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To: Jean McCallum, Mgr.  
St. Louis Smelting & Refining Co.  
St. Louis, Missouri

From: Harrison Schmitt  
Silver City, N. M.

Subject: Exploration of the Manhattan Claim, Central, New Mexico

You have now drilled seven diamond drill holes on the Manhattan claim, three of which are grouped in an area 700 ft. south of the Manhattan shaft and the remaining four just north of the Manhattan shaft. Of these holes only Nos. M-4 and M-5 cut encouraging sections of the vein. M-4 is estimated to have cut about 6 in. (normal to the vein) of massive sulphides which assayed 47% combined lead and zinc and 5 oz. of silver. M-5 cut about 8 in. (normal to the vein) of massive sulphides which assayed 38% combined lead and zinc and 5 oz. of silver. Hole M-4 cut the vein 590 ft. south of the shaft and 220 ft. below the outcrop. Hole M-5 cut the vein 130 ft. north of the shaft and 205 ft. below the outcrop.

My general criticism of the work to date is that the diamond drill hole penetrations of the vein are bunched too much. Both of the areas defined by the drilling are smaller than the area needed for a commercial ore body of narrow vein width. There are large untested areas.

I think that at least three additional holes should be drilled to test the large and yet unpenetrated and favorable areas. One should be 400 ft. south of the shaft to cut the vein about 180 ft. below the

strong gossanous outcrop revealed at the surface in this location. This would be 190 ft. north of the favorable hole M-4 and at about the same elevation. A second should be drilled 330 ft. north of the shaft to cut the vein at a depth of 250 ft. This would be 200 ft. north of favorable hole M-5 and at about the same elevation. A third hole should be drilled to cut the vein about 400 ft. below the surface since the favorable diorite sill walls are known to extend to a depth of about 500 ft. in this area. The latitude of the location of this hole should be selected after the other two holes recommended are finished so that this deep hole can be put below the best showings in the shallow holes.

original signed  
HARRISON SCHMITT

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