

APPENDIX J
SURFACE WATER MONITORING
RESULTS (MARCH 2008)



GOLDBORO
LNG

3 & Labour
 100-11-1000-100
 100-11-1000-100



March 25, 2008

NOVA SCOTIA ENVIRONMENT
 AND LABOUR
 155 Main Street
 Suite 205
 Antigonish, Nova Scotia
 B2S 2B6

ATTENTION: Paul Keats, District Manger

Surface Water Monitoring Results, Maple LNG, Goldboro, NS

Dillon Consulting Limited is pleased to provide the analytical results of the pre-construction (baseline) surface water sampling collected from the MapleLNG property in Goldboro, NS during the fall of 2007 [September 21 (low flow) to November 8 high flow)]. Samples were collected from the following five stations (see **Figure 1, Attachment 1**):

<u>Station ID</u>	<u>Location</u>	<u>Events</u>
SW-1	unnamed Tributary - upstream	October 22, 2007 November 8, 2007
SW-2	unnamed Tributary below HW 316	September 21, 2007 November 8, 2007
SW-3	Dung Cove Pond	September 21, 2007 November 8, 2007
SW-4	Bettys Cove Brook – upstream	November 8, 2007
SW-5	Bettys Cove Brook – below HW 316	September 21, 2007 November 8, 2007

All samples were analyzed for general inorganic chemistry, metals and petroleum hydrocarbons as per the agreed monitoring program (refer to Hiltz Letter dated October 2, 2007).

Discussion of Results

Laboratory data are found in **Attachment 2** tables. The Canadian Water Quality Guidelines (CWQG) for the Protection of Freshwater Aquatic Life (FWAL) and the Atlantic PIRI Guidelines for petroleum hydrocarbons are included in the tables.

Petroleum hydrocarbon concentrations were below applicable guidelines (Table 1). Other comments on the general chemistry (Table 2) are as follows:

- pH was below the recommended range of 6.5 to 9.0 units and aluminium was above the guideline of 0.005 to 0.1 mg/L (pH dependant) in all samples.

137
 Chain Lake Drive
 Suite 100
 Halifax
 Nova Scotia
 Canada
 B3S 1B3
 Telephone
 (902) 450-4000
 Fax
 (902) 450-2008

ISO 9001 Registered

Other Pgs. 10
 Attachment Kim

Dillon Consulting
 Limited

Page 2
NSEL
March 25, 2008

- Arsenic was above the guideline of 0.005 mg/L in the majority of samples except SW-4 (which was only sampled on one occasion).
- Cadmium was above the guideline of 10 ug/L (hardness dependant) in all samples except SW-1 in October 2007.
- Copper was above the guideline of 0.002 to 0.004 mg/L (hardness dependant) in the SW-5 November sample.
- Iron was above the guideline of 0.3 mg/L in SW-1 (October) and in both samples from SW-3 and SW-5.
- Zinc was above the guideline of 0.03 mg/L in SW-4 (November).

Previous samples collected in 2005 (AMEC, 2006) from Betty's Cove Brook and Crusher Brook (off-site) indicated low pH and elevated aluminium. It should be noted that the laboratory detection limit for cadmium was higher in the 2005 analysis; therefore, a direct comparison with current data could not be made.

If you have questions or comments on the information contained herein, please contact the undersigned.

Yours truly,

DILLON CONSULTING LIMITED

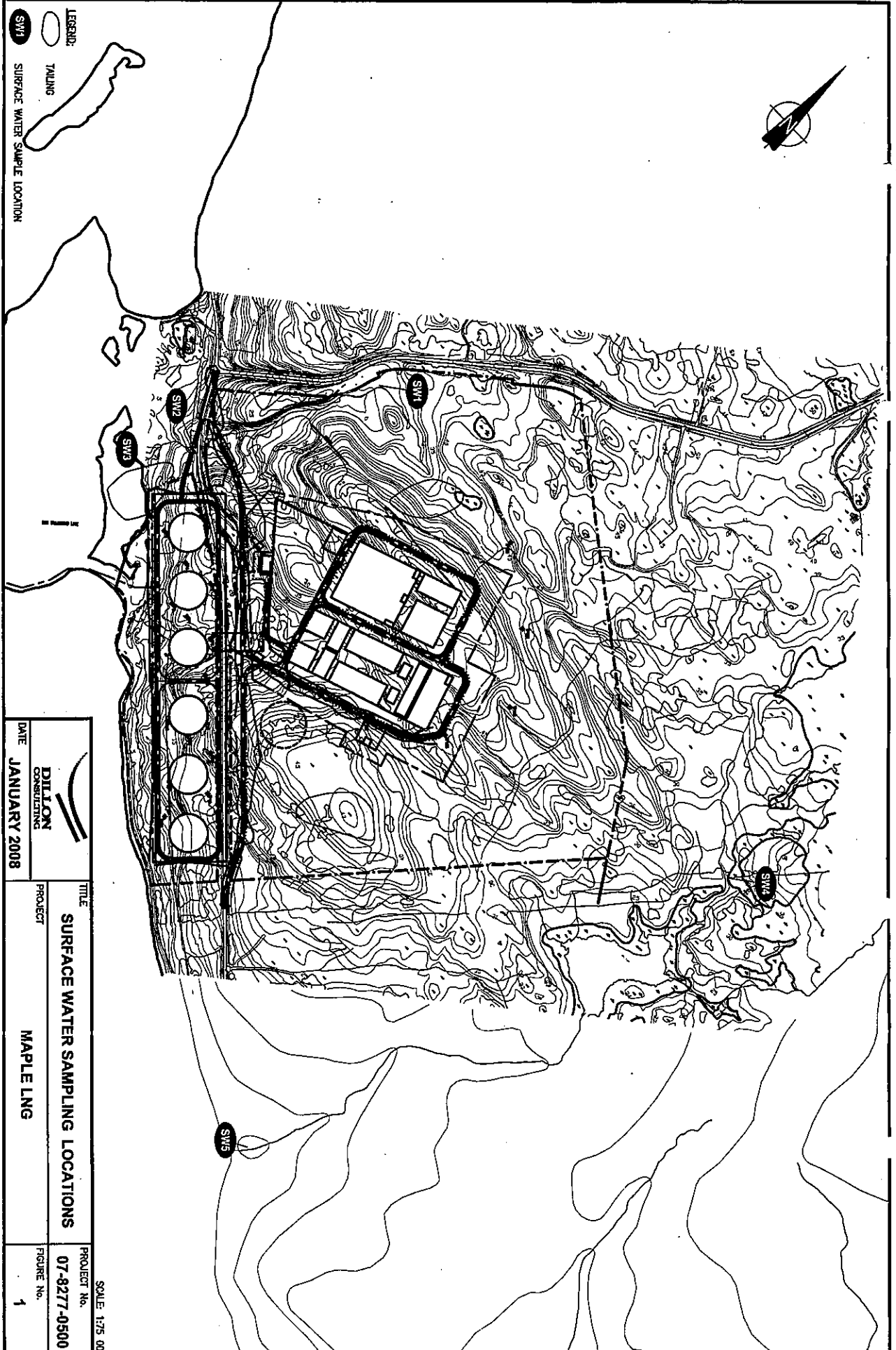


Rob Young, M.Sc., P.Geol.
Project Manager

cc: Dan Hiltz -- NSEL
MapleLNG
- Keltic Petrochemicals
4Gas
S. Buckle -- Jacques Whitford
Our File: 07-8277-0500

S.20

Attachment 1
Sampling Locations



Attachment 2
Laboratory Data

Table 1 - Surface Water TPH/BTEX Analytical Results

Sample ID	Sample Date	BTEX Concentration (mg/L)				Petroleum Hydrocarbons (mg/L)				
		Benzene	Toluene	E. Benzene	Xylenes	C6 - C10	>C10 - C21	>C21 - C32	Total	Resemblance
SW1	22-Oct-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW1 L/D	22-Oct-07	nd	nd	nd	nd	nd	-	-	-	-
SW1	8-Nov-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW1 L/D	8-Nov-07	nd	nd	nd	nd	nd	-	-	-	-
SW1000 (F/D)	8-Nov-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW2	21-Sep-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW2	8-Nov-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW3	21-Sep-07	nd	nd	nd	nd	nd	nd		nd	-
SW3	8-Nov-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW4	8-Nov-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW5	21-Sep-07	nd	nd	nd	nd	nd	nd	nd	nd	-
SW5	8-Nov-07	nd	nd	nd	nd	nd	nd	nd	nd	-
Estimated Quantitation Limit		0.001	0.001	0.001	0.002	0.01	0.05	0.1	0.1	-
FWAL 2003		0.37	0.002	0.09	**				**	

FWAL 2003 - Water: Aquatic Life - Freshwater, Canadian Environmental Quality Guidelines (CCME 2003)

G - Resembles Gasoline

F - Resembles Fuel Oil

L - Resembles Lube Oil

nd - non-detect

F/D - Denotes field duplicate

L/D - Laboratory duplicate

** - Guideline not established

Note: For the purpose of comparison to applicable guideline criteria, the Modified TPH hydrocarbon range assumed to be most specific to each sample result was based on laboratory resemblance data and Atlantic PIRI Reference Documentation (October 2003).

Table 2 - Surface Water Sampling

Parameter	UNITS	EQL	CFWALG	SW1 22-Oct-07	SW1 8-Nov-07	SW1 (L/D) 8-Nov-07	SW1000 (F/D) 8-Nov-07
GENERAL CHEMISTRY							
Sodium	mg/L	0.1	**	7.8	9.5	9.6	9.7
Potassium	mg/L	0.1	**	0.4	0.7	0.6	0.6
Calcium	mg/L	0.1	**	2.5	3.4	3.5	3.4
Magnesium	mg/L	0.1	**	0.7	1.1	1.1	1.1
Alkalinity as (CaCO3)	mg/L	5	**	<5	<5	-	<5
Sulfate	mg/L	2	**	<2	<2	-	<2
Chloride	mg/L	1	**	12	21	-	21
Reactive Silica	mg/L	0.5	**	5.5	4.9	-	4.9
Ortho Phosphate (as P)	mg/L	0.01	**	<0.01	<0.01	-	<0.01
Phosphorus	mg/L	0.1	**	<0.1	<0.1	<0.1	<0.1
Nitrate+Nitrite (as N)	mg/L	0.05	**	<0.05	<0.05	-	<0.05
Nitrate (as N)	mg/L	0.05	13	<0.05	<0.05	-	<0.05
Nitrite	mg/L	0.01	0.06	<0.01	<0.01	-	<0.01
Ammonia (as N)	mg/L	0.05	1.37-2.2 (Note 1)	<0.05	<0.05	<0.05	<0.05
Colour	TCU	5	Narrative	79	49	-	48
Total Organic Carbon	mg/L	0.5	**	13	9.2	9.5	10
Turbidity	NTU	0.1	Narrative	0.3 (0.4)	0.3	-	0.3
Conductance (RCap)	us/cm	1	**	61	88	88	85
pH	units	-	6.5-9.0	6.08	5.52	5.40	5.29
Hardness (as CaCO3)	mg/L	0.1	**	9	13	-	13
Bicarbonate (as CaCO3)	mg/L	1	**	<1	<1	-	<1
Carbonate (as CaCO3)	mg/L	1	**	<1	<1	-	<1
TDS	mg/L	1	**	30	41	-	41
Cation Sum	meq/L	0.10	**	0.550	0.710	-	0.710
Anion Sum	meq/L	0.10	**	0.350	0.600	-	0.600
Ion Balance	%	-	**	22.2	8.40	-	8.40
Langelier Index (4C)	units	-	**	NC	NC	-	NC
Langelier Index (20C)	units	-	**	NC	NC	-	NC
Saturation pH @ 4C	units	-	**	NC	NC	-	NC
Saturation pH @ 20C	units	-	**	NC	NC	-	NC
Total Suspended Solids	mg/L	1	Narrative (Note 2)	<2	<1	-	<2
Carbonaceous BOD	mg/L	2	**	<5	<5	-	<5
COD	mg/L	5	**	48	38	-	40
METALS							
Aluminum	mg/L	0.01	0.005-0.1 (Note 3)	0.350	0.275	0.265	0.273
Antimony	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Arsenic	mg/L	0.002	0.005	0.014	0.0090	0.0088	0.0094
Barium	mg/L	0.005	**	0.0050	0.0070	0.0070	0.0071
Beryllium	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Bismuth	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Boron	mg/L	0.005	**	<0.005	0.0056	0.0052	0.0052
Cadmium	mg/L	0.000017	Note 4	<0.0003	0.000386	0.000375	0.000482
Chromium	mg/L	0.002	Note 5	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.0004	**	<0.001	0.00043	<0.0004	0.00042
Copper	mg/L	0.002	0.002-0.004 (Note 6)	<0.002	<0.002	<0.002	<0.002
Iron	mg/L	0.05	0.3	0.400	0.251	0.239	0.255
Lead	mg/L	0.0005	0.001-0.007 (Note 7)	0.0007	<0.0005	<0.0005	<0.0005
Manganese	mg/L	0.002	**	0.046	0.0853	0.0774	0.0653
Mercury	mg/L	0.00005	0.000026	0.000020	<0.00001	<0.00001	<0.00001
Molybdenum	mg/L	0.002	0.073	<0.002	<0.002	<0.002	<0.002
Nickel	mg/L	0.002	0.025-0.15 (Note 8)	<0.002	0.0021	<0.002	<0.002
Selenium	mg/L	0.001	0.001	<0.002	<0.001	<0.001	<0.001
Silver	mg/L	0.0005	0.0001	<0.0005	<0.0001	<0.0001	<0.0001
Strontium	mg/L	0.005	**	0.018	0.0269	0.0269	0.0282
Thallium	mg/L	0.0001	0.0008	0.0002	<0.0001	<0.0001	<0.0001
Tin	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Titanium	mg/L	0.002	**	0.004	<0.002	<0.002	<0.002
Uranium	mg/L	0.0001	**	<0.0001	<0.0001	<0.0001	<0.0001
Vanadium	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Zinc	mg/L	0.005	0.03	<0.005	0.0125	0.0103	0.0093

CFWAL - Canadian Water Quality Guidelines for the Protection of Aquatic Life - Freshwater
 Canadian Environmental Quality Guidelines (CCME, September 2007 Update)

** No applicable guideline established
Highlight/bold - denotes GWQAL exceedance

F/D - Field duplicate
 LD - Laboratory duplicate
 (<0.05) - denotes laboratory duplicate
 EQL - Estimated Quantation Limit
 NC - Non-calculable

Notes 1-8 - see Legend Notes; Surface Water Chemistry
 * AMEC, 2006. Petrochemicals and Liquefied Natural Gas Facility Environmental Assessment (Final Report).

Table 2 - Surface Water Sampling

Parameter	UNITS	EQL	CFWALG	SW2	SW2	SW3	SW3
				21-Sep-07	8-Nov-07	21-Sep-07	8-Nov-07
GENERAL CHEMISTRY							
Sodium	mg/L	0.1	**	6.6	10	7.6	14
Potassium	mg/L	0.1	**	0.4	0.8	0.4	0.9
Calcium	mg/L	0.1	**	2.3	3.7	2.4	3.4
Magnesium	mg/L	0.1	**	0.8	1.3	1.0	1.6
Alkalinity as (CaCO3)	mg/L	5	**	<5	<5	<5	<5
Sulfate	mg/L	2	**	<2	<2	<2	<2
Chloride	mg/L	1	**	10	22	10	25
Reactive Silica	mg/L	0.5	**	5.0	4.6	2.8	3.4
Ortho Phosphate (as P)	mg/L	0.01	**	<0.01	<0.01	<0.01	<0.01
Phosphorus	mg/L	0.1	**	<0.1	<0.1	<0.1	<0.1
Nitrate+Nitrite (as N)	mg/L	0.05	**	0.11	<0.05	<0.05	0.08
Nitrate (as N)	mg/L	0.05	13	0.11	<0.05	<0.05	0.08
Nitrite	mg/L	0.01	0.06	<0.01	<0.01	<0.01	<0.01
Ammonia (as N)	mg/L	0.05	1.37-2.2 (Note 1)	<0.05 (<0.05)	<0.05	<0.05	<0.05
Colour	TCU	5	Narrative	62	48	89	59
Total Organic Carbon	mg/L	0.5	**	8.6	9.5	14	11
Turbidity	NTU	0.1	Narrative	0.2 (0.3)	0.3	1.3	2.1
Conductance (RCap)	us/cm	1	**	52	88	53	100
pH	units	-	6.5-9.0	5.94	5.29	6.27	5.87
Hardness (as CaCO3)	mg/L	0.1	**	9	14	10	15
Bicarbonate (as CaCO3)	mg/L	1	**	<1	<1	<1	<1
Carbonate (as CaCO3)	mg/L	1	**	<1	<1	<1	<1
TDS	mg/L	1	**	26	43	25	49
Cation Sum	meq/L	0.10	**	0.490	0.780	0.570	0.940
Anion Sum	meq/L	0.10	**	0.300	0.620	0.280	0.720
Ion Balance	%	-	**	24.1	11.4	34.1	13.3
Langelier Index (4C)	units	-	**	NC	NC	NC	NC
Langelier Index (20C)	units	-	**	NC	NC	NC	NC
Saturation pH @ 4C	units	-	**	NC	NC	NC	NC
Saturation pH @ 20C	units	-	**	NC	NC	NC	NC
Total Suspended Solids	mg/L	1	Narrative (Note 2)	<1	<1	<1	12 (12)
Carbonaceous BOD	mg/L	2	**	<5	<5	<5	<5
COD	mg/L	5	**	29	35	49	40
METALS							
Aluminum	mg/L	0.01	0.005-0.1 (Note 3)	0.274	0.314	0.314	0.268
Antimony	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Arsenic	mg/L	0.002	0.005	0.0191	0.0122	0.0309	0.0198
Barium	mg/L	0.005	**	<0.005	0.0081	<0.005	0.0059
Beryllium	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Bismuth	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Boron	mg/L	0.005	**	<0.005	0.0062	0.0079	0.0093
Cadmium	mg/L	0.000017	Note 4	0.000020	0.000516	0.000020	0.000454
Chromium	mg/L	0.002	Note 5	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.0004	**	0.00044	0.00047	<0.0004	0.00041
Copper	mg/L	0.002	0.002-0.004 (Note 6)	<0.002	<0.002	<0.002	<0.002
Iron	mg/L	0.05	0.3	0.295	0.246	0.576	0.681
Lead	mg/L	0.0005	0.001-0.007 (Note 7)	<0.00005	<0.0005	<0.0005	0.00063
Manganese	mg/L	0.002	**	0.0403	0.0517	0.0510	0.0954
Mercury	mg/L	0.00005	0.000026	<0.00001	<0.00001	0.000020	<0.00001
Molybdenum	mg/L	0.002	0.073	<0.002	<0.002	<0.002	<0.002
Nickel	mg/L	0.002	0.025-0.15 (Note 8)	<0.002	0.0021	<0.002	<0.002
Selenium	mg/L	0.001	0.001	<0.001	<0.001	<0.001	<0.001
Silver	mg/L	0.0005	0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Strontium	mg/L	0.005	**	0.0148	0.0296	0.0168	0.0289
Thallium	mg/L	0.0001	0.0008	<0.0001	<0.0001	<0.0001	<0.0001
Tin	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Titanium	mg/L	0.002	**	0.0024	<0.002	0.0025	0.0032
Uranium	mg/L	0.0001	**	<0.0001	<0.0001	<0.0001	<0.0001
Zinc	mg/L	0.002	**	<0.002	<0.002	<0.002	<0.002
Zinc	mg/L	0.005	0.03	0.0075	0.0155	<0.005	0.0108

CFWAL - Canadian Water Quality Guidelines for the Protection of Aquatic Life - Freshwater

Canadian Environmental Quality Guidelines (CCME, September 2007 Update)

** No applicable guideline established

Highly bold - denotes CWFAL exceedance

F/D - Field duplicate

LD - Laboratory duplicate

(<0.05) - denotes laboratory duplicate

EQL - Estimated Quantation Limit

NC - Non-calculable

Notes 1-8 - see Legend Notes; Surface Water Chemistry

* AMEC, 2006. Petrochemicals and Liquefied Natural Gas Facility Environmental Assessment (Final Report).

Table 2 - Surface Water Sampling

Parameter	UNITS	EQL	CFWALG	SW4 8-Nov-07	SW5 21-Sep-07	SW5 8-Nov-07
GENERAL CHEMISTRY						
Sodium	mg/L	0.1	**	8.4	4.8	7.2
Potassium	mg/L	0.1	**	1.0	0.3	1.1
Calcium	mg/L	0.1	**	2.9	2.0	2.6
Magnesium	mg/L	0.1	**	0.7	0.7	1.0
Alkalinity as (CaCO3)	mg/L	5	**	<5 (<5)	<5	<5
Sulfate	mg/L	2	**	4 (4)	<2	<2
Chloride	mg/L	1	**	17 (17)	7	14
Reactive Silica	mg/L	0.5	**	1.2 (1.2)	3.1	3.3
Ortho Phosphate (as P)	mg/L	0.01	**	<0.01 (<0.01)	<0.01	<0.01
Phosphorus	mg/L	0.1	**	<0.1	<0.1	<0.1
Nitrate+Nitrite (as N)	mg/L	0.05	**	0.10 (0.11)	<0.05	<0.05
Nitrate (as N)	mg/L	0.05	13	0.10	<0.05	<0.05
Nitrite	mg/L	0.01	0.06	<0.01 (<0.01)	<0.01	<0.01
Ammonia (as N)	mg/L	0.05	1.37-2.2 (Note 1)	<0.05	<0.05	<0.05
Colour	TCU	5	Narrative	6 (6)	130	95
Total Organic Carbon	mg/L	0.5	**	1.4	18	16
Turbidity	NTU	0.1	Narrative	0.8	0.3	0.5
Conductance (RCap)	us/cm	1	**	73	37	66
pH	units	-	6.5-9.0	5.97	5.07	4.84
Hardness (as CaCO3)	mg/L	0.1	**	10	8	11
Bicarbonate (as CaCO3)	mg/L	1	**	<1	<1	<1
Carbonate (as CaCO3)	mg/L	1	**	<1	<1	<1
TDS	mg/L	1	**	36	18	30
Cation Sum	meq/L	0.10	**	0.600	0.410	0.590
Anion Sum	meq/L	0.10	**	0.570	0.190	0.400
Ion Balance	%	-	**	2.56	36.7	19.2
Langelier Index (4C)	units	-	**	NC	NC	NC
Langelier Index (20C)	units	-	**	NC	NC	NC
Saturation pH @ 4C	units	-	**	NC	NC	NC
Saturation pH @ 20C	units	-	**	NC	NC	NC
Total Suspended Solids	mg/L	1	Narrative (Note 2)	1	<1	1
Carbonaceous BOD	mg/L	2	**	<5	<5	<5 (<5)
COD	mg/L	5	**	<5	59 (61)	68
METALS						
Aluminum	mg/L	0.01	0.005-0.1 (Note 3)	0.0728	0.373	0.351
Antimony	mg/L	0.002	**	<0.002	<0.002	<0.002
Arsenic	mg/L	0.002	0.005	<0.002	0.0154	0.0089
Barium	mg/L	0.005	**	0.0066	<0.005	0.0057
Beryllium	mg/L	0.002	**	<0.002	<0.002	<0.002
Bismuth	mg/L	0.002	**	<0.002	<0.002	<0.002
Boron	mg/L	0.005	**	0.0057	0.0061	0.0064
Cadmium	mg/L	0.000017	Note 4	0.000385	0.000020	0.000528
Chromium	mg/L	0.002	Note 5	<0.002	<0.002	<0.002
Cobalt	mg/L	0.0004	**	<0.0004	0.0004	0.00052
Copper	mg/L	0.002	0.002-0.004 (Note 6)	<0.002	<0.002	0.0035
Iron	mg/L	0.05	0.3	0.053	0.623	0.494
Lead	mg/L	0.0005	0.001-0.007 (Note 7)	<0.0005	0.00059	0.00075
Manganese	mg/L	0.002	**	0.0359	0.0683	0.107
Mercury	mg/L	0.00005	0.000026	<0.00001	<0.00001	<0.00001
Molybdenum	mg/L	0.002	0.073	<0.002	<0.002	<0.002
Nickel	mg/L	0.002	0.025-0.15 (Note 8)	<0.002	<0.002	<0.002
Selenium	mg/L	0.001	0.001	<0.001	<0.001	<0.001
Silver	mg/L	0.0005	0.0001	<0.0001	<0.0001	<0.0001
Strontium	mg/L	0.005	**	0.0111	0.0113	0.0195
Thallium	mg/L	0.0001	0.0008	<0.0001	<0.0001	<0.0001
Tin	mg/L	0.002	**	<0.002	<0.002	<0.002
Titanium	mg/L	0.002	**	<0.002	0.0041	0.0034
Uranium	mg/L	0.0001	**	<0.0001	<0.0001	<0.0001
Vanadium	mg/L	0.002	**	<0.002	<0.002	<0.002
Zinc	mg/L	0.005	0.03	0.0593	0.007	0.0176

CFWAL - Canadian Water Quality Guidelines for the Protection of Aquatic Life - Freshwater

Canadian Environmental Quality Guidelines (CCME, September 2007 Update)

** No applicable guideline established

Highlight - denotes CFWAL exceedance

F/D - Field duplicate

LD - Laboratory duplicate

(<0.05) - denotes laboratory duplicate

EQL - Estimated Quantation Limit

NC - Non-calculable

Notes 1-8 - see Legend Notes; Surface Water Chemistry

* AMEC, 2006. Petrochemicals and Liquefied Natural Gas Facility Environmental Assessment (Final Report).

Table 2 - Surface Water Sampling

Parameter	UNITS	EQL	CFWALG	Bettys Brook * Apr-05	Crusher Brook * Apr-05
GENERAL CHEMISTRY					
Sodium	mg/L	0.1	**	4.8	5.7
Potassium	mg/L	0.1	**	0.4	0.5
Calcium	mg/L	0.1	**	1.3	2.3
Magnesium	mg/L	0.1	**	0.4	0.6
Alkalinity as (CaCO3)	mg/L	5	**	<5	8.6
Sulfate	mg/L	2	**	15	<2
Chloride	mg/L	1	**	6.3	7.8
Reactive Silica	mg/L	0.5	**	4.4	5.5
Ortho Phosphate (as P)	mg/L	0.01	**	<0.01	<0.01
Phosphorus	mg/L	0.1	**	<0.2	<0.2
Nitrate+Nitrite (as N)	mg/L	0.05	**	<0.05	0.06
Nitrate (as N)	mg/L	0.05	13	<0.05	0.06
Nitrite	mg/L	0.01	0.06	<0.01	<0.01
Ammonia (as N)	mg/L	0.05	1.37-2.2 (Note 1)	<0.05	0.05
Colour	TCU	5	Narrative	39	34
Total Organic Carbon	mg/L	0.5	**	6.2	6.4
Turbidity	NTU	0.1	Narrative	0.4	1.6
Conductance (RCap)	us/cm	1	**	36	57
pH	units	-	6.5-9.0	5.77	7.15
Hardness (as CaCO3)	mg/L	0.1	**	5	8
Bicarbonate (as CaCO3)	mg/L	1	**	<1	9
Carbonate (as CaCO3)	mg/L	1	**	<1	<1
TDS	mg/L	1	**	32.3	28
Cation Sum	meq/L	0.10	**	0.324	0.433
Anion Sum	meq/L	0.10	**	0.48	0.395
Ion Balance	%	-	**	19.5	4.53
Langelier Index (4C)	units	-	**	NC	-3.12
Langelier Index (20C)	units	-	**	NC	-2.87
Saturation pH @ 4C	units	-	**	NC	10.3
Saturation pH @ 20C	units	-	**	NC	10
Total Suspended Solids	mg/L	1	Narrative (Note 2)	-	-
Carbonaceous BOD	mg/L	2	**	-	-
COD	mg/L	5	**	-	-
METALS					
Aluminum	mg/L	0.01	0.005-0.1 (Note 3)	0.150	0.150
Antimony	mg/L	0.002	**	<0.002	<0.002
Arsenic	mg/L	0.002	0.005	<0.002	<0.002
Barium	mg/L	0.005	**	<0.005	<0.005
Beryllium	mg/L	0.002	**	<0.002	<0.002
Bismuth	mg/L	0.002	**	<0.002	<0.002
Boron	mg/L	0.005	**	<0.005	<0.005
Cadmium	mg/L	0.000017	Note 4	<0.0003	<0.0003
Chromium	mg/L	0.002	Note 5	<0.002	<0.002
Cobalt	mg/L	0.0004	**	<0.001	<0.001
Copper	mg/L	0.002	0.002-0.004 (Note 6)	<0.002	<0.002
Iron	mg/L	0.05	0.3	0.100	0.23
Lead	mg/L	0.0005	0.001-0.007 (Note 7)	<0.0005	0.0007
Manganese	mg/L	0.002	**	0.0087	0.016
Mercury	mg/L	0.00005	0.000026	-	-
Molybdenum	mg/L	0.002	0.073	<0.002	<0.002
Nickel	mg/L	0.002	0.025-0.15 (Note 8)	<0.002	<0.002
Selenium	mg/L	0.001	0.001	<0.002	<0.002
Silver	mg/L	0.0005	0.0001	<0.0005	<0.0005
Strontium	mg/L	0.005	**	0.0081	0.0140
Thallium	mg/L	0.0001	0.0008	<0.0001	<0.0001
Tin	mg/L	0.002	**	<0.002	<0.002
Titanium	mg/L	0.002	**	<0.002	<0.002
Uranium	mg/L	0.0001	**	<0.0001	<0.0001
Vanadium	mg/L	0.002	**	<0.002	<0.002
Zinc	mg/L	0.005	0.03	0.0059	0.0076

CFWAL - Canadian Water Quality Guidelines for the Protection of Aquatic Life - Freshwater
 Canadian Environmental Quality Guidelines (CCME, September 2007 Update)

** No applicable guideline established
Highly bold - denotes CFWAL exceedance
 F/D - Field duplicate
 LD - Laboratory duplicate
 (<0.05) - denotes laboratory duplicate
 EQL - Estimated Quantitation Limit
 NC - Non-calculable
 Notes 1-8 - see Legend Notes; Surface Water Chemistry
 * AMEC, 2006. Petrochemicals and Liquefied Natural Gas Facility Environmental Assessment (Final Report).