

ROYAL OAK MINES Inc.

Yellowknife Division
Giant Mine

To: L. Connell

CC: G. Halverson

From: P. O'Hara

Subject: Acid Consumption Testwork On Mill Tails

Date: February 10, 1992

On December 9, 1991 a sample of mill tailings was collected and a 2 litre sample was split out for the test. The initial pH was recorded and then the pH was lowered to 7 using 0.1 M sulphuric acid. The sample was agitated overnight and the next day the pH was again recorded then lowered to 7. This process was to continue until equilibrium was reached. Due to the slow time to reach equilibrium the pH was lowered to 6 beginning on the 10th day. The test was stopped after 22 days with the pH being lowered to 6 and returning to the 7.8 range overnight. The results are summarized below:

Day	Initial pH	Sulphuric acid added (mls)	Final pH
0	8.90	96.8	7.00
1	8.00	36.5	7.00
2	7.85	27.2	7.00
3	7.65	19.9	7.00
4	7.85	22.0	7.00
7	8.10	21.1	7.00
8	8.00	24.8	7.00
9	7.85	16.7	7.00
10	7.75	128.3	6.25
11	8.00	172.8	6.10
14	7.35	88.1	6.00
15	7.70	41.4	6.00
18	7.70	49.6	6.10
21	7.75	41.2	6.10
22	7.80	49.8	6.15

Total = 836.2 mls

Weight of solids = 390 grams