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C//MBIOR USA, INC.

GILA
BREWER - S.C.

CARLOTTA - Arizona

M E M O R A N D U M

TO: RICHARD LECLERC, ING.
FROM: MICHAEL M. GUSTIN
DATE: SEPTEMBER 10, 1990
SUBJECT: WESTMONT

Richard:

Michel tells me that the Westmont deal is basically on ice. This is good news. I will hold all the sections, etc., that were mailed to Reno for now.

Although I guess it doesn't matter anymore, I figured I should send you my evaluations of Brewer, the satellites, and Carlotta Copper. I haven't written anything on Mt. Hamilton since I was low man on the geologic totem pole for that visit. I also visited New Pass, and am personally familiar with several other of their exploration properties. The message I get is this is low priority, so I haven't written anything on these properties either.

If you need anything further on this, let me know. Good luck with Omai.



Michael M. Gustin

MMG:lat

CARLOTTA COPPER PROJECT

LOCATION: Miami, Central Arizona, 1 mile west of Magma's Pinto Valley Operation (initial reserves - 750 mt @ 0.44% Cu; sulfide ore).

LAND: There are four copper deposits of interest:

- (1) Carlotta deposit. Lies within 12 fractional unpatented claims leased by Westmont. Lease payments are \$40,000/yr and advance royalty payments are \$36,000/yr. There is a 5% NSR, with a \$3,000,000 cap. The claims are bounded to the west and south by claims owned by Cyprus (which includes the Eder #1 and Eder #2 deposits), and Magma owns claims to the north and east (including the Cactus deposit).
- (2) Cactus deposit. Lies immediately east of, and is probably continuous with, Westmont's Carlotta deposit. Westmont has an agreement with Magma whereby Westmont can backslope from the Carlotta pit onto Magma ground. Westmont can also explore and mine the Cactus deposit; consideration to Magma apparently consists solely of a 5% NPI.
- (3)&(4) Eder #1 and #2. These deposits lie within 6000' southwest of Carlotta, and are controlled by Cyprus. Cyprus has offered the property, consisting of 141 unpatented claims, to Westmont for \$500,000, with no retained interest or royalties. Westmont has countered with an offer of \$250,000 up front and \$250,000 at a later date. Cyprus has yet to respond.

GEOLOGY:

- (1) The Carlotta deposit consists of oxide copper mineralization (primarily chrysocolla + malachite) within (i) the steeply to moderately-dipping Kelly fault; (ii) a structurally disrupted Tertiary sedimentary breccia (landslide deposit) adjacent to the fault; and (iii) in Tertiary tuffs immediately above the mineralized breccia. The most consistent ore occurs along the breccia/tuff contact, with the lowermost portion of the breccia being the next most consistent mineralization. The main body of the breccia between these two zones is somewhat more irregularly mineralized. Grades and thicknesses of ore generally decrease with distance from the Kelly fault.
- (2) The Cactus deposit lies within the same sedimentary breccia as the Carlotta. It is similar in all respects to the Carlotta except for two important factors: approximately 60% of the Cactus ore is sulfide (chalcocite), and much of the overlying tuffs have been eroded away.

- (3) The Eder #1 deposit lies within highly fractured and faulted Precambrian schists close to their contact with the overlying Tertiary tuffs. Mineralization occurs predominantly as oxides along fracture coatings, although copper oxide/total copper ratios decrease with depth in some holes (indicating the presence of sulfide copper).
- (4) The Eder #2 deposit consists of oxide mineralization within a sedimentary breccia close to its contact with overlying Tertiary tuffs.

PRESENT RESERVES:

	<u>Ktons</u>	<u>Cu Grade</u>	<u>Strip (waste/ore)</u>	<u>Contained lbs</u>	<u>Recoverable lbs (90%)</u>
Carlotta	19,600	0.62%	2.5	243,040,000	219,000,000
Cactus	16,700	0.5 %	0.7	167,000,000	??
Eder #1	10,100	0.36%	0.2	72,720,000	65,000,000?
Eder #2	3,120	0.38%	1.5	23,712,000	21,000,000

Cactus and Eder #1 recoverable copper uncertain due to unknown recovery of sulfide ore. Carlotta reserves are Westmont's estimate based on previous floating cone calculations and Spring 1990 drill results. Cactus reserves are from floating cone models of Magma. Eder #1 and #2 reserves are estimated by Westmont in a non-rigorous fashion.

CARLOTTA ECONOMICS: The production costs of a stand-alone Carlotta operation are estimated using the reserves listed above, cost estimates of Westmont, a 10 year mine life, and 90% recovery. The capital cost used is that estimated by Westmont in the Information Memorandum less the cost of pre-stripping 9,000,000 tons (the 2.5:1 strip ratio includes pre-stripping). The mining cost is Westmont's current estimate, which updates that given in the Information Memorandum.

<u>Cost/ton ore</u>		
Strip	2.5:1	
Mining costs	\$0.75/ton	\$2.625
Processing costs		2.500
G&A	\$750,000/yr	0.383
Capital costs	\$25,000,000	<u>1.276</u>
		\$6.784
Refining costs	1.5% net	
Royalties	5% NSR	
Total Cost per pound of Cu recovered		
(at \$1.00/lb Cu) \$0.67		

METALLURGY: Only preliminary metallurgical work has been performed. Bottle roll tests indicate 90% recovery utilizing standard heap leach/solvent-extraction-electrowinning technology. Breccia ore coats fractures within highly fractured rock, so that this recovery appears reasonable. It is possible that breccia ore would require no primary crushing. Ore within the volcanics also coats fractures, but a significant portion has soaked into the matrix and replaces feldspar phenocrysts. This ore would probably require at least primary crushing to obtain 90% recovery. Westmont personnel believe that ore from the Kelly fault would also benefit from primary crushing.

The oxide ore at Cactus occurs within the breccia and along the Kelly fault. These ores should be identical to Carlotta. The recovery of the sulfide ores is uncertain. It may be difficult to segregate the oxide and sulfide ores.

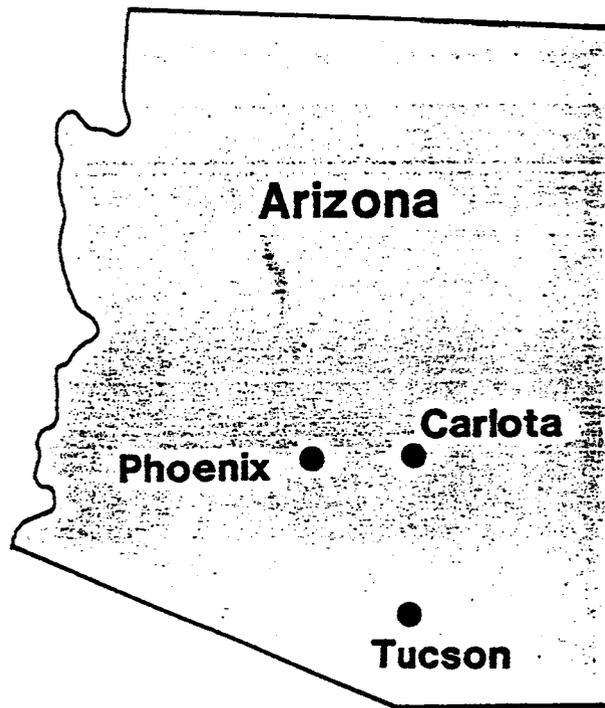
There is no metallurgical data on the Eder deposits. In contrast to the Carlotta breccia, the breccia which hosts the Eder #2 is made up entirely of clasts of soft schist. The matrix of the breccia is therefore quite clay rich, which may impede the flow of leach solutions.

ENVIRONMENTAL: Permitting has yet to be initiated. Rerouting of a seasonally-active wash necessary.

INFRASTRUCTURE: Acquisition of the Cyprus claims is necessary for the construction of heaps and dumps.

EXPLORATION POTENTIAL: The potential for increasing reserves at Carlotta is excellent. There is unexplored ground between the Carlotta and Cactus reserves, and although there is evidence that both ore pods are pinching in this direction, it is quite likely that some additional tonnage can be added (especially adjacent to the Kelly fault). There is additional breccia exposed to the north and east of Carlotta which is unexplored as well.

The potential for adding reserves on the Eder deposits is not good. Both ore pods pinch out in all directions except west, where barren volcanics overlying the ore zones cause prohibitive strip ratios. There are no remaining targets on the Cyprus property identified at this time.



Carlota Project

