March 31, 2001

Environment Canada
Prairie and Northern Region
123 Main Street, Suite 150
Winnipeg, Manitoba
R3C 4W2

Attn: Brock Goalen

Re: Eureka Surveillance Network Program 2000

In accordance with the requirements of Water License NWB4EUR9904, issued by the Nunavut Water Board on March 29, 1999, please find attached the results of the Surveillance Network Program (SNP). The SNP required the collection of samples from three locations at the Eureka Weather Station. The locations and results are outlined below.

EUR-1 Raw water supply prior to treatment

One water sample was collected from the water reservoir on August 4, 2000. This sample was analyzed by Analytical Services Laboratory in Vancouver, British Columbia, for nitrate, nitrite and the BTEX parameters. The analytical results are located in Appendix A. The results are summarized in Table 1.

Table 1: EUR-1 Analytical Results

Parameter	Reservoir
Benzene (mg/L)	<0.0005
Toluene (mg/L)	<0.0005
Ethylbenzene (mg/L)	<0.0005
Xylene (mg/L)	<0.0005
Nitrate (mg/L)	0.018
Nitrite (mg/L)	0.003

EUR-2 Runoff from the Solid Waste Disposal Facilities

The runoff from this location was to be sampled annually during periods of flow. Logistical difficulties were experienced in transporting sample bottles to the site. By the time the bottles arrived in Eureka, the runoff period had ended. No samples were collected at this location in 2000.

To prevent this from occurring again, sample bottles are being sent to the site in April 2001.

EUR-3 Runoff discharge from the Sewage Lagoon, just prior to entering the ocean

The annual discharge from the Sewage Lagoon occurred on August 21-22, 2000. The estimated volume of water discharged was 1325 m^3. Samples were collected at the beginning (EWW-1) and end (EWW-2) of the discharge period. They were sent to Enviro-Test Laboratories in Edmonton, Alberta, for analysis. The analytical results are summarized in Appendix A. The results are summarized in Table 2.

Table 2: EUR-3 Analytical Results

Parameter	Nunavut Guidelines[1]	EWW-1	EWW-2
BOD (mg/L)	100	52	56
pH	6-9	9.1	9.2
Total Suspended Solids (mg/L)	120	108	1120
Nitrate-Nitrite (mg/L)	--	<0.1	<0.1
Total Phenols (mg/L)	--	0.017	0.028
Sodium (mg/L)	--	274	260
Magnesium (mg/L)	--	45.8	45.4
Total Silver (mg/L)	0.1	<0.005	<0.005
Faecal Coliform (CFU/100ml)	--	460	520
Conductivity (uS/cm)	--	1810	1850
Ammonia Nitrogen (mg/L)	--	4.48	4.48
Oil and Grease (visual)	No visible sheen	No sheen	No sheen
Sulphate (mg/L)		215	217
Potassium (mg/L)	--	23.1	23.7
Calcium (mg/L)	--	56.5	53.1

[1] As outlined in the water license

Both the collected samples marginally exceeded the Nunavut water license requirements for pH. In addition, the sample collected at the end of the discharge

had a total suspended solids concentration of 1120 mg/L. The elevated total suspended solids may have been caused by a disturbance to the bottom of the lagoon during discharge. It is not believed to be representative of the discharge quality.

Should you require any additional information regarding the 2000 SNP, please do not hesitate to contact me at 780-497-3839.

Sincerely,

Giselle Cotta
Environmental Engineer
Environmental Services

Appendix A:

Analytical Results