

1101

AN ORDER OF THE CLEAN ENVIRONMENT COMMISSION
UNDER THE CLEAN ENVIRONMENT ACT

820,20

RE: THE CLEAN ENVIRONMENT COMMISSION and SHERRGOLD INC., Applicant,

WHEREAS pursuant to the provisions of The Clean Environment Act, Sherritt Gordon Mines Limited filed a proposal on behalf of SherrGold Inc. in connection with the operation of a mill for the processing of gold-bearing ore by a cyanidization process, the said mill being located in Township 90, Range 23 WPM Lease No. M2215 to 2539, inclusive, Lot 63, Group Plan 751 in or near the Local Government District of Lynn Lake, Manitoba, with discharge of tailings material to the Farley open pit at Lynn Lake and with discharge of liquid effluent via the tailings discharge area and the abandoned underground workings of the Farley mine to the Lynn River;

AND WHEREAS in the absence of limits, terms and conditions prescribed by a regulation under the said Act, the proposal was referred to The Clean Environment Commission to prescribe limits, terms and conditions;

AND WHEREAS after giving notice of the proposal and receiving notices of representation from persons who were likely to be affected, the Commission held a hearing in Lynn Lake, Manitoba on the 4th and 5th days of June, 1986;

AND WHEREAS the Commission considered the proposal on the 23th day of July, 1986;

IT IS HEREBY ORDERED THAT

1. The Applicant shall ensure that all process wastewater from the said mill, and surface runoff waters collected in the Farley and North wastewater ponds, which may be discharged to a surface waterway outside of the said mill site operational area, are discharged only through the designated final discharge point.

2. The Applicant shall not discharge effluent from the final discharge point where:

- (a) the concentrations of the following contaminants in the effluent are in excess of the corresponding maximum concentrations shown for those categories listed under Columns I, II, and III of the following table:

Substance	Column I	Column II	Column III
	Maximum Monthly Arithmetic Mean Concentration	Maximum Concentration In a Composite Sample	Maximum Concentration In a Grab Sample
(i) Total Arsenic	0.5 mg/L	0.75 mg/L	1.0 mg/L
(ii) Total Copper	0.3 mg/L	0.45 mg/L	0.6 mg/L
(iii) Total Lead	0.07 mg/L	0.09 mg/L	0.12 mg/L
(iv) Total Nickel	0.5 mg/L	0.75 mg/L	1.0 mg/L
(v) Total Zinc	0.5 mg/L	0.75 mg/L	1.0 mg/L
(vi) Total Silver	0.02 mg/L	0.03 mg/L	0.04 mg/L
(vii) Free Cyanide	0.67 mg/L	1.00 mg/L	1.35 mg/L
(viii) Total Cyanide	1.5 mg/L	2.25 mg/L	3.0 mg/L
(ix) Total Suspended Matter	25.0 mg/L	37.5 mg/L	50.0 mg/L

- (b) the pH of the effluent is below the minimum values shown for those categories listed under Columns I, II and III of the following table:

Parameter	Minimum Monthly Arithmetic Mean pH	Minimum pH In A Composite Sample	Minimum pH In A Grab Sample
pH	6.0	5.5	5.0

3. Subject to clause 4, the Applicant shall sample and analyze the effluent at the final discharge point:

- (a) for the following substances at no less frequency than is specified in the table below where the applicability of Columns I, II, III and IV for each substance listed shall be determined on the basis of the arithmetic mean concentration of that substance in the samples of effluent collected and reported in those preceding six months during which effluent discharge occurred:

3. (a) (continued)				
	Column I	Column II	Column III	Column IV
Substance	At Least Weekly If Concentration Is Equal To Or Greater Than	At Least Every Two Weeks If Concentration Is Equal To Or Greater Than	At Least Monthly If Concentration Is Equal To Or Greater Than	At Least Every six Months If Concentration Is Less Than
(i) Total Arsenic	0.5 mg/L	0.2 mg/L	0.1 mg/L	0.1 mg/L
(ii) Total Copper	0.3 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L
(iii) Total Lead	0.07 mg/L	0.04 mg/L	0.02 mg/L	0.02 mg/L
(iv) Total Nickel	0.5 mg/L	0.2 mg/L	0.1 mg/L	0.1 mg/L
(v) Total Zinc	0.5 mg/L	0.2 mg/L	0.1 mg/L	0.1 mg/L
(iv) Total Silver	0.02 mg/L	0.01 mg/L		0.01 mg/L
(vii) Free Cyanide	0.67 mg/L	0.34 mg/L	0.17 mg/L	0.17 mg/L
(viii) Total Cyanide	1.50 mg/L	0.75 mg/L	0.37 mg/L	0.37 mg/L
(vi) Total Suspended Matter	25.0 mg/L	20.0 mg/L	15.0 mg/L	15.0 mg/L

(b) not less frequently than as specified in the following criteria:

(i) once a week where the pH of the effluent was less than 5.0 at any time in those preceding six months during which effluent discharge occurred;

(ii) once every two weeks where the pH of the effluent was between 5.0 and 5.5 at any time in those preceding six months during which effluent discharge occurred;

(iii) once a month if (i) and (ii) do not apply.

4. The Applicant shall sample and analyse the effluent from the said operation at the final discharge point in such a manner and for such additional parameters and characteristics and at such frequency and for such duration of time as is specified from time to time in writing by the Commission.

5. The Applicant shall determine the volume of effluent discharged monthly from the final discharge point by a method of measurement or estimation acceptable to the Environmental Management Division.

6. The Applicant shall submit the analysis and measurement data determined in accordance with clauses 3, 4 and 5, to reach the Environmental Management Division, in a form acceptable to the Division, not later than 30 days following the end of the month in which the samples and measurements were taken.
7. The Applicant shall, at the request of the Commission, from time to time investigate the effectiveness of, or specific areas of concern regarding, any segment or component of the solid waste and wastewater treatment, handling and disposal systems of the said operation and provide the Commission with such engineering studies, drawings, specifications, analyses of wastewater streams and such other information as is so requested.
8. On or before the 31st day of December, 1987, the Applicant shall submit to the Commission a detailed contingency plan for the treatment of cyanide-contaminated wastewater from the said operation outlining the type of supplemental treatment being proposed to reduced the cyanide content of the effluent if the trends in wastewater pre-release analysis results indicate that the final effluent will not comply with the limit prescribed in 2 (a) (vii) and (viii), the said contingency plan to contain conceptual drawings of the contingency treatment scheme, an estimation of the time it would take to implement the plan once its necessity was forecast, and an identification of the criteria and approach to be employed in forecasting the requirement and appropriate timing for implementing the contingency plan such that continuity of compliance with the cyanide limits will not be disrupted.
9. With the exception of waste rock and tailings solids, the Applicant shall dispose of solid waste or bulky metallic waste, as defined in regulations issued pursuant to the said Act, in accordance with the provisions of such regulations and shall not dispose of such waste in any area other than a waste disposal ground designated and registered for that purpose.
10. With regard to the rehabilitation of the site of the said operation, the Applicant shall on or before the 1st day of August, 1987, file with the Commission a preliminary rehabilitation plan with respect to the eventual closure and abandonment of the mill site operational area, to include:

10. (a) the eventual orderly removal and disposal of all structures, their contents and all other accumulated material, except tailings, on the site of the said operations;
 - (b) the Steps to be taken to rehabilitate the said site progressively at the termination of the said operation, giving due consideration to safety, aesthetic aspects and the enhancement of the environment;
 - (c) the containment, treatment, and/or preventative measures proposed for dealing with the long term potential of the contamination of any surface waterway by way of contaminants emanating from the mill site operation area in the post abandonment period;
11. The preliminary rehabilitation plan outlined in Clause 10 shall be subject to the consideration, possible amendment and approval, or otherwise, by the Commission.
 12. The Applicant shall in the event of an imminent cessation of the said operation forthwith file with the Commission a firm and detailed rehabilitation plan, to replace the preliminary rehabilitation plan, for the consideration, possible amendment, and approval, or otherwise by the Commission.
 13. The Applicant shall upon the termination of the said operation, take all steps necessary to carry out the approved detailed rehabilitation plan within a time frame specified by the Commission.
 14. In this Order:
 - (a) "final discharge point" means the overflow weir on the westerly dike of the south pond (as shown on Appendix "A") or such alternative or additional points as may be designated, in writing, by the Commission;

14. (b) "mill site operational area" includes the reactivated mill site and associated engineering offices, the Farley and "A" Mine headframes, the open pit, the south, north and Farley ponds, and all properties lying between these landmarks;
- (c) "monthly arithmetic mean" for each substance means the average value of the concentrations determined for each substance in all the composite and grab samples collected and reported during a specific month, with the exception that, if the Applicant collects only one composite or grab sample during the month, the single set of analysis results shall be construed as being representative of the effluent quality for that month and shall be treated as the monthly arithmetic mean.
- (d) "composite sample" means a quantity of effluent consisting of a minimum of three equal volumes of effluent collected at approximately equal time intervals over a sampling period of not less than seven hours and not more than 24 hours, or consisting of effluent collected continuously at an equal rate over a sampling period of not less than seven hours and not more than 24 hours.

Order No. 1101

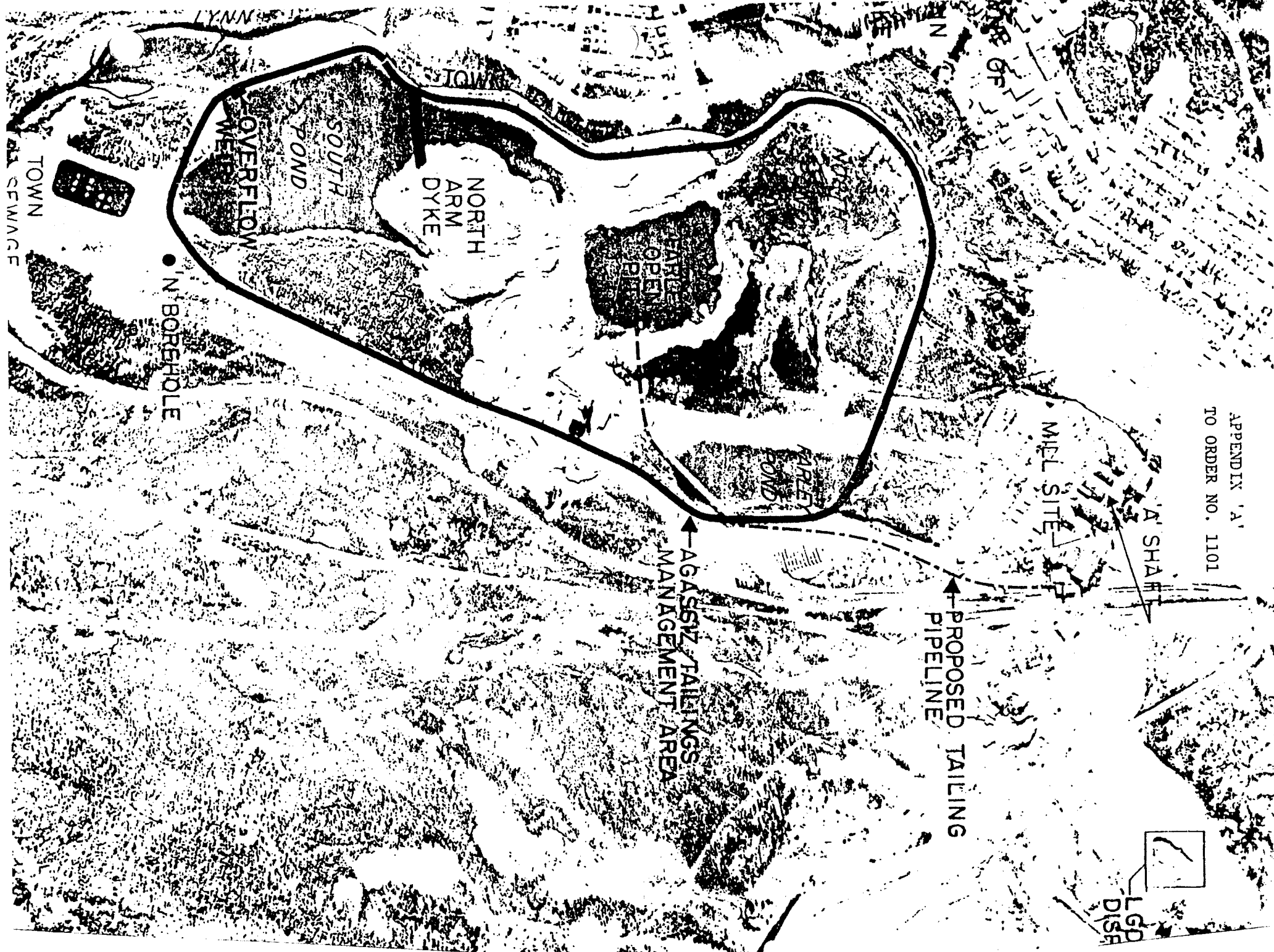
Dated at the City of Winnipeg

this 29th day of July, 1986.


Chairman,
The Clean Environment Commission.

File: 1822.2

APPENDIX 'A'
TO ORDER NO. 1101



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