

CONTACT INFORMATION

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Arizona Department of Mines and Mineral Resources Mining Collection

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Commence of the second of the

PRINTED: 03/05/2003

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: GLADSTONE MINE GROUP

ALTERNATE NAMES:

INDEPENDENCE THESSALIA EUREKA ARIZONA RAY ATHENS

SANTA CRUZ COUNTY MILS NUMBER: 5

LOCATION: TOWNSHIP 23 S RANGE 16 E SECTION 30 QUARTER W2 LATITUDE: N 31DEG 23MIN 53SEC LONGITUDE: W 110DEG 45MIN 03SEC

TOPO MAP NAME: CUMERO CANYON - 7.5 MIN

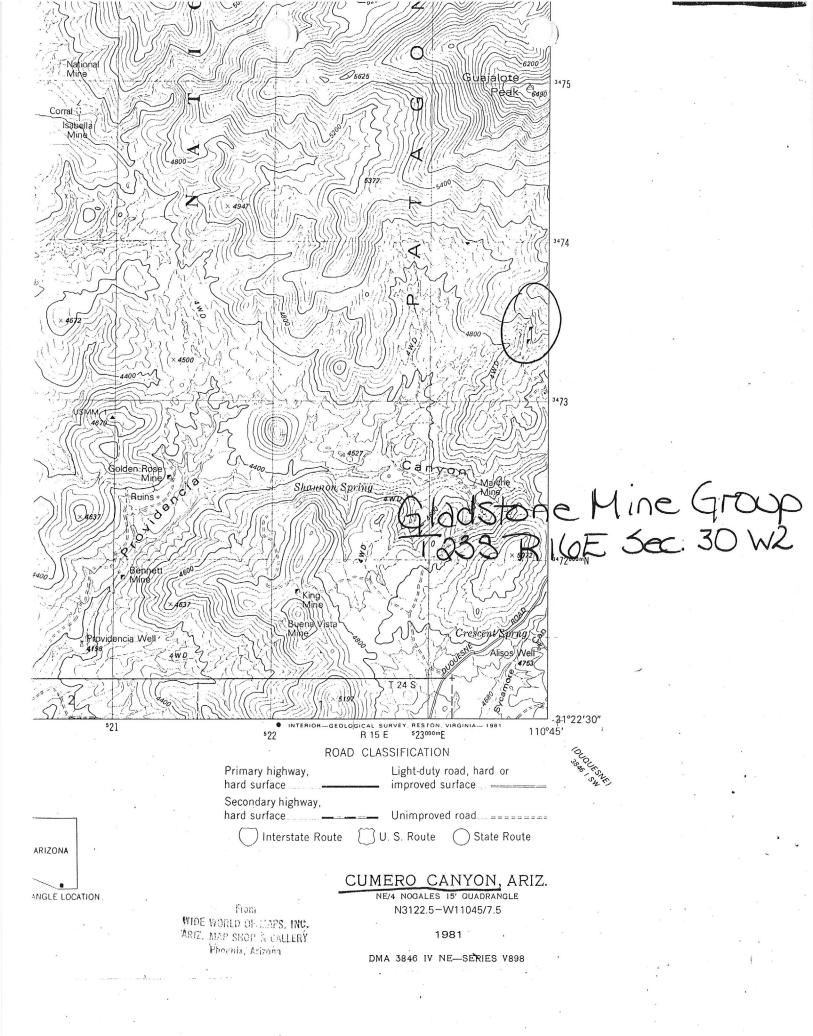
CURRENT STATUS: PAST PRODUCER

COMMODITY:

COPPER SULFIDE SILVER GOLD LEAD SULFIDE ZINC SULFIDE

BIBLIOGRAPHY:

ADMMR GLADSTONE MINE GROUP FILE USBM FIELD NOTES LENON'S MAP, SANTA CRUZ CO. - RBT LENON 1962 AZBM, 1927-29, HIST. MNG IN AZ, P. 313 AZBM BULL 191, "INDEX OF MNG PROP. IN SANTA CRUZ CO.", P. 80 USGS BULL 582, P. 316



ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES VERBAL INFORMATION SUMMARY

1. Information from: Madeline Minchin

Company:

Address: 1118 W. Coronado Road

Phoenix, Arizona 85007

2. Phone: 252-0317

3. Mine:

4. ADMMR Mine File: GLADSTONE MINE GROUP

5. County: Santa Cruz, MILS #5

6. Summary of information received, comments, etc.:

Mrs. Minchin was in to discuss a lease agreement on her patented Arizona and Athens claims in W1/2 Sec. 30, T23S R16E with International Dorado Resources (c), 802-625 Howe Street, Suite 820, Vancouver, BC V6C 2T6. International Dorado proposes to lease the patents from her for 10 years at \$5,000 annual minimum royalty with a 5% net smelter after the \$5,000. Carl Wuest (c) Dekon Corp. (c) is handling the negotiations for International Dorado. He was found actively doing exploration work on the property by the owner without a lease or permission. A copy of the "Memorandum of Mining Lease Agreement" was provided for our file. She had previously had the property leased to Four Corners Resources (c) who she reported to now be defunct. Before that it was leased to Phelps Dodge Corporation.

Date: December 27, 1988 Ken A. Phillips, Chief Engineer

Noble &	Rucknic	k, John	Stone,	geologis	t, 6919	Mesa	Grande,	Tucson.	An	exploration
										200'-500'.

Note GWI 11/16/65

	COMMODITY INFORMATION
•	C10 (C.M
*ORE MINERALS COMMODITY SUBTYPES	CON CALENA, SPHALLNITE, CHALCO PYRITE
GEN. ANALYTICAL DATA	COS CORE VALUES AVERAGED 3% CU, 3 OZ./TON AQ, O.LOZ./TON AU, MINOR Pb
COM. INFO. COMMENTS	C50 <
* SIGNIFICANCE	PRODUCER NON - PRODUCER
MAJOR PRODUCTS	MAJOR (C.1) MAIG WALL MAIN COMMODITIES PRESENT CITY
MINOR PRODUCTS POTENTIAL PRODUCTS	MINOR COMMODITIES PRESENT C12 (
OCCURRENCES	OCCUR CLUB COCCUR
	*PRODUCTION
1 1 1	PRODUCER NON-PRODUCER
PRODUCTION (ES) (cir	cle) PRODUCTION SIZE (A) MED LGE (circle one) PRODUCTION UND NO (circle one)
*STATUS	EXPLORATION OR DEVELOPMENT PRODUCER NON_PRODUCER
	PRODUCER NON-PRODUCER
	STATUS AND ACTIVITY A20(山)
DISCOVERER	1204 ANTONE PROTO : GLAPSTONE
YEAR OF DISCOVERY	LIO(1888) *NATURE OF DISCOVERY LIO (B) > *YEAR OF FIRST PRODUCTION LIO (1916) *YEAR OF LAST PRODUCTION LIO (1916)
PRESENT/LAST OWNER PRESENT/LAST OPERATOR	A12 (J.W. FOR SYTHE (1966) RAIS HANNA MINING CO. (1966)
EXPL./DEV.COMMENTS	LING & UNPATENTED CLAIMS: OWNERS AND OPERATORS INCLUDED SMITH AND FULTON
(1926-19=	DO), RAYMOND AND SULLIVAN, HOLLAND AND DRISCOLL, TODD AND J.N. MOON,
	DESCRIPTION OF DEPOSIT
•	DESCRIPTION OF DEPOSIT C40 VEIN I SHEAR ZONE
DEPOSIT TYPE(S) DEPOSIT FORM/SHAPE	MIO TABULAR
DEPTH TO TOP	M20() UNITS M21() MAXIMUM LENGTH M40(5) UNITS M41(MILES
DEPTH TO BOTTOM DEPOSIT SIZE	M15 (MAIL) M15 (MIDIAM) (CIrcle one) MAXIMUM THICKNESS M66 (MIDIAM) M15 (MIDIAM) M1
STRIKE	M15 (MALL) M15 (MEDIUM) M15 (LARGE) (circle one) MAXIMUM THICKNESS M60 () UNITS M61
DIRECTION OF PLUNGE	MIDO (IRREGILLAR YEIN-LIKE MINERALIZATION OF CHALCORYGITE AND OXIDIZED
DEP. DESC. COMMENTS	
0. (m/0) (4 (m)	
70 m	
, `	DESCRIPTION OF WORKINGS
	E M120 UNDERGROUND M130 BOTH M140 (circle one) *OVERALL LENGTH M190 (
DEPTH BELOW SURFACE LENGTH OF WORKINGS	
	M220 TUNNEL INTO THE MOUNTAIN ABOUT 300 FT LONG, ONE WINZE MEAR
ENDOFT	UNNEL TOOFT DEEP
	GEOLOGY
* AGE OF HOST ROCK(S)	KI(TERT B. 58±5 m.y. (SIMONS, F.S., 1974)
*HOST ROOK TYPE(S) *AGE OF IGNEOUS ROCK	KIA BIOTITE - HORNBLENDE GRANDDIORITE (S) KOLTERT
*IGNEOUS ROOK TYPE(S)	KON EQUIGRANULAR AND PORPHYRITIC GRANDOLORITE, DIORITE, APLITE DIKES
* AGE OF MINERALIZATIO *PERT. MINERALS (NOT O	
*ORE CONTROL/LOCUS	KS N-S TRENDING QUARTZ VEIN WITH SEVERAL SUBSIDIARY VEINS IN GRANODIORITE : ORE
	UCT. NEX DEPOSITS OCCUR IN FORM OF SUBORDINATE VEINS, LENSES STRINGERS, AND SEAMS
*TECTONIC SETTING *SIGNIFICANT LOCAL STR	NISK GUATOLOTE FAULT BLOCK; NW-TRENDING, INFERRED GUATOLOTE FAULT LIES TO E OF UCT.NISK DIORITE FORMS FOOTWALL AND QUARTZ MONZONITE FORMS HANGING WALL OF
*SIGNIFICANT ALTERATIO	N N76K STRONG POTASSIC ALTERATION; GRANODIORITE IS HIGHLY SHATTERED SHEETED
*PROCESS OF CONC./ENR	ICH. NEOK OXIDATION AT NEAR SURFACE; MINUERALIZATION ACCOMPANIED OR FOLLOWED
*FORMATION AGE *FORMATION NAME	N30A<
SECOND FM AGE	N38<
SECOND FM NAME *IGNEOUS UNIT AGE	N35A<
*IGNEOUS UNIT NAME	N50A C
SECOND IG. UNIT AGE SECOND IG. UNIT NAME	N65 <n65a< td=""></n65a<>
GEOLOGY COMMENTS	NESK ON ARIZONA CLAIM, SPOTTY PYROMETASOMATIC BASE METAL MINERALIZATION
OCCURREC) ALONG-CONTACT OF A WARROW, IRREGULAR BAND OF PENN-PERM. NACO LIMESTONE AND
	GENERAL COMMENTS
GENERAL COMMENTS O	EN SEE ALSO : PROTO MINE GROUP
CELLEN & CONTRICTED O	The Samuel Control of the Control of

NAME: Gladstone 9P	inacperdencia, Thessal	COUNTY	anta Cruz		
T 255 R 16E SEC. N		$\lceil \omega, \omega \rceil$	· Todal] Patagonia		- 3
Mineralization: Cu, dg, d	a cp, block	% Casx		No. of the contract of the con	
Geology:					_
Type Operation: 5% apt					
Production: Over I, oan tsus, a	eve. 2.1 Au, 7, 302 Ag/7	-, 8% Ci , MINON	ρb		
References: A SM					

	1944	1936 1936 1946 1947 1947 1941 1941 1941 1941	1915 1916 1916 1917 1928 1928 1924 1925 1924 1926 1926
	1918 58 42 2018	29 101 101 141 142 125 125 127 127 100	215 215 215 215 215 217 217 217 217 217 217 217 217 217 217
	(30.)		1.00
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	16783	39799	
	Proto Bing	Todd Todd Boshu	
L. B. Bargara Mass. 1984. 1984. As a 1884 bearing lower on the company	* **		· · · · · · · · · · · · · · · · · · ·

X HAME: GLAD STOL	DMINE	COUNTY: S	canta Chuz
(1926) includes Independencia The souli T 235 R/GE	a - Euroka (Proto Grp)		the I Hugo Miller V Todd
Mineralization: Cu sulfide c	, Pb, Zn, Ag Au.	Cu , Ag \	
Geology:			
Type Operation:	Shaff & adit		
Production: 215 (1914) 7 (1942), 141 (1943), 252 (1944)	28(1917) 195 (1920) 10(1924)	I (1926), 47 (1928), 125 (19	129), 125(930), 6(1936), 15 (1941)
References: ABM			
			Year 1924 1936 1936 1937 1936 1936
			1045 28 28 70 6
			365
			74 S S S S S S S S S S S S S S S S S S S
			163 CF 57,490 4,950 20,968 6,073 2,981 765
			185 13 13,014
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A DNA DEPARTMENT OF MINER. RESOURCES

Mineral Building, Fairgrounds
Phoenix, Arizona

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{	JEG 6	- 10k	F
1	75. N. 1.	1 (11) 	iti ≥aana ar

Inform	ation from: Mrs. Hugo Miller			DECEMBER 1
	s: Box 257 Nogales, Arizona			PHOEN!
	GLADSTONE also known as Independence	_ 3.	No. of Claims	- Patented8 reported
Locatio	on: $15\frac{1}{2}$ miles east of Nogales in b. 31	n Syc		
Sec_un	surveyed _{p 23S} Range 16E	_ 6.	Mining Distric	tPalmetto ?
	Mr. & Mrs. J. W. Forsythe, 920			
Addres	s:		5	
Operat	ing Co.: Leased to Hanna Mining	Co.		
Addres	s:112 So. Van Buren, Tucse	on.	-	
Preside	nt:	_12.	Gen. Mgr.:	
Princip	al Metals:	_14.	No. Employed	
Mill, T	ype & Capacity:			
	t Operations: (a) Down [(b) Assested	ssmen (e)	it work ဩ (c) E Rate	xploration 🤈tpd.
New W	/ork Planned:			
	1965 The Hanna Mining Co. built ording to Mrs. Miller they stil			
Miscl.	Mrs. Miller states tha	t her	husband min	ed the highest grade
	Notes:	prop	erty in the	late twenties.
		5		
				3
				2
	:			
	~			3
11.	/30/66 <i>Ill</i> .	_0	111	G. W. Irvin
:e:	(Signature	<u> </u>		(Field Engineer)

MINE NAME: Gladstone Mines
LOCATION: Palagonia Mining blistries: Santa Cong County
LOCATION: Illings From 17 To To Do Con Superior
OWNER AND/OR LEASEE: WHLTER W. TODD, Owner and France
ADDRESS: P.O. Box 1812-nogalis, and
APPROXIMATE PRODUCTION (Year of 1945):—Copper—2-50toncoro—12611—Copper— 1944—4-50ton cars copperbre—24362 lbs Copper— COPFER—Lbs. LEAD
COPFER Lbs. LEAD Lbs.
ZINC Lbs. (OTHER) Selver 5 tob of
CHECK THE CHIEF CAUSE OF YOUR DISCONTINUED PRODUCTION:
(A) Easily available ore worked out. (B) Increased costs, but have quantity similar to past grade of ore. (C) Too close a margin to develop more ore. (D) Jung Gus worked mine. I impured my know to discontinual, My Know to or more.
If you have ore ready to mine please give your estimate of the amount of metal (name each metal) that you could produce in one year (after allowing 60 days to get started) if there were premiums above present market prices. Name amount with a low premium, and amount at a high premium; such as: Copper at $22\frac{1}{2}$ ¢ plus 5¢ premium
Iwo high could low out 4-50 lon care Same as obour about 24000 los copper should have a 5% primium about 221/2 can Imal armount of cush & Sant If you do not have ore ready to mine please discuss the following:
(A) Do you think a reasonable development program would produce a justified tonnage of commercial ore at above mine? In 1945 Mode approved but could not interfere the local form was approved but could not interfere the local form that the local interference that the local formation of the local f
Leokper. Drus of Silver of This is what

	(C)	If you could not do this yourself, would a quick drilling program by some government agency (at government expense) be sufficient?
	(D)	Or would you prefer a loan plan similar to the arrangements during World War II?
		WED.
How about	a co	mbination plan in two stages such as follows?
Stage 1:	to b	rnment engineers review project and, if a little drilling appears e justified and a preliminary key to the situation, such drilling ram to be agreed upon by owner and government engineer, paid for he government, but let by contract.
Stage 2:	deve	esults of drilling (or without drilling) justify underground clopment and/or production equipment, same to be obtainable via a gage loan on property.
	Plea	ase discuss the above: I can Shart mining
·cur	1	I close the loan deblied for in 1/945
X	ule	De all . Old - V. A. ala III.
mo	X	mine a known body of good an
SUGGESTIO	ONS:	word that you contact the Thorne
Offi	ur,	believe that you contact the Thorne of making the all mussey
ing	07	malian
date <u>(</u>	luy	6-1950. SIGNATURE Walken W. add P.O. Box 1812- Nogalia, and

7.000

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA

OWNERS MINE REPORT

9,70

Date July 1, 1943

Mine

Gladstone Copper

District

Patagonia, Santa Cruz County

Location 14 miles northeast of Nogales on

Washington Camp road.

Former name

Owner

W. W. Todd & C. C. Hoffman

Address Hoffman, Box 1812, Nogales, Ariz.

Operator Same

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals

Mill: Type & Cap.

Men Employed

Production Rate

Power: Amt. & Type

Operations: Present We are stoping ore in two places.

Operations Planned We are planning to sink winze 50 feet and come up under another large ore body.

Number Claims, Title, etc.

5 unpatented.

Description: Topog. & Geog.

Very rugged.

Mine Workings: Amt. & Condition

We have a cross-cut tunnel 600 feet long, 130 feet below the surface at location monument, then we have a winze down 90 feet with a drift 100 feet long under two ore chutes.

(over)

Geology & Mineralization

The country rock is monzonite and the vein structure is very good outcropping with wide quartz veins three miles long.

Ore: Positive & Probable, Ore Dumps, Tailings We have at least 50 carloads of ore on dumps that will average 3% copper and we have 3 ore bodies in sight that will run 2000 tons. These three ore bodies are continuous; two of them are 160 feet deep and 110 feet on the cross section and will average 20" thick of 12% copper. The other ore chute goes down - we do not know how far until we sink the winze down.

Mine, Mill Equipment & Flow Sheet

We have a compressor, a Studebaker power plant, jackhammer, stoper, air hoist, drill steel - everything for an operating mine.

Road Conditions, Route

Good road right to the mine and a good house to live in.

Water Supply

Limited; the mine makes just about enough water to work it.

Brief History

This mine was located Jan. 15, 1890 and was always worked by hand until weetook it over three years ago, but there have been hundreds of carloads of ore shipped.

Special Problems, Reports Filed

We have sent all of our reports and maps to the R.F.C. as we have had a \$5,000 development loan O.K.'d by them.

Remarks

If property for sale: Price, terms and address to negotiate. The whole property is worth \$50,000 and it will take \$10,000 cash toward a 1/2 interest in property.

SURVEY OF OPERATING MINES

By: George A. Ballam

DEPT. MINERAL SCO. LES RESE VED

ARIZONA

JUN 15 1942

PHOENIA,

GLADSTONE MINE

June 10, 1942

This property is situated about 15 miles NE Nogales in the Patagonia Mining District, on a southern spur of the Sahta Rita Mts. The owner is Walter W. Todd. There is a tunnel/ 200' with a 100' winze. The owner claims he can ship 10% copper ore of which some 7 cars have already been shipped.

He desired to make application for a "B" Development loan, and the necessary information to make such application was furnished. Three men are working.

Nevye a Ballam



MEMORANDUM

To: Director, Dept Mineral Resources

From: George A. Ballam

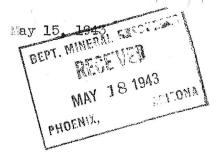
Mr. Brown and I visited this property accompanied by one Bill Smoot who has a lease on the adjoining Upper Proto.

The middle portion of the property is held under lease by Chas. C. Hoffman and one Todd of Nogales. These men have been working during the past year and have about a car of high-grade (10% and better) copper ore ready to ship. They are mining in a 100 ft. winze off the tunnel level and have drifted about 30 ft. coming up on ore. It was examined by RFC (Rasur) for a loan, but apparently not enough ore showing to warrant larger development loan. In view of the showing already made, and possibility of a couple of cars readily obtainable, it might well qualify for a small operating capital loan. Hoffman is very determined and is taking the matter up with Sen. Hayden and others. Has been promised a re-examination. If he needs assistance in making application for the revised amended loan will help him.

This property is owned by the Forsythe estate, and is sometimes known as the Gladstone.

14

Globertallan



MEMORANDUM

Proto Mine (Upper)

Good Backer

To:

Director, Dept. Mineral Resources

loan, and try to learn what they found.

From: George A. Ballam

Bill Smoot of Tucson has a newly-executed lease from Will Patty, owner of the claims known as the Upper Proto. Some work was done by Lee West and Higgins during the past year. They went in from a tunnel on a parallel vein to that of the middle Proto of Todd and Hoffman. About 200 ft. from the portal a x-cut had been driven diagonally to intersect the main vein referred to. Apparently contact had been made without showing ore. I examined the Hoffman tunnel but beyond where he is working it is badly caved and blocked off, consequently it is impossible to get in to see where the x-cut intersected. That tunnel is also inaccessible. There is no record of ore having been found there. However, I advised Smoot to contact

West and Higgins before submitting application for an accessibility

The property has a record of shipments of considerable high-grade ore, but has not been worked for many years and it may be that a great deal of preliminary work would be necessary to open The outcrop is definite enough along the area in it up again. question, but it appears to be one of those in and out things in the monzonite and altered granite. Rasur, I believe, said it was a condition of small lenses of ore. There are numerous tunnels, opencuts and shafts over the entire Proto property, and it might be difficult now to find out where earlier production was had.

JUN 13 1942

June 11, 1942

ARIZONA

MEMORANDUM

PHOENIX,

PROTO MINE (Patagonia District)

To:

Director, Dept. Mineral Resources George A. Ballam

From:

This mine is situated on a southern spur of the Santa Rita Mts., about two miles west of the Patagonia highway, 15 miles northeast of Nogales. It is owned by Lee West, Box 1113, Nogales.

This is a copper property with a small record of 35 cars shipment. Mr. West has shipped 5 cars during the past year, and desires to open up more ore. He claims to be able to produce copper ore running about 10%.

He desires to make application for a "B" loan. Assistance in making application was rendered. At present he is employing no men.

George a Jallam

ų.	1	AND ADDRESS: W.W.Todd, Box		MINE STAT	_	
			, , , , , , , , , , , , , , , , , , ,	7/4/4	Shipping	
						7

NAME OF MINE: OWNER:

PROTO

COUNTY: Santa Cruz

DISTRICT:

METALS: Cu

Date:	W.W. Toda	& H. Bostwi	ck.	Date:	MINE STATUS
6/46	Box 1812,			6/46	Shipping
					•
a., :					
	1				**

MINE - PROTO MINE - 2 miles west of the Patagonia highway,
15 miles northeast of Nogales.

Lee Leeletone (file) USGS Bull, 582, p. 316

PARTMENT OF MINERAL RESOUR 45

STATE OF ARIZONA

XFIEED ENGINEERS REPORTS NEWS ITEM

Mine Gladstone Mine

Date Jam. 9, 1952

District Patagonia Mining Dist., Santa Cruz Co. Engineer Axel L. Johnson

Subject: News Item --- Source of Information --- J. W. Forsythe, Owner

Location 15 1/2 miles east of Nogales, on the road to Washington Camp. It is about 3 1/2 miles west of Washington Camp.

Number of Claims 8 unpatented claims.

Owners Mr. and Mrs. J. W. Forsythe, 920 Forsythe Road, Carnegie, Pa.

Operators None. Operators having assessment work done.

Metals Found Copper and Silver.

Men Employed None, except for a ssessment work.

Production Rate None.

Ore Values Copper 10 % to 15 %. Silver about 2 oz.

Geology and Mineralization Found in a vein, ranging in width from 0 to 18 inches.

Old Workings One tunnel into the mountain, about 300 ft. long.

One winze, near end of tunnel---100 ft. deep. (Vein is reported to be 3 ft. wide at bottom of winze)

Past Production Considerable past production by former leasers. Mine was last worked in 1946 and 1947. Later the lease was cancelled, and the mine has remained idle.

Proposed Plans Owners would like to sell or lease the property. Sale price is placed at \$40,000. Will lease with option to buy at \$40,000, with 10% royalty, the royalty to apply on the purchase price. Owners wish to have \$500 down, or else a minimum monthly royalty, or a specified amount of work to be done per month.

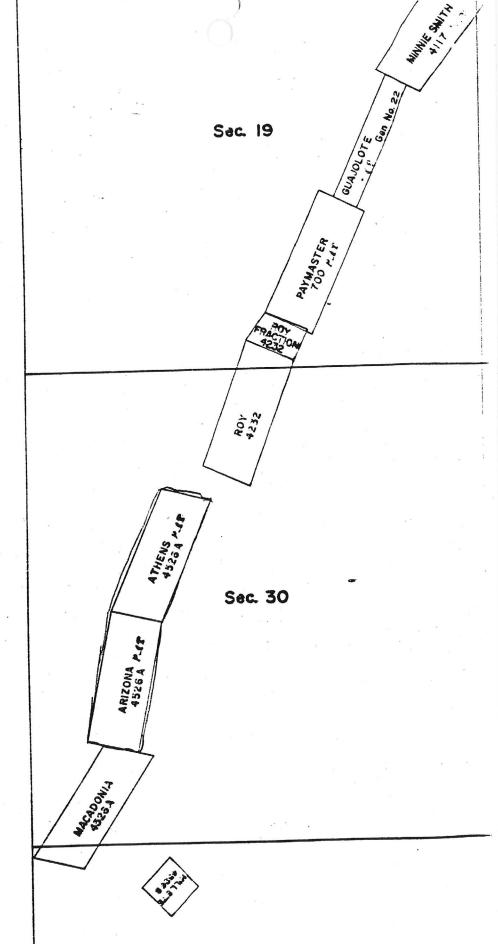
Remarks Owners, Mr. and Mrs. Forsythe, live in Carnegie, Pa. They are here for a couple of months only to see that the assessment work is done.

From

BLM Mining District

Sheet # 725

SW/4, T. 235, R. 16E



REFERENCE 1 M (USBM - ABGMT DUCT)	*GENERAL REFERENCES ON DATA, GLAOSTONE - PROTE LE GROVE
REFERENCE 2 12 (ADMR FILE DATA, GLAD	STONE (PROTO, INDEPENDENCE) MINE
REFERENCE 3 P3 (USBM - FILE DATA, CLU	STER # 22, GLADSTONE MINE GROUP
REFERENCE A FA (ABOMT CLIPPINGS FILE	DATA, GLADSTONE MINE
	DO AND BOSTWICK, HUGO MILLER, HANNA MINING CO. (1966), MILLING CO. MICHELS, PROTO BROTHERS R.C. BLABON; PROTO RE MERGED IN 1930, FORMING TOTAL OF 10 UNPATENTED CLAIMS >
DUEDOCE 20 INCHES THICK OF	ERTY : 2 OF THE 3 ORE BODIES ARE 160 FT DEEP 110 FT WIDE AND 12% (U : GLADSTONE AND PROTO MINE GROVES COVER CENTRAL WERE SYSTEM, WITH KNOWN EXTENIT FROM BUENA VISTA GROVE ON FON NORTH >
NIE - DEPOSITE - NOUNTHROW TO ES	FPLANES, AND OTHER FRACTURES IN QUARTZ MONZONTE TIND DOGITEZ
N 70 < VEIN SYSTEM; MINERALIZAT	
N 80 < INTRUSION OF PORPHYRITIC	GRANDDIORITE> FORSCRIBES GLADSTONE MINE> DIN GLADSTONE - PROTO MINE GROUP>
QUADRANGLES SANTA CRUZ CO F7 KEITH STANTON R 1975 IND ARIZONIA BUREAU OF MINIES BI	DUNTY, ARIZONA: USGS MAP I-762 (1:4800)> DEX OF MINING PROPERTIES IN SANTA CRUZ COUNTY, ARIZONA; DEX OF MINING PROPERTIES IN SANTA CRUZ COUNTY, ARIZONA;
	U.S. CRIB—SITE FORM RECORD IDENTIFICATION B20 (X.1.M.) DEPOSIT NUMBER B40 (FILE LINK IDENT. B50 (M.S.MDO40230198
YR. MO. PORTER(SUPERVISOR) G2 < LARASA, PETER	(CALDER SUSAN (last, first, middle initial)
(lost, first, middle initial) EPORTER AFFILIATION GS < ABG MT YNONYMS AII < TN DEPENDENCE THESS	SITE NAME ATO (GLAD STONE MINE GROUP
INING DISTRICT/AREA A30< PATAGONIA DISTRICT A60< SANTA CRUZ	
ASS (1.2.1). AS	
*ACCURACY ORTHING A120 (3.4.7.3.5.5.9.) ASTING A135 (5.3.3.6.18.8.) ACCURACY ESTIMATED ESTIMATED ESTIMATED	*LATITUDE A70 < 3.1 2.3 5.3.1 *LONGITUDE A80 < 1.1.0 - 4.5 0.3.1
ADASTRAL OWNSHIP(S) ECTION(S) A77 < Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q	**************************************
AERIDIAN(S) ASI (GILA AND SALT RIVER	OF
CCATION COMMENTS ASS (4.0 MILES ALL) OF WASHING	EAST, NOGALES INTERNATIONAL AIR PORT TON CAMP; NORTH SIDE OF PROVIDENCIA CANYON, LO MILE WEST OF SPECTS LOCATED ON USGS MAP; PROTO MINE LOCATED LESS THAN "H O NE OF GLADSTONE MINE >

ESSENTIAL INFORMATION
ESSENTIAL SOMETIMES OR HIGHLY RECOMMENDED

MEMORANDUM OF MINING LEASE AGREEMENT

Under the terms of that certain MINING LEASE AGREEMENT dated effective as of the day of ,1988, by and between MADELINE MINCHIN, a widow designated as "OWNER" and INTERNATIONAL DORADO RESOURCES, Ltd., designated as "LESSEE"; OWNER has leased and let to LESSEE the following described real property:

The Arizona and Athens patented lode mining claims of United States Mineral Survey 4526, situated in Section 30, T. 23 S., R. 16 E., G. & S.R.M. (unsurveyed), Santa Cruz County, Arizona, all as more particularly described in the United States Patent No. 02-63-0156, a copy of which is of record in the office of the Recorder of Santa Cruz County, Arizona and the description in which Patent is by this reference incorporated herein and made a part hereof;

(which patented lode mining claims are hereinafter referred to as the "Leased Premises;") pursuant to which LESSEE shall have the exclusive right to explore, develop, remove and sell "Leased Substances" from the Leased Premises.

Unless sooner terminated the term of this Agreement shall be for a period of ten (10) years from the effective date herof, with the right to renew this Agreement for an additional period of ten (10) years.

Right of First Refusal. If, at any time during the term hereof, OWNER intends to sell, assign, transfer or convey the interest retained in the Leased Premises under this Agreement, OWNER shall deliver to LESSEE at least thirty (30) days' prior written notice, describing all of the terms of the proposed sale, assignment, transfer, or conveyance. LESSEE shall have the exclusive right during the above thirty (30) day period, at its election, to purchase the interest described in said notice, for a sum of money equal in value to the consideration which would be received by OWNER under the terms set forth in the written notice. If LESSEE elects to purchase the interest described in the notice, LESSEE shall so notify OWNER within the thirty (30) day period. OWNER shall have the right during the next succeeding thirty (30) day period to sell, assign, transfer or convey the interest as described in said notice, but all subject to this Agreement. Upon expiration of the above-described second thirty (30) day period, any subsequent sale, assignment, transfer or conveyance of any of OWNER's retained interest in the Leased Premises shall be subject to LESSEE's foregoing right of first refusal, all upon the terms and conditions set forth above.

IN WITNESS WHEREOF, this MINING LEASE AGREEMENT has been executed as of the date first above written.