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LELAP Certification Number 02080

June 29, 2017

LOOP, LLC
c/o CK Associates, LLC
17170 Perkins Road
Baton Rouge, Louisiana 70810
Attn: Mr. Doug LaBar

Ref: Whole Effluent Toxicity Results
CK Project No: 8873
Test ID No.: 17061303

Dear Mr. LaBar:

Enclosed please find the Toxicity Test Report containing results of a 7-Day Chronic Toxicity Test using *Mysidopsis bahia* performed on the LOOP, LLC 004 "Balanced" Brine sample. If you have any questions concerning this toxicity testing report or if I can be of any further assistance to you, please call me at (225) 755-1011 x 1100.

Sincerely,
CK Associates

Monica S. Eues

Monica S. Eues
Laboratory Director

MSE/hbb

Enc.: Toxicity Test Report

Issue Date: June 30, 2017

"BALANCED" BRINE TOXICITY TEST REPORT

FOR

LOOP, LLC

DRAFT PERMIT NO.: LA0049492

AI NO.: 4634

TEST INITIATION DATE: June 14, 2017

TEST IDENTIFICATION NO.: 17061303

CK ASSOCIATES
Environmental Consultants

17170 Perkins Road
Baton Rouge, Louisiana 70810
225-755-1000

The results of this analysis relate only to the referenced sample as it was submitted to CK Associates. Unless otherwise noted, all test results meet the requirements of TNI. This report shall not be reproduced in full or in part without the written consent of CK Associates.

Ph.D. P.E. 6-30-17
Date

Chad Cristina, Ph.D., P.E.
Water Program Manager

Monica S. Eues 6·30·17
Date

Monica S. Eues
Laboratory Director

SUMMARY AND CONCLUSIONS

Permittee:	LOOP, LLC P.O. Box 7250 Metairie, Louisiana 70010-7250	Laboratory:	CK Associates 17170 Perkins Road Baton Rouge, Louisiana 70810 LELAP Certification #02080

Method(s): *Mysidopsis bahia* Survival and Growth Toxicity Test, EPA 821-R-02-014, Method 1007.0

Test Sample:	"Balanced" Brine	Critical Dilution:	N/A
Test ID No.:	17061303	Dilution Water:	Synthetic Laboratory Water
Concentrations:	2.42, 3.22, 4.29, 5.72 and 7.63%		
Sample Dates:	April 27, 2017		
Test Initiation Date:	June 14, 2017		
Purpose:	Investigative		

Test Acceptance Criteria

Performance criteria for *M. bahia* survival, growth and variability were met.

Test Results

M. bahia	Survival NOEC:	7.63%
	Growth NOEC:	7.63%
	Growth IC_{25}:	>7.63%

Test Conclusions

M. bahia	Significant lethality at the critical dilution?	No	Pass
	Significant sublethality at the critical dilution?	No	Pass

INTRODUCTION

A grab sample of LOOP, LLC Outfall 004 Brine was collected on April 27, 2017, and was received by CK Associates on April 27, 2017. Lab-grade salts were added to the sample to balance the ion composition. A *Mysidopsis bahia* Survival and Growth Toxicity Test was conducted as described below.

METHODS

The samples were tested in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition. U.S. Environmental Protection Agency, Office of Water, Washington, D.C. EPA 821–R–02–014, October 2002. The following effluent concentrations were established for testing: 2.42, 3.22, 4.29, 5.72 and 7.63%. The dilution water was an aged synthetic seawater control tested concurrently with the effluent concentrations.

Test Parameters	*Mysidopsis bahia*
Test Method	1007.0
Organism Source	CK Associates
Organism Age	7 days
Test Chamber Material	Polypropylene
Test Chamber Volume (mL)	300
Test Solution Volume (mL)	150

Following termination, the data were analyzed using TOXCALC version 5.0.23j.

The reference toxicant, potassium chloride, was used to monitor the sensitivity of the test organisms and the precision of the testing procedure. Chronic reference toxicant tests are performed at least monthly and the resulting NOEC values are plotted to determine if the results are within prescribed limits.

RESULTS

Mysidopsis bahia

Average survival and average weight per original organism after 7 days of exposure are tabulated below.

Percent Effluent	Percent Survival	Growth (mg)
Dilution Control	93	0.36
2.42	98	0.42
3.22	98	0.39
4.29	98	0.40
5.72	95	0.41
7.63	95	0.32

The dilution control met performance criteria for survival, growth and variability. Based on the statistical analysis (pages 5 and 6) the survival and growth NOECs of the LOOP, LLC Outfall 004 "Balanced" Brine were 7.63% and 7.63%, respectively. The IC_{25} was >7.63%. Detailed data for the test, including survival, growth and water quality, are presented on pages 8 through 16.

QUALITY CONTROL

The reference toxicant NOEC was within one NOEC of the mode of the twenty most recent reference toxicant NOEC values (page 7).

-7 Day Survival

Start Date:	6/14/2017	Test ID:	17061303A	Sample ID:	LOOP
End Date:	6/21/2017	Lab ID:	17061303	Sample Type:	004 Balanced
Sample Date:	4/27/2017	Protocol:	EPAMW02-EPA/821/R-02-01	Test Species:	MY-Mysidopsis bahia
Comments:	004 Balanced				

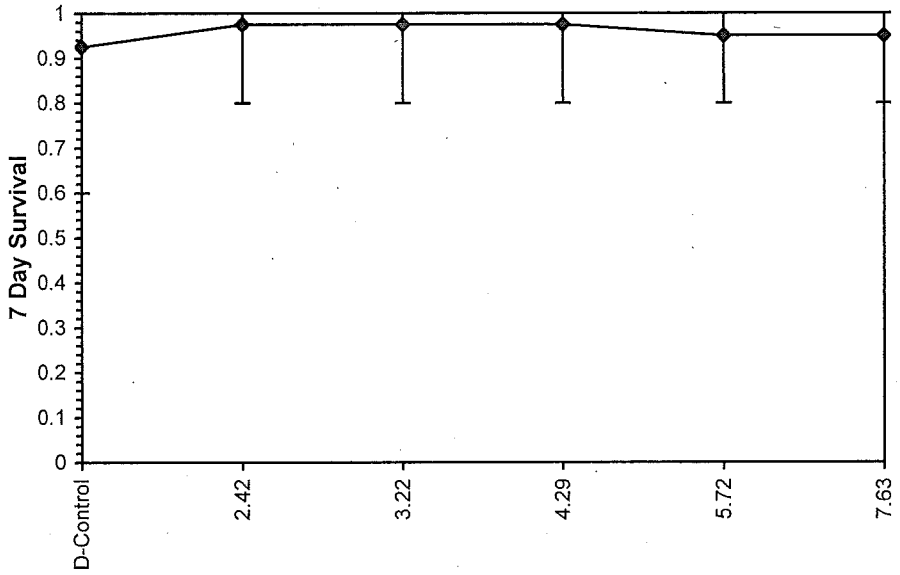
Conc-%	1	2	3	4	5	6	7	8
D-Control	0.60	0.80	1.00	1.00	1.00	1.00	1.00	1.00
2.42	1.00	1.00	0.80	1.00	1.00	1.00	1.00	1.00
3.22	1.00	1.00	1.00	1.00	1.00	0.80	1.00	1.00
4.29	1.00	1.00	1.00	1.00	1.00	1.00	0.80	1.00
5.72	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00
7.63	1.00	1.00	1.00	0.80	1.00	1.00	0.80	1.00

			Transform: Arcsin Square Root					Rank	1-Tailed
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	Sum	Critical
D-Control	0.93	1.0000	1.2581	0.8861	1.3453	14	8		
2.42	0.98	1.0541	1.3155	1.1071	1.3453	6	8	72.50	46.00
3.22	0.98	1.0541	1.3155	1.1071	1.3453	6	8	72.50	46.00
4.29	0.98	1.0541	1.3155	1.1071	1.3453	6	8	72.50	46.00
5.72	0.95	1.0270	1.2857	1.1071	1.3453	9	8	69.00	46.00
7.63	0.95	1.0270	1.2857	1.1071	1.3453	9	8	69.00	46.00

Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates non-normal distribution (p <= 0.01)	0.67013	0.929	-1.8352	2.5778
Bartlett's Test indicates equal variances (p = 0.30)	6.01522	15.0863		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU
Steel's Many-One Rank Test	7.63	>7.63		13.1062
Treatments vs D-Control				

Dose-Response Plot



-Growth-Weight

Start Date:	6/14/2017	Test ID:	17061303A	Sample ID:	LOOP
End Date:	6/21/2017	Lab ID:	17061303	Sample Type:	004 BALANC
Sample Date:	4/27/2017	Protocol:	EPAMW02-EPA/821/R-02-01	Test Species:	MY-Mysidopsis bahia
Comments:	004 Balanced				

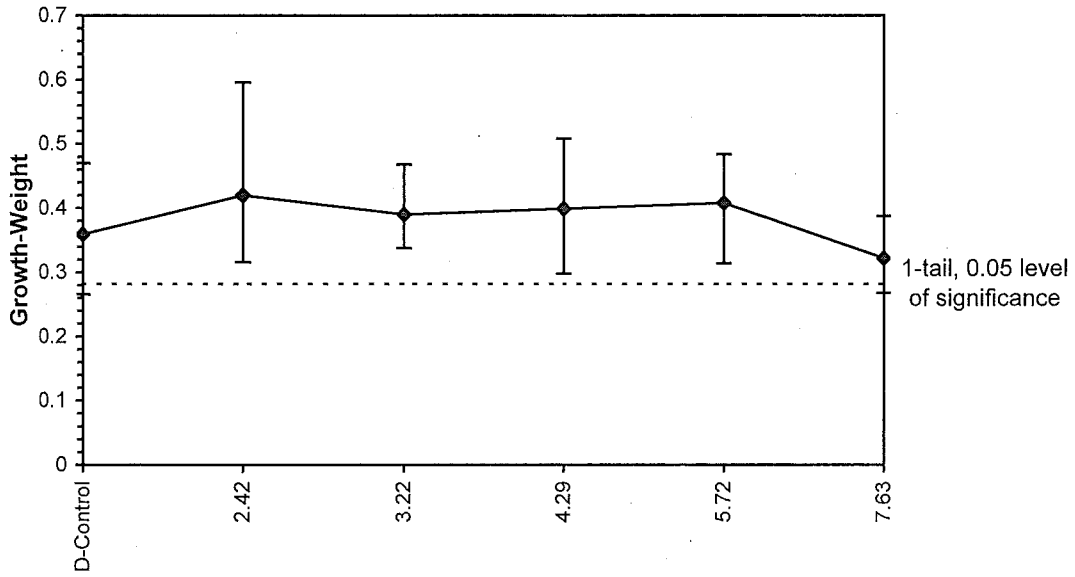
Conc-%	1	2	3	4	5	6	7	8
D-Control	0.27	0.39	0.41	0.30	0.47	0.27	0.45	0.31
2.42	0.60	0.50	0.32	0.41	0.35	0.34	0.47	0.37
3.22	0.42	0.36	0.40	0.44	0.47	0.34	0.35	0.35
4.29	0.51	0.43	0.40	0.39	0.42	0.34	0.30	0.40
5.72	0.41	0.31	0.48	0.38	0.47	0.47	0.36	0.37
7.63	0.33	0.39	0.30	0.28	0.33	0.27	0.33	0.35

			Transform: Untransformed						1-Tailed	
Conc-%	Mean	N-Mean	Mean	Min	Max	CV%	N	t-Stat	Critical	MSD
D-Control	0.36	1.0000	0.3593	0.2660	0.4700	23	8			
2.42	0.42	1.1684	0.4198	0.3160	0.5960	23	8	-1.806	2.306	0.0772
3.22	0.39	1.0863	0.3903	0.3380	0.4680	12	8	-0.926	2.306	0.0772
4.29	0.40	1.1100	0.3988	0.2980	0.5080	16	8	-1.179	2.306	0.0772
5.72	0.41	1.1364	0.4083	0.3140	0.4840	15	8	-1.463	2.306	0.0772
7.63	0.32	0.8970	0.3223	0.2680	0.3880	12	8	1.105	2.306	0.0772

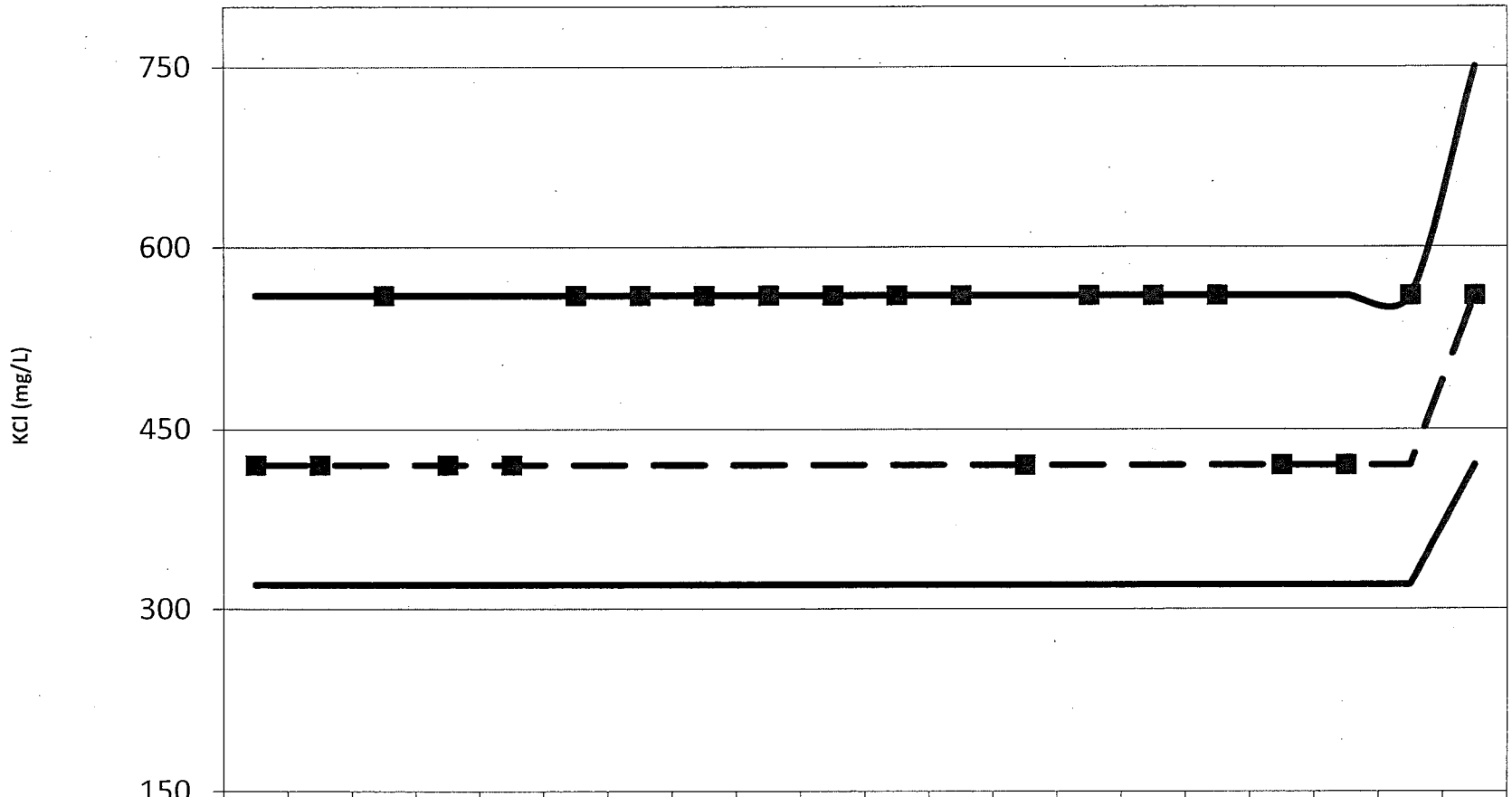
Auxiliary Tests	Statistic	Critical	Skew	Kurt
Shapiro-Wilk's Test indicates normal distribution (p > 0.01)	0.96856	0.929	0.43515	-0.1214
Bartlett's Test indicates equal variances (p = 0.23)	6.88916	15.0863		

Hypothesis Test (1-tail, 0.05)	NOEC	LOEC	ChV	TU	MSDu	MSDp	MSB	MSE	F-Prob	df
Dunnett's Test Treatments vs D-Control	7.63	>7.63		13.1062	0.07722	0.21496	0.01047	0.00449	0.05878	5, 42

Dose-Response Plot



CK Associates
Potassium Chloride Reference Toxicant Control Chart
7-Day Chronic Survival NOEC for *Mysidopsis bahia*



	151012 02	151109 03	151228 03	160118 03	160215 05	160308 01	160419 03	160525 02	160623 02	160725 04	160817 01	160919 01	161024 07	161109 02	161227 08	170103 02	170209 03	170315 03	170417 01	170519 03
Survival NOEC	420	420	560	420	420	560	560	560	560	560	560	560	420	560	560	560	420	420	560	560
Central Tendency NOEC	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420	560
Upper Acceptable NOEC	560	560	560	560	560	560	560	560	560	560	560	560	560	560	560	560	560	560	560	750
Lower Acceptable NOEC	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	420

Test ID No.: 17061303

Test ID No.: 17061303

CK ASSOCIATES **Survival Data for 7-Day Chronic Toxicity Test**

Mysidopsis bahia

Client: LOOP - INVESTIGATIVE
Outfall: 004 Balanced
Test ID: 17061303

CD(%) 7.63
Organism Age: 7d0
Organism Batch: 0180

Template: M95 8A-B
QC Review: CJT

Exposure Period	Test Initiation	Observations Made at the End of 24-Hour Exposure Period:						
		1	2	3	4	5	6	7
Day	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed
Date	6-14-17	6-15-17	6/16/17	6-17-17	6-18-17	6-19-17	6-20-17	6-21-17
Time	1610	0915	1410	1340	1215	1000	0930	1520
Technician	CAS JRH	CAJ	CJT	JRH	JRH	JRH	CAJ	CAJ

Effluent Conc. (%)	Rep	Number of Live Organisms							
Dilution Control	1	5	5	5	5	4	4	4	3
	2	5	5	4	4	4	4	4	4
	3	5	5	5	5	5	5	5	5
	4	5	5	5	5	5	5	5	5
	5	5	5	5	5	5	5	5	5
	6	5	5	5	5	5	5	5	5
	7	5	5	5	5	5	5	5	5
	8	5	5	5	5	5	5	5	5
2.42	1	5	5	5	5	5	5	5	5
	2	5	5	5	5	5	5	5	5
	3	5	5	5	5	4	4	4	4
	4	5	5	5	5	5	5	5	5
	5	5	5	5	5	5	5	5	5
	6	5	5	5	5	5	5	5	5
	7	5	5	5	5	5	5	5	5
	8	5	5	5	5	5	5	5	5
3.22	1	5	5	5	5	5	5	5	5
	2	5	5	5	5	5	5	5	5
	3	5	5	5	5	5	5	5	5
	4	5	5	5	5	5	5	5	5
	5	5	5	5	5	5	5	5	5
	6	5	5	5	4	4	4	4	4
	7	5	5	5	5	5	5	5	5
	8	5	5	5	5	5	5	5	5

Test ID No.: 17061303

CK Associates **Survival Data for 7-Day Chronic Toxicity Test**

Mysidopsis bahia

Client: LOOP - INVESTIGATIVE | Outfall: 004 Balanced | Test ID: 17061303

Exposure Period	Test Initiation	Observations Made at the End of 24-Hour Exposure Period:						
		1	2	3	4	5	6	7
Day	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed

Effluent Conc. (%)	Rep	Number of Live Organisms							
4.29	1	5	5	5	5	5	5	5	5
	2	5	5	5	5	5	5	5	5
	3	5	5	5	5	5	5	5	5
	4	5	5	5	5	5	5	5	5
	5	5	5	5	5	5	5	5	5
	6	5	5	5	5	5	5	5	5
	7	5	5	5	5	5	5	5	4
	8	5	5	5	5	5	5	5	5
5.72	1	5	5	5	5	5	5	5	5
	2	5	5	5	5	5	5	5	5
	3	5	5	5	5	5	5	5	5
	4	5	4	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5
	6	5	5	5	5	5	5	5	5
	7	5	5	5	5	5	5	5	4
	8	5	5	5	5	5	5	5	5
							JRH 6-19-17		
7.63	1	5	5	5	5	5	~~4~~ 5	5	5
	2	5	5	5	5	5	5	5	5
	3	5	5	5	~~4~~ 5	5	5	5	5
	4	5	5	4	4	4	4	4	4
	5	5	5	5	5	5	5	5	5
	6	5	5	5	5	5	5	5	5
	7	5	5	5	5	4	4	4	4
	8	5	5	5	5	5	5	5	5

~~JRH~~ JRH
JRH 6-17-17
6-17-17

Test ID No.: 17061303

CK Associates **Survival Data for 7-Day Chronic Toxicity Test**

Mysidopsis bahia

Client: LOOP - INVESTIGATIVE | Outfall: 004 Balanced | Test ID: 17061303

Feeding Documentation for 24-Hour Exposure Period:								
Exposure Period	1		2		3		4	
Day	Wed	Thu	Thu	Fri	Fri	Sat	Sat	Sun
Date	6-14-17	6-15-17	6/15/17	6/16/17	6-16-17	6-17-17	6-17-17	6-18-17
Time	1740	0830	1040	0860	1800	1000	1525	0925
Technician	CAJ	CAJ	CJT	CAJ	CJT	CAJ	CAJ	CAJ

Exposure Period	5		6		7
Day	Sun	Mon	Mon	Tue	Tue
Date	6-18-17	6-19-17	6-19-17	6-20-17	6-20-17
Time	1320	0835	1510	0805	1550
Technician	CAJ	acf	ACF	CAJ	ACF

Technician's Observations			
Date	Time	Initials	Observations
6-21-17	1610	CAJ	FOILS PLACED IN OVEN A

Test was / was not aerated following test initiation.

Continuous aeration was started on _____ at _____

Test ID No.: 17061303

CK Associates **Water Quality Data for 7-Day Chronic Toxicity Test**

Mysidopsis bahia

Client: LOOP - INVESTIGATIVE Outfall: 004 Balanced Test ID: 17061303

Effluent Concentration (%)	Exposure Period 1					
	Wed, Jun 14			Thu, Jun 15		
	pH	S	DO	pH	DO	T
Dilution	7.1	31	7.3	8.0	6.5	25.6
2.42	7.3	31	7.0	7.8	6.0	25.6
3.22	7.2	31	6.9	7.8	6.0	25.6
4.29	7.1	30	6.8	7.7	5.8	25.6
5.72	7.1	29	6.8	7.6	5.4	25.6
7.63	7.1	29	6.9	7.5	4.9	25.6
Meter ID	MIS-1			MIS-1		T-17-1

Effluent Concentration (%)	Exposure Period 2					
	Thu, Jun 15			Fri, Jun 16		
	pH	S	DO	pH	DO	T
Dilution	8.0	31	7.4	7.8	5.9	25.4
2.42	8.0	31	7.3	7.7	4.9	25.4
3.22	8.0	30	7.2	7.7	4.9	25.4
4.29	7.9	30	7.1	7.8	4.9	25.4
5.72	7.9	30	7.0	7.7	5.0	25.4
7.63	7.8	29	6.8	7.5	4.8	25.4
Meter ID	MIS-1			MIS-1		T-17-1

Effluent Concentration (%)	Exposure Period 3					
	Fri, Jun 16			Sat, Jun 17		
	pH	S	DO	pH	DO	T
Dilution	8.0	32	7.0	8.1	5.7	25.6
2.42	8.0	31	7.1	8.0	5.8	25.6
3.22	8.0	31	7.1	7.9	5.6	25.6
4.29	8.1	31	7.1	7.8	5.4	25.6
5.72	8.0	30	6.9	7.8	5.3	25.6
7.63	8.0	30	7.0	7.7	5.4	25.6
Meter ID	MIS-1			MIS-1		T-17-1

Effluent Concentration (%)	Exposure Period 4					
	Sat, Jun 17			Sun, Jun 18		
	pH	S	DO	pH	DO	T
Dilution	8.2	32	7.2	8.2	5.8	25.1
2.42	8.1	31	7.0	8.1	5.9	25.1
3.22	8.1	31	6.8	8.0	5.9	25.1
4.29	8.1	30	6.7	7.8	5.3	25.1
5.72	8.0	30	6.4	7.9	5.4	25.1
7.63	7.9	29	6.2	7.8	5.8	25.1
Meter ID	MIS-1			MIS-1		T-17-1

Effluent Concentration (%)	Exposure Period 5					
	Sun, Jun 18			Mon, Jun 19		
	pH	S	DO	pH	DO	T
Dilution	8.2	33	6.8	8.1	6.1	25.7
2.42	8.2	32	6.8	8.0	5.8	25.7
3.22	8.2	32	6.7	7.9	5.8	25.7
4.29	8.1	31	6.6	7.9	5.8	25.7
5.72	8.1	30	6.5	7.8	6.0	25.7
7.63	7.9	29	6.9	7.6	5.6	25.7
Meter ID	MIS-1			MIS-3		~~T-16-1~~ 17

SRH 6-19-17

Effluent Concentration (%)	Exposure Period 6					
	Mon, Jun 19			Tue, Jun 20		
	pH	S	DO	pH	DO	T
Dilution	8.1	33	7.1	8.1	5.7	25.9
2.42	8.1	32	7.0	8.0	5.5	25.9
3.22	8.1	32	7.0	7.9	5.3	25.9
4.29	8.1	31	6.9	7.9	5.2	25.9
5.72	8.1	31	6.8	7.9	5.4	25.9
7.63	8.0	30	6.7	7.7	5.3	25.9
Meter ID	MIS-1			MIS-1		T-17-1

Effluent Concentration (%)	Exposure Period 7					
	Tue, Jun 20			Wed, Jun 21		
	pH	S	DO	pH	DO	T
Dilution	8.2	31	6.9	8.0	6.0	25.4
2.42	8.2	32	6.5	8.1	6.3	25.4
3.22	8.2	32	6.5	8.0	6.1	25.4
4.29	8.2	31	6.4	8.0	6.2	25.4
5.72	8.2	31	6.4	8.0	6.1	25.4
7.63	8.2	30	6.4	7.9	6.0	25.4
Meter ID	MIS-1			MIS-1		T-17-1

DO = Dissolved Oxygen (mg/L O_2) pH = pH (SU) S = Salinity (ppt) T = Temperature (°C)

Test Preparation Documentation

Client: LOOP - INVESTIGATIVE | Outfall: 004 Balanced | Test ID: 17061303

Site-spec. Instruct.: the dilution water is prepared at a salinity gradient to maintain a constant salinity in the final test solution. The final target salinity is 31ppt. Effluent amended per D. Hawley recipe to "Balance" ion ratios. Stock solution prepared at 25% LOOP balanced to make the test concentrations.

Note: All volumes are expressed in milliliters (mL)

Mysidopsis bahia

Final Volume (mL) =			1,900
Conc.(%)	Effluent	DI	ASSW (31)
Dilution	0	0	1,900
2.42	184	395	1,321
3.22	244	547	1,109
4.29	328	739	833
5.72	436	981	483
7.63	580	1,314	6
Total/Day	1,772	3,976	5,652

JRH
6-14-17

Critical Dilution:	7.63 volume percent
Initiation Date:	Wed, June 14, 2017
WQ Parameter Vol:	100 mL

Expiration Time Determination / Initial Parameters

Effluent No.	1
Sample ID	Org. (17042705)
Collection Date	NA
Collection Time	
Exp. Date - Initial Use	
Exp. Time - Initial Use	
Exp. Date - Renewal	
Exp. Time - Renewal	
pH (SU)	
Salinity (ppt)	
D.O. (mg/L O2)	
Meter ID	
TRC (mg/L Cl2)	
Date	
Time	
Technician	✓

Test ID No.: 17061303 **Test Preparation Documentation** 17061303

Client: LOOP - INVESTIGATIVE Outfall: 004 Balanced Test ID: ~~17042705~~

Site-spec. Instruct.: the dilution water is prepared at a salinity gradient to maintain a constant salinity in the final test solution. The final target salinity is 31ppt. Effluent amended per D. Hawley recipe to "Balance" ion ratios. Stock solution prepared at 25% LOOP balanced to make the test concentrations.

Note: All volumes are expressed in milliliters (mL)

Critical Dilution:	7.63	volume percent
Initiation Date:	Fri, April 28, 2017	
WQ Parameter Vol:	100	mL

Mysidopsis bahia

Final Volume (mL) =			1,900
Conc.(%)	Effluent	DI	ASSW (31)
Dilution	0	0	1,900
2.42	184	395	1,321
3.22	244	547	1,109
4.29	328	739	833
5.72	436	981	483
7.63	580	1,314	6
Total/Day	1,772	3,976	5,652

Tuesday 6-20-17 mixing procedure

Mysidopsis bahia 800 mLs

Final Volume (mL) =			~~1,000~~ MSO 6-19-17
Conc.(%)	Effluent (mL)	DI	ASSW (31)
Dilution	0	0	800
2.42	77	166	556
3.22	103	230	467
4.29	138	311	351
5.72	184	413	203
7.63	244	553	3
Total/Day	746	1,674	2,380

800
800
800
800
800

Prepare a total volume of 800 mLs for each concentration. Combine the 800 mls prepared w/ the 550 mls retained from the 6/19/17 mixing. Mix well in cube and renew as usual.

Test Preparation Documentation

Client: LOOP - INVESTIGATIVE | Outfall: 004 Balanced | Test ID: 17061303

Test Preparation Documentation for the Beginning of 24-Hour Exposure Period

Exposure Period	1		2		3		4	
Preparation Day	Wed		Thu		Fri		Sat	
Preparation Date	6/14/17		6/15/17		6-16-17		6-17-17	
Preparation Time	1530		0830		1150		1015	
Effluent No.	1		1		1		1	JRH 6-17-17
Technician	CJT	Meter ID	CJT	Meter ID	JRH	Meter ID	JRH	Meter ID
Beg. Eff. DO (% Sat)	N/A	–						
Aerated (Y/N)								
Post Aer DO (% Sat)								
Synthetic Water Batch	2530	JRH 6-16-17	2530	JRH 6-16-17	2530		2530	
Evening DO (mg/L)								
Technician/ Meter ID	/		/		/		/	

Exposure Period	5		6		7	
Preparation Day	Sun		Mon		Tue	
Preparation Date	6-18-17		6-19-17		6/20/17	
Preparation Time	1000		0850		0850	
Effluent No.	1		1		1	
Technician	JRH	Meter ID	JRH	Meter ID	CJT	Meter ID
Beg. Eff. DO (% Sat)						
Aerated (Y/N)						
Post Aer DO (% Sat)						
Synthetic Water Batch	2531		2531		2531	
Evening DO (mg/L)						
Technician/ Meter ID	/		/		/	

Initial Water Quality Data

Synthetic Water, Receiving Water and Effluent Samples

Client: LOOP - INVESTIGATIVE

Outfall: 004 Balanced

Test ID: 17061303

Synthetic Water

adjusted 31ppt

	Batch	Batch
Parameter	2531/0	2531
Dissolved Oxygen (mg/L O_2)	6.7/6.8	6.7
pH (SU)	8.0/7.9	8.0
Salinity (ppt)	31	32

CT 01/4/17 CT 01/4/17

Effluent

	Sample ID
Parameter	N/A
Ammonia (mg/L NH3)	✓

CK ASSOCIATES Environmental Consultants

Pipettor Usage Documentation for Chronic Toxicity Tests

Test ID: 17061303

Pipettor ID: P-15-1

Concentration	Exposure Period						
	1	2	3	4	5	6	7
Lab Control	N/A						
Dilution	N/A						
1	CJT	CJT	JRH	JRH	JRH	JRH	CJT
2							
3							
4							
5							

Pipettor ID: C-K 3

Concentration	Exposure Period						
	1	2	3	4	5	6	7
Lab Control	N/A						
Dilution	N/A						
1	NA	NA	N/A		N/A	NA	NA
2							
3							
4							
5							

Pipettor ID: P-14-1

Concentration	Exposure Period						
	1	2	3	4	5	6	7
Lab Control	N/A						
Dilution	N/A						
1	NA	NA	N/A		N/A	NA	NA
2							
3							
4							
5							

CK ASSOCIATES
Environmental Consultants

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

Test ID No.: 17061303

CLIENT: Loop **SAMPLED BY:** CW

PROJECT NO.: Brine Pond **DATE:** 4/27/17

SAMPLE IDENTIFICATION	DATE Start-End	TIME Start-End	MATRIX	NO. OF CONTAINERS	PRESERVATIVE	CHRONIC P. promelas	CHRONIC C. dubia	CHRONIC M. bahia	CHRONIC M. beryllina	ACUTE P. promelas	ACUTE C. dubia	ACUTE D. pulex	ACUTE M. bahia	ACUTE M. beryllina	Lab Use Only TEMP°C (Rec'd)	Lab Use Only C-K LAB ID
Brine	4/27/17	1230	W	(2) 5gal	Ice			✓	✓						4.2	17042705
17061301 — [17042705 Retest]																
17061302 - [Synthetic 004]																
17061303 - [17042705 Retest - "Balanced"]																
17061304 - [Synthetic 004 - "Balanced"]																

Sample	COLOR	ODOR	SOLIDS	OTHER
	Black	Yes	No	

Env. Conditions	WEATHER	TEMP	OTHER

C-K TEMP METER ID: T-17-1

Comments:

Relinquished by:	(Name)	Date/Time	Received by:	(Name)	Date/Time
	(Signature)			(Signature)	
	(Name) Chris Weber	1230 4/27/17		Chris Weber	
	(Signature)			(Signature)	
	(Name) Chris Weber	1455 4/27/17		(Name)	
	(Signature)			(Signature)	
	(Name) 4-27-17 JRH	Date/Time JRH 4-27-17	Received by laboratory:	(Name) Jed Hoover	4-27-17 1600
	(Signature)			(Signature) Jed Hoover	

Method of Shipment: C-K

Condition of samples upon receipt at laboratory: On ice

ISCO ID: NA