

November 12, 1987

Ms. Diane Granger  
Chairperson  
Yukon Territory Water Board  
302-4114 Fourth Avenue  
Whitehorse, Yukon Y1A 4N7

Dear Ms. Granger:

Recent results of cyanide analyses from site X5, the Cross Valley Dam decant, indicate that our effluent is approaching and sometimes exceeding Curragh's Water Licence standard of 0.05 mg/L total cyanide. Bio-assay results from this same site, however, showed 100 % survival of fish in effluent.

We discussed this matter with Gerry Whitley of Water Resources and he made arrangements for his department to obtain samples, as cyanide analytical results tend to be unreliable. Water Resources and Curragh technicians sampled at several points concurrently and the samples have been submitted to three different laboratories for analysis.

We are taking the following additional steps to determine the extent of the problem and to rectify it:

1. Do monthly bio-assay tests (through B.C. Research) at X5 while analyses show that we are exceeding our standard for cyanide, or while we suspect that we may be exceeding the standard (because there is a time lag of several weeks between sampling and receipt of the results). We feel that this is a more reliable measure of concentration of cyanide in toxic forms than total cyanide analyses.
2. Cut back on cyanide use in the milling process as much as possible.
3. Conduct tests in the mill to assess different methods of treatment for cyanide destruction. We are consulting with Environment Canada and with Water Resources on this matter. We are considering treatment on a contingency basis only, as natural destruction in the tailings ponds is the best treatment and increased residence time in the ponds will increase their effectiveness.

For your reference, I have enclosed a listing of cyanide analytical results at three sites (X9: Tailings Line, X4: Decant from the Intermediate Dam and X5: Decant from the Cross Valley Dam) from November, 1986 to October, 1987, along with graphs of these values against time.

Yours truly,  
CURRAGH RESOURCES INC.

Joan Eamer  
Supervisor of Environmental Relations

cc: Jim Moore  
General Manager, Faro

Gerry Whitley  
Water Resources, Whitehorse

## TOTAL CYANIDE (mg/L), X5, X4 AND X9

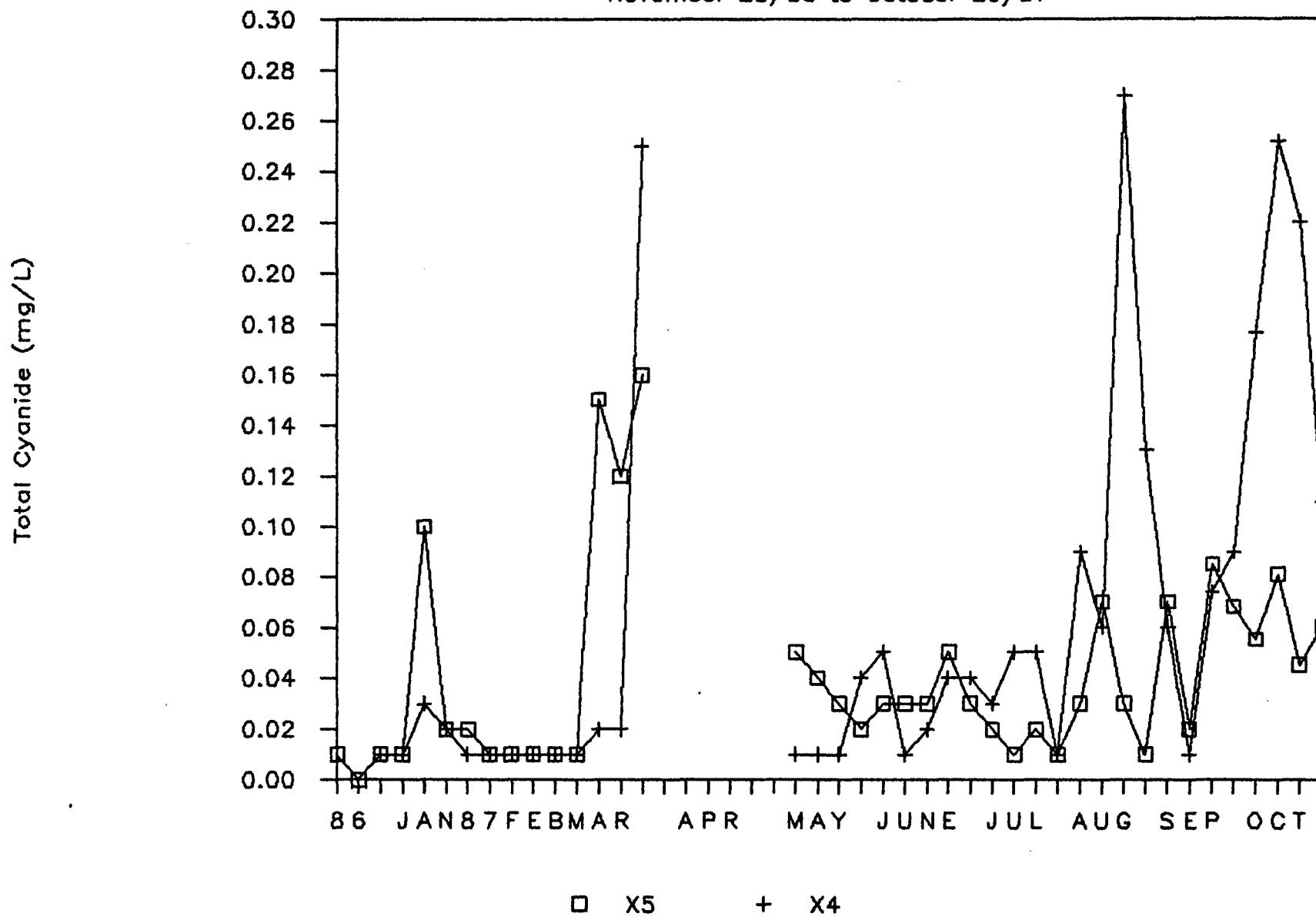
CURRAGH RESOURCES INC.

Year	Month	Day	CN-X5	CN-X4	CN-X9
86	11	28	-0.01		0.06
86	12	10			0.070
86	12	31	-0.010	-0.010	-0.010
87	1	7	-0.010	-0.010	-0.010
87	1	15	0.100	0.030	0.900
87	1	20	0.020	0.020	0.050
87	1	28	0.020	0.010	0.050
87	2	3	-0.010	-0.010	-0.010
87	2	10	-0.010	-0.010	-0.010
87	2	17	0.010	0.010	0.030
87	2	24	-0.010	-0.010	0.050
87	3	3	-0.010	-0.010	-0.010
87	3	10	0.150	0.020	0.630
87	3	17	0.120	0.020	0.160
87	3	24	0.160	0.250	0.320
87	5	5	0.050	0.010	0.010
87	5	12	0.040	-0.010	0.070
87	5	19	0.030	-0.010	0.010
87	5	26	0.020	0.040	0.090
87	6	4	0.030	0.050	0.030
87	6	11	0.030	0.010	0.160
87	6	16	0.030	0.020	0.550
87	6	26	0.050	0.040	0.220
87	6	30	0.030	0.040	0.270
87	7	6	0.020	0.030	0.330
87	7	13	-0.010	0.050	0.130
87	7	20	0.020	0.050	0.060
87	7	28	0.010	0.010	0.210
87	8	4	0.030	0.090	0.050
87	8	11	0.070	0.060	1.680
87	8	18	0.030	0.270	0.008
87	8	25	0.010	0.130	0.210
87	9	1	0.070	0.060	0.040
87	9	8	0.020	0.010	0.970
87	9	15	0.085	0.074	0.086
87	9	24	0.068	0.090	0.947
87	10	2	0.055	0.177	0.109
87	10	6	0.081	0.252	2.680
87	10	13	0.045	0.220	0.310
87	10	20	0.060	0.110	2.060

- denotes less than

# Total Cyanide, Sites X4 and X5

November 28/86 to October 20/87



# Total Cyanide, Site X9

November 1986 to October 1987

