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PRINTED: 07-25-2012

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: EMSCO PROPERTY

ALTERNATE NAMES:
MINERAL SURVEY 3829
ACCIDENT CLAIMS

GILA COUNTY MILS NUMBER: 300B

LOCATION: TOWNSHIP 5 N RANGE 17 E SECTION 34 QUARTER S2
LATITUDE: N 33DEG 46MIN 52SEC LONGITUDE: W 110DEG 31MIN 29SEC
TOPO MAP NAME: BLUE HOUSE MTN - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
ASBESTOS LONG FIBER
ASBESTOS SHORT FIBER

BIBLIOGRAPHY:
STEWART 1955 CHRYS-ASB DEPTS OF AZ USBM
IC 7706 P 59-61
BROMFIELD & SHRIDE 1956 MIN RES SAN CARLOS
IND RES USGS BULL 1027-N P 653
USGS BLUE HOUSE MTN QUAD, AZ MNG DIST SHT 189
TENNEY J B MIN IND AZ AZBM BULL 129 1930 P 92
WILSON, ASB DPTS AZ AZBM BULL 126 1928, P. 27
P 27, 58 & 97; AZ MIN JRNL 1930 MAY 15 P.32
ADMMR EMSCO PROPERTY FILE

EMSCO MINE

GILA COUNTY
SENECA DISTRICT

Metate Asbestos Co. is now mining fiber at the Emsco Mine, Seneca District. The main seam is 16-18 inches wide and consists of 5 to 12 asbestos seams. Two main seams are of grade 3 and the rest are 5 to 7 grades. The fiber is soft to semi-soft. Eight feet below this seam is a narrow seam of grade 1 asbestos (11/2 to 2" long). The adit back has been raised to clear 61/2 feet, where it previously was only 5 feet, for at least 100 feet. The road down to the mine has been finished but has been impassible until recently because of snow. Metate is adding a new crushing and rolls plant at the head of the present mine to condition the raw ore, a new warehouse attached to the mill and a machine shop are being erected. Jack Neal stated that Metate has been shipping 6 and 7 grades to the Sonora Asbestos Co., Hermosillo. This firm manufactures a board and various shapes from a sheet base consisting of 20 percent asbestos, 40 percent silica (quartz) and 40 percent cement. It is being used for roofing, siding, tiling etc. for various types of buildings. It is heat and acid resistant had has good tensile strength. The mixture is plastic at the initial stage where it can be formed into all shaped (by molds). It is then fired baked to harden it. The weight is about equal to heavy sheet iron. The roofing is corregated like tile and can be colored during batching if desired. The final product takes paint readily. Jack is trying to obtain a contract from Inspiration Copper Co. for enclosing the New Christmas mill. According to Jack, Anaconda used this product at Cananea and were pleased with it. They also manufacture prefabricated houses and irrigation ditch linings which can be removed when a ditch is abondoned and used elsewhere. According to their experience in lining ditches in Mexico, it costs about 75-80 cents per running foot and as compared to $1.30 for guniting of the same crosssection. The sections are about 4 feet long and are made with built in sleeves for attachment to the next section. Waterproof bolts are furnished.

LEWIS A. SMITH

3-17-60 - Globe ASMOA Meeting

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**On Active Mine List Feb. 1960**

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**Property active March 17, 1960**
**LEWIS A. SMITH - GLOBE ASMOA**

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Property active Sept. 1960, Feb. 1961

## ADDITIONAL REFERENCES

See: ABM Bull. 126, p. 27, 58, 59, 96.
ABM Bull. 125, p. 101, 102.
See: IC 7706, p. 59.

ABM Bull. 129, pp. 91-93.

USGS B. 11. 1537-N - Pages 1-16

MAP Upstairs in the flat file folders - Drawer 7

MILS Sheet sequence number 0040070077

# DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
**FIELD ENGINEERS REPORT**

Mine Emsco Mine — Date November 19, 1959

District Seneca District, Gila County — Engineer Lewis A. Smith

Subject: Mine visit

Claims: Accident Group

Location: Approximately Sec. 13, T. 4½ N., R. 18 E. Reached by 40 miles of pavement (Highway 60) and thence 1½ miles by dirt road to the northwest (or to the left going north).

Owners: Jack Neal, President of Metate Asbestos, reported that his firm had secured a lease from the Apache Reservation Council as of Nov. 1, 1959. The lease stipulates that Metate will pay 10% royalty on the net returns from asbestos mined during the duration of the lease. Previous history of owners and leases is found on p 59, U. S. Bureau of Mines I.C. 7706, January 1955.

Present Work: 6 men and a small cat are building a road from the top of the mesa down Mule Hoof Canyon, a branch of Cienega Creek. A 202 Gardner Denver Compressor servicing 2 jackhammers is used to drill the road. Two switchbacks are necessary to gain 200 feet of elevation down to the tunnel level. 1700 feet of underground workings are punctuated by large pillars and stopes. Two seams, 15-17 feet apart vertically, are present. One level lies 10-12' above the other. The levels are connected by raises. The lowest level is close to the lower of two diabase sills. Sufficient reserves are present for at least two year's operations. Dumps containing 30 to 40 percent of short fiber, contain about 2000 additional tons of reserve. Since most all of the open faces show 8 to 16 inches of fiber bearing material (upper zone) much more reserves can be developed. The seams are level. The lower seam contains 3-4 inches of grade 1 fiber.

Geology: In this region three sills split the Mescal Limestone into four segments. Above the lower or 300 foot sill the limestone segment is 75' thick. The productive zones are near the base of this limestone. The ore zone is terminated by transverse diabase structures, on the north and south. This general structure appears to have been caused by step faulting. Toward the north side the otherwise horizontal limestones are discordant up to a dip of 10° to 25° SE. Many small thrusts and bedding plane faults are present in the upper mine level. The greatest fiber concentrations appear to be affiliated with these minor dislocations which apparently have dislocated the fiber bed to little extent. The upper zone contains 10-20 inches of serpentine in which most of the fiber is found. Numerous asbestos seams ranging from 1/16 inch up to 3/4 inch thick, are present. Other serpentine zones are present above the main workings and thus far the seams of asbestos have shown only 1/2 to 3/4 inches of ore bearing thickness.

A general view of the triangular tongue of mesa between the Salt River Canyon and Cienega Creek, discloses at least three step faults which step successively downward toward the north. To the northeast of the Emsco on a higher step some fiber was found, but it lies close to Highway 60 and is not available for mining.

The Emsco adjoins the Phillip's property part of which is crossed by the road from Highway 60.

References: U. S. Bureau of Mines I.C. 7706, pp 59-61, January 1955.
Arizona Bureau of Mines Bulletin # 126

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Ariz. Bureau of Mines Bulletin #126