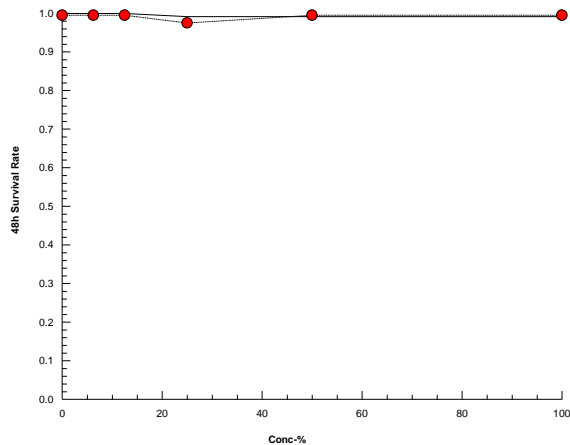
48h Survival Rate Binomials					
Conc-%	Code	Rep 1	Rep 2	Rep 3	Rep 4
0	D	10/10	10/10	10/10	10/10
6.25		10/10	10/10	10/10	10/10
12.5		10/10	10/10	10/10	10/10
25		9/10	10/10	10/10	10/10
50		10/10	10/10	10/10	10/10
100		10/10	10/10	10/10	10/10

Inland Silverside 96-h Acute Survival Test

New England Bioassay

Analysis ID: 01-4696-3180 Endpoint: 48h Survival Rate CETIS Version: CETISv1.9.7
Analyzed: 06 Dec-21 7:01 Analysis: Linear Interpolation (ICPIN) Status Level: 1
Edit Date: 06 Dec-21 7:00 MD5 Hash: 4638443CA2126CA0EA6DF8D7AED12606 Editor ID: 002-997-881-4

Graphics



NEB SALTWATER SPECIES ACCLIMATION RECORD

Species: <i>Menidia beryllina</i>	Client: Test ID:	Quantity: 420	*Mortality upon arrival 5 *Mortality > 10% - Notify management
Source: Aquatic Indicators	Lot #: SS21AI(11-17)A	Age: 9 days on 11-17-21	

Allowable Mortality: > 5% mortality = Notify management.

Allowable Acclimation: Fish = No more than 50% tank volume water change over a 12 (twelve) hour period.

Mysids = Need to be +/- 2 ppt of test dilution water.

Water Chemistry						Observations					Comments / Treatment type	
Date	D.O. (mg/L)	p.H. (SU)	Temp. (C) *	Alkal. (mg/L) ml titrant	Sal. (ppt) **	Feedings			Behavioral observations	Do organisms look stressed? Yes / No		Mortalities # of dead organisms removed from tank
						AM	NOON	PM				
11-17-21	11.5	7.5	20.6	220 4.4 ml	21	Act	Act	Act	A	No	0	Acclimated to ASW
11-18-21	8.6		22.8		25	JS/Act	JS/Act	JS/Act	A	No	0	H ₂ O Δ w/ 6L ASW
11-19-21	7.4		22.7		25	JS	JS		A	No		H ₂ O Δ w/ 6L ASW

SAMPLE RECEIPT CHEMISTRY
&
CHAIN OF CUSTODY DOCUMENTS

**NEW ENGLAND BIOASSAY
INITIAL CHEMISTRY DATA**

PERMITTEE: Global Companies LLC (GP-001)
NEB PROJECT # 899156

DATE RECEIVED	11/16/21	
SAMPLE TYPE:	Effluent	Receiving Water
COC #	C41-4500	C41-4501
pH (SU)	6.9	7.4
Temperature (°C)	3.0	4.6
Dissolved Oxygen (mg/L)	11.3	11.5
Conductivity (µmhos)	672	36,960
Salinity (ppt)	<1	22
TRC - DPD (mg/L)	0.036	0.006
TRC - Amperometric (mg/L)	N/A	N/A
Hardness (mg/L as CaCO3)	88	4200
Alkalinity (mg/l as CaCO3)	95	105
Tech Initials	AG	AG

NOTE: NA = NOT APPLICABLE

Salinity Adjustments							
Sample ID	Volume	Init. Salinity (ppt)	Added: g of Instant Ocean or L of DI Water	Final Salinity (ppt)	Instant Ocean Lot # (if applicable)	Date	Tech
Effluent	10L	<1	293.3g	25	IO21 (10-19)	11/17/21	CH
Receiving	19L	23	43.7g	25	IO21 (10-19)	11/17/21	CH



New England Bioassay Inc.
 77 Batson Drive Manchester, CT 06042
 Phone: 860-643-9560 Fax: 860-646-7169
 Email: kimberly.wills@nebio.com

Chain of Custody Record

Due to COVID-19

Preservation: safety precautions
 (for NEB use only) Samples were received in NEB refrigerator

Project Information	Reporting Information	Billing Information
Project Name: <u>Global - Revore</u>	Report to: <u>Sara Barrrientos</u>	Bill to: <u>Roux Associates</u>
Project Location: <u>140 W. Burbank Highway, Revore, MA</u>	Address: <u>12 Gill Street Suite 4700</u>	Address: <u>12 Gill Street Suite 4700</u>
Contact name: <u>Sara Barrrientos</u>	<u>Woburn, MA 01801</u>	<u>Woburn MA 01801</u>
Contact email: <u>sbarrrientos@rouxinc.com</u>		
Permit #: <u>MA 0003425</u>	Email: <u>sbarrrientos@rouxinc.com</u>	Email: <u>rouxap@rouxinc.com; sbarrrientos@rouxinc.com</u>
Sampler: <u>C. Brady</u>		PO Number: <u>1624.0007M003</u>

If this sample is not a current NEB project, or you are a new client who has not discussed the required testing with NEB, please attach a copy of the appropriate pages from your permit and contact lab management. Agreement of testing procedures and test schedule must be made between the client and the lab before testing will be initiated.

Matrix Codes: N=NCCW EF=Effluent SW = Stormwater RW=Receiving Water UP=Upstream SD=Sediment S=Soil P=Product O=Outfall GW=Groundwater

NEB use only COC #	Customer Sample ID	Sample Matrix	Type		Date Sampled		Time Sampled		Is the sample Chlorinated?
			Comp	Grab	Start Date	End Date	Start Time	End Time	
<u>41-4500</u>	<u>GP-001</u>	<u>W</u>		<u>X</u>	<u>11/16/21</u>	<u>11/16/21</u>	<u>1000</u>	<u>1000</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<u>41-4501</u>	<u>GP-001 Receiving water</u>	<u>W</u>		<u>X</u>	<u>11/16/21</u>	<u>11/16/21</u>	<u>1005</u>	<u>1005</u>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
									Yes <input type="checkbox"/> No <input type="checkbox"/>
									Yes <input type="checkbox"/> No <input type="checkbox"/>
									Yes <input type="checkbox"/> No <input type="checkbox"/>
									Yes <input type="checkbox"/> No <input type="checkbox"/>

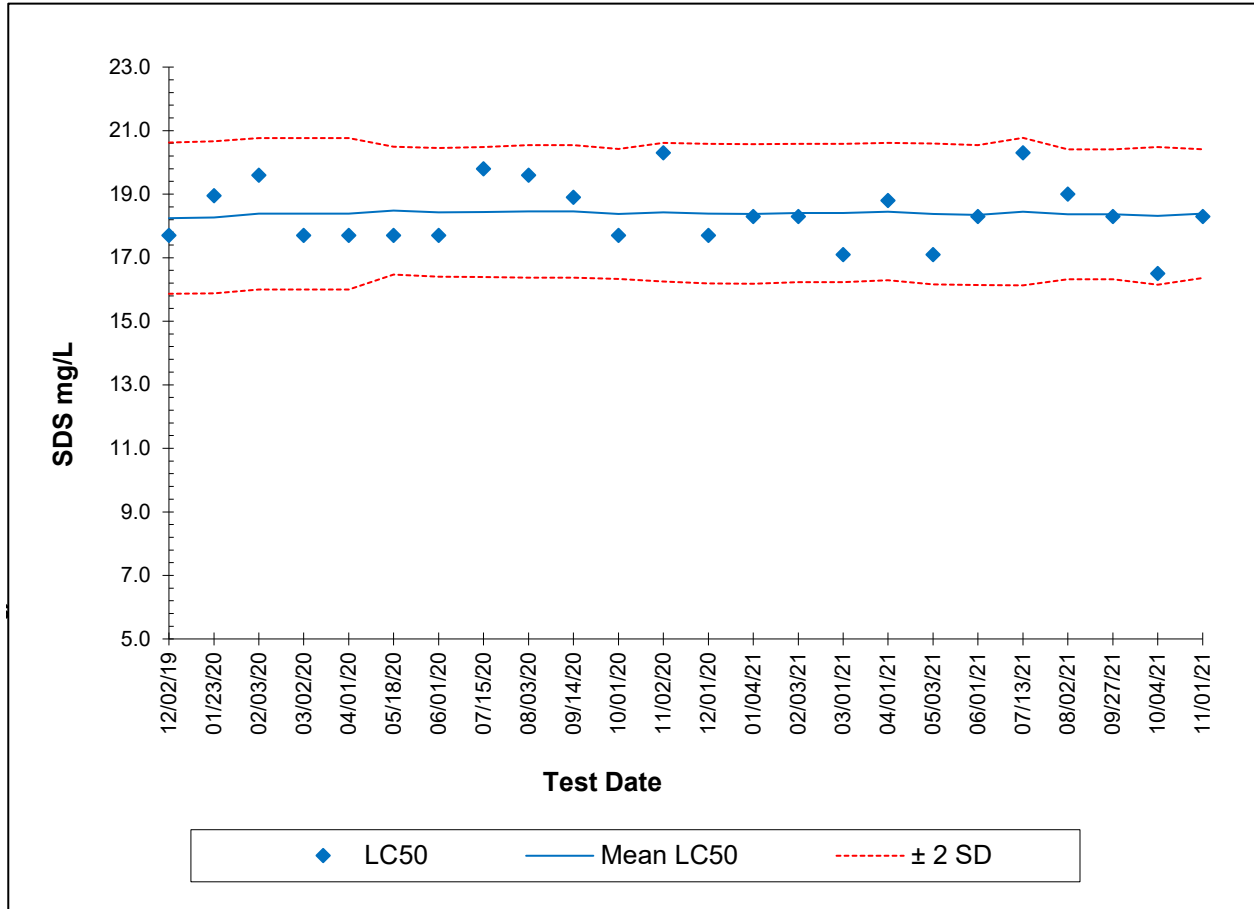
Relinquished by: <u>[Signature]</u>	Date: <u>11/16/21</u> Time: <u>11:20 AM</u>	Accepted by: <u>[Signature]</u>	Date: <u>11-16-21</u> Time: <u>11:20 AM</u>
Relinquished by: <u>[Signature]</u>	Date: <u>11-16-21</u> Time: <u>12:53</u>	Accepted by: <u>[Signature]</u>	Date: <u>11/16/21</u> Time: <u>12:57</u>
Relinquished by:	Date: Time:	Accepted by:	Date: Time:
Relinquished by:	Date: Time:	Accepted by:	Date: Time:
Relinquished by:	Date: Time:	Accepted by:	Date: Time:

Additional Notes:

REFERENCE TOXICANT CHARTS

New England Bioassay

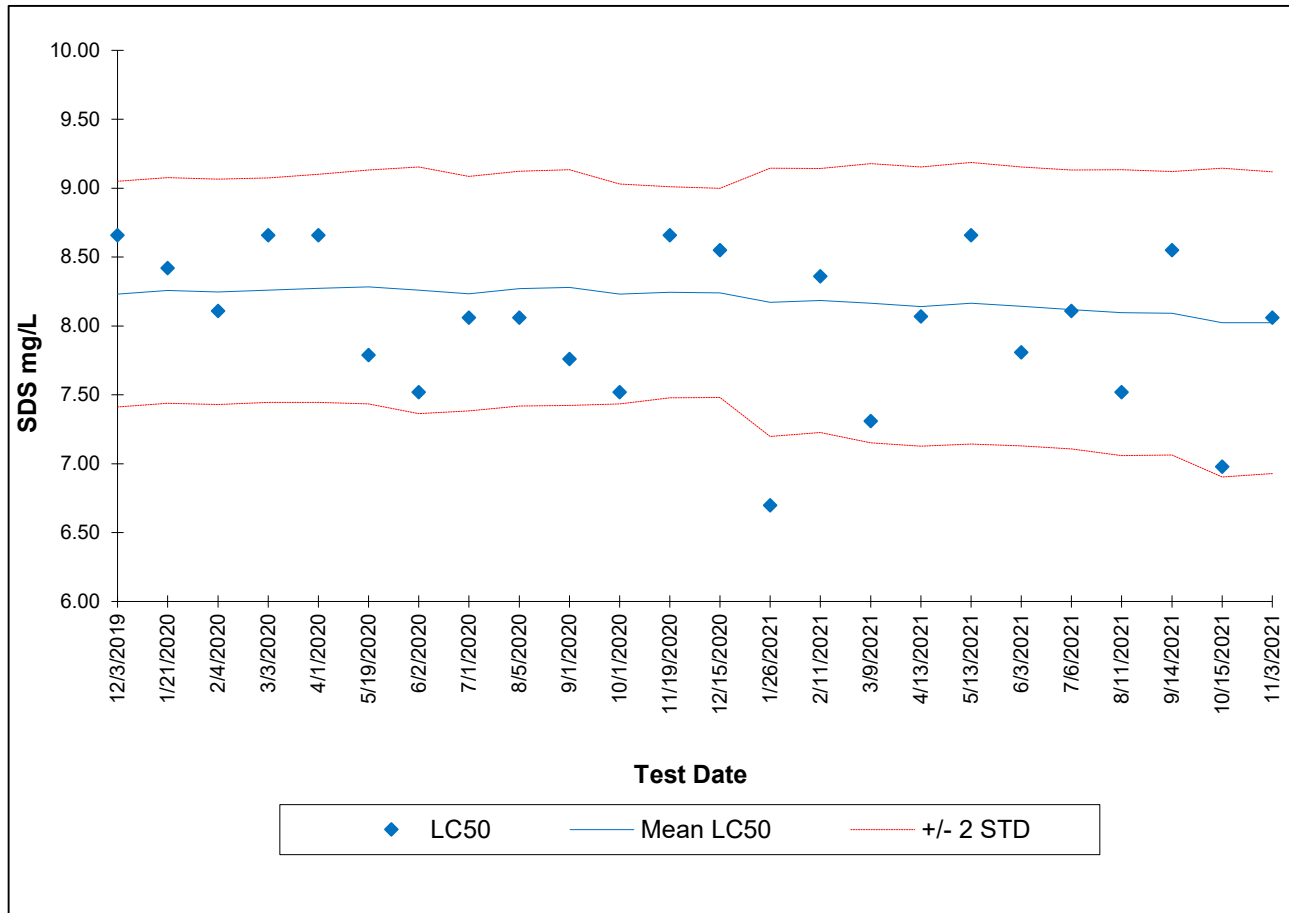
Reference Toxicant Data: Sodium Dodecyl Sulfate (SDS) *Mysidopsis bahia* 48-hour LC50



Test ID	Date	LC ₅₀	Mean LC ₅₀	STD	-2STD	+2STD	CV	CV National 75th & 90th%
19-1692	12/2/2019	17.7	18.2	1.2	15.9	20.6	0.07	0.26
20-109	1/23/2020	19.0	18.3	1.2	15.9	20.7	0.07	0.26
20-136	2/3/2020	19.6	18.4	1.2	16.0	20.8	0.07	0.26
20-290	3/2/2020	17.7	18.4	1.2	16.0	20.8	0.06	0.26
20-433	4/1/2020	17.7	18.4	1.2	16.0	20.8	0.06	0.26
20-658	5/18/2020	17.7	18.5	1.0	16.5	20.5	0.05	0.26
20-723	6/1/2020	17.7	18.4	1.0	16.4	20.5	0.05	0.26
20-981	7/15/2020	19.8	18.4	1.0	16.4	20.5	0.06	0.26
20-1076	8/3/2020	19.6	18.5	1.0	16.4	20.5	0.06	0.26
20-1328	9/14/2020	18.9	18.5	1.0	16.4	20.5	0.06	0.26
20-1425	10/1/2020	17.7	18.4	1.0	16.3	20.4	0.06	0.26
20-1617	11/2/2020	20.3	18.4	1.1	16.3	20.6	0.06	0.26
20-1737	12/1/2020	17.7	18.4	1.1	16.2	20.6	0.06	0.26
21-12	1/4/2021	18.3	18.4	1.1	16.2	20.6	0.06	0.26
21-141	2/3/2021	18.3	18.4	1.1	16.2	20.6	0.06	0.26
21-260	3/1/2021	17.1	18.4	1.1	16.2	20.6	0.06	0.26
21-436	4/1/2021	18.8	18.5	1.1	16.3	20.6	0.06	0.26
21-596	5/3/2021	17.1	18.4	1.1	16.2	20.6	0.06	0.26
21-742	6/1/2021	18.3	18.3	1.1	16.1	20.5	0.06	0.26
21-979	7/13/2021	20.3	18.5	1.2	16.1	20.8	0.06	0.26
21-1073	8/2/2021	19.0	18.4	1.0	16.3	20.4	0.06	0.26
21-1417	9/27/2021	18.3	18.4	1.0	16.3	20.4	0.06	0.26
21-1460	10/4/2021	16.5	18.3	1.1	16.1	20.5	0.06	0.26
21-1662	11/1/2021	18.3	18.4	1.0	16.4	20.4	0.06	0.26

New England Bioassay

Reference Toxicant Data: Sodium Dodecyl Sulfate (SDS) *Menidia beryllina* 48-hour LC50



Test ID	Date	LC ₅₀	Mean LC ₅₀	STD	-2STD	+2STD	CV	CV National	CV National
								75th%	90th%
19-1717	12/3/2019	8.66	8.23	0.41	7.41	9.05	0.05	0.21	0.44
20-78	1/21/2020	8.42	8.26	0.41	7.44	9.08	0.05	0.21	0.44
20-137	2/4/2020	8.11	8.25	0.41	7.43	9.07	0.05	0.21	0.44
20-297	3/3/2020	8.66	8.26	0.41	7.45	9.07	0.05	0.21	0.44
20-435	4/1/2020	8.66	8.27	0.41	7.44	9.10	0.05	0.21	0.44
20-659	5/19/2020	7.79	8.28	0.42	7.43	9.13	0.05	0.21	0.44
20-726	6/2/2020	7.52	8.26	0.45	7.36	9.15	0.05	0.21	0.44
20-906	7/1/2020	8.06	8.23	0.43	7.38	9.08	0.05	0.21	0.44
20-1077	8/5/2020	8.06	8.27	0.43	7.42	9.12	0.05	0.21	0.44
20-1257	9/1/2020	7.76	8.28	0.43	7.42	9.13	0.05	0.21	0.44
20-1426	10/1/2020	7.52	8.23	0.40	7.43	9.03	0.05	0.21	0.44
20-1688	11/19/2020	8.66	8.24	0.38	7.48	9.01	0.05	0.21	0.44
20-1824	12/15/2020	8.55	8.24	0.38	7.48	9.00	0.05	0.21	0.44
21-115	1/26/2021	6.70	8.17	0.49	7.20	9.14	0.06	0.21	0.44
21-189	2/11/2021	8.36	8.18	0.48	7.23	9.14	0.06	0.21	0.44
21-308	3/9/2021	7.31	8.16	0.51	7.15	9.18	0.06	0.21	0.44
21-519	4/13/2021	8.07	8.14	0.51	7.13	9.15	0.06	0.21	0.44
21-672	5/13/2021	8.66	8.17	0.51	7.14	9.19	0.06	0.21	0.44
21-748	6/3/2021	7.81	8.14	0.51	7.13	9.15	0.06	0.21	0.44
21-924	7/6/2021	8.11	8.12	0.51	7.11	9.13	0.06	0.21	0.44
21-1122	8/11/2021	7.52	8.10	0.52	7.06	9.13	0.06	0.21	0.44
21-1313	9/14/2021	8.55	8.09	0.51	7.06	9.12	0.06	0.21	0.44
21-1534	10/15/2021	6.98	8.02	0.56	6.90	9.14	0.07	0.21	0.44
21-1623	11/3/2021	8.06	8.02	0.55	6.93	9.12	0.07	0.21	0.44