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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: HARMONY NUMBER ONE

ALTERNATE NAMES:

WILLIS SILICA
OPALITE DEPOSIT

GREENLEE COUNTY MILS NUMBER: 25A

LOCATION: TOWNSHIP 3 S RANGE 29 E SECTION 16 QUARTER NE
LATITUDE: N 33DEG 10MIN 10SEC LONGITUDE: W 109DEG 21MIN 10SEC
TOPO MAP NAME: CLIFTON - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILICON QUARTZ

BIBLIOGRAPHY:

ADMMR HARMONY NUMBER ONE FILE
DIRECTORY OF ACTIVE MINES IN AZ. ADMMR 1980,
P. 21
ELEVATORSKI, E.A., AZ. INDUSTRIAL MINERALS,
1978, P. 35

06/12/86

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HARMONY #1 CLAIM

GREENLEE COUNTY

Metal Mining & Processing Feb. 1965 p. 39

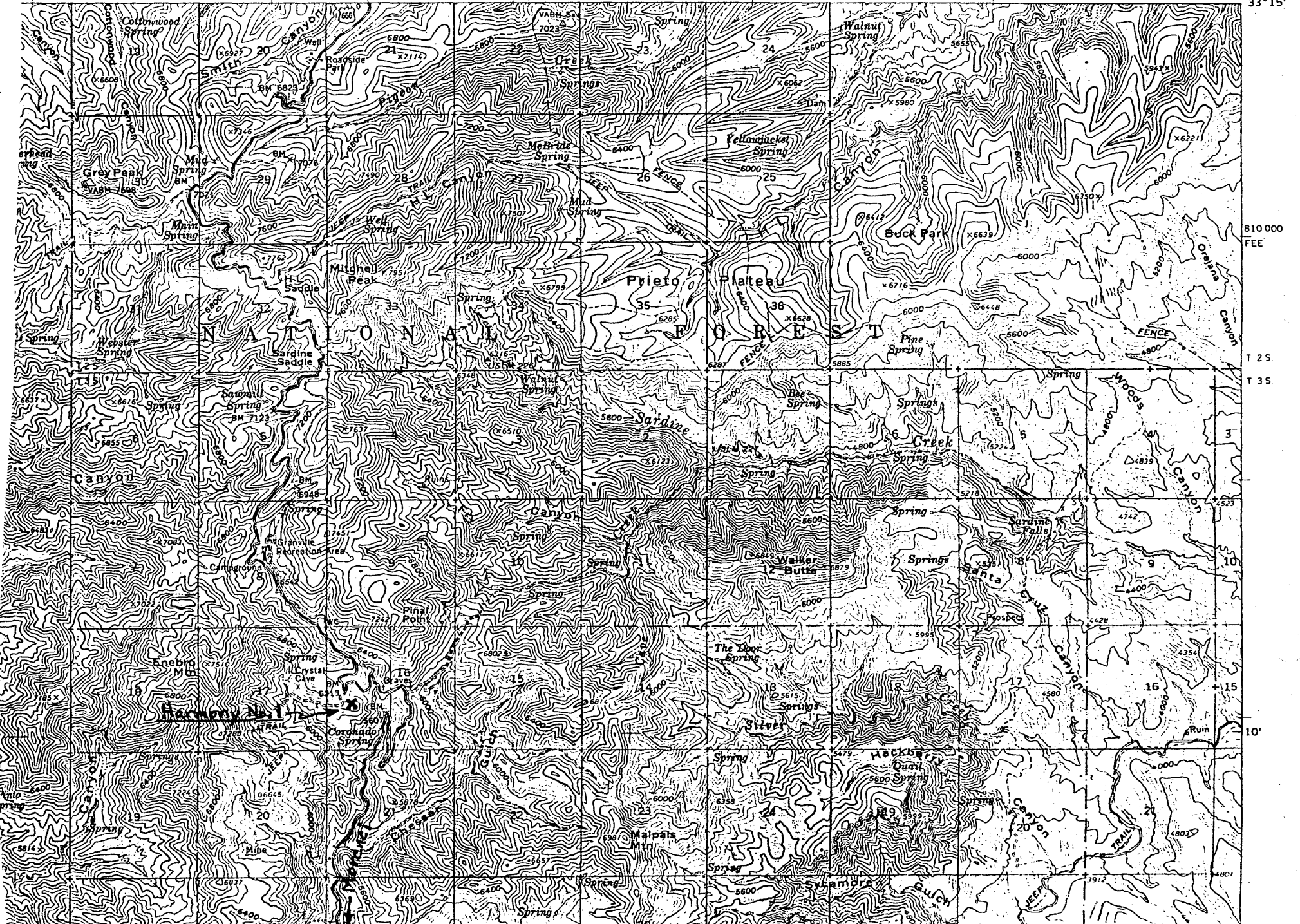
Morenci Mine (file)

(Greenlee Co.)
CLIFTON QUADRANGLE
ARIZONA

15 MINUTE SERIES (TOPOGRAPHIC)

(MORENCI)

R 28 E R 29 E (MORENCI 1:125 000) ALPINE 67 MI. HANNAGAN MEADOWS 46 MI. 20' R 29 E R 30 E 770 000 FEET 109°15' 33°15'



HARMONY NO. 1

GREENLEE COUNTY

MG WR 11/2/84: Visited the Harmony No. 1 silica flux mine (Greenlee Co).
There was no equipment on the property and no sign of recent activity.

MG WR 3/15/85: The Harmony 1 Placer, Greenlee County, an association placer
of about 80 acres, was patented by Mr. O. B. Willis. It was sold in April,
1983, to Mr. Ruskin Lines, 906 Stratton Drive, Safford, Arizona 85546.

HARMONY #1 CLAIMS

GREENLEE COUNTY

Active - April 1965
Active - Oct. 1965
Active - April 1966
Active - April 1967
Active - Nov. 1967 - 2 men

Mine Visit to Harmony Claims of O. Brice Willis - furnishing silica for Morenci smelter.
GWI WR 6-10-67

Mine visit to the Harmony Claims - shut down during strike. GWI WR 10-1-67

Mr. O. B. Willis has resumed the shipping of silica to the smelter. GWI QR 4-1968

Active Mine List April 1968 - 2 men
Active Mine List Oct. 1968 - 2 men

Mr. Bryce Willis continues to ship approximately 600 tons per month of silica to the smelter from the Harmony Claims. GWI QR 12-1968

Active Mine List April 1969 - 2 men - O. Brice Willis

Mr. Bryce Willis continues to mine approximately 600 tons per month of silica from the Harmony claims in upper Chase Creek. GWI QR 3-1969

Bryce Willis continued to ship silica to the smelter from the Harmony #1 claim. This was approximately 600 tpm. GWI QR 9-1969

Active Mine List Oct. 1969 - 2 men - O. Brice Willis, Box 1325, Clifton

Bryce Willis continues to mine silica from the Harmony #1 claim at 600 tpm for the Morenci Smelter. GWI QR 2-27-70

Bryce Willis is still shipping about 600 tpm from his silica quarry in upper Chase Creek. GWI QR 4-1-70

Active Mine List May 1970 - 3 men

Bryce is still shipping silica from his property in upper Chase Creek. GWI QR 6-30-70

Active Mine List Oct. 1970 - 3 men - O. Brice Willis

HARMONY #1 CLAIM

GREENLEE COUNTY

Mr. Bryce Willis of Clifton continues production as usual from his silica quarry in upper Chase Creek. GWI QR 6-30-71

Directory of Mining - August 1971 - 5 men.

Active Mine List - October 1972 - Empl. 5

Field interview with Bryce Willis regarding his Harmony Mine in upper Chase Creek, north of Morenci. He reports that they are shipping silica to the Morenci smelter, 600 plus tons per month. GWI WR 10/22/73

Mine visit at Harmony Mine. One man was driving the truck and loading the quartzite with a loader; took a picture of the operation. GWI WR 10/23/73

Visited the Harmony Mine and talked with Brice Willis. They were mining and are shipping 500 to 550 TPM to the Morenci Smelter. GWI WR 10/14/76

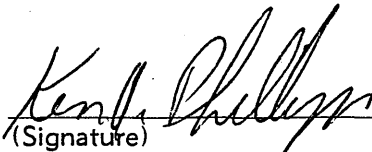
KAP WR 9/6/79: A visit was made to the Harmony No. 1 Mine in Greenlee County. This mine, owned by O. Brice Willis, produces silica smelter flux for the Morenci Smelter. The deposit is drilled with an air track drill, blasted, piled and loaded with a Cat 941 B ripper-loader. The deposit appears to be entirely quartzite and contains no apparent metal values. 10/15/79 mw

ARIZONA DEPARTMENT OF MINER RESOURCES
Mineral Building, Fairgrounds
Phoenix, Arizona

1. Information from: O. Brice Willis
Address: P.O. Box 1325, Clifton, Arizona 85533
2. Mine: Harmony #1 3. No. of Claims - Patented _____
Unpatented _____
4. Location: 6 miles north of Morenci
5. Sec _____ Tp _____ Range _____ 6. Mining District _____
7. Owner: O. Brice Willis
8. Address: P. O. Box 1325, Clifton, Arizona 85533
9. Operating Co.: See above
10. Address: _____
11. President: O. Brice Willis 12. Gen. Mgr.: M Clifford Willis
13. Principal Metals: Silica Flux 14. No. Employed: 2
15. Mill, Type & Capacity: None
16. Present Operations: (a) Down ☐ (b) Assessment work ☐ (c) Exploration ☐
(d) Production ☒ (e) Rate _____ tpd.
17. New Work Planned: _____

18. Misc. Notes: Quartzite is drilled and blasted a few times each year.
Otherwise, operations consist of loading and shipping silica flux to the Phelps
Dodge's Morenci smelter. The silica contains no metal values.

Date: June 8, 1981


(Signature)

Ken A. Phillips
(Field Engineer)

MINERAL DEPARTMENT OF MINES & GEOLOGICAL SURVEY


Mineral Building, Fairgrounds

Phoenix, Arizona

1. Information from: Bryce Willis
Address: BX 1325 CLIFTON
2. Mine: HARMONY 3. No. of Claims - Patented _____
Unpatented _____
4. Location: Upper Chase Creek
5. Sec. _____ Tp. _____ Range _____ 6. Mining District Morenci
7. Owner: B. Willis
8. Address: _____
9. Operating Co.: _____
10. Address: _____
11. President: _____ 12. Gen. Mgr.: Bryce Willis
13. Principal Metals: _____ 14. No. Employed: 2
15. Mill, Type & Capacity: 750 Tper Month to Morenci Smelter
92-97% SiO₂ Al₂O₃ - 13 1/4%
16. Present Operations: (a) Down ☐ (b) Assessment work ☐ (c) Exploration ☐
(d) Production ☐ (e) Rate _____ tpd.
17. New Work Planned: _____

18. Misc. Notes: 8 men working at PD Seftord

Date: 4-13-71


(Signature)

(Field Engineer)

1. Information from: Bryce Willis
Address: ^{Box 1325} Clifton Arizona

2. Mine: Harmony #1

3. No. of Claims - Patented _____
Unpatented _____

4. Location: Near Crystal Cave north of Clifton.

5. Sec 16 Tp 3 S Range 29E

6. Mining District Morenci

7. Owner: Bryce Willis

8. Address: Box 1325 Clifton 85533

9. Operating Co.: Same

10. Address: _____

11. President: _____

12. Gen. Mgr.: _____

13. Principal Metals: _____

14. No. Employed: 3

15. Mill, Type & Capacity: _____

16. Present Operations: (a) Down ☐ (b) Assessment work ☐ (c) Exploration ☐
(d) Production ☒ (e) Rate ³⁰ 900 TPM tpd.

17. New Work Planned: _____

18. Misc. Notes: _____

(Field Engineer)

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Harmony #1 Claims Date December 1, 1964
District Metcalf Dist., Greenlee County Engineer Axel L. Johnson
Subject: Field Engineers Report. Information from O. Brice Willis.

Location: Approx. Sec. 16, T3S, R29E. In the Apache National Forest NW of Morenci.

Owner: O. Brice Willis, Box 1325, Clifton, Arizona

Number of Claims: 2 placer claims, on which application has been made for patent. The original patent application had to be amended to exclude a 600 ft. wide right of way which the National Forest claims across the property. Evans, Kitchel & Jenckes, Attys., 363 N. 1st Ave., Phoenix are handling the legal work for Mr. Willis.

Principal Minerals: Quartz and quartzite of high grade, used as flux in the reverberatory furnaces of the Phelps Dodge smelter at Morenci.

Present Mining Activity: Quarrying from 260 to 280 tons per month of quartz rock and shipping same to the Phelps Dodge smelter at Morenci for use as flux in the reverberatory furnaces.

Drilling and blasting is done for about 5 days every 3 months with 3-5 men working.
Hauling rock is done with 2 men and 2 trucks about 10-14 days every month.

Ore Values: Very pure quartz and quartzite - plus 95% SiO₂

Milling & Marketing: Sold to Phelps Dodge Corp. for use as smelter flux, and trucked to Phelps Dodge smelter in Morenci in owners own trucks.

Additional: The orininal patent application was contested by the Forest Service, who had several objections, one of these being the fact that they claimed a 600 ft. right of way across the property.

An amended application for patent was made, excluding this 600 ft. right of way.

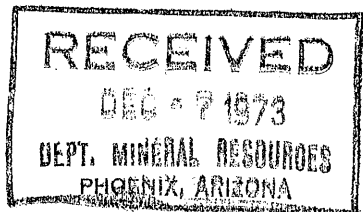
Mr. Willis was charged a royalty of 75 cents per ton for 500 tons of rock which proved to be inside this 600 ft. right of way and which Mr. Willis mined, not knowing it was on the right of way.

NUMBER 25A	FILE F	CONT 0	CONT1 N	PRNAME HARMONY NUMBER ONE				
ALTNAME1 WILLIS SILICA				ALTNAME2 OPALITE DEPOSIT				
ALTNAME3				ALTNAME4				
ALTNAME5				ALTNAME6				
CURSTAT PAST PRODUCER		MNAME CLIFTON - 15 MIN			NLATDEG 33		NLATMIN 10	
NLATSEC 10	WLONGDEG 109	WLONGMIN 21	WLONGSEC 10	TOWN 3 S	RANGE 29 E	SECTION 16	QUARTER NE	COM1 SI
MODI1 QUARTZ	COM2	MODI2	COM3	MODI3	COM4	MODI4		
COM5	MODI5	COM6	MODI6	COM7	MODI7			
BIB1 ADMMR HARMONY NUMBER ONE FILE								
BIB2 DIRECTORY OF ACTIVE MINES IN AZ. ADMMR 1980.								
BIB3 P. 21								
BIB4 ELEVATORSKI, E.A., AZ. INDUSTRIAL MINERALS.								

HARMONY Claim belonging to O.B. & Geneva Willis
of Clifton Arizona. Ships silica to Morenci
Smelter

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For Phoenix File
G.I.
Dec 73



NE $\frac{1}{4}$ Sec. 17

NW $\frac{1}{4}$ Sec. 16

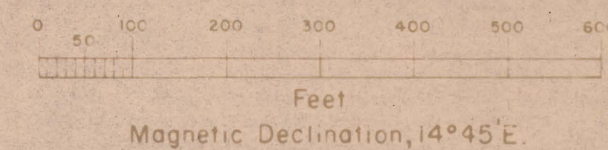
NE $\frac{1}{4}$ Sec. 16

MINERAL SURVEY
No. 4625
ARIZONA

CLAIM OF
O.B. WILLIS AND GENEVA WILLIS

KNOWN AS THE
HARMONY 1 PLACER

SITUATE IN
Sec. 16, T. 3 S., R. 29 E., G. & S. R. M.
GREENLEE COUNTY
Granville (Copper Mtn.) Mining District
Arizona Land District
Lat. 33° 10' 10" N., Long. 109° 21' 10" W., at Cor. No. 2,
Harmony 1 Placer



Surveyed January 8 to 10, 1965
By O. T. Smith, Mineral Surveyor

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Phoenix, Arizona, January 7, 1966

I hereby certify that this plat of Mineral Survey No. 4625, Arizona, is strictly conformable to the field notes of said survey which have been examined and approved.

Irving Weiler
State Director

State Director

Patent Date	8-16-1966	SE $\frac{1}{4}$ Sec. 17
Patent No.	02-67-0005	
Serial No.	AR-033497	

HARMONY Claim belonging to O.B. & Geneva Willis
of Clifton Arizona. Ships silica to Morenci
Smelter

For Phoenix File
G.I.
Dec 13

