

Chesterfield Inlet Monitoring Stations and Sampling Parameters for Licence # 3BM-CHE1013

Part D, Item 3: CHE-4 Effluent Quality Limits

Parameter	Maximum Concentration	Results
BOD	80mg/L	<6.0
Total Suspended Solids	100mg/L	<5.0
Fecal Coliforms	1×10^4 CFU/100mL	7
Oil and Grease	no visible sheen	<2.0
pH	between 6 and 9	7.73

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Parameters	Units	DL	CHE-2	CHE-3		CHE-4	
			14-Jul-25	14-Jul-25	CCME ¹ Guideline	14-Jul-25	CCME ¹ Guideline
Ammonia Nitrogen	mg/L	1	no water	88	4.84	0.026	4.84
BOD ₅	mg/L	6	no water	287	n/g	<6.0	n/g
Calcium	mg/L	0.1	no water	10.7	n/g	12.2	n/g
Chloride	mg/L	0.5	no water	72.4	120	45.2	120mg/l
Conductivity	umhos/cm	20	no water	1130	n/g	278	n/g
Fecal Coliforms	MPN/100mL	3	no water	>110000	n/g	7	n/g
Magnesium	mg/L	0.01	no water	4.66	n/g	3.95	n/g
Nitrate-Nitrite	mg/L	0.071	no water	<0.071	n/g	<0.071	n/g
Oil and grease	mg/L	2	no water	50.3	n/g	<2.0	n/g
pH	pH units	0.1	no water	7.81	6.5-9	7.73	6.5-9
Potassium	mg/L	0.02	no water	30.6	n/g	3.04	n/g
Sodium	mg/L	0.05	no water	54.6	n/g	32.3	n/g
Sulphate	mg/L	0.5	no water	21.2	n/g	13.3	n/g
Total Alkalinity	mg/L	20	no water	375	n/g	50	n/g
Total Aluminum	mg/L	0.005	no water	0.547	0.1	0.0329	0.1
Total Arsenic	mg/L	0.0002	no water	0.001	0.005	0.00042	0.005
Total Cadmium	mg/L	0.00001	no water	0.000256	0.00013	<0.000010	0.00013
Total Chromium	mg/L	0.001	no water	0.0018	0.0001	<0.0010	0.0001
Total Cobalt	mg/L	0.0002	no water	0.00071	n/g	<0.00020	n/g
Total copper	mg/L	0.0002	no water	0.138	n/g	0.00722	n.g
Total Hardness	mg/L	0.3	no water	46	n/g	46.8	n/g
Total Iron	mg/L	0.1	no water	0.94	0.3	0.12	0.3
Total Lead	mg/L	0.00009	no water	0.00387	0.001	<0.000090	0.001
Total Manganese	mg/L	0.0003	no water	0.0473	n/g	0.00284	n/g
Total Nickel	mg/L	0.002	no water	0.0046	0.025	0.003	0.025
Total Phenols	mg/L	0.001	no water	0.124	0.004	<0.0010	0.004
Total Suspended Solids	mg/L	5	no water	90	n/g	<5.0	n/g
Total Zinc	mg/L	0.002	no water	0.23	n/g	0.0023	n/g

¹Canadian Environmental Quality Guidelines - Water Quality Guidelines for the Protection of Aquatic Life