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JHC

AMERICAN SMELTING AND REFINING COMPANY  
Tucson Arizona

December 15, 1969

P. A. Lewis, Superintendent  
ASARCO - Mission Unit

Mission Unit  
No. San Xavier Plant  
Site, Dump and Tailings Areas

This memo replaces a previous memo of December 10, 1969, on the San Xavier plant site.

The proposed plant site, leach tailings and waste dumps lie in areas where exploration drilling was generally shallow and wide spaced. Most of the holes were bottomed in weakly mineralized rhyolite porphyry. One hole near the plant site (No. X-248-5) was redrilled to 930 feet and passed through the rhyolite (which appears to be in the form of a flat lying sill) into arkosic sediments carrying only a few hundredths of one percent copper.

Although we do not have the drill results, two holes put down by Phelps Dodge adjacent to the tailings and plant site areas no doubt were sufficiently deep to test the sediments beneath the rhyolite. In order to eliminate any reasonable possibility of open pit ore occurrence, two additional 1000 foot holes should be drilled in the area. Also, one hole is required in the approximate center of the waste dump area lying north of the ore deposit. This hole should be drilled to 1200 feet, or deeper, if needed to get through the rhyolite and obtain a penetration of at least 300 feet of the sediments. This, with the Phelps Dodge hole on the west and the Pima hole on the east, should be adequate. Mr. Tainter will prepare a map showing the hole positions for this recommended drilling.

Should anything approaching ore grade copper mineralization be encountered, additional drilling would, of course, be required.

*J. H. Courtright*  
J. H. Courtright

JHC/kvs

cc: TASnedden  
RBMeen  
WESaegart

R12E R13E

J.H.C.

DEC 24 1969

E 760,000

N 380,000

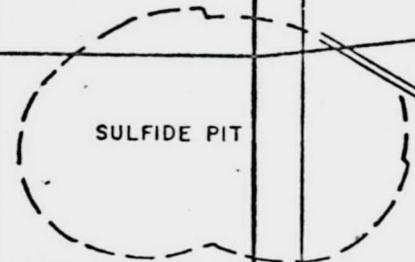
TRACT 1

TRACT 2

14

WASTE DUMP AREA

13

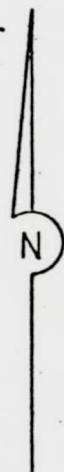


LEACH TAILINGS AREA

23

24

PLANT SITE



T.16S

N 370,000

26

25

TWIN BUTTES ROAD

PROPOSED DRILL HOLES

PIMA MINE ROAD

AMERICAN SMELTING AND REFINING COMPANY  
SAN XAVIER UNIT

PROPOSED DRILL HOLES IN PLANT SITE;  
LEACH TAILINGS AND WASTE DUMP AREAS

SCALE 1" = 2000'	DRAWN B.D.	DATE 12-22-69	FILE SX11-A25
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35

AMERICAN SMELTING AND REFINING COMPANY  
Tucson Arizona

W.E.S.  
DEC 17 1969

December 10, 1969

P. A. Lewis, Superintendent  
ASARCO - Mission Unit, Tucson

Mission Unit  
North San Xavier Plant Site

The proposed plant site, located south of the North San Xavier ore deposit, lies in an area where exploration drilling was generally shallow and wide spaced. Most of the holes were bottomed in weakly mineralized rhyolite porphyry. One hole in the area (No. X-248-S) was redrilled to 930 feet and passed through the rhyolite (which here appears to be in the form of a sill) into arkosic sediments carrying only a few hundredths of one percent copper.

No additional penetrations of the rhyolite porphyry are needed as it has proven to be weakly mineralized, or barren, wherever encountered, both on the Reservation and southeast of the Mission. However, the underlying sediments are equivalent to those containing the copper ore a half mile to the north and thus should be further tested to prove the ground has no potential. Two 1000' holes should accomplish this purpose. Mr. Tainter has prepared a map showing the hole positions for this recommended drilling.

Should anything approaching ore grade copper mineralization be encountered, additional holes would of course be necessary.

*J. H. Courtright*  
J. H. Courtright

JHC/kvs

cc: JJCcollins  
TASnedden  
RBMeen  
Route file copy to WES 

**AMERICAN SMELTING AND REFINING COMPANY**  
Tucson Arizona

January 8, 1969

Mr. C.P. Pollock, Vice President  
ASARCO - New York Office

Dear sir:

Enclosed are the following:

1. Sacaton plan map (dated January, 1969) showing diamond drill hole assay intercepts for both East and West deposits.
2. North San Xavier plan map (dated May, 1966) showing locations of diamond drill holes, and a set of sections (8) showing ore grade assay intercepts.

Yours very truly,

J.H. Courtright

JHC:lzb  
Encl.