



FALCONBRIDGE

*Giant yellow.
General*

Memorandum

Date: July 27, 1984

To: D.J. Emery

Copies to:

From: P.J. Raleigh

Subject: Heap Leaching

As a follow-up to our conversation on the subject, the ADM (Acres, Davey McKee Group) provided me with some very interesting concepts and estimates for a heap leaching plant that would be capable of handling 1,000 t/d of gold ore. The plant is capable of the 1,000 t/d on a year round basis as it is based on covered leach piles. The information is based on a study done for a proposed custom leaching operation based in Val D'Or but is suitable for Giant, Culliton Lake or Lupin; anywhere there is a gold mill operating.

The concept assumes that a gold recovery circuit such as at Giant is available. The need for crushing capacity to reduce incoming ore to -1/2" is also indicated. The waste material is ideal for dyke construction material in existing ponds.

Current thinking in Val D'Or and Culliton are trending to a facility of the type shown as a large percentage of the ore in piles is under leach.

Assumptions are:

Processing	1,000 t/d
Leach time	20 days
Load and Unload	10 days
Recovery generally will be	75%
Cost at Giant	\$3,000,000
Operating cost	\$3.00/ton based on Lac Shortt estimates

If free milling ores were available, the scheme allows for low grade materials to add to the mines revenue at low capital and operating costs.

Labour is limited to one or two people on day shift and casual inspection at other times.

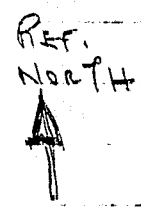
You may find this of interest, if so we can develop further.

PJR/ul
Attachs.

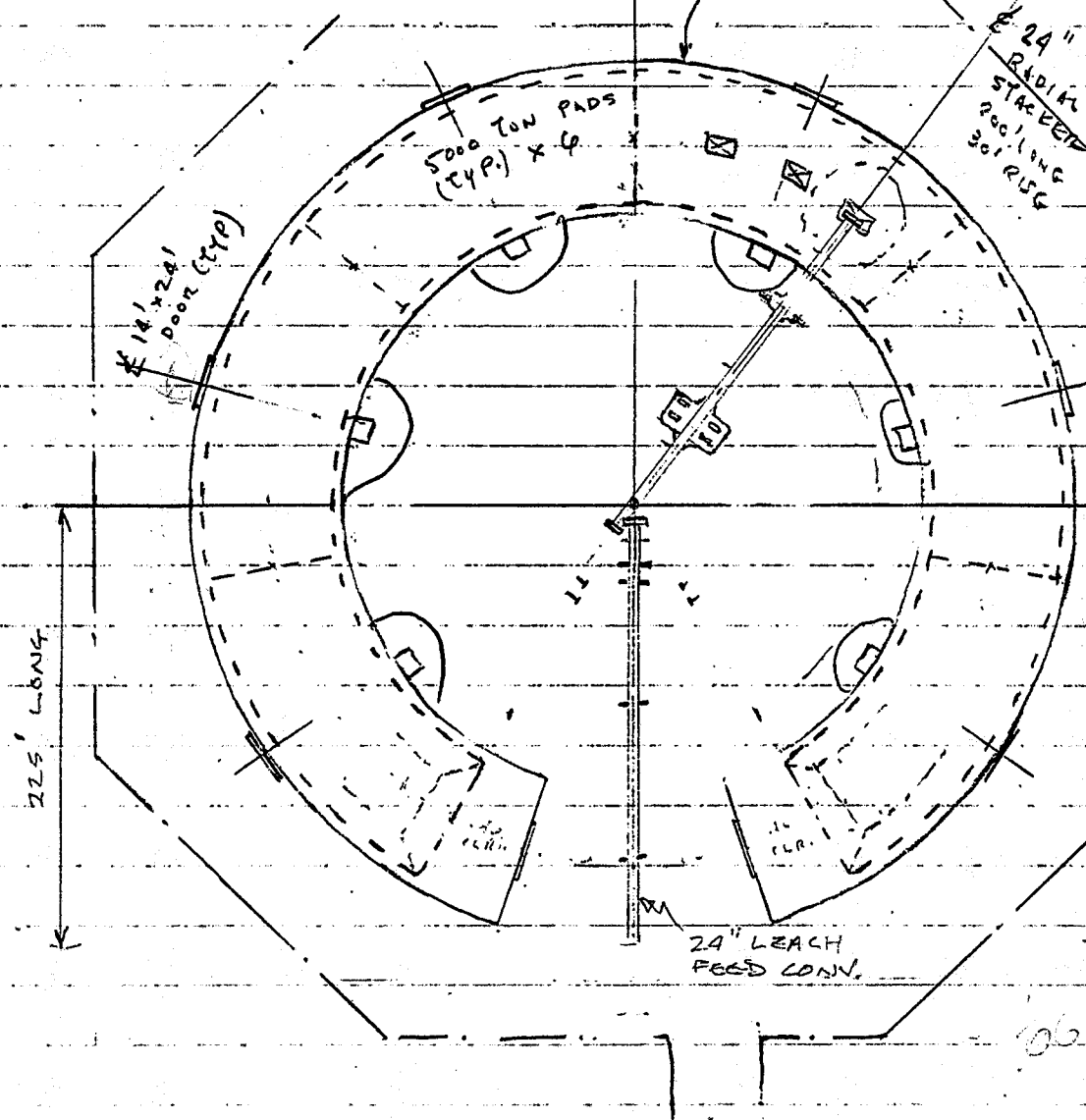
P. J. Raleigh
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PROPOSED HEAP LEACH PLANT - PLAN

July 12/84



QUONSET TYPE BLDG.
 300'-0" I.D., 460'-0" O.D.
 1080'-0" LONG (86,000 sq ft)



24" RADIAL
 STAYED
 300' LONG
 30' RSC

225' LONG

24" LEACH
 FEED CONN.

3
 10
 13
 50
 06

3x10 6 10
 330,000 13
 29 with

75% 30,000 Tons 10207/3 20 day Leach
 10 day in 2nd

7 Cusht

Leach Plant Cost 10.00
 Fuel & Repairs

TOTAL 3.00

Gr. Recovers

PROPOSED

HEAP LEACH PLANT-SECTION

JULY 12 / 84

