

CURRAGH RESOURCES

2-41-100-077-87001

96-h STATIC LC50 BIOASSAY RESULTS OF
X5

SAMPLE TAKEN: UNKNOWN SAMPLE pH 7.1
 SAMPLE RECEIVED: Mar 16, 1987 SAMPLE D.O. 8.2 mg/l
 TEST STARTED: Mar 17, 1987 SAMPLE CONDUCTANCE 1900 umho/cm

THE 96-h LC50 FOR THIS SAMPLE WAS 87.0 %v/v (65.0, 100.0)

	INIT pH	FINAL pH	INIT DO mg/l	FINAL DO mg/l	TEST CONC %v/v	PERCENT SURVIVAL			
						24h	48h	72h	96h
SAMPLE	7.1	7.3	9.6	9.6	100.0	100	20	0	0
	7.1	7.2	9.6	9.6	87.0	100	100	70	50
	7.0	7.2	9.6	9.6	65.0	100	100	90	90
	6.8	7.1	9.6	9.6	49.0	100	100	100	100
	6.6	7.1	9.6	9.6	32.0	100	100	100	100
CONTROL	6.2	6.3	9.6	9.6		100	100	100	100

TEST CONDITIONS

Bioassays conducted according to STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTE WATER, 15th edition, 1980 APHA - AWWA - WPCF.

Number of test fish 10 Test temperature (C) 15.0
 Test volume (liters) 4.0 Test solution pH not adjusted

TEST FISH

Juvenile Rainbow Trout (*Salmo gairdneri*)
 Acclimated to temperature 15.0 +/- 1 C.
 Weight 0.25 +/- 0.03 g Length 3.2 +/- 0.1 cm

Duplicate reference toxicant (sodium pentachlorophenate) bioassays were conducted in order to test the tolerance of the fish stock. These tests gave 96-h LC50 values of 86.8 ug/l (60.0, 100.0) and 81.7 ug/l (70.0, 110.0)

DILUTION WATER (Vancouver dechlorinated tap water)

Alkalinity (mg CaCO3/l) 0.8
 EDTA hardness (mg CaCO3/l) 4.3
 Total suspended solids (mg/l) 2.9
 Residual chlorine (mg/l) 0.001
 Conductance (umho/cm) 23

Other parameters available on request.

96-h LC50 is the 96-h lethal concentration for 50% mortality. Synonyms are TLm96 and 96-h TL50 (median tolerance limit). The 95% confidence limits are in parentheses. Values were calculated by computer following C.E. Stephens "Methods for Calculating an LC50" (ASTM STP 634, 1977).

ANALYST

DBW

B.C. RESEARCH

CURRAGH RESOURCES

2-41-100-077-87002

96-h STATIC LC50 BIOASSAY RESULTS OF
X13

SAMPLE TAKEN: UNKNOWN SAMPLE pH 7.1
 SAMPLE RECEIVED: Mar 16, 1987 SAMPLE D.O. 7.4 mg/l
 TEST STARTED: Mar 17, 1987 SAMPLE CONDUCTANCE 1550 umho/cm

THE 96-h LC50 FOR THIS SAMPLE WAS >100 %v/v

	INIT pH	FINAL pH	INIT DO mg/l	FINAL DO mg/l	TEST CONC %v/v	PERCENT SURVIVAL			
						24h	48h	72h	96h
SAMPLE	7.1	7.3	9.4	9.4	100.0	100	100	100	100
CONTROL	6.2	6.3	9.6	9.6		100	100	100	100

TEST CONDITIONS

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 APHA - AWWA - WPCF.

Number of test fish 10 Test temperature (C) 15.0
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CURRAGH RESOURCES

WATER ANALYSIS - MONTHLY MEAN

Sample Period *April 1987*

Sample Point	X1	X2 *	X3 *	X4	X5	X6 *	X7 *	X9	X10 *	X11	X12	X13	X14 *	X22	X23
pH		7.41	7.68	8.18	7.64	6.93	7.54	9.20	7.97	7.56	7.89	7.68	7.93	7.46	7.15
Temp °C		1	3	3	2	3	2	11	3	3	3	3	2	3	2
Suspended Solids mg/L		<1	<1	6	2	27	50	137,660	1	3	1	2	1	112	6
Flows m3/min	0							20.44		0.87	0.27	5.89		2.73	
Ammonia mg/L		0.30	0.38	1.04	0.90	1.48	4.27	1.03	0.21	0.56	0.19	0.42	0.67	4.56	6.05
Copper mg/L		<0.01	<0.01	0.02	0.05	<0.01	0.05	0.26	<0.01	<0.01	0.01	<0.01	0.04	0.02	0.03
Lead mg/L		<0.01	<0.01	0.08	0.05	<0.01	0.19	0.06	<0.01	<0.01	<0.01	<0.01	0.03	0.30	0.05
Zinc mg/L		0.04	0.28	0.06	0.08	0.27	9.75	0.04	0.02	<0.01	<0.01	0.01	0.06	18.35	16.32
Cyanide mg/L															
Manganese mg/L		0.12	0.10	0.55	0.87	13.10	4.32	0.01	<0.01	4.79	0.93	4.14	1.81	1.41	4.32
Sodium mg/L		3.4	2.4	99.6	90.4	69.0	20.8	125.6	1.8	68.2	48.8	66.6	82.0	12.5	17.9
Sulfate mg/L		18	15	701	800	280	591	195	16	660	532	608	762	375	553
* sampled once monthly															

