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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: LITTLE CHIEF MINE

ALTERNATE NAMES:

CHIEF PIT

ANDERSON SILICA CLAIM<sub>2.m.</sub>

PIMA COUNTY MILS NUMBER: 152

LOCATION: TOWNSHIP 14 S RANGE 2 W SECTION 19 QUARTER SE  
LATITUDE: N 32DEG 11MIN 25SEC LONGITUDE: W 112DEG 30MIN 32SEC  
TOPO MAP NAME: MT AJO - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILICON QUARTZ

BIBLIOGRAPHY:

S.B. KEITH, AZBM BULL. 189, P. 123, 1974  
ADMMR LITTLE CHIEF MINE FILE

LITTLE CHIEF MINE

PIMA COUNTY  
Sunlight District  
T14S R2W Sec 19 SE

AKA: Chief Pit, Anderson Silica Claim

MILS Pima Index # 152

ABM #189, 1975, p. 123

see: Freeman Silica (file)

ANDERSON MINE

(SILICA)

PIMA COUNTY

CHAS. ANDERSON, AJO, ARIZ.

This property on Active Mine List 9-1958.

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LITTLE CHIEF MINE  
ka CHIEF PIT  
aka ANDERSON SILICA CLAIM

PIMA COUNTY  
GUNSIGHT DIST.  
T14S, R2W, sec 19 SE  
(AML 4-1968)

Operator Virgil Denning, P.O. Box p, Ajo, Arizona - 3 men working

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Active Mine List Oct. 1968 - 3 men - (AML 10-1968)

Interviewed Virgil Denning - he is shipping 100 tpd of converter flux to Ajo Smelter, from the Chief Pit. FTJ WR 4-4-69

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Active Mine List April 1969 - 3 men - Virgil Denning, P.O. Box p, Ajo

Denning and Ballesteros shipping usual flux ore. FPK WR 6-4-69

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Active Mine List Oct. 1969 - 3 men - Virgil Denning

Visited Virgil Denning - they shipped 100 tpd to PD. FPK WR 4-10-69

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Active Mine List May 1970 - 3 men - Virgil Denning

Went to Ajo and met Mr. Virgil Denning who is mining and hauling 100 tpd of converter flux to the New Cornelia smelter. He says that A.W. Robard is mining about 40-50 tons per day of flux for D.D. GW WR 10-9-70

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Active Mine List Oct. 1970 - 3 men - Virgil Denning

Mr. Denning took me to his flux mine where he is in somewhat of a quandary as to a method of procedure due to a diabase (?) dike splitting the quartzsite. The dike appears to "peter-out" in a westerly direction and the quartzsite to widen, therefore it was suggested he concentrate on mining from that direction; but a more intensive examination should be made before extensive mining expenses are incurred.  
GW WR 6-7-71

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Dir. of Mining - August 1971 - 3 employees.

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Virgil Denning furnished quartzite from the Little Chief pit to the Ajo smelter after the strike at the rate of about 100 tons/day. GW QR 9/71

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Denning reported that he was doing well at the Anderson Silica Pit in the Gunsight Hills. LAS ASMOA Meeting 4-4-67

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Visit and conference with Virgil Denning 6-6-67

A new vein ( parallel to the present pit vein, on the northwest) has been uncovered for an exposed length of about 200 feet and a width of 20-25 feet. A horst of dike (?) material and schist only partly silicified is about 10-15 feet wide and lies between the two veins. The main pit SE of this vein is 40 feet deep and is bottomed by at least 20-22 feet of good silica (93 percent) throughout its length of 600 feet and width of 15-25 feet. It was, while stripping out an overhang to be able to lower the original site that the new vein was discovered. Some short holes indicate that this band is consistent down for at least 12-15 feet. Should this new band continue downward as far as the original pit it would contain 50 or more feet depth-wise. No northwest limit has been found so far, and this may be an assay cut off. It is now planned to drill out two strings of 22-24 foot holes across the vein and out lengthwise in the center of the vein. The material from the new vein runs nearly 91 percent silica and when screened runs close to 93 percent. This vein and the original together formed a ridge which stood up 3-10 feet above the weaker material on either side and at least 75-85 feet wide and about 600 feet long. If even a half of the potential reserve is developed, the area should have a considerable life despite the fact that it was "officially" worked out 5 years ago. It costs, according to Denning, \$2.00 per ton less to mine and deliver the silica here though it pays 50¢ per ton less. He figures he will save on repairs too, as he has only 3/4 mile of level dirt road. His contract calls for 2000 tons per month for 12 months.

Memo LAS

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Active Mine List Nov. 1967 - 3 men  
Active Mine List April 1968 - 3 men  
Active Mine List Oct. 1968 - 3 men

Conference with James Briggs, Gen. Mgr. New Cornelia Branch, Phelps Dodge Corp.

Mr. Briggs stated that Virgil Denning had taken over the Charles Anderson Silica mine, Gunsight Hills. Anderson reportedly has retired. Memo LAS 6-4-63

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Active Mine List Oct. 1963 - 3 men

Interview with A. C. Netherlin (Anderson's representative) and visit.

Virgil Denning is mining silica flux. Some test drilling and bulldozer work was done south of the present silica pit and on extension of the silica body reported in that direction. The quartz in this part of the area has 6-10 feet of overburden. No one was present at the mine. Denning was in Yuma following the death of his partner late last week. Netherlin said that Denning had submitted an application to the Papago Indian Tribal Council for a mining permit to mine silica flux from the Black Jack mine area. This area was first opened by George Freeman, who is now mining silica at the Orizaba mine further north. Memo LAS 11-3-63

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Mr. Denning stated that he had delivered nearly 6000 tons of silica in 6 months. This has averaged about 89-93 percent in silica content. The pit is now over 600 feet in length, 30-60 feet wide (60 feet at the south or working face) and 0-50 feet deep at the face. The silica is obtained from bands of silicified schist along a strong shear zone. A second shallow pit was excavated at about 300 feet southwest of the present working face and now has a working face that is over 10 feet deep and 40 feet wide, and contains good silica across the entire face. A horst of low grade silicified schist splits the better silica at the present face of the north pit. This is about 8-10 feet wide but is narrowing to the southwest. Mining is on both sides of this horst. The pit has silica on the bottom and this will later be prospected by percussion drilling. Meanwhile Denning has secured a lease on the Black Jack area from the Papago Indians and is now rebuilding the road to the old Freeman Pit. This operation will be open pit also. Memo LAS 2-4-64

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Visit and conference with Virgil Denning

Denning has so far hauled 2,500 tons from the Anderson Silica Pit since he reopened it recently. He plans to operate here for a few months at least. This pit is 26 miles from Ajo whereas the Sherridan Pit has a haul of 76 miles. The Anderson Pit is only one mile from the Ajo-Tucson Hwy., whereas the Sherridan is about six miles from the Quijotoa-Casa Grande Hwy., and has one mile of steep, very rough hill road. The Anderson Pit can easily be worked with 3 men as against 5 for the other.

Denning said that the Anderson silica runs 93% consistently and he gets 50¢ per ton more here since Sherridan was averaging only about 80-92%. The evident reserve of silica at Anderson is figured to be roughly 10,000 tons, but more prospect drilling to the SW could increase this figure.

The present pit is 50-55 feet wide and 27 feet deep at the face. One truck will be adequate here. There is believed to be about 20 feet of silica in the bottom of the ramp, 300 feet long, out of the pit, that is not yet proven out but seems probable, and short hole drilling will be done to prove this out. Drilling is done with a Denver Wagon Drill and drilling is slow in this rock which is comparatively tough. Holes are drilled to 27 feet and sprung. "Barrel Loading" is used sometimes.  
LAS Memo 2-7-67

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

Mine Anderson Silica Date Oct. 2, 1962  
District Gunsight Hills - Pima County Engineer Lewis A. Smith  
Subject: Interview with Jim Briggs, General Mgr., Phelps Dodge Corp., Ajo

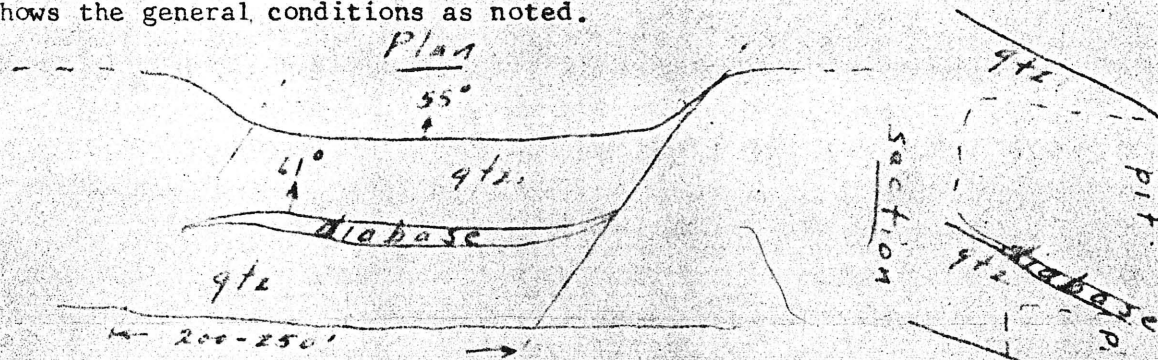
Mr. Briggs stated that the Company had contracted for 500 tons of silica, per month, from the Anderson Mine. Mr. Anderson had been relatively inactive for several months but was reported to have uncovered new reserves on the south end of his pit.



## CHIEF PIT

PIMA COUNTY

Went to Virgil Denning's quartzite mine, the Chief, about 20 miles east of Why on the Papago Indian Reservation. At the last meeting of A.S.M.O.A. Mr. Denning requested an examination of the deposit with the view of determining the vertical extent of a diabase dike cutting the quartzite (converter flux material) at a very acute angle. Within the pit area the dike, which strikes N 55° E, and dips 61° NW, appears to have cross-cut the quartzite only slightly both longitudinally and vertically. Near both extremities of the pit the quartzite has thickened on the hanging wall side of the dike, this may be due to faulting. The sketch shows the general conditions as noted.



It was theorized that by taking a series of dip readings along both walls of the dike, a determination could be made in regard to the convergence of the two walls. However due to safety considerations (leaving a considerable thickness of quartzite on the footwall of the dike) it was impossible to obtain significant readings here. The pit on the hanging wall of the dike is perhaps 75 ft. deep while on the footwall it is about 45 ft. Because the measurement of dip theory was impractical, it was suggested that several holes be drilled through the dike from the hanging wall side which would determine whether or not a thinning of the dike had taken place in the 75 ft. depth. Mr. Denning said although the dike appeared hard on the walls, that within a foot it became moist and clay-like, making penetration very difficult. It was suggested that a jackhammer be used for the test drilling rather than one of his wagon drills, thereby the pressure on the bit could be better regulated and the cuttings removed with a spoon. It was also suggested that in the event no appreciable thinning of the dike took place, as evidenced by the test holes, he should drill at least 3 widely spaced inclined core holes perpendicular to the strike of the quartzite to the southwest of the present pit and if a worthwhile thickness of quartzite was indicated an extension of the pit in that direction would be advisable. To the northeast on strike of the quartzite, Mr. Denning has a shop and general repair area. The problem (not immediate) is that the dike hampers maneuverability in the pit and necessitates leaving considerable good quality quartzite to support its footwall. If the dike is thinning in depth, as other smaller ones have, Denning could extend the present pit to the southwest and remove the dike material at his leisure, beginning on its eastern extremity, away from the production area.

GW WR 6-21-71



# United States Department of the Interior

OFFICE OF HEARINGS AND APPEALS  
 INTERIOR BOARD OF LAND APPEALS  
 4015 WILSON BOULEVARD  
 ARLINGTON, VIRGINIA 22203

CHARLES KETCHUM ET AL.

IBLA 74-134

Decided June 26, 1974

Appeal from a decision of the Arizona State Office, Bureau of Land Management, declaring the Little Chief No. 1 mining claim null and void for failure to make rental payment timely.

Reversed and remanded.

Mining Claims; RENTALS - Advanced Rentals - Automatic Termination - exceptions

Although the failure of a mining claimant to pay in advance the annual rental required by regulation 43 CFR 3825.1(b) for claims located pursuant to the Act of June 18, 1934, 48 Stat. 985, as amended by the Act of August 28, 1937, 50 Stat. 862, 863, within the Papago Indian Reservation is a sufficient basis for invalidating the claim, this regulation may be interpreted as directory and not mandatory.

Mining Claims: RENTALS - Advanced Rentals - Termination for Untimely Payment - justifiable delay

Tender of payment for annual rental on a mining claim located within the Papago Indian Reservation a few days after the due date but before action by BLM to declare the claim invalid under regulation 43 CFR 3825.1(b) may be accepted. Cancellation of the claim in such a circumstance is not compelled by the regulation.

APPEARANCES: Hale C. Tognoni, Esq., Phoenix, Arizona, for appellants; Fritz L. Goreham, Esq., Office of the Field Solicitor, Phoenix, Arizona, for the Government.

INDEX CODE:  
 43 CFR 3825.1(b)

16 IBLA 82

GFS(MIN) 45(1974)

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

Mine The Anderson Silica Claim

Date May 4, 1959

District Gunsight District, Pima County

Engineer Lewis A. Smith

Subject: Mine Visit by Lewis A. Smith and Frank P. Knight

Claims: 2 unpatented

Owner: Charles Anderson, Ajo, Arizona

Mineral: quartz and silica

Present Status: Active periodically.

Work: The deposit is opened by a bulldozer cut which is about 100 feet long, reaches a depth of 15-20 feet, and is about 15-25 feet wide.

Geology: The deposit consists of a silicified shear zone in schist transversally cut by a dike. The silicification varies from pure quartz to silicious material which shows "ghosts" of the schist bands. The dike parallels the pit on the west face. It appears to be composed of an andesite porphyry but this is questionable. A shear separates poorly silicified schist on the east side of the pit where the degree of silicification appears to determine the cut-off of the pit. The shear, occupied by the deposit, also appears to be transverse to the schistosity. The silicification appears to be strong west of the dike which trends NE-SW (at approximately N 30° E). Little could be seen of the pit bottom but a few exposures appeared to be good silica. The mine has been furnishing about 8000 tons per annum to the Phelps Dodge Corp., New Cornelia Branch, for flux.

Active Feb. 1962