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MINING AND EXPLORATION
P. O. Box 452 — Phone 53 8-9453
SILVER CITY, NEW MEXICO

GEOLOGIC REPORT OF AN INVESTIGATION OF THE BEARUP MINE, CATRON COUNTY, N. Mex.

The Bearup Mine and the associated group of 43 unpatented lode mining claims is located at the intersection of Silver Creek and the range frontal fault zone west of the Mogollon Mining District. The mine is easily reached by traveling west from Alma, New Mexico, along Mineral Creek for 5.3 miles, at which point the mine road leaves Mineral Creek and crosses a ridge, leading to the mine adit on Silver Creek. Alma is located 7 miles north of Glenwood, New Mexico, on U. S. Route 180.

The climate is semi-arid. Annual rainfall averages approximately 15 inches, most of which results from summer thunder storms during July, August, and September. Snowfall is not uncommon during winter months, but is rarely heavy enough to hinder operation. Silver Creek normally flows varying amounts of water throughout the year in the proximity of the Bearup Mine.

Geology

The drifts and stopes of the Bearup Mine are located in Tertiary and Recent (Quaternary) formations. The formations encountered in this investigation are as follows:

Sandstone. The oldest formation identified at the Bearup Mine is an interflow Tertiary sandstone. Ferguson named it the Cranktown sandstone in his "Geology and Ore Deposits of the Mogollon Mining District, New Mexico". It is coarse to very fine grained in texture, purple to brown in color, and highly arkosic in composition. Cross-bedding is common in beds

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seen on the surface. On the south side of Silver Creek the sandstone beds have a regional strike of south 25° west and a dip of 23° to the southwest.

In the underground drifts and stopes which are presently accessible the sandstone is highly silicified, and for the most part, very fine grained. A bed of very fine grained, highly silicified sandstone occurs interbedded with tuff (Plate 3, co-ordinates 9500N - 11000E) and, in this locality, has a strike of north 30° west and dips 15° at its lower contact with the tuff and dips 28° at the upper contact with tuff. At a point having co-ordinates 9727N - 11142E on plate 3, the sandstone lies virtually horizontal in a normal contact with tuff. At a point having co-ordinates 9884N - 11180E on plate 3, bedding within sandstone can be seen having a strike of 35° east and a dip of 7° west. All of these examples of bedding are on level #7. On level #4 (plate 2, co-ordinates 9520N - 11034E) bedding planes within sandstone can be identified which strike north 10° east and dip 31° to the west. The dip parallels a contact between sandstone and tuff a short distance to the west.

The Cranktown sandstone has been the host for the Wright vein and extensive zones of brecciation and silicification along the contact between the sandstone and the tuff. These silicified zones contain gold and silver values in a very erratic occurrence.

The thickness of the Cranktown sandstone, as exposed in the walls of Silver Creek, is in excess of 600 feet.

<u>White Tuff</u>. The extensive tuff formation encountered on levels 2, 4, and 7

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of the Bearup Mine is a welded, devitrified tuff, white to buff in color, and in all likelihood, rhyolitic in composition. It can readily be identified high on the walls of Silver Creek canyon, occurring above the Cranktown sandstone and below the Pacific Quartz latite. On the south side of the canyon the contact between the sandstone and tuff can be traced from a position 600 or 800 feet above the canyon floor and approximately one-half mile east of the mine, through a series of normal step faults to a position where the tuff occurs on both sides of Silver Creek and in the vicinity of the adit to level #2 of the Bearup Mine.

This formation is exposed horizontally for 520 feet by the drift on level #7. It is characteristically extremely hard throughout this exposure. A great number of fractures are seen in the drift on this level and in the exposure of this formation on level #4. The strongest of these were plotted on a preliminary map, but they reflected no system or pattern and were not plotted on the maps in this report. Displacement along them seems very small or nil. Exceptions to the extreme hardness are seen, one being in what appears to be a wedge of ground between the main body of white tuff and the sandstone in the Montgomery drift. Here the tuff is quite soft and contains a large amount of chlorite. A normal contact between the sandstone and tuff can be seen within this wedge at a point having co-ordinates 9727N - 11142E on plate 3. Considerable fluorite is found within this soft tuff. Another exception to the extreme hardness is noted on the west side of the tuff where it is in contact with andesite, co-ordinates 9500N - 10875E, plate 2. Here the tuff is quite soft again and contains much chlorite. A similar exposure is found in the cross-cut into

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the tuff on level #4, co-ordinates 9550N - 10935E, plate 2.

If it may be assumed that the tuff seen on levels #2, #4, and #7 is a relatively homogeneous formation, a thickness in excess of 60 feet is evident.

Pink mineralized tuff. The true stratigraphic position of this formation is not known, and it is discussed at this point for want of better knowledge of its relation to the other formations.

Its only exposure within the workings of the Bearup Mine is the block exposed in the Montgomery stope (co-ordinates 9825N - 11140E, plate 3). Here it occurs as a part of the wedge between the white tuff and the sandstone to the east. It lies against the white tuff mass along a 45° fault plane, which limits its lower extent. It is bound by well defined faults on its south and east sides. Its northern extent has not been clearly defined by excavation, but it obviously does not extend as far as the northwest cross-cut of the Montgomery drift. Its vertical extent above the Montgomery stope is greater than any excavation done prior to June, 1963.

This tuff has been intruded by innumerable quartz veinlets bearing gold and silver mineralization. In the west end of the Montgomery stope they appear to extend vertically through the pink tuff. Samples 26 and 27 were cut across this exposure and they assayed .68 oz gold and 7.39 oz silver per ton, and .55 oz gold and 4.33 oz silver per ton, respectively. Within a new stope extending west from the original exposure of this pink mineralized tuff the veinlets of quartz fail in their vertical extent and are almost absent in the back of the stope. A horizontal band of quartz containing auriferous pyrite

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and argentite occurs within the pink tuff parallel to the 45° fault between this formation and the white tuff. Sample #56 was cut from this occurrence and assayed .78 oz gold and 68.42 oz silver per ton. The mineralization within this pink tuff does not extend into adjacent formations and is assumed to be pre-fault in age of deposition.

Andesite. A purple or brown andesite occurs faulted against the west side of the white tuff formation. It varies in texture from fine grained to vesicular with the vesicles filled with calcium carbonate. Two occurrences were seen where this formation was composed of medium sized crystals and was quite hard (plate 2, co-ordinates 9480N - 10715E and 9507N - 10818E). Throughout the extent of its exposure on level #7, however, this andesite is highly decomposed. In fact, it was necessary to spile through 250 feet of caved drift within this formation to open level #7.

No mineralization has been found in this formation. The writer assumes that the fault between it and the white tuff is normal, and if so, the andesite is younger than the tuff and sandstone.

Recent (Quaternary) Detritus and Fault Blocks. Because of the ruggedness of the topography and the proximity of the range frontal fault, the above described Tertiary formations are copiously laden with Recent detritus, including vast blocks of the Pacific quartz latite which have moved along gravity fault planes into positions in which they cover the range frontal fault, previously deposited Recent detritus, and the Tertiary formations. The adit of level #7 starts in one of the large blocks of Pacific quartz latite and passes through angular detritus before entering the andesite

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(co-ordinates 9580N - 10550E, plate 3). On level #4 (co-ordinates 9410N - 10765E, plate 2) a stream deposit containing rounded boulders and pebbles derived from Silver Creek deposition occurs against the white tuff. This gravel is covered by a gravity fault block, and the gravity fault block is in turn covered by angular detritus.

The gravity fault blocks and detritus are shown separately on the maps because much of the work in levels #1, #2, #3, #4, and #5 was done within these deposits, and, in fact, it is reported that the original excavation in level #1 was prompted by shipment of $50 per ton ore from a large boulder near what is now the adit of level #1. It is also reported that shipments were made from sources within the gravity fault blocks. The gravity fault blocks are principally derived from the Pacific quartz latite which occurs in place several hundred feet above the location of the blocks. Samples #2 and #8 were taken from the most promising looking material seen by the writer within these blocks. The low values (see appendix 1 for assays) do not preclude the possibility that small shipments of carefully sorted or milled ore were made, but these values along with the disassociation from the parent rock renders the gravity fault blocks unlikely sources of ore.

It is the opinion of the writer that the boulder of $50 ore found near the location of the adit of level #1 was derived from one of the numerous veins within the Mogollon district to the east of the Bearup property and that the discovery of the Wright vein by subsequent excavation was unrelated and accidental.

<u>General Geologic Considerations</u>

1. The most puzzling geologic feature exposed in the Bearup Mine is the

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contact between the Cranktown sandstone and the white tuff. The tuff occurs stratigraphically above the sandstone and below the Pacific quartz latite, and the relationship between the sandstone and the tuff along the east edge of the tuff suggests a reverse fault situation. Compressive forces to cause a reverse fault were unlikely in an area of volcanic deposition associated with subsequently subsiding adjustment among the various blocks comprising the district, and the bedding within the sandstone parallel to the sandstone-tuff contact on level #4 (co-ordinates 9520N - 11030E, plate 2) is not suggestive of a reverse fault. The relationship at the surface is obscured by the vast mantle of detritus and fault blocks covering the entire area above the workings of the Bearup mine; thus, the best key to the problem cannot be examined.

2. Considerable work was done by Wright and associates in the area (co-ordinates 9567N - 11200E, plate #3) in which a strong fault apparently displaced the productive vein. Their work did not disclose an extension of that vein on level #7, and originally it was the principal intent of this investigation to study the geology and to apply geologic principles in an attempt to determine the movement along the fault and to predict the location of an extension of the Wright vein, assuming one should exist. On the basis of the data presented in this report and on the maps shown on plates 1, 2, 3, and 4, the writer believes that the structure may be assumed to be a normal fault - again, for lack of concrete evidence of compressive forces. Thus, the block of sandstone beyond that in which the Wright vein occurred, moved upward in relationship to the other. Slickensides on the hanging wall side of the fault (co-ordinates 9882N - 11220E, plate 3) rake 30° to the southwest.

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Then it is apparent that the extension of the Wright vein should be above and to the southwest from its known occurrence (refer to further discussion in Recommendations). See section F-F' plate 4.

3. The contact between the Pacific quartz latite and the underlying tuff is, by sight, about 200 feet lower on the north side of Silver Creek than its exposure in the bluffs on the south side of Silver Creek. The structure which accounts for this displacement is apparently covered by the mantle of detritus and fault blocks on the north side of Silver Creek and has not been identified underground by the writer.

4. A number of questions are posed by the occurrence of the mineralized block of pink tuff -- the principal one being its source. It has not been identified by the writer elsewhere on the Bearup property, and Ed Bearup, who has lived most of his life on the property, relates that it is a rock type new to him. The writer has not been able to ferret any clue to its origin from the workings accessible during his investigation. Exploration in the upper extent of the pink tuff or a search for other occurrences in the back of the stopes on the Wright vein may yield some helpful information.

Knowledge of its source will provide data helpful in properly describing the relationship between the white tuff and the sandstone and may reveal another source of ore.

Recommendations

1. It is recommended that excavation be directed to determine the extent of the pink tuff and the associated silver and gold bearing quartz

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mineralization. The geologic structure exposed should be carefully mapped in an effort to determine the origin of this block and possible additional extent (additional work has allegedly been done in this area since this examination was made, but the writer has no knowledge of the results or of the geology exposed).

2. It is recommended that exploration be done in the northern most stopes on the Wright vein above level #7. This area was inacessible to the writer because of timber deteriation and the danger of loose ground. New ladders and stulls will make possible an examination of the upper extent of the Wright vein and its relationship to the fault which apparently displaces it on level #7. It will also provide an access to probe for the faulted extension of the Wright vein. Assuming the fault to be normal and the angle of movement to be indicated by the slickensides, then any point in the vein would be displaced 2.55 feet to the south, 8.65 feet to the west, and 4.2 feet vertic for each 10 feet of movement in the fault plane. The vein is narrow and not stoped immediately above the #7 level for 25 feet south of the fault against which it terminates. The stopes above #7 level were worked much closer to the fault, and the vein was apparently much wider and higher in value. Thus, the likelihood of finding an extension of the Wright vein beyond the fault will be best at a location above and to the west of level #7.

The area surrounding the Wright vein and the northern extent of the Montgomery drift (co-ordinates 9870N - 11160E, plate 3) is one of intense brecciation and silicification. The silicification in the Montgomery drift extends beyond a projection of the fault against which the Wright vein extends in the vicinity of the white tuff-sandstone contact (co-ordinates 9560N - 11175E, plate #3). The writer believes that an extension of the Wright vein, or

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similarly strong metallization, can be found by a diligent exploration and development program in this area. The success and cost of such a program will depend largely on the care with which the development is mapped and studied in conjunction with planning the program.

3. The silicified zone along the white tuff-sandstone contact from which the Wright vein extends north terminates within 25 feet in the Montgomery drift. Its extent to the southwest is not known. It is recommended that an exploratory drift be driven southwest from a point having coordinates 9553N - 11100E on plate #3 to determine the extent and potentiality of this zone.

4. It is recommended that the winze below level #7 (co-ordinates 9620N - 11184E, plate #3) be pumped out, mapped, and sampled. The winze is reported to be approximately 60 feet deep with some drifting from that depth. The writer believes that mapping and sampling of this area may indicate that the work is done within a part of the vein occurring in tight, unbroken ground, and that the vein may be metallized at that depth farther north from the winze.

5. In making a reconnaissance study of the formations outcropping on the surface, the writer noted the occurrence of quartz veins in the Cranktown sandstone several hundred feet east of the area covered in this report. A geologic map of the surface and a more comprehensive study of all of the Bearup property may suggest exploration of these structures.

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Note

During the course of this investigation the writer directed miners in spiling through the 250 feet of caved drift on level #7, in cleaning the Montgomery drift, and in shipping two carloads of gold and silver bearing mineral from the pink tuff within the Montgomery stope. Samples 15 and 16, taken from the veinlets within the pink tuff, and samples 26 and 27 (see appendix for description and value), which were cut across the full exposure of the pink tuff, prompted the work resulting in these shipments. Various samples were taken from the faces (see appendix) during this work, and a composite sample consisting of a handful taken from each mine car by the miners before dumping into the ore bin was taken for each rail carload shipped. Samples 45 and 46 represented Lot #1 and sample 52 represented Lot #2. Assays taken by the smelter compared as follows:

	Lot #1		Lot #2	
	Au	Ag	Au	Ag
Silver City Laboratory	.656	8.10	.32	6.17
Smelter	.085	7.265	.055	4.21

Shipment was ceased upon discovery of this discrepancy, although enough material was on hand in the ore bin and broken in the stopes to complete another rail carload. The composite sample taken by the miners of the material in the ore bin, 53-A, assayed .37 ounces of gold per ton and 12.31 ounces of silver per ton. Since the previous composite samples had resulted in discrepancies with the smelter samples on the first and second lots, the material in the bin was resampled three times; the results are shown in comparison with sample 53-A as follows:

Sample Number	Au (oz/ton)	Ag (oz/ton)
53-A	.37	12.31
55	.07	1.96
57	.49	27.69
58	.23	11.78

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These four samples of the same material graphically illustrate the erratic occurrence of the gold and silver in the quartz veinlets and pink tuff host rock. In trying to explain the discrepancies between the mine samples and those of the smelter, the writer can only conclude that the miners did not obtain a correct proportion between fine material and coarse lumps from the mine cars and that the gold and silver values ran proportionately higher in the fine material. Assuming this, it is still difficult to explain why the discrepancies in silver values were relatively small while the differences in gold values were several times greater than the gold contents reported by the smelter.

Respectfully submitted,

R. W. Mathis

R. W. Mathis
Economic Geologist

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Appendix

Samples, their location, and assay values

Sample No.	Description	Au, oz.	Ag, oz.
1	Dump south of Silver Creek	.03	.75
2	Breccia in drift near adit of #4 level	.01	.55
3	Quartz mineralization along sandstone-tuff contact in northeast end of Wright drift	.17	.63
4	Cross vein at north end of Wright vein	.34	4.38
5	Muck below raise, north end of Wright vein	.34	5.57
6	Muck below manway, north end of Wright vein	.46	7.61
7	Muck fallen from back on #7 level, east end of tuff	.18	1.14
8	Ferruginous quartz breccia on #4 level	.09	.81
9	Sample from dumpout side of mine, east of tuff	.36	4.74
10	Brecciated silicified sandstone immediately east of tuff on #7 level	.08	2.46
11	Quartz in sandstone east of tuff and east of Sample #10 on #7 level	.11	3.01
12	Quartz in sandstone east of samplo 11, #7 level	.04	1.44
13	Quartz in sandstone east of sample 12, #7 level	.19	2.30
14	Cut across face, left drift of Montgomery workings	.84	9.38
15	Sulfides in Quartz, west side of Montgomery stope	2.09	87.55
16	Pyritic gouge, northwest corner of Montgomery stope	3.17	17.50
17	5 ft channel sample east from face of northwest branch of Montgomery workings	.41	6.48
18	5 ft channel sample east of sample 17, NW branch of Montgomery workings	.07	1.74
19	5 ft channel sample east of sample #18	.03	2.09
20	5 ft channel s ample east of sample #19	.03	2.51
21	5 ft channel sample east of sample #20	.05	3.06
22	8 inch vein in cross-cut east of winze, #7 level	.59	8.30
23	Cut across vein near adit of Montgomery drift	.17	1.46
24	Manganiferous material just north of Montgomery stope	.20	5.11
25	5 inches of quartz vein below tuff, north of Montgomery stope	.31	6.04
26	North half of pink tuff, west side of Montgomery stope	.68	7.39
27	South half of pink tuff, west side of Montgomery stope	.55	4.33
28	Pyrite in sandstone, north side of Montgomery stope	.71	4.01
29	Quartz in back of north stub drift, Montgomery workings	.15	2.20

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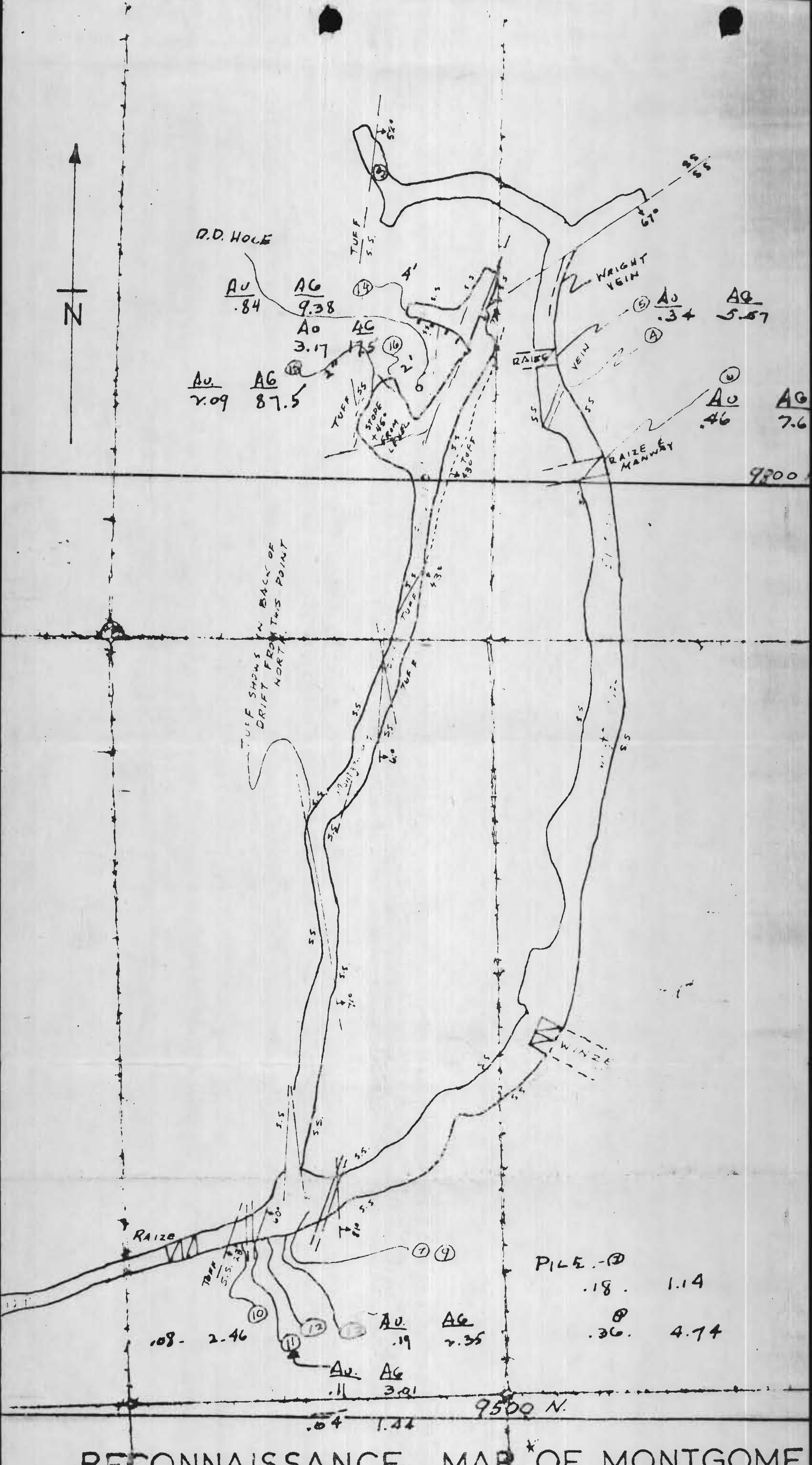
Page 2 of Appendix

Sample No.	Description	Au,oz.	Ag,oz.
30	Breccia zone west of sample 13, #7 level	.03	.87
31	East half of silicified zone in white tuff	.025	.49
32	West half of silicified zone in white tuff	.01	.22
33	Dump under proposed ore bin	.20	1.86
34	Pyrite in sandstone, from timber hitch in floor of Montgomery drift, east side, south of stope	.02	.74
35	Muck under metal sheets, #7 level	.14	2.80
36	Half of sample of quartz in raise in northwest branch of Montgomery workings	.03	1.88
37	Channel sample of quartz in raise in northwest end of Wright workings	.06	2.09
38	Top half of face, northwest branch of Montgomery workings	.24	4.67
39	Lower half of face, northwest drift of Montgomery workings	.12	1.82
40	Sample from first round in northwest drift, Montgomery workings	.015	.85
41	Iron oxides in face after first blast	.13	2.41
42	Silicified tuff west of tuff/sandstone contact, new drift, northwest branch of Montgomery workings		
43	Brown mineralized tuff in heading of new drift in Montgomery workings, April 28, 1963	.09	3.78
44	Quartz in face of New Drift, 5-1-63	.04	1.68
45A	First ore encountered in raise	.18	5.22
45	Sample from ore pile, May 10, 1963	.43	4.38
46	Sample of ore mined week of May 13 to 17, 1963	.89	10.31
47	Sample of sandstone below pink host rock	.06	2.44
48	Sandstone with pyrite, north end Montgomery stope	.03	1.62
49	Sample from face, 5-17-63	.18	11.79
50	Composite sample May 27 and 28, 1963		
51	Material in north end of new stope, May 28		
52.	Composite sample of second car	.32	6.17
53	Red mineralized tuff from back of new stope	.03	.27
53A	Composite sample of ore in bin	.37	12.31
54	Sample from last round, not mucked	.19	18.98
55	Grab sample of ore in bin	.07	1.96
56	Sample cut from face, July 3, 1963	.78	68.42
57	Sample taken by forester from bin	.49	27.69
58	Sample taken by Mathis and Garcia from bin	.23	11.78

ag 6.21

avg au .31



RECONNAISSANCE MAP OF MONTGOME

DRIFT AND N.E. END NO.7 LEVEL 1-10-63

(X) SAMPLE NUMBERS

R.W. MATHIS

AMERICAN SMELTING AND REFINING COMPANY
EL PASO SMELTING WORKS

6/27/63

BOUGHT OF Thomas Consolidated Mines, Inc. EL PASO, TEXAS, 19
ADDRESS [illegible] Spokane, Wash. SMELTER LOT 1376
SHIPPING POINT Silver City, N. Mex. SHIPPERS LOT
NAME OF MINE [illegible] CLASSIFICATION Pb ore
RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE PURCHASE TERMS 1280

ARRIVAL DATE	CAR NUMBER	RR	GROSS WEIGHT	CONTAINERS NO.	CONTAINERS WEIGHT	WET WEIGHT	% H2O	DRY WEIGHT	QUOTATIONS	
5/27	130436	AT				118530	4.4	113305	COINAGE SILVER	PER OZ
									FOREIGN SILVER 127.3	PER OZ
									LEAD	PER LB
									COPPER	PER LB
									B/L DATE: 5-27	

	GOLD (OZ. PER TON)	SILVER (OZ. PER TON)	WET LEAD %	COPPER %	INSOL %	SIO2 %	IRON %	MN %	LIME %	ZINC %	S %	AL2O3 %	As %	Sb %	Bi %
[illegible]	.075	7.2	.2	.10						0			.10	.05	0
[illegible]	.120	7.33													
[illegible]	.095														
[illegible]LLICS															
[illegible]	.095	7.265													

Gross METAL 5.38 DRY TONS 41.1 8

VALUES PER TON

	PAY CONTENT	PRICE	AMOUNT	FREIGHT	FREIGHT PROOF
LESS 1.02 MIN %	.095	32.3185	3.07	3.07	680.32
	6.265	1.255	7.88	7.88	
LESS %					
LESS %					
VALUE (MEX. CLASS			10.95	10.95	

[illegible]MENT DEDUCTIONS	CHARGE	CREDIT
[illegible] INC. LABOR ADJ	5.–	
[illegible] VALUE OVER $ PER UNIT %		
PRICE ESCALATOR		
[illegible] PRICE ESCALATOR		
– SILICA		
– LIME		
TOTAL TREATMENT DEDUCTIONS (NET)	5.–	5.–

PROOF NET METAL VALUE —
PROOF VALUE WET TONS [illegible]

[illegible]HT VALUE DRY TONS COMPL. $ 5.95
(MEX. COMDTY.
METAL VALUE DRY TONS 56.6525 $ [illegible]

OTHER DEDUCTIONS		DEBITS	CREDITS
			337.0[illegible]
[illegible]HT WET TONS 59.26 $ 2.94		174.22	
[illegible]HING $ RESETS 7.54		7.54	56.6 Dry
[illegible] $ 53.00 [illegible] (77.75)			
[illegible]ENTATION $ Billed direct			
[illegible]NG $			
[illegible]T WITHHELD PENDING RECEIPT OF SILVER AFFADAVIT			
[illegible] DICKINSON $ 6 –		6 –	
[illegible]TIES			
ADVANCE TO SHIPPER			
BALANCE DUE SHIPPER		149.32	
TOTALS		337.08	337.08

AMERICAN SMELTING AND REFINING COMPANY

EL PASO SMELTING WORKS

6/20/63

BOUGHT OF Thomas Consolidated Mines, Inc. EL PASO, TEXAS,
ADDRESS 640 Peyton Bldg., Spokane Wash. SMELTER LOT 1031
SHIPPING POINT Silver City, N. Mexico SHIPPERS LOT
NAME OF MINE Pinnacle CLASSIFICATION Pl. Ore
RATES, EXCEPT ON CONTRACTS, SUBJECT TO CHANGE WITHOUT NOTICE PURCHASE TERMS 42 EC

ARRIVAL DATE	CAR NUMBER	RR	GROSS WEIGHT	CONTAINERS NO.	CONTAINERS WEIGHT	WET WEIGHT	H_2O	DRY WEIGHT	QUOTATIONS
6/6	150557	AT.				100240	3.2	97032	COINAGE SILVER : PER
									FOREIGN SILVER 127.08 : PER
									LEAD : PER
									COPPER : PER
									B L DATE: 6-3

ASSAYS	GOLD OZ. PER TON	SILVER OZ. PER TON	WET LEAD %	COPPER	INSOL %	SIO2 %	IRON %	MN %	LIME %	ZINC %	S	AL2O3	As	Sb	Bi
...ER	.055	4.1	.2	.05						0			.10	.05	0
...R	.035	4.32													
	.06														
...LICS	.06	4.71													

Ins METALS 2.41 | DRY TONS 4.04.19

VALUES PER TON

	PAY CONTENT	PRICE	AMOUNT	FREIGHT	FREIGHT PROOF
1 %	.06	32.3125	1.94	1.94	
...ER LESS .02 MIN %	3.21	1.2558	4.03	4.03	
...LESS %					
...ER LESS %					
...VALUE (MEX. CLASS)			5.97	5.97	3.55

...MENT DEDUCTIONS	CHARGE	CREDIT
... INC. LABOR ADJ	5.—	
... VALUE OVER $ ... PER UNIT %		
... PRICE ESCALATOR		
...ER PRICE ESCALATOR		
... - SILICA		
... - LIME		
TOTAL TREATMENT DEDUCTIONS (NET)	5 —	5 —
...GHT VALUE DRY TONS COMPL. %		.97
(MEX. COMDTY.)		
... METAL VALUE DRY TONS 45.160	.97	

PROOF NET METAL VALUE ...
FRGT. VALUE WET TONS ...

OTHER DEDUCTIONS	DEBITS	CREDITS
		47.00
...IGHT WET TONS 50.12 @ $ 2.56	128.31	
...CHING $ RESETS 7.51	7.51	
...ING 50.12 @ $3.00 (...) $150.36		48.5 Dry
...ENTATION $ Ex...		
...NG $		
... WITHHELD PENDING RECEIPT OF SILVER AFFADAVIT		
CUSTOM $ 7 —	7 —	
...IES		
... Treatment — 110 ADVANCE TO SHIPPER		
BALANCE DUE Smelter		94.91
TOTALS	142.35	142.35

9800 N
10,600 E
11,000 E
9500 N
N
14°
B
A
A'
B'
EXPLANATION
RECENT
DETRITUS, INCLUDING :
GRAVITY FAULT BLOCK
TERTIARY
ANDESITE
TUFF
CRANKTOWN SANDSTONE
VEIN
FAULT
BRECCIATION AND SILICIFICATION
RAISE
WINZE
ADIT
LEVEL # 5
RAISE FROM LEVEL # 4
RAISE FROM LEVEL # 4
CAVED
LEVEL # 3
LEVEL # 2
RAISE FROM LEVEL # 4
CAVED
TO B
CAVED
RAISE CONNECTING LEVELS 1 & 2
RAISE FROM LEVEL # 4
CAVED
ADIT
LEVEL # 1
GEOLOGIC PLAN
OF LEVELS 1, 2, 3, & 5
BEARUP MINE
CATRON COUNTY, NEW MEXICO
SCALE: 1 INCH = 30 FEET
BASE MAP BY LESLIE GOFORTH, 1945
ADDITIONS, MODIFICATIONS, & GEOLOGY
BY R.W. MATHIS, 1963
DRAWN BY G.W. FRANKS
PLATE # 1

NM Mine File No. 2027

GEOLOGIC PLAN OF LEVEL # 7
BEARUP MINE
CATRON COUNTY, NEW MEXICO

SCALE: 1 INCH = 30 FEET
BASE MAP BY LESLIE GOFORTH, 1945
ADDITIONS, MODIFICATIONS, & GEOLOGY
BY R.W. MATHIS, 1963
DRAWN BY G.W. FRANKS

PLATE # 3

NM Mine File No. 2028


ELEVATION
LEVEL
EXPOSED DRIFT
A
A'
B
B'
C
C'
D
D'
E
E'
VEIN
SLICKENSIDES
45°
DETAIL OF SECTION F-F
EXPLANATION
RECENT
DETRITUS, INCLUDING:
GRAVITY FAULT BLOCK
TERTIARY
ANDESITE
PINK MINERALIZED TUFF (STRATIGRAPHIC POSITION UNCERTAIN)
TUFF
CRANKTOWN SANDSTONE
VEIN
FAULT
BRECCIATION AND SILICIFICATION
CAVED RAISE
WRIGHT STOPE
MONTGOMERY DRIFT
MONTGOMERY STOPE
NEW STOPE
NEW DRIFT
ELEVATION 5110'
CROSS SECTIONS A-F
BEARUP MINE
CATRON COUNTY, NEW MEXICO
SCALE: 1 INCH = 30 FEET
BASE MAP BY LESLIE GOFORTH, 1945
ADDITIONS, MODIFICATIONS, & GEOLOGY
BY R.W. MATHIS, 1963
DRAWN BY G.W. FRANKS
PLATE # 4