

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

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 with the department in connection with the operation of a gold mine located in Township 91, Range 22 WPM Claim J.R. Lot 1718, Group Plan 571 in the Granville Mining Division in the Pas Mining District in northern Manitoba, with discharge of minewater and sewage plant effluent via a surface polishing pond and a marshy area to the Keewatin 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 the Commission received notices of representation from persons likely to be affected and held a hearing in Lynn Lake on the 11th and 12th days of June, 1986, to receive evidence and representations;

AND WHEREAS the Commission considered the proposal on the 25th day of June, 1986;

IT IS HEREBY ORDERED THAT

1. The Applicant shall direct all liquid effluent consisting of minewater, treated sewage effluent and mine site surface drainage (excluding waste rock pile runoff) towards and through the surface polishing pond.
2. The Applicant shall not discharge effluent from the final discharge point where:
 - (a) the concentrations of the following contaminants are in excess of the corresponding maximum concentrations shown for those categories listed under Columns I, II, and III of the following table:

2. (a) (continued)

Contaminant	<u>Column I</u>	<u>Column II</u>	<u>Column III</u>
	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	0.2 mg/L	0.3 mg/L	0.4 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
(vii) 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	<u>Column I</u>	<u>Column II</u>	<u>Column III</u>
	Minimum Monthly Arithmetic Mean	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 a frequency than is specified in the following table where the applicability of Columns I, II, III and IV for each substance listed shall be determined on the basis of the arithmetical mean concentration of that substance in the samples of effluent collected and reported in those preceding six months during which effluent discharge occurred:

Substance	Column I	Column II	Column III	Column IV
	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	0.10 mg/L	0.10 mg/L
(ii) Total Copper	0.3 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L
(iii) Total Lead	0.2 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L
(iv) Total Nickel	0.5 mg/L	0.2 mg/L	0.10 mg/L	0.10 mg/L
(v) Total Zinc	0.5 mg/L	0.2 mg/L	0.10 mg/L	0.10 mg/L
(vi) Total Suspended Matter	25.0 mg/L	20.0 mg/L	15.0 mg/L	15.0 mg/L

(b) for pH 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 analyze 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 2, 3, 4 and 5, in a form acceptable to the said Division to reach the Division not later than 30 days following the end of the month in which the measurements or samples 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. With the exception of waste rock, the Applicant shall dispose of all solid waste and bulky metallic waste, as defined in regulations issued under 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 registered for that purpose.
9. The Applicant shall, with respect to the rehabilitation of the site of the said operation:
 - (a) on or before the 1st day of August, 1987, file with the Commission a preliminary rehabilitation plan dealing with the eventual orderly removal and disposal of all structures, their contents and other accumulated materials on the site, the steps to be taken to rehabilitate the said site progressively and at the termination of the said operation in line with safety, aesthetic considerations and the enhancement of the environment, which preliminary rehabilitation plan shall be subject to consideration, possible amendment and approval, or otherwise, by the Commission;
 - (b) in the event of the imminent cessation of the said operation, forthwith file with the Commission a firm and detailed rehabilitation plan, to replace the plan filed under (a), for consideration, possible amendment and approval, or otherwise;
 - (c) upon termination of the said operation, take all steps necessary to carry out the approved detailed rehabilitation plan within the period of time specified by the Commission.

10. In this Order:

- (a) "final discharge point" means the outfall of the discharge pipe from the westerly all of the surface polishing pond installed on the site of the said operation, or such alternative or additional points as are designated in writing from time to time by the Commission;
- (b) "monthly arithmetic mean" means, for each substance, the average of all concentrations of the substance determined from the analysis of all composite and grab samples collected and reported during that month with the exception that, if the Applicant collects only one composite or grab sample during a month, the single set of analytical results shall be construed to be representative of the effluent quality for that month and hence shall be treated as the monthly arithmetic mean;
- (c) "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 7 hours and not more than 24 hours.

Order No. 1098

Dated at the City of Winnipeg

this 22th day of July, 1986.
Chairman,
The Clean Environment Commission.

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