

CONTACT INFORMATION

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Arizona Department of Mines and Mineral Resources Mining Collection

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05/12/87

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: RATTLER MINE

ALTERNATE NAMES:

TROY COPPER CO. PROPERTY

PINAL COUNTY MILS NUMBER: 134

LOCATION: TOWNSHIP 3 S RANGE 14 E SECTION 26 QUARTER C LATITUDE: N 33DEG 08MIN 31SEC LONGITUDE: W 110DEG 53MIN 08SEC TOPO MAP NAME: SONORA - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

COPPER

BIBLIOGRAPHY:

ADMMR RATTLER MINE FILE ADMMR TROY MINE FILE RANSOME, F.L., RAY FOLIO 1923, P. 22 ADMMR U FILE PINAL CU21 (USBM NO 463.2/15083) USGS MAP GQ 1021; 1971



Ratter Mine file Maricopa

STATE OF ARIZONA, County of MARICOPA SS:

NOTICE OF INTENT TO HOLD MINING CLAIMS (IN LIEU OF AFFIDAVIT OF ANNUAL ASSESSMENT WORK)

1. He/she is one of the owners of the following described unpatented lode and placer mining claims situated in

County, Arizona (the "Claims"), the location notices of which are of record in said county, and in the records of the Arizona State Office of the Bureau of Land Management under the file numbers indicated as follows:

CLAIM NAME	COUNTY RECORDER'S DATA	BLM SERIAL AMC NO.	SEC.(S)	TOWNSHIP	RANGE
RATTLER"	Doc. 964 PG 86	315999			

Additional claims, if any, are listed on attached sheet.

2. Pursuant to the Act of August 10, 1993 (107 Stat. 312 [1993]), owner has paid an advance rental fee of \$100 per claim for the assessment year beginning on September 1, (9, 9), in lieu of recording an affidavit of performance of annual assessment work. Owner further states, however, that mineral production activities have occurred upon the Claims during the past assessment year that would have ordinarily qualified as annual assessment work.

3. The name and address of the owners of the Claim for which this Certificate is prepared is

4. The Claims are held and claimed by the owner for the valuable mineral contained therein, and the owner intends to continue development of the claims.

DATED this 28 3 day of Sept., 19 98. Williem H. Half z W. Half Sent The foregoing instrument was acknowledged before me this $\frac{2871}{2871}$ day of My Commission Expires April 4, 204 My Commission Expires:

DEPAR		NERAL RESOURC	ES MINICOAL RECOMMENTS
	REPORT TO	OPA ON	DEPT PERSON
	ACTIVE MININ	G FROJECT	MAY 29 1945
Unar 29	19,15		Filing Information
P #	3	File Sy	/stem
me of Mine	er	File N	0
wner or Operator	elb	This ch oline r	art to be used for gallons of gas equired per month.
Idress	I R D	······	
ne Location Trey Gil	a Co. Un	-7	
RESENT OPERATIONS: (check 2	0	0	
Production: Developm	ent: Financing	; Sale of mine;	-1
Experimental (sampling)	; Owner's occasional	trip;	
Other (specify)			
		~	
ODUCTION: Past and Future.		lons	
Approx. tons last 3 months		350	
Approx. present rate per 3 h	the	500	
If in distant future check (X) here		
	,		
QUIPMENT OPERATED:	Quantity or	Hilando Hours	Gallons Required
Туре	Horse Power	Per Month	Per Month
Personal Cars			
Light or Service Trucks	40		2 00
Constituting placks	70	- <u>4 40</u>	310
Compressors Orcuta	-74 9	240	
P4 2007		e z e	
Other Mine or Mill Eqp.	7	5	440

NAME OF MINE: RATTLER	COUNTY: PINAL
ŧ	DISTRICT:
	METALS CU
OPERATOR AND ADDRESS:	LITE STATIS
DATE:	
5/1/44 H.R.Scott, Box 2893, Globe	5/1 /44 Mining
2893	5/16/44 Shipping per Mart
	1/4/5 Sharing Por 1/467.
	10/15 Fal-
	4/46 Developing
the second second	
4	
5	Report on file by Mcfari
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DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA FIELD ENGINEERS REPORT

MineRattler Group of Copper Claims and theDateFebruary 15, 1945Pilot Copper Leaching Plant ThereonDistrictRiversideEngineerA. Macfarlane

Subject: Report

On April 17, 1944 the field engineer for the Eastern area of the State examined this property and his report of that date is now part of this second examination and report.

The second examination was confined to a study of the lower tunnel workings and the 8-ton Pilot copper leaching plant recently installed just beneath the outer portal of the main or adit tunnel.

<u>Mine Workings</u>: The attached maps show over 60' of adit driven southward from portal through what appears to be a diabase, barren of mineralization, until the limestone here is reached. About one hundred feet within tunnel from portal a strate conforming to the limestone bedding planes is visible as a body of low grade copper, having a dip of 10° towards the south and the lateral continuance being easterly and westerly from the stopes and tunnel sides.

There are approximately 900 linear feet of exploration under ground workings now open for inspection, and probably as much more at present caved and not now accessable.

<u>Measurable Ore Tonnage</u>: I estimate the visible workings of the adit tunnel to now contain upwards of 10,000 tons, and in order to obtain a practical estimate of the copper content, I dug 4 holes into the dump made from former stoping of the tunnel copper body.

This dump contains about 2,000 tons mostly copper in carbonate and sulfate form and the assay gave a copper content of 1.29%. As this dump was made by a long past operation, it is likely some higher grade was sorted out and shipped to one of the smelters then.

The presumption of 1.3% copper seems fair as a basis for further estimates covering the mining and leaching of the ores from the area and copper strata of the adit tunnel.

The Session ore body is stratagraphly about 250' higher than the adit tunnel and seems to have a much steeper dip again towards the south. These separate copper stratas are connected to the lower or adit level by a winze from floor of upper tunnel and by the Session shaft which has a depth vertically below collar of nearly 300 feet, thence drifts and crosscuts connecting with the adit tunnel.

In all many thousand tons of leachable copper ores are opened by the large amount of mine developments made during the latter part of the 19th Century on this property, all mineable through the lower or adit tunnel.

Mine Costs: No further mine developments need be considered now, the old workings containing both in the stope faces and gobbing an ample ore reserve for one or more years.

RATTLER GROUP

-2-

February 15, 1945

Mine tracking is required and a few ore chutes. The limestone hanging wall is firm and only occasional pillars and stulls will be required to safely sustain same. The copper ore stratas varies in thickness from 3' to 6'.

On basis of mining, tramming and crushing 100 tons in the day shift of 8 hours, cost @ \$1.10 per ton Leaching, labor, supplies, water, power .70 Overhead and emergency .20 All direct operating expense \$2.00 per ton

Estimate of Outcome: Assume a recovery of 25 pounds copper per ton of ore; copper @ 17 cents less marketing cost of 3 cents, we have 25# at 14 cents net, or a gross per ton of \$3.50, or if 20# recovered @ 14 cents, a gross per ton of \$2.80. In either assumption, a substantial margin of \$.80 to \$1.50 per ton may be earned in order to repay the plant investment.

<u>Pilot Leaching Plant</u>: During the past 4 months the owner of the Rattler Mine, Mr. H. R. Scott, has purchased and installed a small leaching unit consisting of 3 redwood tanks. Capacity of around 8 tons ore and solution per tank. Also 2 wooden precipitating boxes made into compartments with perforated shelf 4" above bottom, holding about 1,000 pounds scrap iron. The pregnant solution drawn from near bottom of the leaching tanks at 36 to 48 hour periods, circulates through the scrap and discharges into a small sump, thence pumped back into the leaching tanks. A 2% sodium bi-sulfate solution is used in the leaching tanks to liberate the copper from the crude ore.

The ore as trammed into the leaching tanks heretofore has not been crushed and ranges in size from fines to pieces barely passing a 4" ring. No accurate sampling and assaying has been made on the heads and tails other than a dump sample assaying 1.3% cu, probably a close assay of the 30 tons crude ore fed into the leaching tanks.

At request of the writer the sludge or precipitating boxes were cleaned up, the cement copper dried and weighed. A sample of this first lot assayed 52% cu and the total dried weight of 1,200 pounds figures 624 pounds metallic copper from 30 tons crude ore, equals 21 pounds per ton recovered and is 81% of the copper originally in the ore.

<u>Recommendations</u>: It is of paramount importance to the smaller copper mines of Arizona and elsewhere that a leaching unit of 50 to 100 tons daily capacity shall be designed and made workable through tanks. This method of copper leaching may be done with a small and limited water supply, the consumption of same may not exceed 1/2 ton water per ton crude ore, and by proper sampling and analysis the proper quantity of activating acid will be determined and the time of leaching required to convert the copper into solution.

The above practical on the ground experiment No. 1 indicates that better copper recovery can be made by crushing all ore through a 1/2" to 1" size and again the activating acid, whether the sodium bi-sulfate, or sulfuric acid, shall prove most efficient, are problems yet to be determined.

All the large copper operators of southern Arizona commonly known use sulfuric acid as the principal activating agent. The application of sodium bi-sulfate may not be affected by the very low percent of free lime in an altered limestone, and might well

RATTLER GROUP

be tried out further, and in the event the sulfuric acid method proves cheaper and more efficient it will cost very little to change the solvent.

<u>Plant of Commercial Size</u>: It is now desirable to instal a 50-ton "per 8 hour unit" and the following estimates may approximate a workable plant and costs thereof erected on a mill site underneath the adit tunnel. Required 2 rock and cement leaching tanks 20' x 25' x 5' each. Each tank will have a capacity of 100 tons ore and solution.

cost built on the mill site \$1,500 each	.00
Ore crusher designed to crush fine installed above	
tanks, together with bridging and power	,00
Additional scrap iron precipitating boxes	.00
Hillside grading and retaining walls	.00
Iron cleaning furnace and burner complete	.00
Titrating and cleaning up floor and building	.00
2 acid proof solution pumps and power	.00
1 drying tray and furnace burner 300.	.00
1 slusher with adequate guide and tail	.00
(pulleys, cable, etc. installed to unload leaching tanks)	
Contingent needs and reserve	.00

Total plant erected and maintained in operation for 2 months \$8,000.00

Mine Preparation:As the gob is cleaned out along the tunnel floor, 8# to 12# teerail used, with 24" x 4" x 6" ties will be laid from crusher to mine headings, in allabout 1,000 linear feet of mine trackage.Most of the mine gob left by a formeroperation is copper ore and will be trammed direct to the leaching tanks.Trackagewill cost \$1,000.00.\$1,000.00On completing the mine cleaning a 3 or 4 drill capacity aircompressor with all accessories, piping, etc. will be required,a used plant may be secured costing2,000.00Mine timbers, shop and reserve for 60 days operation2,000.00

Total mine reconditioning \$5,000.00

<u>Road</u>: A good state road distant 5 miles from the Rattler leads to the Hayden smelter situated about 25 miles south. From the point on state highway nearest a piece of new road should be built to pass the Cocerham gold mine, thence westerly some 2 miles to the Rattler pilot mill. Application to the access road department will be made for this new piece of road. The property is now connected to this highway by a rough but passable road leading from the Rattler mine via Troy to the Winkelman-Globe road. Water is pumped from over a ridge distant 1/2 mile, in sufficient volume to provide the anticipated leaching plant.

<u>Conclusion</u>: Due to the extensive mine development work of many years ago in a former effort to ship higher grade copper to smelters. This work has made available and visible through the adit tunnel a large tonnage of low grade copper carbonate ores.

Within the lower workings where dampness contacts the ore chemical change to sulfate is very noticeable, suggesting adaptability to leaching.

It is a step in the right direction to develop a small sized copper leaching plant at this Rattler mine. Only such plants may treat copper carbonate ores of less than 2.5% to 3% copper. There is a very large tonnage of such ores in Arizona, which must be depended upon to provide work and the useful copper product as a post war measure.

SUMARY REPORT OF RATTLER MINE

February 27, 1945

Manugement

Mr. H. R. Scott of Globe, Arizona, is known as an experienced and industrious miner and small mine operator, who, being the owner of the Rattler copper property, proposes to manage the mining and leaching of the ores, assisted by a man with assaying experience.

Property Description

Consists principally of an adit tunnel and drifts, upraises, incline and winzes therefrom; in all several thousand linear feat of underground workings, the development of two copper bearing strates. (See mine maps).

Plant

Just below the floor of the above stated adit tunnel is now installed a pilot copper leaching plant consisting of 3 Redwood tanks, diameter 10° x 5° in height, and just underneath the tank floors are two lines of compartmented Redwood precipitating boxes filled with cleaned cans and iron sorap.

A small sump just lower than the last scrap iron box is equipped with a small acid proof pump for the return of the solutions to top of the 3 lanching tanks.

It is proposed by the owner to build a copper lanching tankage with rock cement tanks with an 8-hour capacity of 50 tons, this proposed plant to consist principally of:

2 stons cement thick walled and floored tanks 20° wide by 25° to 30° long. Constructed with doors of plank and some type of packing sheet at the "ends centers" of the stone tanks, in order to discharge the leached and percolated tailings by slucher scraper to dump.

An 8" x 8" timber bridge floor above center of the 2 stone tanks, whereon is to be installed a jaw crusher of type to crush to 1/2" to 1" size, and high snough above the tanks to allow of their filling directly by distributing launder from under crusher jaw.

The present pilot tanks sill serve as water and solution storage above the leaching. Benesth the leaching tank floors will be placed the acrep iron precipitation boxes and the sump with an acid proof pump for the return of all solution to mill head. On the level of the sump and precipitating boxes will be the drying and clean up floor and facilities.

Harkst

The Hayden copper smalter situated 30 miles southerly on good road is a purchaser of cenant or copper sludge, as well as ores and concentrates. The International smalter near Miami, Arizona, distant 55 miles, provides another market for this product.

Batimate of Production Costs

Mining, transing, crushing Leaching, lubor, supplies, water, power Overhead, accounting, etc. Direct Production Costs

Property Survey and Appraisal

Mines opened during 1880 to 1910. Pilot leaching plant was built late 1944. Buildings consist of 5 room mine cabin and small shop, situated about 1/2 mile west of adit tunnel. Power at present - none used. Will be small.semi Diesel unit. Present value and cost of surface improvements \$3,500.00. Cost of proposed copper leaching plant 10,000.00. Mine developments now usable estimated at 50,000.00.

Operations and Carnings

- 1. The proposed unit of 50 tons daily is believed to be adequate to recover 75% to 85% of the copper in the orea to be leached.
- 2. There are visible and available ores within the tunnel and it is believed that Mr. H. R. Scott is sincere and with sufficient ability to manage the work, and by his engaging an elderly man with sufficient experience in making copper determination and titrations the project can be operated efficiently.
- 3. The above estinate for completed 50-ton plant seems fair at \$13,500.00.
- 4. As only from 5 to 10 slderly minors and millmen are required, these are available in Globe or Winkelman - men rejects of the large copper producers.

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA FIELD ENGINEERS REPORT

Mine RATTLER GROUP OF COPPER CLAIMS

Date April 17, 1944

District Riverside

Engineer A. Macfarlane

Subject: Report

Owner: VH. R. Scott, Box 2893, Globe, Arizona

<u>Property & Location</u>: Consists of ll unpatented claims all contiguous, situated on the eastern slope of the Dripping Springs range, and about 2 miles westerly from the Dripping Springs wash, and adjoins the southeasterly limits of the old village of Troy.

The elevation at that point of the road crossing the creek or wash is 2,800 feet while the elevation at the main tunnel of the mine registered 3,500 feet a climb of 700' in this 2 miles.

The mining district of the locality is known as the Riverside and adjoins the south end of the Pioneer district, Pinal County, Arizona

<u>History</u>: These claims were formerly part of the Old Troy mine, discovered and worked many years ago, then in part abandoned by former owners, the present ownership being by location within the past few years.

<u>Record of Ore Output</u>: None of the old records are available now, but examination of the mine openings leads me to state that several hundred tons of hand sorted or selectively mined ores have been marketed.

The present owner has within the past few months, mined and trucked 3 small carlots, the settlement sheets giving copper grade ranging from 3.5% to over 5% copper.

<u>Transportation Roads</u>: From the International smelter at Miami, major and State highways pass within 5 miles of the mine and three or four miles up the Dripping Springs valley are county maintained. The last 2 miles to reach the cabins of the mine are broken with steep grades and much rocky terrain, passable with care for trucks of small capacity.

This last section of the road can be improved at moderate cost. The total distance from smelter to mine is about 36 miles. Another road from the buildings of the Troy village leads westerly and down grade for 6 or 7 miles to Ray Junction. Mr. Scott states that repairs are required to reopen this old road.

<u>Mine Workings</u>: Three tunnels driven from the northeast hill slope in a more or less southwesterly direction have cut the mineral system, and on which some drifting and stoping has at past time been done.

The general course of the stratas are from west to east and dip at varying degrees towards the south and as this examination was made for the purpose of ascertaining the feasibility of immediate copper production, the writer, after looking over the lower surface, decided that the vein as cut in the upper or Session tunnel, offers the best opportunity for copper production.

Session tunnel workings consist of an adit driven for about 100' southerly into the steep hillside, and the vein was cut at this point; thence a winze was sunk to

RATTLER GROUP

April 17, 1944

connect with the intermediate tunnel which is about 130' lower than the Session tunnel.

The vein where cut by the adit and at the top of this winze is fully 4' in width and at this point shows copper content stated by Mr. Scott to assay from 2.5% to about 4%.

The vein should be drifted on and an occasional upraise as lateral work of exploration be made, extending both easterly and westerly from the adit. I feel that this exploration will be justified by opening up an upper level along this horizon of the mineralization and may make available a substantial tonnage of copper.

Three or four hundred feet of development will require the installation of an air drill and compressor plant; this also for the subsequent stoping of the ores, together with ore bin, road improvement, mine trackage, and air pipe line to drilling faces.

<u>Vein Structures</u>: Surface croppings are plainly evident and surface cuts made show continuity of the mineralization. The lower tunnel fully 350' under the general surface of the vein proves the vein structure at that depth, but ores of a lower tenor than the Session tunnel zone were opened by the lower explorations, and for that reason I suggest the mining be first directed along the upper ore area.

<u>Geological Features</u>: Primarily a limestone belt has through alterations and powerful intrusive action tilted the limes and formed bodies of the limestones irregular as to dip, but generally with the long axis towards the northwest. The first intrusives of granite later altered and in turn in part dislocated by other igneous forces all provided fractures and joints, wherein subsequent mineralization could deposit both in the original form of cold and deeper hot solutions.

The immediate locality within this geological area is fertile with unconformiable rock formations and veins and gashes.

Mineralization both of copper, silver, gold and vanadium has been discovered in mostly small but variable quantities within this immediate area. Only more extensive explorations may prove the value of the belt as an ore producer.

Ore Tonnage: Many thousand tons of generally from 1 to 2% copper content are visible in the two lower tunnels and extending up to the surface, but as this report only deals with the possibility of mining copper of 3% and upwards, a grade required to pay all costs, the present visible exposures are now calssed as Probable or Inferred ore.

The extending of the drifts from near the heading of the Session tunnel and upraises therefrom should place a smelter grade of ore available.

Department of Mineral Resources Globe Field Office

DEPARTMENT OF MINERAL RESOURCES

REPORT

Of The RATTLER GROUP OF COPPER CLAIMS

H. R. Scott Cwner, Box 2895 Globe, Arizona.

Globe, Arizona. April 17th, 1944

<u>Property & Location</u>; Consists of 11 unpatented claims all contiguous, situated on the eastern slope of the Dripping Springs range, and about 2 miles westerly from the Tripping Springs wash, and ajoins the south-easterly limits of the old village of Troy.

The elevation at that point of the road crossing the creek or wash is 2,000 feet while the elevation at the main tunnel of the mine registered 3,000 feet a climb of 700' in this 2 miles.

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RATTLER GROUP OF COPPER CLAES

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> Department Of Mineral Resources Globe Field Office.

INVENTORY OF THE RATTLER MINE SQUIPMENT AS OF FEBRUARY 1, 1945

3	Redwood tanks	\$150.00
2	Steel tanks	100.00
1	2ª deep well pump	150.00
1	1-1/2" Pressure pump	100.00
1	2" Pressure pump	200.00
1	1-1/2 H.P. Feirbanks Morse Engine	100.00
1	1-1/2 H.P. Whitte Engine #340540	100.00
1	8 H.P. Stover Engine #94997	200.00
1	30 H.P. Foos Hoist & Cable	500 .00
1	Grizzly complete	50.00
1	Water tank 450 Gals	75.00
1	D.C. else. Generator & Board #221551 Type B.(C.150.00
1	Light plant & batteries, Engine #17536	200.00
1	Model A. Ford Truck 1-1/2 ton	200.00
1	International Dump Truck 1-1/2	150.00
1	V'8 Ford pick-up '36	350.00
1	Blackmaith forge & tools	150.00
	Mining tools, Miscl	250.00
	Hand tools, Miscl	250.00
3	Mine cars 18" gauge	100.00
	1-1/2 Ton mine rails	50.00
1	Tent house	150.00
1	Tool house	100.00
1	3-roos house	350.00
1	Air receiver	100.00
3	Gre buckets	100.00
1	Shove wheel	35.00
	Leaching plant already installed	
5	Wooden tanks for precipitation	150.00
1	Furnace Burner	25.00
1	Circulating pump & engine #B-51147	50.00
	Foundation for tanks and labor	250.00
	Labor 2 mon installing leaching plant	650.00

\$5,545.00

5 Discoverage	
COMMODITY SUBTYPES	
GEN. ANALYTICAL DATA	
CONCINITO: CONVIENIS	
* SIGNIFICANCE	
INOR PRODUCTS	
ITENTIAL PRODUCTS	
OCCURRENCES	
	*PRODUCTION
	PRODUCER NON-PRODUCER
PRODUCTION YES (cin	cle) PRODUCTION SIZE (SM) MED LGE (circle one) PRODUCTION UND NO (circle one)
\mathcal{O}	
★STATUS	
	PRODUCER NOI-PRODUCER
	STATUS AND ACTIVITY A20
DISCOVERER	130<
YEAR OF DISCOVERY	LIO NATURE OF DISCOVERY LIO C YEAR OF FIRST PRODUCTION LIO C YEAR OF LAST PRODUCTION LIO C
PRESENT/LAST OWNER	
PRESENT/LAST OPERATO	RAIS INJUNATUN COPPER CONTACT, 1965
EXPL./DEV.COMMENTS	UNECCU APPRENTED CLARTS LA TTYL, CARREGART THE OUT THE STATE ST CLARTS, OF PRATTIC
Trecture	
	DESCRIPTION OF DEPOSIT
DEPOSIT TYPE(S)	CAOS VISIN/SHEAR ZONE
DEPOSIT FORM/SHAPE	MIOS TABULAR / IRRESULAR
DEPTH TO TOP	M20<> *UNITS M21<> *MAXIMUM LENGTH M40<> *UNITS M41<
DEPTH TO BOTTOM	M30 / vinits M31 / / maximum width M50 / vinits M51 /
DEPOSIT SIZE	M15 (SMALL) M15 (MEDIUM) M15 (LARGE) (circle one) MAXUMUM THICKNESS M60 () UNITS M61 ()
STRIKE	4470 DIP 4480
DIRECTION OF PLUNGE	AN 100 / > PLUNGE AN90 /
DEP. DESC. COMMENTS	A110
	DESCRIPTION OF WORKINGS
Workings are: SURFAC DEPTH BELOW SURFACE	DESCRIPTION OF WORKINGS E M 120 UNDERGROUND (M139) BOTH M140 (circle one) ^*UNITS M161 (circle one) *OVERALL LENGTH M190 (circle one) *OVERALL VIDTH M200 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M161 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M161 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M161 (circle one) *UNITS M161 (circle one) *OVERALL AREA M170 (circle one) *UNITS M171 (circle one)
Workings are: SURFACE DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM.	DESCRIPTION OF WORKINGS E M 120 UNDERGROUND (M139) BOTH M140 (circle one) ^*UNITS M161 (circle one) M160 (circle one) *OVERALL LENGTH M190 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M161 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M191 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M191 (circ
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC, OF WORK, COM.	DESCRIPTION OF WORKINGS E M 120 UNDERGROUND (M139) BOTH M140 (circle one) ^*UNITS M161 (circle one) M160 (circle one) *OVERALL LENGTH M190 (circle one) *OVERALL LENGTH M190 (circle one) *UNITS M161 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M161 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M191 (circle one) *UNITS M191 (circle one) *UNITS M191 (circle one) *OVERALL REA M210 (circle one) *UNITS M191 (circle one) *UNITS M19
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC, OF WORK, COM.	DESCRIPTION OF WORKINGS E M120 UNDERGROUND (M139) BOTH M140 (circle one) *OVERALL LENGTH M190 () *UNITS M191 () M160 (circle one) *OVERALL LENGTH M190 (circle one) *UNITS M191 () M160 (circle one) *OVERALL LENGTH M190 (circle one) *UNITS M191 () M160 (circle one) *OVERALL WIDTH M200 (circle one) *UNITS M201 () M170 (circle one) *UNITS M191 () *OVERALL AREA M210 (circle one) M170 (circle one) *UNITS M171 () *OVERALL AREA M210 (circle one) M170 (circle one) *UNITS M171 () *OVERALL AREA M210 (circle one) M170 (circle one) *UNITS M171 () *OVERALL AREA M210 (circle one) M220 (circle one) *UNITS M171 (circle one) *UNITS M211 (circle one) M220 (circle one) *UNITS M171 (circle one) *UNITS M171 (circle one)
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM.	DESCRIPTION OF WORKINGS EM 120 UNDERGROUND (M139) BOTH M140 (circle one) *OVERALL LENGTH M190 () *UNITS M191 () M160 () *UNITS M161 () *OVERALL WIDTH M200 () *UNITS M201 () M170 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M170 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M220 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M220 () *UNITS M171 () *UNITS M201 () *UNITS M201 ()
Workings are: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM.	DESCRIPTION OF WORKINGS EM 120 UNDERGROUND (M139) BOTH M140 (circle one) *OVERALL LENGTH M190 () *UNITS M191 () M160 () *UNITS M161 () *OVERALL WIDTH M200 () *UNITS M201 () M170 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M170 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M220 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M220 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M220 () *UNITS M171 () *OVERALL AREA M210 () *UNITS M201 () M220 () *UNITE ADD T 160 FT 0ELP EN 1944 *UNITE M201 () *UNITE M201 () GEOLOGY *UNITE M20 () *UNITE M20 () *UNITE M20 () *UNITE M20 (
Workings are: SURFACE DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM.	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190(
* AGE OF HOST ROCK(S)	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190(
* AGE OF HOST ROCK(S) * HOST ROCK TYPE(S)	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190(
* AGE OF HOST ROCK(S) * AGE OF IGNEOUS ROCK * IGNEOUS ROCK TYPE(S)	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190 (
* AGE OF HOST ROCK(S) * AGE OF HOST ROCK(S) * AGE OF HOST ROCK(S) * AGE OF HOST ROCK(S) * HOST ROCK TYPE(S) * AGE OF IGNEOUS ROC * IGNEOUS ROCK TYPE(S) * AGE OF MINERALIZATIC	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190 (
* AGE OF HOST ROOK(S) * AGE OF HOST ROOK(S) * AGE OF KORKINGS HOST ROOK TYPE(S) * AGE OF KINEOUS ROO * IGNEOUS ROOK TYPE(S) * AGE OF KINEOUS ROO * IGNEOUS ROOK TYPE(S) * AGE OF MINERALIZATIC	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M130) BOTH M140 (circle one) OVERALL LENGTH M190(
* AGE OF HOST ROOK(S) * AGE OF HOST ROOK(S) * AGE OF HOST ROOK(S) * AGE OF IGNEOUS ROO * IGNEOUS ROOK TYPE(S) * AGE OF IGNEOUS ROO * IGNEOUS ROOK TYPE(S) * AGE OF MINERALIZATIC * PERT. MINERALS (NOT O * ORE CONTROL/LOCUS	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) OVERALL LENGTH M190(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M130) BOTH M140 (circle one) OVERALL LENGTH M190() 'UNITS M191() M170(OCC) 'UNITS M171(ET) 'OVERALL AREA M210() 'UNITS M201() M270(OCC) 'UNITS M171(ET) 'OVERALL AREA M210() 'UNITS M211() M270(OCC) 'UNITS M171(_ET) OVERALL AREA M210() 'UNITS M211() M270(OCC) 'UNITS M211() 'UNITS M211() 'UNITS M211() M270(OCC) 'UNITS M211() 'UNITS M21() 'UNITS M211() 'UNITS M21() 'UNITS M21() 'UNITS
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND (MI39) BOTH MI40 (circle one) OVERALL LENGTH MI39(
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(MI30) BOTHMIAD (circle one) OVERALL LENGTH MI30(
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND((139) BOTH M140 (circle one) OVERALL LENGTH M190(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (circle one) 'OVERALL LENGTH M190() 'UNITS M191() 'OVERALL ENGTH M190() 'UNITS M191() 'OVERALL ENGTH M190() 'UNITS M191() 'OVERALL AREA M210() 'UNITS M211() 'M220() 'UNITS M1211() 'OVERALL AREA M210() 'UNITS M211() 'M220() 'UNITS M211() 'OVERALL AREA M210() 'UNITS M211() 'M220() 'UNITS M211() 'M220() 'UNITS M211() 'OVERALL AREA M210() 'UNITS M211() 'M220() 'UNITS M211() 'UNITS M211() 'UNITS M211() 'M220() 'UNITS M211() 'UNITS M211() 'M220() 'UNITS M211() 'UNITS M211(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH MATAO (circle one) OVERALL BIDGTH M150(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (crice one) OVERALL ENOTH M190(
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M159) BOTH M140 (circle one) OVERALL LENGTH M190 (
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(119) BOTH M180 (circle one) OVERALL LENGTH M199(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (cricle one) 'OVERALL LENGTH M140(
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M19) BOTH M140 (cride one) OVERALL LENGTH M190(
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM120 UNDERGROUND(M139) BOTH M140 (crede one) M140(
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EM130 UNDERCROUND(MID) BOTH MID (circle one) OVBALL LENGTH MIDS () UNITS MIDT () UNI
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EMISD UNDERGROUND()) DITHING (GIVE ON) OVERALL LENGTH MITO() UNITS MITO()
Workings one: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM.	DESCRIPTION OF WORKINGS EMISE UNDERGROUND(MISP BOTHING (GREG ON)
Workings ore: SURFAC DEPTH BELOW SURFACE LENGTH OF WORKINGS DESC. OF WORK. COM. 	DESCRIPTION OF WORKINGS EMISE UNDERGROUNDEDTH HISE (CHEN ON) OVERALL LENGTH HISE(

* GENERAL REFERENCES FICUSES GQ 1021 1971 REFERENCE 1 F2 (ABGMT-USOM FILE DATA **REFERENCE 2** REFERENCE 3 F3 (ADMR TRAY AND RATILER MINE FILES FA C RANDOME . F-L. REFERENCE 4 USES GEOLOGIC ATLAS OF THE U.S., RAY FOLID, 1923 PAP MAD P 22 DIOC PRODUCTION IN CLUDED UNDER TRAY IN ABENT-USEN FILE PATAS U.S. CRIB-SITE FORM **RECORD IDENTIFICATION** RECORD NUMBER 820 (X, 1, 11) B10 < RECORD TYPE DEPOSIT NUMBER 848 < REPORT DATE CI < 8 3- 8.0.3.> INFORMATION SOURCE BSO (1, 2, 1 FILE LINK IDENT. BSO (USOM-004 021100 REPORTER(SUPERVISOR) G2 (GEST, OON E (last, first, middle initial) (last, first, middle initial) SITE NAMEAIOS RATTLER REPORTER AFFILIATION GS < ABGAT MINE SYNONYMS ALL (TROY , TROY - MANHATTAN , TROY - ARIZONA LOCATION AINING DISTRICT/AREA A30 (OR PPING SPRINGS DISTRICT AGO PINAL COUNTY STATE ASO (A.2.) COUNTRY A48 (U.S.) HYSIOGRAPHIC PROV A63 (1,2, 1, A62 <1.5.0.5.0,1.0.0. H. LOWER COLORADO A64 < 4,9, H. . K. (.1.9.7. RAINAGE AREA LAND STATUS 9.).) JUADRANGLE NAME ATO SONORA (,),9,6,4,) QUADRANGLE SCALE A100 (2.4.0.0.0. ECOND QUAD NAME A92 < SECOND QUAD SCALE ANT A107 (,3,7,50, W,F,T) LEVATION JTM *ACCURACY GEODETIC A120<3.6.6.6.8.4.0.> VORTHING LATITUDE ATO N,) ٢. ACCURATE ACC (circle) A130 (5.1.0.7.0.0.) ASTING LONGITUDE AND W,) ESTIMATED EST CENTER A E u OF. ۵ MOITS GROU ZONE NUMBER ALLO CADASTRAL OWNSHIP(S) ATT < 10,0,3,5,: 1 *RANGE(S) A78 < 0 , 1 , 4 , E : , # 26 A794 ECTION(S) 11,11 SECTION FRACTION(S) A76 ABIK GILA AND SALT RIVER AERIDIAN(S) 20SITION FROM NEAREST PROMINENT LOCALITY AB2 (11/2 MILES NE OF TIGER MININTAIN OCATION COMMENTS ABS (14 MILE W OF PINAL-GILA COUNTY LINE ESSENTIAL INFORMATION