

Screening tests on groundwater samples

Environmental Assessment Program (EAP) Samples collected December 13, 17 and 18, 2018

Final Report

January 16, 2018

Submitted to: Washington Department of Ecology PO BOX 47600 Olympia, WA

8664 Commerce Court, Burnaby, BC V5A 4N7

SUMMARY

This is a summary of the test data for the 7-d *Ceriodaphnia dubia* survival and reproduction tests conducted on three samples of ground water submitted by the Washington State Department of Ecology. The purpose of these tests was to determine if one or more of the groundwater samples could be used as a negative site control for further testing on groundwater samples contaminated with weathered diesel. The three samples were tested at 100% (v/v) concentration. The sample information and test type are presented in Table 1.

Table 1.	Sample	Information	and T	est Type
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Sample ID	KING-MW11, CNG-MW2, BFT-MW8
Sample collection date	December 13, 17 and 18, 2018
Sample receipt date	December 19, 2018
Sample receipt temperature	5.3°C
Test types	Ceriodaphnia dubia survival and reproduction

Table 2 provides a summary of the toxicity test results.

Table 2.	Summary of Results
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Endpoint	Control	CNG-MW2 ¹	BFT-MW8 ¹	KING-MW11
Survival (%)	100	100	100	100
Reproduction (Mean ± SD)	24.4 ± 2.8	19.0 ± 2.5*	15.0 ± 7.4*	18.7 ± 6.6*

SD = Standard Deviation, LC = Lethal Concentration, IC = Inhibition Concentration

* = indicates that reproduction is significantly lower than control, ¹= sample had hydrocarbon odour

Two of the samples submitted, CNG-MW2 and BFT-MW8 had strong hydrocarbon odours that were readily apparent to the biologists conducing the tests. None of the samples showed any acute toxicity to the *Ceriodaphnia dubia*. Reproduction was statistically significantly lower in all of the negative control groundwater samples relative to the laboratory control. However, the reproduction mean in all three samples met Environment Canada-specified passing control health criteria of \geq 15 young per surviving female with three broods.

Report By: Kania Lywe, B.Sc. Laboratory Biologist

Reviewed By: Curtis Eickhoff , Ph.D. Senior Reviewer

1 – Emma Marus, B.Sc. on behalf of Kania Lywe

This report has been prepared by Nautilus Environmental Company Inc. based on data and/or samples provided by our client and the results of this study are for their sole benefit. Any reliance on the data by a third party is at the sole and exclusive risk of that party. The results presented here relate only to the samples tested.

Ceriodaphnia dubia Summary Sheet

Client: Work Order No.:	WDOE 182251	Start Date/Time: Set up by:	Dec 21/18 e 1400h KL /JB	-
Sample ID:	-MWZ, BFT-MW8, KWG-MWII UGNOUS (see Selow) ~ <u>ec17</u> , Dec18, Dec13, 2018 Dec19/18 1 × 1 gcl	3 222 3	produced three broods within 8 days produced per surviving female in the three broods. any control solution at any time.	
Mortality (%) in previ	t 3 broods of previous 7 d:	<u>68 12218A</u> <u>665121118</u> <24-h (within 12-h) ⁶ 64) <u>31</u> <u>13</u> 21-28,30 & 10 ·		
NaCI Reference To:	kicant Results:			
Reference Toxicant Stock Solution ID: Date Initiated: 7-d LC50 (95% CL):	<u>Dec 18 Na OS (100</u> Decn /18 2.0(1.9-2.3)	g/L NaCL		in î
7-d IC50 (95% CL):	<u>1.5(1-1.8)</u>	g/L NaCL		
	Toxicant Mean and Historical F Toxicant Mean and Historical R	1 (- 0 (0)	NaCLCV (%):S	_
Test Results:				
		Survival (%)	Reproduction (Mean ± SD)	5
	Negative Control	100	24.4 ± 2.8	*Indicates-fund vepvaluetion is
	CNG-MW2	[00]	19.0× ± 2.5	significantly
	BFT-MW8	100	(5.0 [%] ± 7.4	laver than
	KING-MWI	001	18.7 [%] ± 6.6	Cartual.
			±	-
			±	1
			±	
			±	4
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Reviewed by:

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Date reviewed:

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Nautilus Environmental

Chronic Freshwater Toxicity Test Initial and Final Water Quality Measurements

Client:	WROE						Star	rt Date 8	Time:	Pec 2	a 1 ce c	1400)	٩		
Sample ID:		low (runions)			Sto								
Work Order #:	1822	51							CER #:						
	4							Test Sp	ecies:	Cerioda	aphnia d	lubia			
									10						
·lolv/v)						Days									
Concentration	0	AND REAL PROPERTY.	1 Concentration	Gaberen and the	2	A MILLION CONTRACTOR	3 1925-1935-193	Content of the Series	4 1979-00-00-00-00-00-00-00-00-00-00-00-00-00	SECOND-DESCRIPTION	5 Convertional 2011	San 2020 (1946) (0)	6 Indexeduations	7	
[artho]	init.	old	new	old	new	old	new	old	new	old	new	old	new	final	
Temperature (°C)	25.0	2512	MA	200	240	25-0	25-0	240	240	25.0	25.0	25-0		•	76
DO (mg/L)	8-0	29	50	7.9	SP	7.9	8-0	16	8.1	7.0	7-9	6-9			•
pH	8-2	78	22	7.1	5.1	2.8	8.2	78	18	8-1	8.3	8-1			
Cond. (µS/cm)	221	21			19	- r	21	37			223 m	2	17		
Initials	~~	A	2	4	1	ل	B	EM	Y(7)		~	S.	5		
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~ hsp Adro-8		old	new	old	new	old	new	old	new	old	new	old	new	final	
Temperature.(°C)		2500	240	250	24,0	27-0	24.0	40	1240	25.0	24.0	25.0	1		
DO (mg/L)	7.9	23	50	24	20	7.9	7.5	76	73	6.6	7.2	1.1			
pН	8.0	20	79	6,2	27	8.4	٦.೪	7.9	78	VES	8.0	B-4	/		
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Concentration	0	0	1		2		3	1	4		5		6	7	
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Temperature (°C)	24.0	25.2	NK	250	MP	25-0	24.0	140	01.0	250	24.0	27.0	/		
DO (mg/L)	81	77	20	22	79	7.9	7.7	76	76	6-6	7.3	6.4	1		
pН	79	87	3.5	21	7.8	8-1	٦-٢	18	7.8	8-2	7.9	8.1	1		
Cond. (µS/cm)	960	9	su	99	70	q	91	99	0		84	c	144		
Initials	۲۰۰		2	0	-	J		FW			apper in		JB		
KING-MWII							-							L	
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Temperature (°C)	24-0	250	245	250	VIP	27.0	24,0	140	740	250	24-2	25-0	new	final	
DO (mg/L)	9.9	7.4	30	7.3	80	7.9	2.6	7.8	11-	6-6	7.3	6.9	/	<u> </u>	
pH	8-1	20	84	21	29	8.5	5.1	8.4	8.0	8-33		8.3	/		
Cond. (µS/cm)	314	31			26		335	33			21	and the second second	15 15	<u> </u>	
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Hardness*	ic	De Az	520		384			48	-				101		
Alkalinity* * mg/L as CaCO3						216	14]		wed by:		U/		ন
Sample Description:	I) I	'iight b 'dight v	NOWA, I Ielian A	shighty) turiai	n, odai	rlass, s	ione per	tianate an-si	Date rev V	viewed:		m·1	1, 2010	T , o dour, sove pu
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Nautilus Environmental Company Inc.

Chronic Freshwater Toxicity Test C. dubia Reproduction Data

Client:	NDOE															S	Start D	ate &	Time:	Dec	21/1	86	1400	n					_
Sample ID:	See be	low	(vanion	5)												S	Stop D	ate &	Time:	bec	22	180	160	70h.					2
Work Order:		18225	1								06	1010)		P				Set	up by:		10	-176	7						
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Total																													
Notes: X = mortal	lity.					a																							

1. Total # Young only based on the first 3 Broods. Fourth and subsequent broods not included in total count. Comments:

2. Ephippia present in Controls (Y) (N)?

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Reviewed by:

Jm. 11, 2019 Date reviewed:

Version 2.2 Issued Sep. 11, 2018

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CETIS Summary Report

14 Jan-19 15:12 (p 1 of 2) 182251 / <mark>1</mark>3-6046-6519

Ceriodaphnia	7-d Survival and Rep	production Te	est			2	Nautilus E	n <mark>v</mark> ironmental
Batch ID:	03-7602-2964	Test Type:	Repro	duction-Survival (7d)	Analyst:	Kania Lywe	
Start Date:	21 Dec-18 14:00	Protocol:	Wash	ington DOE (2016)		Diluent:		
Ending Date:	27 Dec-18 16:00	Species:	Cerio	daphnia dubia		Brine:		
Test Length:	6d 2h	Taxon:	Branc	hiopoda		Source:	In-House Culture	Age: <24
Sample Code	Sample ID	Sample Da	te	Receipt Date	Sample Age	Client Nar	ne Project	
Control	08-0445-7004	21 Dec-18		21 Dec-18	14h	WDOE		4
CNG-MW2	19-9747-9816	17 Dec-18	12:30	19 Dec-18 11:30	4d 2h (5.3 °C)			
BFT-MW8	08-7433-8747	18 Dec-18		19 Dec-18 11:30	86h (5.3 °C)			
KING-MW11	01-8042-6889	13 Dec-18	12:00	19 Dec-18 11:30	8d 2h (5.3 °C)			
Sample Code	Material Type		Samp	ble Source	Station	Location	Lat/Long	
Control	control		WDO	E	Control			
CNG-MW2	Water Sample		WDO	E	CNG-M	W2		
BFT-MW8	Water Sample		WDO	E	BFT-MV	V8		
KING-MW11	Water Sample		WDO	E	KING-M	IW11		

Single Comparison Summary

Analysis ID	Endpoint		Compari	son Method			P-Value	Compari	son Result			s
07-2523-3397	6d Survival Rate	9	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	BFT-MW	8 passed 6d	survival rate	Э	1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	CNG-MV	/2 passed 6	d survival rat	te	1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	Control p	assed 6d su	rvival rate		1
07-2523-3397	6d Survival Rate	9	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	KING-MV	V11 passed	6d survival r	ate	1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	Control p	assed 6d su	rvival rate		1
07-2523-3397	6d Survival Rate	9	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	KING-MV	V11 passed	6d survival r	ate	1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	BFT-MW	8 passed 6d	survival rate	Э	1
07-2523-3397	6d Survival Rate	e	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000		V2 passed 6			1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	KING-MV	V11 passed	6d survival r	ate	1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000	BFT-MW	8 passed 6d	survival rate	а	1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000		/2 passed 6			1
07-2523-3397	6d Survival Rate	Э	Fisher Ex	act/Bonferro	ni-Holm Tes	t	1.0000		assed 6d su			1
04-8232-6638	8 Reproduction		Equal Va	riance t Two-	Sample Tes	st	1.1E-04	BFT-MW	8 failed repr	oduction		1
04-8232-6638	8 Reproduction		Equal Va	riance t Two-	Sample Tes	st	1.1E-04		/2 failed rep			1
04-8232-6638	8 Reproduction		Equal Va	riance t Two-	-Sample Tes	st	1.1E-04		ailed reprodu			1
04-8232-6638	Reproduction		Equal Va	riance t Two-	Sample Tes	st	1.1E-04	KING-MV	V11 failed re	production		1
04-8232-6638	8 Reproduction		Equal Va	riance t Two-	Sample Tes	st	7.4E-04	KING-MV	V11 failed re	production		1
04-8232-6638	Reproduction		Equal Va	riance t Two-	Sample Tes	st	7.4E-04	BFT-MW	8 failed repr	oduction		1
04-8232-6638	Reproduction		Equal Va	riance t Two-	Sample Tes	st	7.4E-04		/2 failed rep			1
04-8232-6638	8 Reproduction		Equal Va	riance t Two-	Sample Tes	st	7.4E-04		ailed reprodu			1
04-8232-6638	Reproduction		Equal Va	riance t Two-	Sample Tes	st	0.0108		ailed reprodu			1
04-8232-6638	Reproduction		Equal Va	riance t Two-	Sample Tes	st	0.0108		V11 failed re			1
04-8232-6638	Reproduction			riance t Two-	and William and a		0.0108		8 failed repr	• • • • • • • • • • • • • • • • • • •		1
04-8232-6638	Reproduction		Equal Va	riance t Two-	Sample Tes	st	0.0108		/2 failed rep			1
6d Survival F	Rate Summary										30000	
Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effe	ect
Control	LC	10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	6
CNG-MW2		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	6
BFT-MW8		10	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	0.0000	0.00%	0.00%	6

Reproduction Summary

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1.0000

Sample	Code	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect	
Control	LC	10	24.4	22.43	26.37	20	29	0.8718	2.757	11.30%	0.00%	
CNG-MW2		10	19	17.22	20.78	15	22	0.7888	2.494	13.13%	22.13%	
BFT-MW8		10	15	9.679	20.32	4	23	2.352	7.439	49.59%	38.52%	
KING-MW11		10	18.7	13.97	23.43	7	26	2.093	6.617	35.39%	23.36%	

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KING-MW11

Analyst: _____ QA: _____ 14/19

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CETIS Summary Report

KING-MW11

Ceriodaphnia 7-d Survival and Reproduction Test

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Report Date:	14 Ja
Test Code/ID:	18

14 Jan-19 15:12 (p 2 of 2) 182251 / 13-6046-6519

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6d Survival Rate	e Detail										
Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
Control	LC	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
CNG-MW2		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
BFT-MW8		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
KING-MW11		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Reproduction D	etail										
Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
Control	LC	20	22	25	23	25	27	24	27	22	29
CNG-MW2		21	21	17	16	18	21	15	18	21	22
BFT-MW8		13	20	22	7	18	4	4	20	23	19
KING-MW11		15	26	25	18	15	23	7	11	26	21
6d Survival Rate	e Binomials				and a second second				10		
Sample	Code	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
Control	LC	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
CNG-MW2		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
BFT-MW8		1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
KING MONTH		11.1976						585. SS	507 M	25.9 15	\$158(3)

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Ú QA: M.14/19

Analyst: 🍾

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Ceriodaphnia	a 7-d Survival a	nd Reprodu	uction Test						N	autilus Env	ironmenta
Analysis ID:	07-2523-3397	En	dpoint: 6d S				CET	IS Version	: CETISv	1.9.4	
Analyzed:	04 Jan-19 17:1	1 An	Analysis: STP 2xK Contingency Tables			les	Stat	us Level:	1		
Batch ID:	03-7602-2964	Tes	st Type: Rep	production-S	Survival (7d))	Ana	lyst: Ka	nia Lywe		
Start Date:	21 Dec-18 14:0	00 Pro	Protocol: Washington DOE (2016)				Dilu	2			
Ending Date:	27 Dec-18 16:0	00 Sp	species: Ceriodaphnia dubia			Brin	e:				
Test Length:	6d 2h	Та	xon: Bra	on: Branchiopoda			Sou	rce: In-	House Cultu	re	Age: <2
Sample Code	e Sample I	ID Sa	mple Date	Receip	t Date	Sample Ag	e Clie	nt Name	Р	roject	
Control	08-0445-	7004 21	Dec-18	21 Dec	-18	14h	WD	DE			
CNG-MW2	19-9747-	9816 17	Dec-18 12:30) 19 Dec	-18 11:30	4d 2h (5.3	°C)				
BFT-MW8	08-7433-	8747 18	Dec-18	19 Dec	-18 11:30	86h (5.3 °C					
KING-MW11	01-8042-	6889 13	Dec-18 12:00) 19 Dec	-18 11:30	8d 2h (5.3					
Sample Code	e Material	Туре	Sar	nple Sourc	e	Sta	ation Locat	ion	Lat/Long]	
Control	control		WD	OE		Co	ntrol				
CNG-MW2	Water Sa	ample	WD	OE		CN	IG-MW2				
BFT-MW8	Water Sa	ample	WE	OE		BF	T-MW8				
KING-MW11	Water Sa	ample	WE	OE		KI	NG-MW11				
risher Exact	Bonferroni-Hol	m Test									
Sample I	/Bonferroni-Hol vs Sample CNG-MV BFT-MV KING-M	11 W2 V8	Test Stat 1.0000 1.0000 1.0000	P-Type Exact Exact Exact	P-Value 1.0000 1.0000 1.0000	Non-Sign	ificant Effectificant Effection	t			
-	vs Sample CNG-MV BFT-MV KING-M	11 W2 V8	1.0000 1.0000	Exact Exact	1.0000 1.0000	Non-Sign Non-Sign	ificant Effec	t			
Sample I Lab Control Data Summa	vs Sample CNG-MV BFT-MV KING-M	11 W2 V8	1.0000 1.0000 1.0000	Exact Exact Exact	1.0000 1.0000 1.0000	Non-Sign Non-Sign Non-Sign	ificant Effec ificant Effec ificant Effec	t		5	
Sample I Lab Control Data Summar Conc-%	vs Sample CNG-MV BFT-MV KING-M	II W2 V8 W11	1.0000 1.0000	Exact Exact	1.0000 1.0000	Non-Sign Non-Sign Non-Sign Prop R	ificant Effec ificant Effec ificant Effec %Effect	t		,	
Sample I Lab Control	vs Sample CNG-MV BFT-MV KING-M ry Code	II W2 V8 W11 NR	1.0000 1.0000 1.0000 R	Exact Exact Exact NR + R	1.0000 1.0000 1.0000 Prop NR	Non-Sign Non-Sign Non-Sign Prop R 0	ificant Effect ificant Effect ificant Effect %Effect 0.0%	t		ŋ —	-
Sample I Lab Control Data Summar Conc-% Control	vs Sample CNG-MV BFT-MV KING-M ry Code	II W2 V8 W11 <u>NR</u> 10	1.0000 1.0000 1.0000 R 0	Exact Exact Exact NR + R 10	1.0000 1.0000 1.0000 Prop NR 1	Non-Sign Non-Sign Non-Sign Prop R	ificant Effect ificant Effect %Effect 0.0% 0.0%	t			14
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8	vs Sample CNG-MV BFT-MV KING-M ry Code	II W2 V8 W11 NR 10 10	1.0000 1.0000 1.0000 R 0 0	Exact Exact Exact NR + R 10 10	1.0000 1.0000 1.0000 Prop NR 1 1	Non-Sign Non-Sign Non-Sign Prop R 0 0	ificant Effect ificant Effect ificant Effect %Effect 0.0%	t		5	
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11	vs Sample CNG-MV BFT-MV KING-M ry Code LC	II W2 V8 W11 NR 10 10 10	1.0000 1.0000 1.0000 R 0 0 0 0	Exact Exact Exact NR + R 10 10 10	1.0000 1.0000 1.0000 Prop NR 1 1 1	Non-Sign Non-Sign Non-Sign Prop R 0 0 0	ficant Effec ificant Effec ificant Effec %Effect 0.0% 0.0% 0.0%	t			
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R	vs Sample CNG-MV BFT-MV KING-M ry Code LC	II W2 V8 W11 NR 10 10 10	1.0000 1.0000 1.0000 R 0 0 0 0	Exact Exact Exact NR + R 10 10 10	1.0000 1.0000 1.0000 Prop NR 1 1 1	Non-Sign Non-Sign Non-Sign Prop R 0 0 0	ficant Effec ificant Effec ificant Effec %Effect 0.0% 0.0% 0.0%	t t	Rep 8	Rep 9	Rep 10
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-%	vs Sample CNG-MN BFT-MV KING-M ry Code LC	II W2 V8 W11 NR 10 10 10 10 10	1.0000 1.0000 1.0000 R 0 0 0 0	Exact Exact Exact NR + R 10 10 10 10	1.0000 1.0000 1.0000 Prop NR 1 1 1 1	Non-Sign Non-Sign Prop R 0 0 0 0	ificant Effect ificant Effect %Effect 0.0% 0.0% 0.0% 0.0%	t		Rep 9 1.0000	Rep 10
Sample I Lab Control Data Summar Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control	vs Sample CNG-MN BFT-MV KING-M ry Code LC Rate Detail Code	II W2 V8 W11 NR 10 10 10 10 10 Rep 1	1.0000 1.0000 1.0000 R 0 0 0 0 0 8 Rep 2	Exact Exact Exact NR + R 10 10 10 10 10 Rep 3	1.0000 1.0000 1.0000 Prop NR 1 1 1 1 1 1 8 Rep 4	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 8 Rep 5 1.0000	ficant Effec ificant Effec %Effect 0.0% 0.0% 0.0% 0.0% Rep 6 1.0000	t t Rep 7 1.0000	1.0000	1.0000	1.0000
Sample I Lab Control Data Summan Conc-% Control CNG-MW2	vs Sample CNG-MN BFT-MV KING-M ry Code LC Rate Detail Code	II W2 V8 W11 NR 10 10 10 10 Rep 1 1.0000	1.0000 1.0000 1.0000 R 0 0 0 0 0 0 8 Rep 2 1.0000	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10 10000	1.0000 1.0000 1.0000 Prop NR 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0000 1.0000	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 8 8 8 5 1.0000 1.0000	ficant Effec ificant Effec ificant Effec 0.0% 0.0% 0.0% 0.0% Rep 6 1.0000 1.0000	t t Rep 7 1.0000 1.0000	1.0000 1.0000	1.0000 1.0000	1.0000 1.0000
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control CNG-MW2 BFT-MW8	vs Sample CNG-MN BFT-MV KING-M ry Code LC Rate Detail Code	II W2 V8 W11 NR 10 10 10 10 Rep 1 1.0000 1.0000	1.0000 1.0000 R 0 0 0 0 0 0 8 Rep 2 1.0000 1.0000	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10000 1.0000	1.0000 1.0000 1.0000 Prop NR 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0000	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 8 Rep 5 1.0000	ficant Effec ificant Effec %Effect 0.0% 0.0% 0.0% 0.0% Rep 6 1.0000	t t Rep 7 1.0000	1.0000	1.0000	1.0000
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control CNG-MW2 BFT-MW8 KING-MW11	vs Sample CNG-MN BFT-MV KING-M ry Code LC Rate Detail Code	II W2 V8 W11 NR 10 10 10 10 10 10 10 10 10 10	1.0000 1.0000 R 0 0 0 0 0 0 8 Rep 2 1.0000 1.0000 1.0000	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10000 1.0000 1.0000	1.0000 1.0000 1.0000 1 1 1 1 1 1 1 1 1 1	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 8 8 9 5 1.0000 1.0000 1.0000	ficant Effec ificant Effec ificant Effec 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	t t <u>Rep 7</u> 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000	1.0000 1.0000 1.0000
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R	vs Sample CNG-MI BFT-MV KING-M ry Code LC Rate Detail Code LC	II W2 V8 W11 NR 10 10 10 10 10 10 10 10 10 10	1.0000 1.0000 R 0 0 0 0 0 0 8 Rep 2 1.0000 1.0000 1.0000	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10 10 1000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1 1 1 1 1 1 1 1 1 1	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ficant Effec ificant Effec ificant Effec 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	t t t 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-%	vs Sample CNG-MN BFT-MV KING-M ry Code LC Rate Detail Code LC	II W2 V8 W11 NR 10 10 10 10 10 10 10 10 10 10	1.0000 1.0000 R 0 0 0 0 Rep 2 1.0000 1.0000 1.0000 1.0000	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10 10 10000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1 1 1 1 1 1	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 8 8 5 1.0000 1.0000 1.0000 1.0000 8 8 6 7 5	ficant Effec ificant Effec 0.0% 0.0% 0.0% 0.0% 0.0% Rep 6 1.0000 1.0000 1.0000 1.0000 Rep 6	Rep 7 1.0000 1.0000 1.0000 Rep 7	1.0000 1.0000 1.0000 1.0000 Rep 8	1.0000 1.0000 1.0000 1.0000 Rep 9	1.0000 1.0000 1.0000 1.0000 Rep 10
Sample I Lab Control Data Summar Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control	vs Sample CNG-MN BFT-MV KING-M Code LC Rate Detail Code LC Rate Binomials Code	II W2 V8 W11 NR 10 10 10 10 10 10 10 10 10 10	1.0000 1.0000 R 0 0 0 0 0 0 0 0 0 0 0 0 0	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10 10 10 10000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1 1 1 1 1 1 1 1 1 1	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ficant Effec ificant Effec ificant Effec 0.0% 0.0% 0.0% 0.0% 0.0% Rep 6 1.0000 1.0000 1.0000 1.0000 1.0000	t t t 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	1.0000 1.0000 1.0000 1.0000 Rep 8 1/1	1.0000 1.0000 1.0000 1.0000 Rep 9 1/1	1.0000 1.0000 1.0000 1.0000 Rep 10 1/1
Sample I Lab Control Data Summan Conc-% Control CNG-MW2 BFT-MW8 KING-MW11 6d Survival R Conc-% Control CNG-MW2 BFT-MW8 KING-MW11	vs Sample CNG-MN BFT-MV KING-M Code LC Rate Detail Code LC Rate Binomials Code	II W2 V8 W11 NR 10 10 10 10 10 10 10 10 10 10	1.0000 1.0000 R 0 0 0 0 Rep 2 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000 1.0000	Exact Exact Exact NR + R 10 10 10 10 10 10 10 10 10 10 10 10000 1.0000 1.0000 1.0000 Rep 3	1.0000 1.0000 1.0000 1.0000 1 1 1 1 1 1	Non-Sign Non-Sign Prop R 0 0 0 0 0 0 8 8 5 1.0000 1.0000 1.0000 1.0000 8 8 6 7 5	ficant Effec ificant Effec 0.0% 0.0% 0.0% 0.0% 0.0% Rep 6 1.0000 1.0000 1.0000 1.0000 Rep 6	Rep 7 1.0000 1.0000 1.0000 Rep 7	1.0000 1.0000 1.0000 1.0000 Rep 8	1.0000 1.0000 1.0000 1.0000 Rep 9	1.0000 1.0000 1.0000 1.0000 Rep 10

Analyst:____

CETIS Ana	alytical	Report			Report Date: Test Code/ID:	04 Jan-19 17:12 (p 2 of 2 182251 / 13-6046-651
Ceriodaphnia	a 7-d Surv	vival and Re	production T		Nautilus Environmental	
Analysis ID: Analyzed:	07-2523- 04 Jan-1		Endpoint: Analysis:	6d Survival Rate STP 2xK Contingency Tables	CETIS Version: Status Level:	CETISv1.9.4 1
Graphics						
1.0 0.9 0.7 0.6 0.7 0.6 0.7 0.5 0.4 0.3 0.2 0.1 0.1 0.0	•		•			

U Jm. 11/19 Analyst:_____ QA

			Report Date:14 Jan-19Test Code/ID:182251				3-6046-651				
Ceriodaphnia 7-d	Survival and Rep	roduction Tes	st			e"			Na	autilus Env	ironmental
na na serie de la companya de	3232-6638 Ian-19 15:11	The second	Reproduction Parametric-Tv	vo Sample				S Version Is Level:	: CETISv1 1	.9.4	
Batch ID: 03-7	602-2964	Test Type:	Reproduction-	Survival (7	d)		Anal	yst: Ka	nia Lywe		
Start Date: 21 D	Dec-18 14:00	Protocol:	Washington D	OE (2016)			Dilue	ent:			
Ending Date: 27 D	Dec-18 16:00	Species:	Ceriodaphnia	dubia			Brin	e:			
Test Length: 6d 2	2h	Taxon:	Branchiopoda				Sour	ce: In-	House Cultur	re	Age: <24
Sample Code	Sample ID	Sample Date	e Recei	pt Date	S	ample Age	Clier	nt Name	Pi	roject	
Control	08-0445-7004	21 Dec-18	21 De	c-18	1	4h	WDC	DE			
CNG-MW2	19-9747-9816	17 Dec-18 12	2:30 19 De	c-18 11:30	4	d 2h (5.3 °C)				
BFT-MW8	08-7433-8747	18 Dec-18	19 De	c-18 11:30	8	6h (5.3 °C)					
KING-MW11	01-8042-6889	13 Dec-18 12	2:00 19 De	c-18 11:30	8	3d 2h (5.3 °C	C)				
Sample Code	Material Type		Sample Sour	се		Stati	on Locati	on	Lat/Long		
Control	control		WDOE			Cont	rol				
CNG-MW2	Water Sample		WDOE			CNG	-MW2				
BFT-MW8	Water Sample		WDOE			BFT-	MW8				
KING-MW11	Water Sample		WDOE			KING	G-MW11				
Data Transform	Alt	Нур					Comparis	on Result			PMSD
Untransformed	C >	Т						2 failed rep			16.11%
								s failed rep			16.11%
						KING-MW11 failed reproduction					16.11%
Equal Variance t T	wo-Sample Test										
Sample I vs	Sample II	Test S	tat Critical	MSD	DF	P-Type	P-Value	Decisio	n(α:5%)		
Lab Control	CNG-MW2*	4.593 1.734					1.1E-04 Significant Effect				
	BFT-MW8*	3.747	1.734	4.35	18		7.4E-04	Significa			
	KING-MW11*	2.514	1.734	0.004				olunnica	ni Eneci		
ANOVA Table			1.754	3.931	18	CDF	0.0108	Significa			
ANOVA Table			1.7.54	3.931	18	CDF		•			
Source	Sum Squares	Mean	Square	5.931 DF	18			•	nt Effect		
Source Between	449.475	Mean 149.82	Square		18	F Stat	0.0108	Significa	nt Effect n(α:5%)		
Source Between Error	449.475 1016.5	100.000	Square 5	DF	18	F Stat	0.0108 P-Value	Significa	nt Effect n(α:5%)		
Source Between Error Total	449.475 1016.5 1465.98	149.82	Square 5	DF 3	18	F Stat	0.0108 P-Value	Significa	nt Effect n(α:5%)		
Source Between Error Total Distributional Test	449.475 1016.5 1465.98 ts	149.82	Square 5	DF 3 36	18	F Stat	0.0108 P-Value	Significa	nt Effect n(α:5%)		
Source Between Error Total Distributional Test Attribute	449.475 1016.5 1465.98 ts Test	149.82 28.236	Square 5 1	DF 3 36 39		F Stat 5.306	0.0108 P-Value	Significa	nt Effect n(α:5%) nt Effect		
Source Between Error Total Distributional Test Attribute Variances	449.475 1016.5 1465.98 ts Test Bartlett Equality	149.82 28.236 of Variance Te	Square 5 1	DF 3 36 39		F Stat 5.306 - Critical	0.0108 P-Value 0.0039	Significa Decision Significa Decision	nt Effect n(α:5%) nt Effect		
Source Between Error Total Distributional Test Attribute Variances	449.475 1016.5 1465.98 ts Test	149.82 28.236 of Variance Te	Square 5 1	DF 3 36 39 Test St		F Stat 5.306 	0.0108 P-Value 0.0039 P-Value	Significa Decision Significa Decision Unequal	nt Effect n(a:5%) nt Effect n(a:1%)		
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sum	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W	149.82 28.236 of Variance Te	Square 5 1	DF 3 36 39 Test St 14.74		F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021	Significa Decision Significa Decision Unequal	nt Effect n(α:5%) nt Effect n(α:1%) Variances		
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary Code Cou	149.82 28.236 of Variance Te Normality Tes nt Mean	Square 5 1	DF 3 36 39 Test St 14.74 0.9512	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021	Significa Decision Significa Decision Unequal	nt Effect n(α:5%) nt Effect n(α:1%) Variances	CV%	%Effect
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary Code Cou LC 10	149.82 28.236 of Variance Te Normality Tes nt Mean 24.4	Square 5 1 1 est t	DF 3 36 39 Test St 14.74 0.9512	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834	Significa Decision Significa Decision Unequal Normal I	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution	<u>CV%</u> 11.30%	%Effect 0.00%
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary <u>Code</u> Cou LC 10 10	149.82 28.236 of Variance Te Normality Tes nt Mean	Square 5 1 est t 95% LCI	DF 3 36 39 Test St 14.74 0.9512	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min	Significa Decision Significa Decision Unequal Normal I	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution Std Err		part of the second
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2 BFT-MW8	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary <u>Code Cou</u> LC 10 10 10	149.82 28.236 of Variance Te Normality Tes nt Mean 24.4	Square 5 1 est t 95% LCI 22.43	DF 3 36 39 Test St 14.74 0.9512 - 95% U(26.37	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20	Significa Decision Significa Decision Unequal Normal I Max 29	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution Std Err 0.8718	11.30% 13.13%	0.00% 22.13%
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2 BFT-MW8	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary <u>Code</u> Cou LC 10 10	149.82 28.236 of Variance Te Normality Tes nt Mean 24.4 19	Square 5 1 est t 95% LCI 22.43 17.22	DF 3 36 39 Test St 14.74 0.9512 - 95% U(26.37 20.78	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20 15	Significa Decision Significa Decision Unequal Normal I Max 29 22	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution Std Err 0.8718 0.7888	11.30%	0.00%
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2 BFT-MW8 KING-MW11	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary <u>Code Cou</u> LC 10 10 10 10	149.82 28.236 of Variance Te Normality Tes <u>nt Mean</u> 24.4 19 15	Square 5 1 25 t 22.43 17.22 9.679	DF 3 36 39 Test St 14.74 0.9512 - 95% UC 26.37 20.78 20.32	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20 15 4	Significa Decision Significa Decision Unequal Normal I Max 29 22 23	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution <u>Std Err</u> 0.8718 0.7888 2.352	11.30% 13.13% 49.59%	0.00% 22.13% 38.52%
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2 BFT-MW8 KING-MW11 Reproduction Deta Sample	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W mmary Code Cou LC 10 10 10 10 ail Code Rep	149.82 28.236 of Variance Te Normality Tes <u>nt Mean</u> 24.4 19 15 18.7	Square 5 1 25 t 22.43 17.22 9.679	DF 3 36 39 Test St 14.74 0.9512 - 95% UC 26.37 20.78 20.32	at	F Stat 5.306 Critical 11.34 0.9236 Median 24.5 19.5 18.5 19.5	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20 15 4	Significa Decision Significa Decision Unequal Normal I Max 29 22 23	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution <u>Std Err</u> 0.8718 0.7888 2.352	11.30% 13.13% 49.59%	0.00% 22.13% 38.52%
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2 BFT-MW8 KING-MW11 Reproduction Deta Sample Control	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary Code Cou LC 10 10 10 10 10	149.82 28.236 of Variance Te Normality Tes nt Mean 24.4 19 15 18.7	Square 5 1 2 est t 22.43 17.22 9.679 13.97	DF 3 36 39 Test St 14.74 0.9512 95% U(26.37 20.78 20.32 23.43	at	F Stat 5.306 Critical 11.34 0.9236 Median 24.5 19.5 18.5 19.5 19.5 Rep 5	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20 15 4 7	Significa Decision Significa Decision Unequal Normal I Max 29 22 23 26	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution <u>Std Err</u> 0.8718 0.7888 2.352 2.093	11.30% 13.13% 49.59% 35.39%	0.00% 22.13% 38.52% 23.36%
Source Between Error Total Distributional Test Attribute Variances Distribution Reproduction Sun Sample Control CNG-MW2 BFT-MW8 KING-MW11 Reproduction Deta Sample Control	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W mmary Code Cou LC 10 10 10 10 ail Code Rep	149.82 28.236 of Variance Te Normality Tes nt Mean 24.4 19 15 18.7 1 Rep 2	Square 5 1 est t 22.43 17.22 9.679 13.97 Rep 3	DF 3 36 39 Test St 14.74 0.9512 95% U(0 26.37 20.78 20.32 23.43 Rep 4	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20 15 4 7 Rep 6	Significa Decision Significa Decision Unequal Normal I Max 29 22 23 26 Rep 7	nt Effect n(α:5%) nt Effect n(α:1%) Variances Distribution Std Err 0.8718 0.7888 2.352 2.093 Rep 8 27	11.30% 13.13% 49.59% 35.39% Rep 9	0.00% 22.13% 38.52% 23.36% Rep 10 29
Source Between Error	449.475 1016.5 1465.98 ts Test Bartlett Equality Shapiro-Wilk W nmary Code Cou LC 10 10 ail Code LC 20	149.82 28.236 of Variance Te Normality Tes nt Mean 24.4 19 15 18.7 1 Rep 2 22	Square 5 1 est t 22.43 17.22 9.679 13.97 Rep 3 25	DF 3 36 39 Test St 14.74 0.9512 95% UC 26.37 20.78 20.32 23.43 Rep 4 23	at	F Stat 5.306 	0.0108 P-Value 0.0039 P-Value 0.0021 0.0834 Min 20 15 4 7 Rep 6 27	Significa Decision Significa Decision Unequal Normal I Max 29 22 23 26 Rep 7 24	nt Effect n(α:5%) nt Effect (α:1%) Variances Distribution Std Err 0.8718 0.7888 2.352 2.093 Rep 8	11.30% 13.13% 49.59% 35.39% Rep 9 22	0.00% 22.13% 38.52% 23.36% Rep 10



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Analyst:_

GE HS ANA	alytical Report		Test Code/ID:	182251 / 13-6046-6519		
Ceriodaphnia	a 7-d Survival and Re	production T		Nautilus Environmenta		
Analysis ID: Analyzed:	04-8232-6638 14 Jan-19 15:11	Endpoint: Analysis:	Reproduction Parametric-Two Sample	CETIS Version: Status Level:	: CETISv1.9.4 1	
Graphics	-					
³⁰ F				8	22 ⁶ • •	
25				4		
20				2		
Lebroquetton			Centered Untransformed	2		
월 - 10 -				4		
5				*		
Ĩ				-10		
o L	Control CNG-MW2	BFT-MW8	KING-MW11	-12 -2.5 -2.0 -1.5 -1.0 -0.5 0.0	0.5 1.0 1.5 2.0 2.5	

Report Date:

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14 Jan-19 15:12 (p 2 of 2)

CETIS Analytical Report

Analyst:

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QA: 2m.14)19

Client: WDOE

W.O.#:<u>182251</u>

Hardness and Alkalinity Datasheet

			Alkal	inity							
Sample ID	Subsample Date	Date Measured,	Sample Volume (mL)	(mL) 0.02N HCL/H₂SO₄ used to pH 4.5	(mL) of 0.02N HCL/H ₂ SO ₄ used to pH 4.2	Total Alkalinity (mg/LCaCO ₃)		Sample Volume (mL)	Volume of 0.01M EDTA Used (mL)	Total Hardness (mg/L CaCO ₃)	Technician
CNG-MW-2	Deculus	Dec. 2718	50	14.3	14.5	282		50	26.0	520	BW
		,24/18									
BFT-MW-8	Deculu		60	10.9	11.0	216		60	19.2	384	BW
KING - MW-11	bec z lu		50	7,3	7.4	144		30	7.4	148	BW
20% perior	Ocer /13	pecilo	50 (00	Ŷ.5	9.7	93		50	5.0	(∞	K
Notes:								-			
Poviourod by		U	e			Date Reviewe	ad.		Jan. 1	1. 2019	
Reviewed by:		- 0				Date Neviewe				'/	

Version 1.1 Issued July 28, 2016

Nautilus Environmental Company Inc.

a	· · · ·			TESTING L	OCATION (Please Circle)							
				Burnaby 8664 Commerce Court Burnaby, British Colum V5A 4N7 Phone 604.420.8773			Calgary #4. 6125 12 Stree Calgary, Alberta, T2H 2K1 Phone 403.253.7	Canada				of Custo 18 Page	
Report to:				Invoice To:)	ANALYSE	S REQUIRED		Γ
Company Address City/State/Zip Contact Phone Email	WADEPT POBOX OLYMPIA WILL B 360-907 Whab9610	47600 + WA + BBS -7512	98502	Company Address City/State/Zip Contact Phone Email PO No.	7411 PORT NANO 360-	XG-Y - MANK BEACH DI ORCHARD Y ROSENB B71-882 Q461 CC	<u>R E</u> WA <u>98366</u> OWER 7	APHA TRIA	3-				Receipt Temperature (°C)
Sample Collection By:				Sample Type: Gra	b () OR	Composite	0	Q Q	5				Re
SAMPLE ID	DATE	TIME	MATRIX	# OF CONTAINERS / VOLUME (e.g. 1 x 2	10000000000	COMMEN	ITS	1 Ceg	-	8			
KING-MWII	12/13	12:00	wedee	1-13al				1					5,5
CNG-MWZ	12/17	12:30	TK .	14				1					1
BFT-MW8	12/18	NIA	н	н				/					V
								151					
								22					-
				CAMDIE		AILS (LABORAT		SAMPI					
WILL SEND INFO ON				1. Total No. of Containers	3	4. Ice Present in Cooler?	Ø/N	JANIT					
PH, COND, ORP AND DO			つ	2. Courier	RedEx	5. Seal Present?	Y/Ø						
				3. Good Condition?	Ø/N	6. Initials Present on Seal?	¥/Ø						
RELINQUISHED BY (CLIENT)				RECEIVED BY (LABORATORY)									
WILL HOBDS Printed Name)	th	Ah	(Signature	Ty me Homether 72/ (Printed Name) (Signature				Our liability is limited to the cost of the test requested. The test result only relate to the sample as received. No liability in whole or in part is assumed for the collection, handling, or transport of the sample,					
ECY Company)	12/19	3/18 1	3.00 (Date and Time	Nav Hlus (Company)		19/12/18 e	Ø <i>11:30</i> (Date and Time	application whole			the test data or res		
Additional costs may be re	quired for samp	le disposal	or storage.	Payment net 30 unles	s otherwise c	ontracted.				For	m 020: Version 1.0: R	evised by CC 2010	6/20