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James Doyle Sell Mining Collection

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JDS

SUMMARY

PLOMOSA GOLD PROSPECT, LA PAZ COUNTY, ARIZONA

General

The Plomosa Gold Prospect is a "detachment" type prospect in the vicinity of the Southern Cross Mine in the Eastern Plomosa Mountains, La Paz County, Arizona. Epithermal gold mineralization, associated with minor sulfides and little quartz, occurs in sheared and brecciated reactive rocks in the intensely sheared lithotectonic unit above the Plomosa Detachment Fault. The mineralized host rocks are non-resistant and concealed by overlying lithotectonic units and thin alluvial and fanglomerate cover.

Land

Richard Ahern and Russell Corn hold 49 unpatented claims in Sections 9, 10 and 15, and a Prospecting Permit on State Section 16, T5N, R17W, covering the projection of mineralized zones and the detachment fault beneath cover and upper plate rock units. Arizona Gold Mines (Dan Patch) owns adjacent unpatented claims on lower plate rocks and the Toughnut and Climax properties.

Previous Exploration

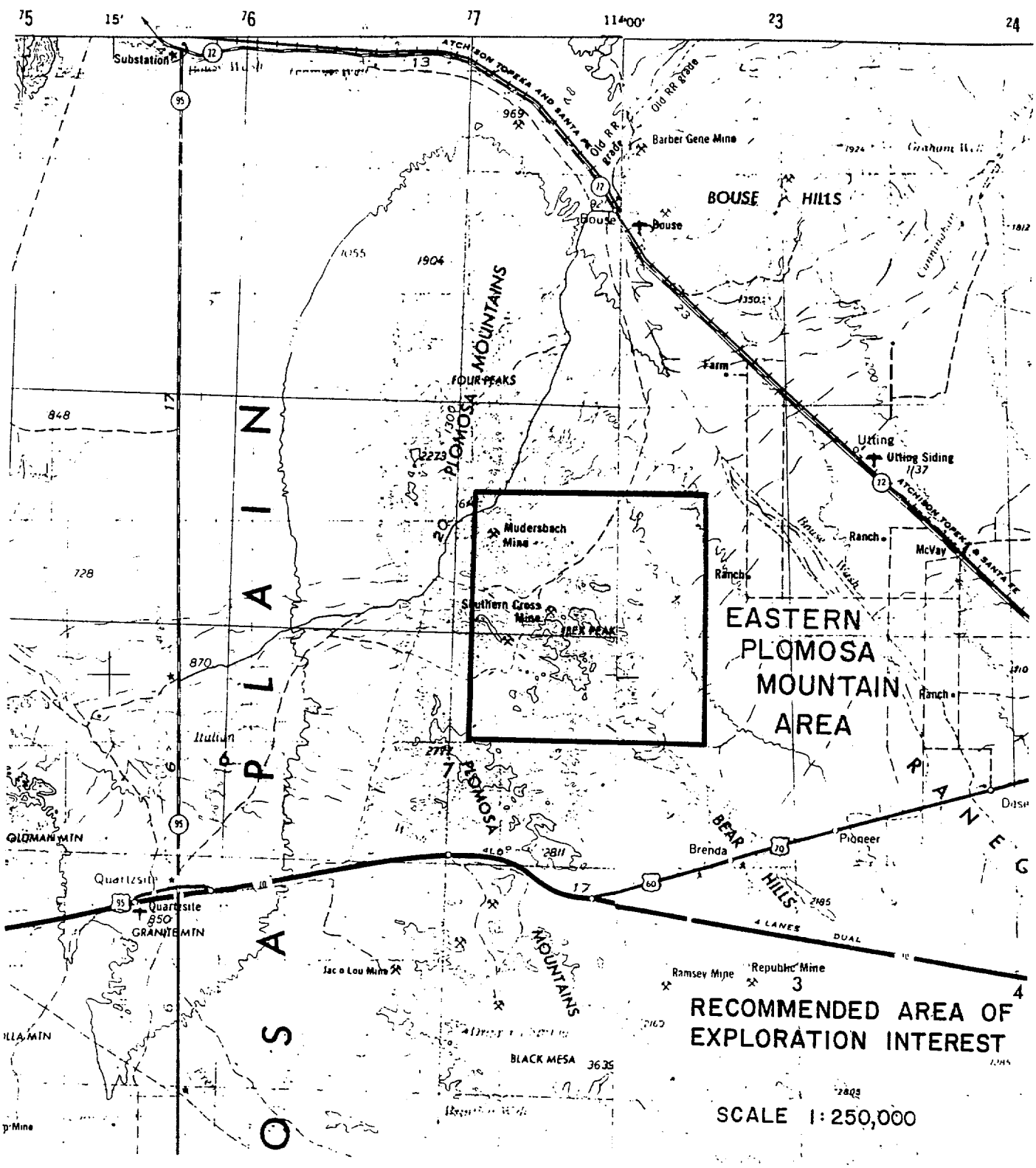
Past mining efforts and previous exploration were directed primarily toward the silver vein zones at the Southern Cross and Climax mines with little attention paid to the potential of the diffuse, non-vein gold mineralization. Cathay Mines drilled several holes near the Toughnut and Southern Cross Mines in the early 1980's and several holes were drilled for possible porphyry copper mineralization in lower plate rocks during the 1970's.

Gold Mineralization and Exploration Potential

The gold mineralization is distinctly different and separate from the widespread copper-specularite mineralization and the siliceous silver and silver-lead mineralization previously mined in the area. Gold occurs in non-vein, diffuse mineralization in sheared and brecciated reactive rocks, particularly basalt and marble. Examples include a 35 foot interval of weakly altered, sheared basalt near the southern Toughnut shaft that exhibited gold values between .50 and 1.0 ppm and mineralized basalt-marble breccia at the Jewell Mine, near the northeast corner of Section 16, that assays .15 to .20 oz Au/ton. The mineralized reactive rocks are concealed by cover and overlying rock units and were not explored previously. The detachment environment at the Plomosa Prospect has exploration potential for both bulk-tonnage and less-extensive higher-grade gold mineralization localized in northwest-trending limear zones similar to gold deposits in detachment faults elsewhere in western Arizona.

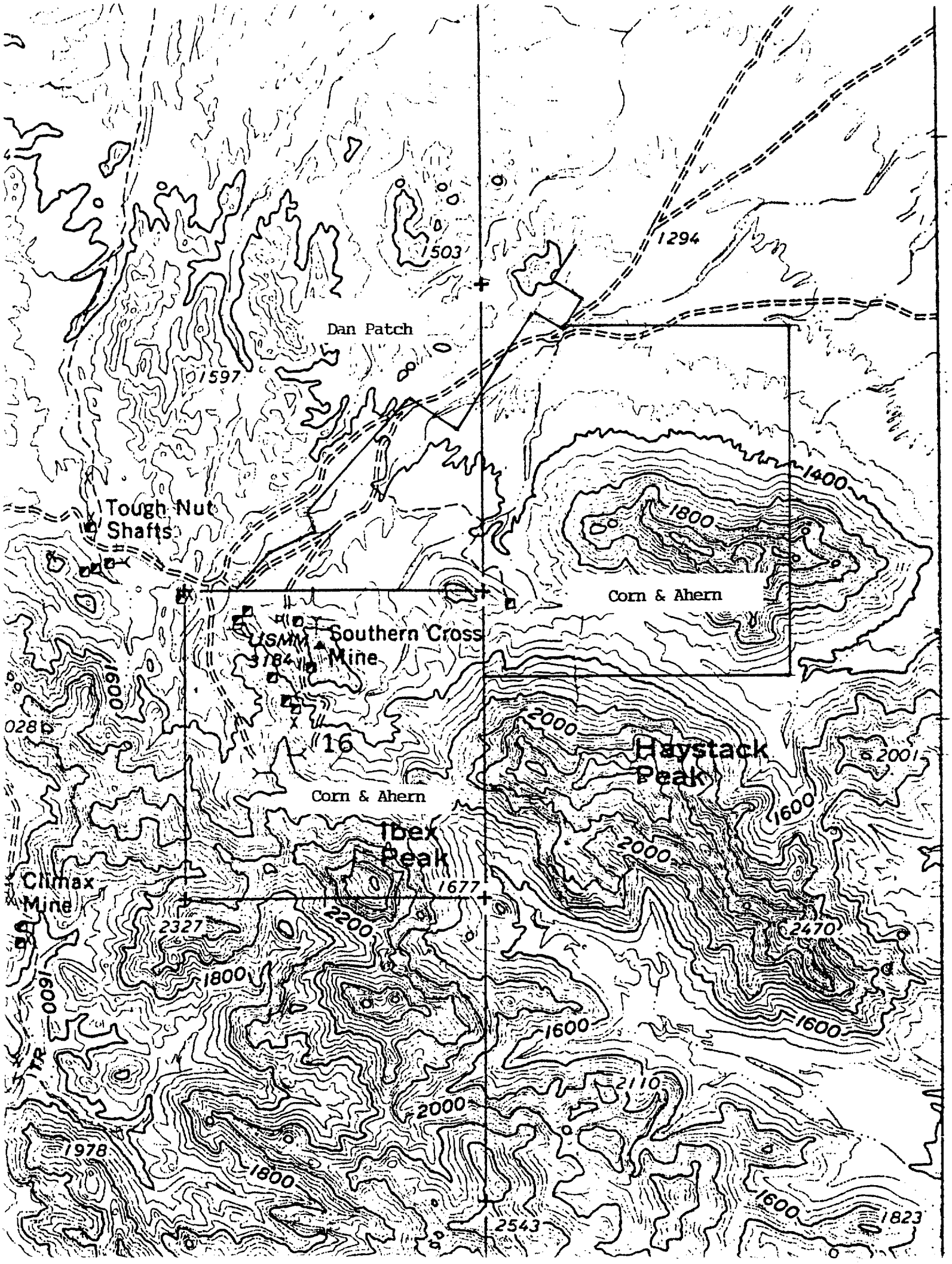
Prepared by:

Russell M. Corn
November, 1990



Index map showing the location
of the Eastern Plomosa Mountains,
La Paz County, Arizona.

R.M.Corn June 1988


1294
1503
Dan Patch
1597
Tough Nut
Shafts
1400
1800
Corn & Ahern
USMM
3784
Southern Cross
Mine
16
1600
2000
Haystack
Peak
6200
Corn & Ahern
Ibex
Peak
1677
Climax
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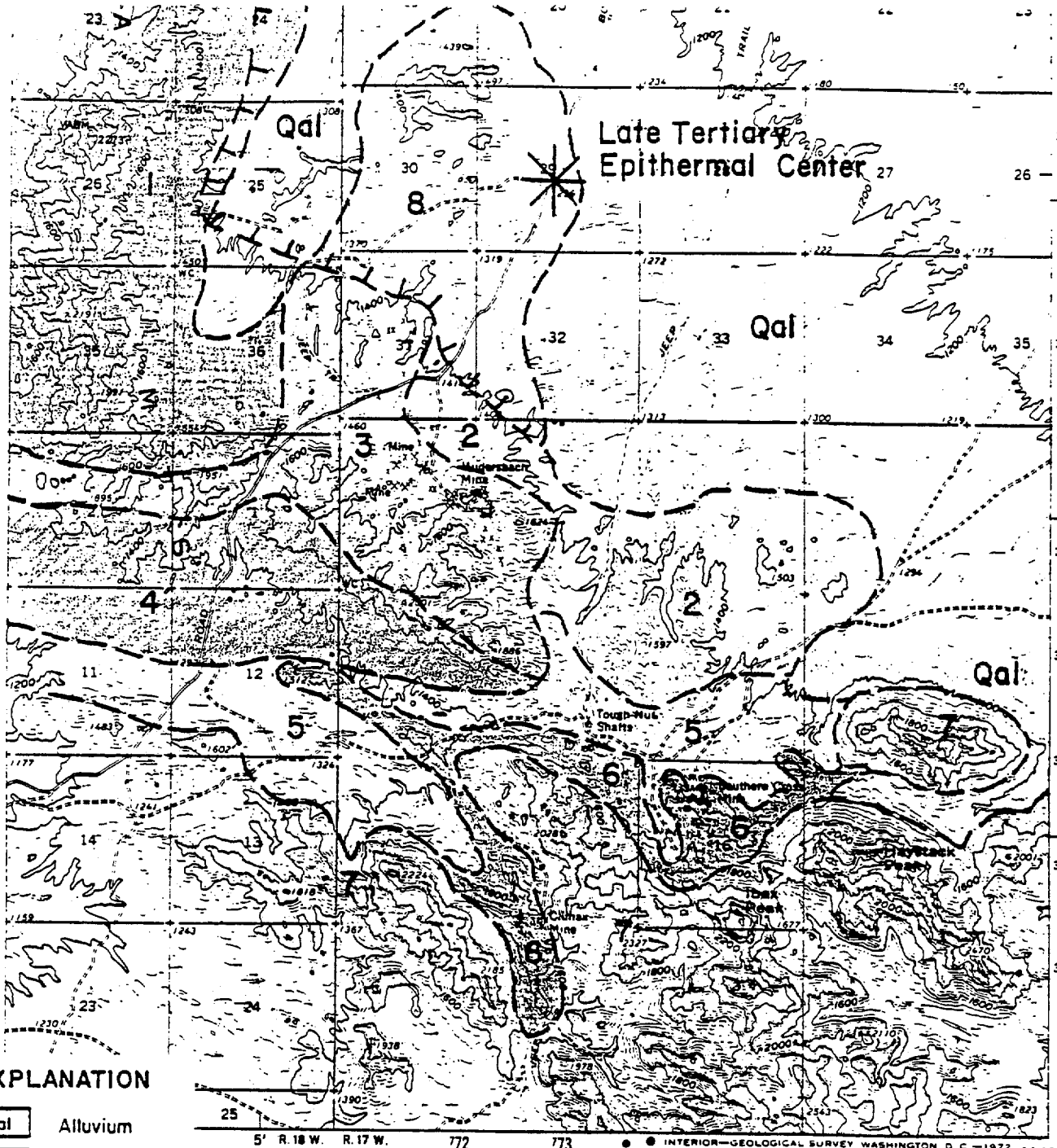

EXPLANATION

Quaternary

- Qal — Alluvium
- QTb — Gently-dipping non-deformed Basalt

Lithotectonic Units
Fault displaced, mixed, rotated and deformed rocks

Tertiary

- 8 — Rhyolitic and Latitic Volcanic Breccias and Fanglomerate
- 7 — Rotated blocks of Tertiary Volcanic rocks and Fanglomerate
- 6 — Complexly faulted zone of sliced Paleozoic sedimentary rocks, Tertiary intrusive latites, and rhyolitic tuffs
- 5 — Tertiary basalts, andesites and sedimentary rocks cut by numerous latite dikes and sills
- 4 — Precambrian granitic and metamorphic rocks
- 3 — Paleozoic sedimentary rocks and Precambrian metamorphic rocks
- 2 — Laramide granite and Precambrian & Mesozoic metamorphic rocks
- 1 — Precambrian and Mesozoic metamorphic rocks

Plomosa Detachment (2) Fault

Generalized Geologic Sketch Ma of part of the Eastern Plomosa Mountains Showing the Distribution of Lithotectonic Rock Units

R.M. Corn

June 1988

scale: 1:62500

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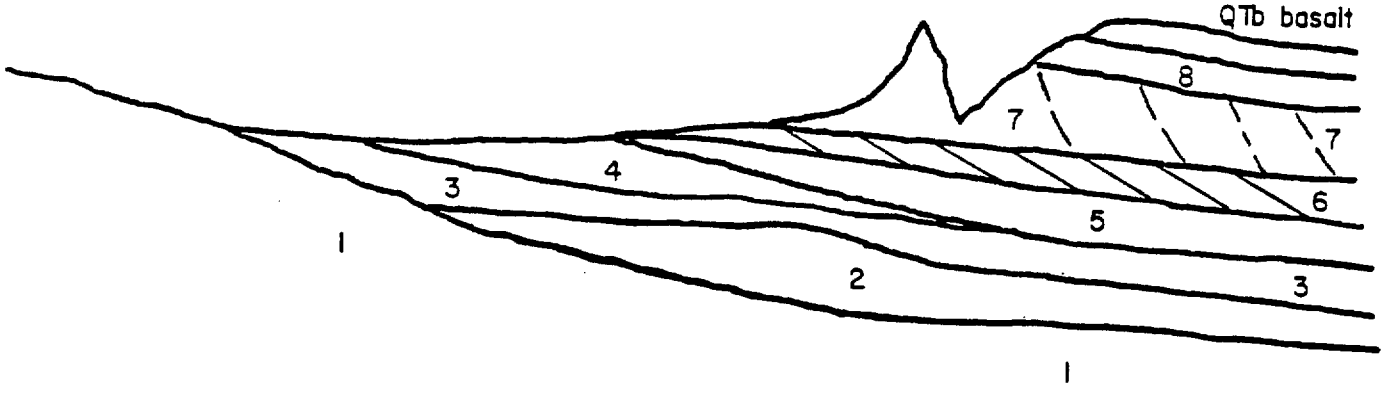
Generalized Section illustrating the Lithotectonic Units in the Eastern Plomosa Mountains La Paz County, Arizona

R.M.Corn, June 1988



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Plomosa Detachment (?) Fault

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8425 DESERT STEPPES DR.
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July 7, 1988

EXPLORATION POTENTIAL OF THE EASTERN PLOMOSA MOUNTAINS,
PLOMOSA MINING DISTRICT, LA PAZ COUNTY, ARIZONA

Summary

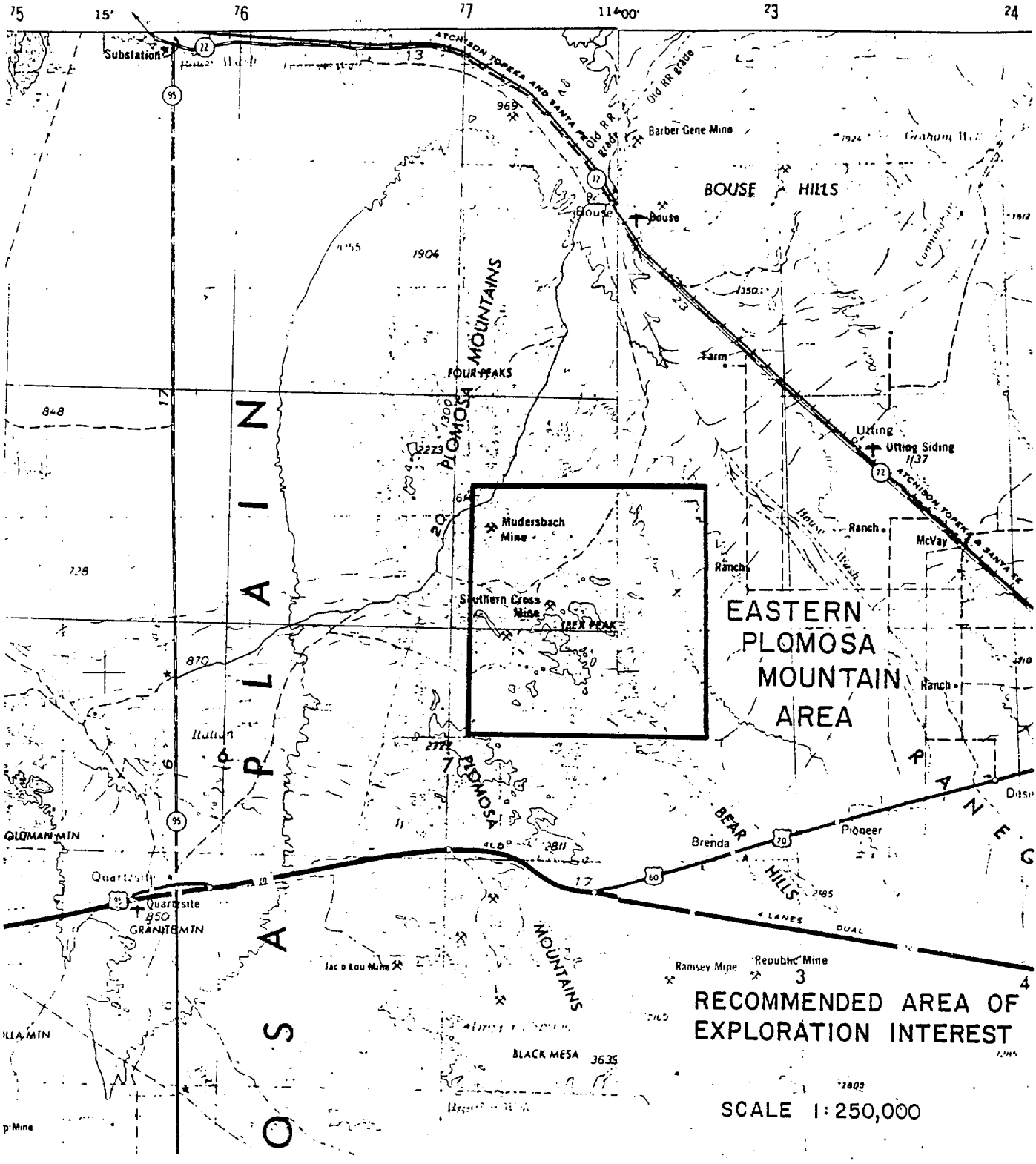
The Eastern Plomosa Mountain Area, La Paz County, Arizona is recommended as an area of specific exploration interest for epithermal gold mineralization localized in reactive host rocks. The area is geologically complex, consisting of a stacked sequence of various subhorizontal lithotectonic units, and it exhibits several different types of mineralization. The epithermal gold-rich mineralization of interest is associated with minor fine-grained sulfides, chlorite, carbonate, and little quartz. It occurs in sheared and brecciated reactive rocks, particularly basalt, marble and gypsum, and has not been thoroughly explored. The mineralized reactive rock units and subhorizontal tectonic breccias are concealed by overlying units and alluvial cover.

General

The general area of exploration interest, as outlined on the attached index map, comprises T5N, R17W and the adjacent tier of sections to the north and east. In terms of specific sections the primary area of exploration interest is that area underlain by reactive rocks (basalt, marble and gypsum in lithotectonic units 5 and 6), and their projection beneath alluvial and upper plate structural cover in Secs 1, 2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18, T5N, R17W, La Paz County, Arizona. The area has a favorable exploration potential for gold-rich epithermal mineralization localized in reactive rock units, concealed beneath both low-angle faults and Quaternary alluvium. There is a lesser potential for silver-dominant epithermal mineralization, and supergene enriched silver mineralization in the same area.

Mineral deposits in the Eastern Plomosa Mountains have been known since the late 1800's, with most of the prospecting and mining activity occurring in the early 1900's, in the 1930's, the World War II years, and during the recent period of porphyry copper and precious metal exploration in the 1970's and 1980's. There are several types of mineralization in the area, with past limited production consisting of copper, iron, lead-silver, and low grade manganese ores. The Mudersbach copper mine and the Southern Cross, (Lucky Lead) lead-silver mine accounted for the bulk of the past production.

Exploration during the 1970's and 1980's included I.P. surveys and several shallow drill holes directed toward possible porphyry copper mineralization in the Laramide granites near the Mudersbach mine and the pediment gravels to the north. In the early 1980's two or three rotary holes were drilled for precious metals near the Southern Cross Mine and several cuts and trenches were dozed near the Climax Mine. There does not appear to have been any additional exploration activity, other than assessment work, during the past several years. Most of the land in the area is Federal and administered by the BLM. A brief review of BLM



Index map showing the location of the Eastern Plomosa Mountains, La Paz County, Arizona.

R.M.Corn June 1988

files indicated that Dan Patch of Quartzite owns unpatented claims covering a substantial area around the Climax and Southern Cross Mines, and may own the patented claims in the area as well.

The intent of this brief report is to indicate the exploration potential of the area, and specifically direct attention toward the favorable exploration potential of a type of low-sulfide, gold-rich epithermal mineralization that was not extensively prospected or explored previously. This mineralization is characterized by relatively high gold and low silver values associated with minor fine-grained hematite, pyrite and/or chalcopyrite, chlorite and calcite/siderite. There is little or no associated quartz, and lower-grade mineralization is indistinct and diffuse in iron-rich reactive rocks. This type of mineralization occurs in basalt and marble at the Toughnut and Jewell mines, and similar, indistinct, low-sulfide gold mineralization with carbonate/chlorite alteration has been noted in amphibolitic gneiss, andesites, and basalts in the Quartzite area, the Big Horn Mountains, and the Owlhead District. It probably occurs elsewhere in the Plomosa Mountains and in other districts of western Arizona as well.

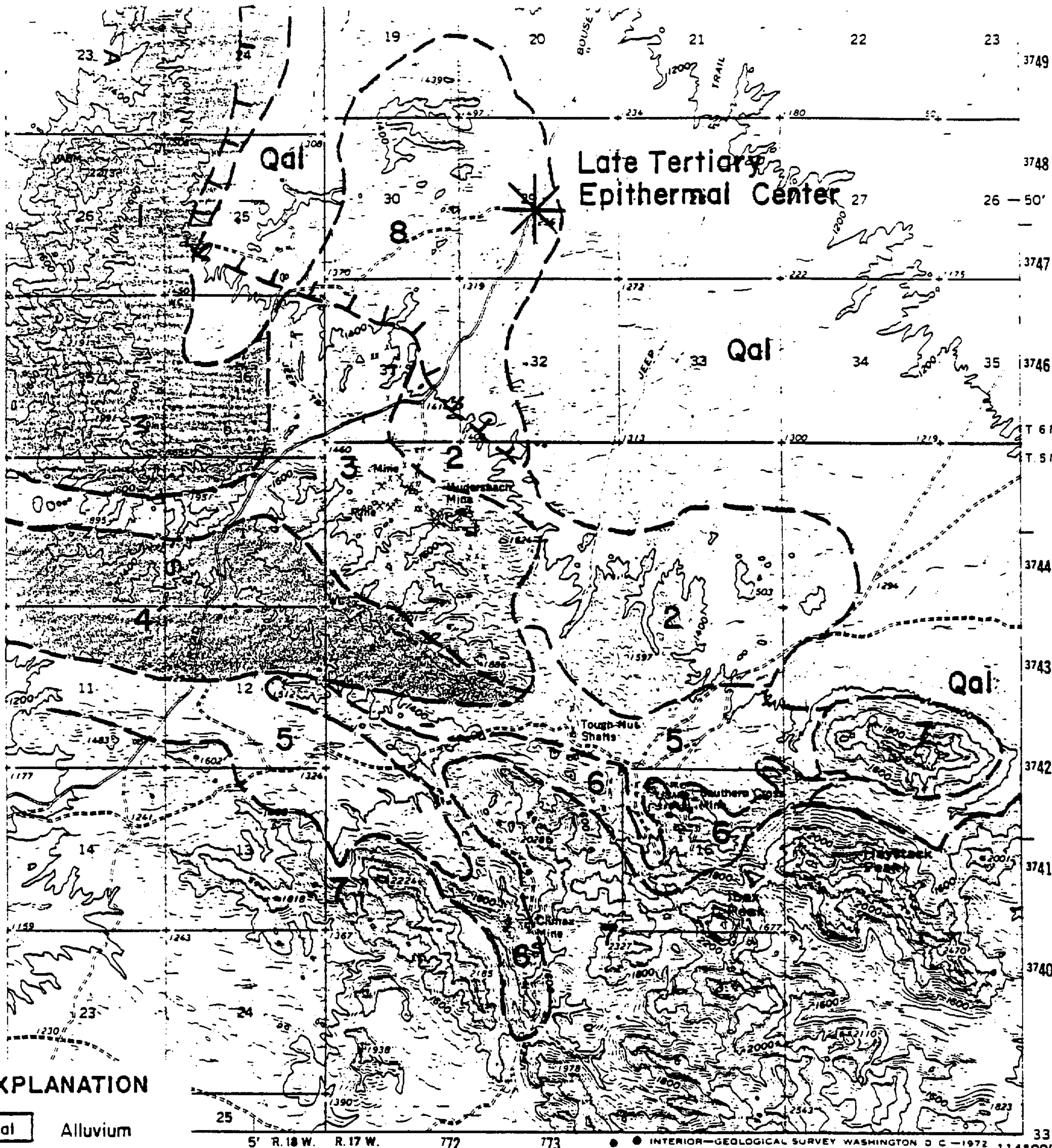
The reconnaissance-type geologic investigations carried out indicate that the area has an exploration potential of interest, but they were not sufficient to define specific exploration targets. A generalized geologic map, a sample index map, and sample logs accompany this report. Neither the geology or mineralization of the area have been studied in detail. Pertinent geologic references include: Keith, S.B., 1978, Index of Mining Properties in Yuma Co, Arizona, Arizona Bur of Geol and Mineral Tech, Bull 192, Bancroft, H., 1911, Reconnaissance of the ore deposits in northern Yuma County, Arizona USGS Bull 451, and Stoneman, D.A., 1985, Geology of the Plomosa Pass area, Northern Plomosa Mountains, La Paz County, Arizona, MS thesis, Dept of Geosciences, Univ of Arizona.

Geologic Relationships

The complexly juxtaposed mixture of varied Precambrian, Paleozoic and Tertiary rock units in the Eastern Plomosa Mountains make sense only when considered as a sequence of lithotectonic units, each consisting of rotated fault slivers of related rock. The sub-horizontal lithotectonic units exhibit variable listric faulting and are separated by larger low-angle faults and tectonic breccias. The general sequence and distribution of the units are illustrated on the accompanying sketch map and section.

The area near the Southern Cross Mine and the pediment area several miles to the north appears to be a center of Tertiary subvolcanic intrusive activity. Latite and rhyolite dikes and sills are abundant and are particularly localized in and beneath the imbricately faulted unit of mixed Paleozoic sedimentary rocks and Tertiary volcanic rocks (unit 6). The dikes and sills are commonly sheared and exhibit variable, pyritic-argillic alteration.

The Plomosa Detachment Fault, as mapped by Scarborough and others is shown on the geologic sketch map and separates the lower units of metamorphic, intrusive and Paleozoic rocks that exhibit variable weak metamorphic effects, chlorite, epidote, etc., from the non-metamorphosed upper units. As shown on the geologic sketch map, mineralization is closely associated with the specific lithotectonic units, and the fault zones that separate them. Mines and prospects in the lower units are characterized by narrow, northwest-trending quartz veins and copper and specularite mineralization. The epithermal precious metal prospects and mines occur in close proximity to, or within unit 6, which consists of complexly faulted Paleozoic sedimentary rocks and Tertiary intrusive and volcanic rocks. Mineralization in the uppermost lithotectonic units is characterized by near-surface epi-



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Plomosa Detachment (?) Fault

Generalized Geologic Sketch Map of part of the Eastern Plomosa Mountains Showing the Distribution of Lithotectonic Rock Units

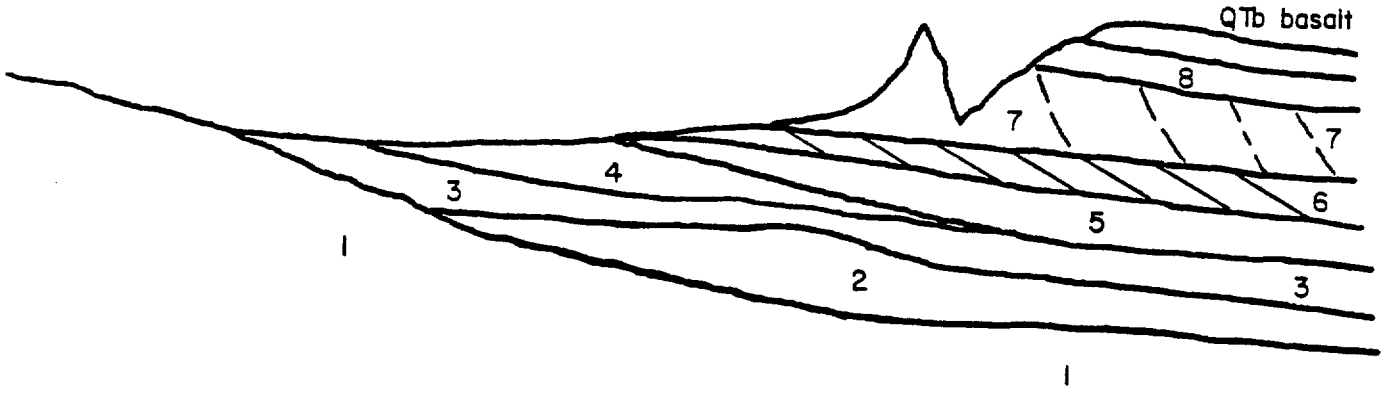
R.M. Corn

June 1988

scale: 1:62500

Generalized Section illustrating the Lithotectonic Units in the Eastern Plomosa Mountains La Paz County, Arizona

R.M.Corn, June 1988



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Plomosa Detachment (?) Fault

thermal manganese oxides, barite and fluorite.

Regional, northwest-trending strike-slip faults and zones of fracturing offset the north-south trending, uplifted mountains. Tertiary precious metal mineralization throughout the region exhibits a northwest-trending alignment that reflects control by deep-seated faults and fractures.

Mineralization

There are three or more separate types of Tertiary mineralization evident in the area:

1. Copper-specularite mineralization with little or no associated precious metals that occurs in the lower lithotectonic unit and is related to the detachment faulting.

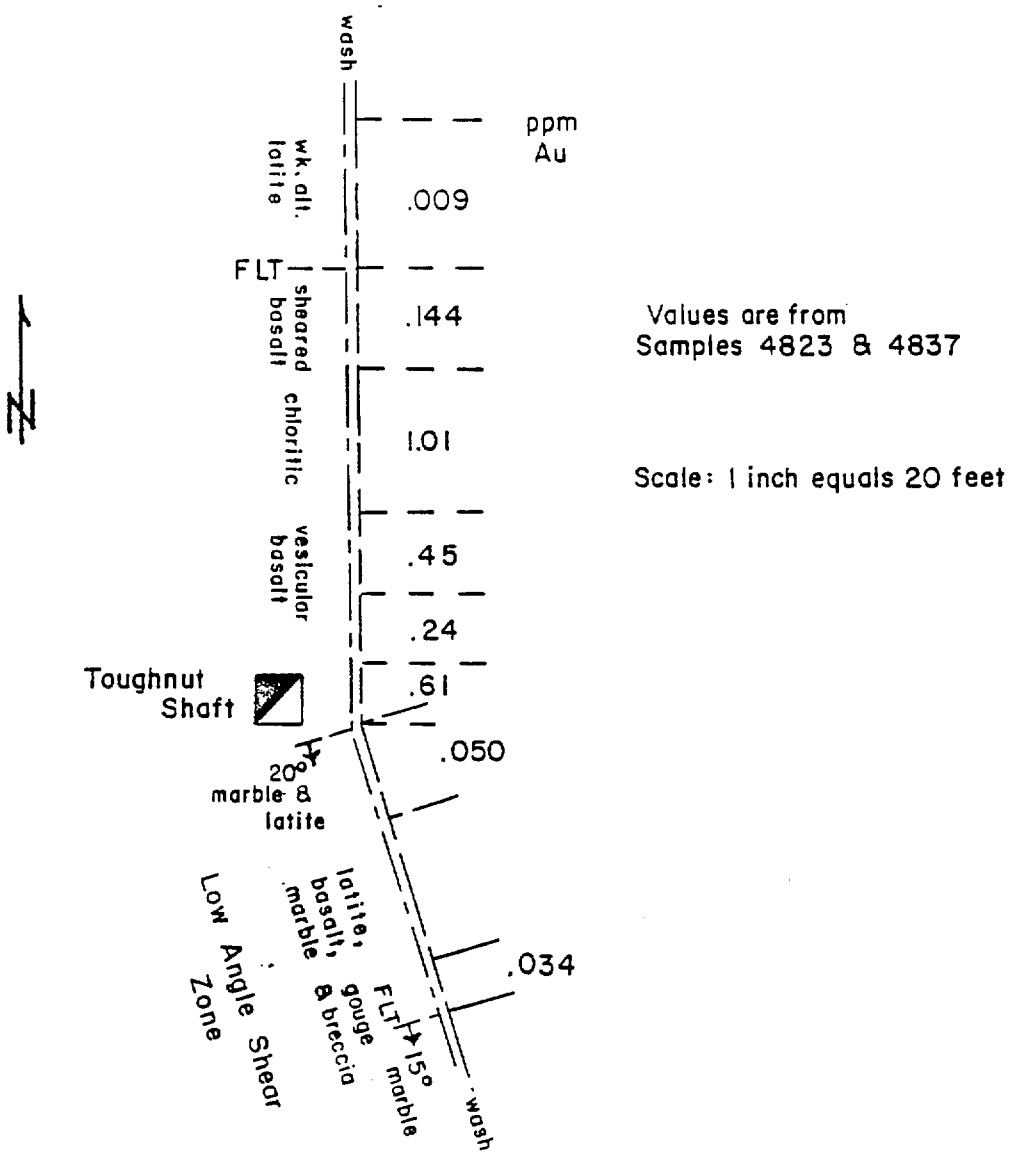
2. Silver-rich epithermal mineralization associated with prominent lead values, siderite and barite. This type of mineralization occurs in definite veins as well as sheeted zones of pyritic altered rocks and was the focus of most of the past mining effort at the Southern Cross and Climax mines.

3. Gold and gold-copper mineralization characterized by relatively low-sulfides and a silver/gold ratio generally less than 10:1. The gold is associated with fine grained chalcopyrite, minor pyrite, carbonate/chlorite alteration, hematite and specularite, and minor quartz. The gold-rich mineralization occurs both in tectonic and hydrothermal breccias and as diffuse, indistinct mineralization in low-angle zones of shearing and brecciation. This type of mineralization was noted at the north end of the Climax Mine in several narrow steeply-dipping breccias, and in sheared and brecciated reactive rocks in the zone of low-angle shearing between lithotectonic units 5 and 6 at the Toughnut and Jewell Mines.

Examples of precious metal values in this type of mineralization include:

Area		Sample No.	ppm Au	ppm Ag
Climax	Narrow breccia zones	4796	3.65	2.7
		4796-A	3.9	4.4
Toughnut	Sheared basalt	4837	.61	2.0
		4837-D	1.01	2.6
Jewell	Brecciated limestone	4825	4.87	40.7
		4846	7.0	52.5

The accompanying sketch map shows the distribution of lower-grade values near the Toughnut shaft. Gold values of .5 to 1.0 ppm occur in sheared, weakly altered and inconspicuous vesicular basalt. The mineralized basalt is overlain and concealed by fault slivers of sheared limestone, latite and rhyolite that carry only weakly anomalous gold values. Relationships are not clear, but pyritic altered breccias and narrow shear zones with copper oxides in the non-reactive rocks may be a reflection of underlying gold mineralization. Examples are tabulated below and include samples in the Toughnut area and pebble breccia and sheared latite at the collar of the Jewell shaft. The relatively low silver values in these samples contrast with the higher silver content of similar appearing,



Sketch Map Illustrating the Association of Gold and Vesicular Basalt Toughnut Shaft - Eastern Plomosa Mountains La Paz County, Arizona

R.M.CORN, JUNE 1988

sheared, pyritic latite and rhyolite on the sharp ridge above the Southern Cross workings. Supergene effects may confuse the gold/silver values and trace element analyses are advised to better define the gold-rich mineralization.

Area		Sample No.	ppm Au	ppm Ag
Toughnut	Bx latite w/CuOx	4838-E	.05	2.2
	Sheared latite	4839	.044	.3
	Py alt. Pebble Bx	4840	.006	.3
	Bx Rhy	4841	.005	.2
Jewell	Sheared lat. & pebble Bx	4846-A	.63	37.5
Southern Cross	Sheared py latite	4824-A	.006	13.6
	Sheared & Bx & rhy & latite	4845	.009	21.1
	Py alt. rhyolite	4845-A	.002	15.8

The mineralized brecciated marble on the dump of the Jewell shaft near the eastern edge of the outcrops of units 5 and 6 provides an example of higher-grade gold mineralization. The ore was piled on the dump but never shipped and apparently was not commercial at the time it was mined. The mineralized breccia with values of .15 to .20 oz/t gold is not exposed and its extent is unknown, but it probably came from the brecciated contact of marble and vesicular basalt along the underlying low angle shear zone. Thin quartz stringers in marble approximately 100 feet southwest of the shaft contain prominent gold and silver values, and the weakly altered vesicular basalt north of the shaft exhibits significantly anomalous gold. The sheared and altered Paleozoic rocks, vesicular basalt and subhorizontal shear zones continue to the east beneath alluvial cover and overlying upper volcanic units.

Sample No.	Description	ppm Au	ppm Ag
4825	Brecciated marble & basalt, spec. & CuOx Jewell shaft dump	4.87	40.7
4846	Brecciated marble specularite & CuOx Jewell shaft dump	7.0	52.5
4846-C	Weakly altd basalt	.034	1.0
4846-F	Select sample of 2 inch to 1 ft silica vlts in marble - hematitic lim & CuOx	5.08	1748

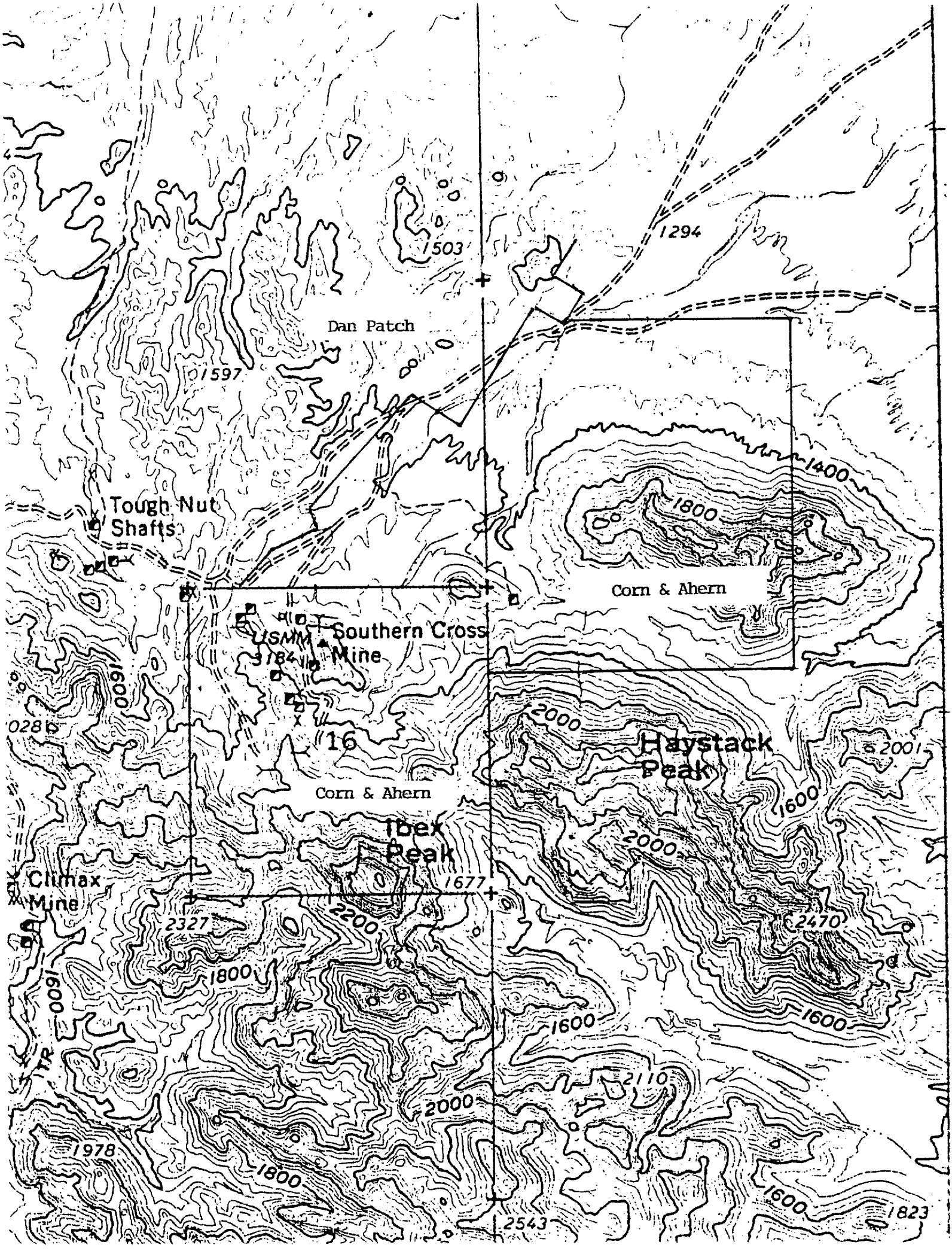
The gold mineralization observed at the Jewell and Toughnut properties indicated that there is potential for both bulk-tonnage and higher-grade gold mineralization in the sub-horizontal shear zones and tectonic breccias in and between lithotectonic units 5 and 6 where epithermal, gold-rich mineralization is superimposed on favorable rock units, particularly marble, vesicular basalt, and gypsum. The limited data suggests that this type of mineralization has a very weak expression in overlying non-reactive rock units, would be non-resistant, and is probably concealed by both structural and alluvial cover. There is also some potential for supergene silver mineralization in sheared and pyritized rocks in the upper part of unit 6, above the silver-lead veins at the Southern Cross.

Recommendations

The Eastern Plomosa Mountain Area of La Paz County, Arizona is recommended as an area of favorable exploration potential for epithermal gold mineralization localized in sheared and brecciated reactive host rocks. The type of mineralization recommended as having greatest potential is the inconspicuous, low-sulfide gold mineralization associated with carbonate/chlorite alteration and little or no quartz. The specific area recommended as having the most favorable exploration potential is the belt of mineralized, sheared and brecciated reactive rocks in and near the Toughnut and Jewell mines and its projection to the north and east beneath structural and alluvial cover in Sections 1, 2, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18, T5N, R17W, La Paz County, Arizona.

Respectfully Submitted

Russell M. Corn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2000
Haystack
Peak
2001
1600
2000
Ibex
Peak
1677
Climax
Mine
2327
2200
2470
1800
1600
1600
2110
2000
1978
1800
1600
1823
2543

PROSPECT Plomosa Mts

SAMPLE LOG

COUNTY La Paz STATE Arizona

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4745	Cent Sec 15 T6N, R18W	Hill W/ numerous cuts & trenches	40 ft. sample of shattered black chloritic gneiss in trench on NE side of Hill - does not include qtz & siderite veins - 6 "																	.013	<.2
4745-A	" "	" "	25 ft sample of shaft & BX chloritic gneiss in cut on top of ridge near drill hole																	.002	<.2
4748	NE/SE Sec 6 T5N, R17W	E side Mudersbach Rd near West shaft	50 ft sample of limonitic chloritic latite w/qtz vlts																	.005	<.2
4749	SW Sec 29 T6N, R17W	Prospect Pits W of road-E bank of wash	Fe-MnOx cemented conglom.																	.016	<.2
4749-A	" "	" " N side wash	Fe-MnOx cemented Cngl Flourite & Barite seams & vlts																	.004	<.2
4784	SE/SW Sec 13 T6N, R18W	Four Peaks Road on L. Plate	50-100 ft of siderite-clay Chlorite alt. gneiss W of road & just below detach FIT																	.002	.2
4784-A	" "	" " Val Pits at Rd Fork	Dump sample of Qtz-Barite replacement																	.004	2.0
4785	NW/SW Sec 13 T6N, R18W	Slope of Hill Pit & trench	1-2 ft wide barite vein Ft wall of Bx zone-dip 60°N																	.001	.2
4785-A	" "	" "	20 ft sample of alt. Bx adj to Barite vein; qtz minor py																	.029	2.7
4786	(see below)																				
4786-A	" "	500 ft SW of road	10 ft zone of hematitic alt.adj. to 6 inch qtz vein																	.001	<.2
4786-B	" "	Dump of shaft near top of main ridge	Select sample of 2-3 ft vein - qtz, Cu - earthy Hem																	1.35	.5
4787	NE/NW Sec 24 T6N, R18W	Wash south of road	200 ft sample of bleached sheared gneiss - Lower Plate																	.005	<.2
4786	NW/SW Sec 13 T6N, R18W	Trench on small ridge	5 to 10 ft qtz vein - minor Cu																	.055	.2

1 VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %

PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

SAMPLE LOG

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	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4788	NE/NW Sec 31 T6N, R17W	Send long cut on Barite vein	3 ft zone of barite & hematite cemented conglomerate																	.004	<.2
4788-A	" "	" "	Hematitic conglomerate																	.004	<.2
4789	SW/NW Sec 29 T6N, R17W	Qtz vein near MnOx pit	Select sample of 3 ft vein qtz, Fl., Barite & some Cu & Pb oxides																	.012	4.0
4789-A	" "	Exposure near vein on ridge	50 ft sample of adjacent argillic altd conglomerate																	.007	.30
4789-B	" "	MnOx pit 150 ft NW of vein	Bleached clay altd cngl. on North wall of pit																	.003	<.2
4790	NE/NW Sec 29 T6N, R17W	N end long ridge West of wash	Dump of pit. - select of chalced & druzy qtz vein																	.007	19.4
4790-A	" "	" "	50 ft sample of carbonate cemented congl. between silic. zones																	.01	.2
4790-B	" "	" "	Shattered silic. gneiss & rhyolite cemented w/qtz & CO_3																	.005	<.2
4790-C	" "	Wash west of ridge	Hematite stained Bx cemented by carbonate																	.004	<.2
4791	NW/SE Sec 29 T6N, R17W	Small wash E of road	100 ft sample of limonite & hematite cemented cngl.																	.001	<.2
4791-A	SE/SE Sec 29 T6N, R17W	Dump - validation pit	Hematite & limonite cem. cngl. w/abdt barite Pb (?)																	.001	<.2
4792	Cent Sec 31 T6N, R17W	Dump of Val Pit	Altd siltstone in lower Plate. Barite, CO_3, Qtz - below Mn & hem																	.005	<.2
4792-A	SW/NE Sec 31 T6N, R17W	Dump of old shaft	Altered limy siltst. - garnet, hem. qtz & some CuOx																	.183	<.2

1 VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

PROSPECT Plomosa Mts.

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4793	SW/SE Sec 31 T6N, R17W	Near & on S side Bouse-Qtzite road	Sheared L. Plate granite - arg & jasper alt. - limited fgr pyrite.																	.016	.60
4793-A	SW/SW Sec 32 T6N, R17W	Isolated Hill E of road	Weak clay alt sheared basalt in upper plate																	.002	<.2
4793-B	SE/SE Sec 36 T6N, R18W	Wash at road crossing	Sheared gneiss & siltstone? - w/gyp & CO_3 seams																	.002	<.2
4794	NE/NE Sec 36 T6N, R18W	Iron Mine	30 ft. plus zone of spec. replace at base of Limestone.																	.001	<.2
4794-A	NE/SE, Sec 6 T5N, R17W	Mudersbach Mine Dump	Breccia after gypsum with specularite & minor CuOX																	.009	1.7
4795	Cent $SW\frac{1}{4}$ Sec 17 T5N, R17W	W side road North of Climax	Bleached argillic altered latite Minor vfg pyrite																	.001	<.2
4795-A	" "	Slope west of northern Climax pits	Limestone cut by veinlets of quartz and black calcite																	.005	.3
4796	NW/NW Sec 20 T5N, R17W	Climax Mine	2-3 ft wide zone of silic. latite, vuggy quartz, oxide Cu on east edge of latite dike																	3.65	2.7
4796-A	" "	" "	2 ft zone of upward flaring breccia with sugary quz, 4 feet to east																	3.9	4.4
4796-B	" "	Climax Mine dump Shaft near road	Dump sample of sheared bleached latite with druzy qtz and lead																	.348	4.9
4796-C	" "	Climax Mine Dump of east shaft	Dump sample - Qtz, barite, calcite & oxide copper																	.094	57.0

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PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

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	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4797	NE/SW Sec 16 T5N, R17W	Southern Cross Mine Area - W Adt	Dump sample of wk pyritic brecciated latite w/py & qtz vlts																	.522	30.2
4797-A	" "	: :	Select of black calcite on south part of dump																	.027	.3
4797-B	" "	Saddle in Qtzite & latite	Brecciated qtzite w/druzy qtz vlts north of saddle																	.011	.9
4797-C	" "	Drill hole, W. slope N of W adit	Cuttings of rotary hole 3-5 years old																	.019	1.4
4797-D	" "	Saddle between Qtzite & latite	Pyritic altered latite S of saddle																	.011	1.3
4798	SW/SE Sec 8 T5N, R17W	Toughnut Mine Area	Dump sample - shaft adj to wash Wk py latite & basalt with some chlorite & CO_3																	.533	1.0
4798-A	" "	" "	Dump sample - west shaft, sheared basalt & phyllite-chlorite																	.259	.3
4799	NW/NW Sec 16 T5N, R17W	Southern Cross West Shaft	Pit - above & S of W shaft Chloritic alt basalt on W wall of cut - 1 ft from upward flaring hydro. Bx vein.																	.320	2.1
4799-A	Cent NW¼ Sec 16 T5N, R17W	Southern Cross Dump - small shaft	Pyritic altered latite																	.022	1.3
4799-B	" "	Southern Cross	Pit & shaft adj & E of road Fault breccia w/chlorite & CO_3																	.210	7.2
4800	" "	Southern Cross Jewell area	Bleached, wkly pyritic tuff below low angle fault																	.006	<.2
4800-A	" "	" "	Quartzite - Ls Bx with black calcite																	.002	1.1
4800-B	" "	" "	1 ft silic zone with pyrite in limestone																	.003	3.0

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PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4800-C	NE¼ Sec 36 T6N, R17W	Hill on Pediment	Sheared latite in upper Plate of Detachment																	.002	<.2
4817	SE Cor SW¼ 17 T5N, R17W	Climax Mine Pass - at N end	200 ft sample of Bx red rhy & SS ridge N of road. MnOx, CO_3 & minor qtz																	.006	<.2
4817-A	" "	" "	25 ft sample of wk alt basalt-latite - E of road at pass																	.014	<.2
4817-B	" "	" "	20 ft sample of a Bx basalt-latite yellow stain - W of road at pass																	.012	<.2
4818	SE Cor. Sw¼ Sec 17 T5N, R17W	Cut W of pass	20 ft sample of latite dike, W side of cut & shear-bleached & wk pyritic alteration																	.036	1.3
4818-A	" "	" "	10 ft sample of sheared pyritic latite - in cut																	.068	1.9
4818-B	" "	" "	15 ft sample of sheared pyritic bleached latite on E side of cut																	.072	.8
4819	SE/SW¼ Sec 17 T5N, R17W	Ridge west of pass	50 ft sample of brecciated gray-green latite adj to Ls - much included CO_3																	.014	<.2
4819-A	" "	" "	35 ft sample of bleached pyritic latite - W slope - W of shear & black dike																	.058	1.1
4819-B	" "	" "	20 ft sample of pyritic latite W of West H Grd shear & 10 ft N of black dike																	.017	.6
4819-C	" "	" "	100 ft sample of bleached pyritic latite-black-top of ridge & west of prospects - 200 ft N of H grade cuts																	.022	<.2
4820	" "	" "	2 ft of sheared & brecciated latite with py & lim after Chpy. Prospect cut on E side of ridge N of N shaft																	3.42	.3

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PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4820-A	NE/NW Sec 20 T5N, R17W	East shafts-Climax about 1000 ft S of Pass	Dump sample-5ft of red-yellow Flt Bx - Ls to West & above																	.06	3.3
4821	NE/SW Sec 20 T5N, R17W	East Climax West slope ridge	3-5 ft NE trend breccia in pit in pyritic latite - 20 ft above road Cse barite & druzy qtz																	.032	3.6
4821-A	" "	" "	Shattered pyritic latite w/oxide Cu adj to Bx above																	.009	1.1
4821-B	" "	" "	20 ft sample of bleached pyritic latite approx 100 ft above pit																	.007	.5
4822	NW/NW Sec 28 T6N R17W	Hidden Valley Mine	Select sample of 3-5 ft barite vein																	.002	<.2
4822-A	" "	" "	20 ft zone - stringers of barite in rhy-latite on H. wall																	.004	<.2
4823	SE/SE Sec 8 T5N, R17W	Toughnut Mine Main wash	Upper 5 ft of a 10 ft shear & Bx dip 30° (?) South - Gouge Ls, latite & basalt																	.034	.6
4823-A	" "	Toughnut Mine 15 ft N of 23	10 ft sample of sheared Ls & latite - south at basalt																	.05	.4
4823-B	" "	Toughnut Mine. N of east bank of wash	30 ft sample chl. altd basalt Minor limonite - chlorite																	.594	2.6
4823-C	" "	" "	10 ft sample of sheared basalt at contact w/latite																	.144	1.8
4823-D	" "	" "	15 ft sample of wkly altd latite north of contact with basalt																	.009	<.2
4824	NE/SW Sec 16 T5N, R17W	Near section line on N side S road	100 ft sample of pyritic altd latite																	.02	<.2
4824-A	" "	Head of gulch SE of West Adit	100 ft wide sheared pyritic latite no prospects; N-S trend																	.006	13.6

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PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W %	Acid Sol Ba %	Total Ba %	F %	Hg %	Cu %	Mo %	Pb %	Zn %	As %	Sb %	Au %	Ag %
4825	NW/NW Sec 15 T5N, R17W	Jewell Shafts Dumps	Dump sample - ore, brecciated Ls & basalt, Specularite & Cu oxides																	4.87	40.7
			5 ft NW shear zone - edge latite dump																		
4825-A	" "	" "	Dump of S shaft - dominantly sheared limestone																	.185	9.2
4826	NE/NW Sec 9 T5N, R17W	Old rotary hole drill site	Pyritic altd latite; limonite after pyrite - no qtz																	<.001	< .2
4826-A	" "	" "	Drill hole cuttings - chloritic altd sheared granite																	.001	< .2
4827	Cent SE¼ Sec 4 T5N, R17W	Copper Prospect w slope ridge shaft dump	Select sample of 3 ft breccia zone NNW trend - abdt Chrysacolla, hematite after chpy.																	.110	2.0
4827-A	" "	Copper Prospect 200 ft S of shaft	20 ft sample in 50 ft zone of sheared pyritic latite																	.012	0.8
4828	NE/NE Sec 4 T5N, R17W	Wash - edge of alluvial cover	Pyritic altd biotite latite porphyry																	.002	< .2
4828-A	" "	" "	Select of white silic. porphyry w/some qtz vlts																	.004	< .2
4828-B	" "	" "	Wkly pyritic chloritized schist & gneiss w/some qtz vlts.																	.021	< .2
4828-C	" "	Ridge at edge of cover	Intense pyritic-alunitic altd latite porphyry																	.005	< .2
4829	Cent Sec 11 T5N, R17W	West edge of hills	Select - white chalced. vlts in shattered latite																	.001	< .2
4829-A	" "	" "	Altd gray-green latite w/thin vlts - overlain by gray rhyolite Bx																	.001	< .2

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PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

SAMPLE LOG

SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W,	Acid Sol Ba,	Total Ba %	F,	Hg,	Cu,	Mo,	Pb,	Zn,	As,	Sb,	Au,	Ag,
4836	SE/SE Sec 7 T5N, R17W	Toughnut Mine Area	Brown gypsif. "dirt" - adj to Bx rhyolite w/MnOx																	.005	2.3
4836-A	" "	" "	Adj 5 ft Bx latite - some limonite subst. gyp.																	.002	.7
4836-B	" "	Toughnut Mine Area N side road	Bx latite 70 - 100 ft N of sample 36																	.002	<.2
4837	SE/SE Sec 8 T5N, R17W	Toughnut Wash E of shaft	6 ft sample - N from contact w/Ls green chl. Bx basalt - minor																	.610	2.0
4837-A	" "	" "	Next 7 ft to North - sheared Basalt. 6-13 ft from Ls contact																	.242	2.9
4837-B	" "	" "	Next 8 ft to North - 13-21 ft from Ls contact-blocky, green chloritic basalt																	.449	3.4
4837-C	" "	" "	Next 15 ft to North - 21-36 ft from Ls contact - somewhat brecciated sheared basalt																	1.01	2.6
4837-D	" "	" "	Dense basalt 80-100 ft N of Ls contact - cut by near vert fract & bleached limonitic zones																	.010	<.2
4838	" "	Toughnut West shaft	Dump sample of chloritic altd phyllite breccia - minor Ls																	.159	.7
4838-A	" "	" "	Dump sample of phyllite Bx East of shaft																	.279	1.0
4838-B	" "	Wash E of shaft	100 ft sample of wk altd dense, blocky basalt																	.085	.30
4838-C	" "	Wash adj to shaft	Sheared latite with limonite after pyrite																	.006	.20

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PROSPECT Plomosa Mts

COUNTY La Paz STATE Arizona

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SAMPLE NUMBER	LOCATION		DESCRIPTION	RADIOACTIVE ELEMENTS			PATHFINDER ELEMENTS							BASE METALS				SULFO-SALTS		PRECIOUS METALS	
	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4838-D	SE/SE Sec 8 T5N, R17W	West shaft Toughnut	Weak hematitic & CO_3 altd basalt 50 to 100 ft NW of shaft																	.07	<.2
4838-E	" "	" "	Select sample over 3-5 ft at bx latite w/Cu oxides in cut approx 150 ft W of shaft																	.05	2.2
4839	" "	Shaft at wash	Dump sample - N end dump limonitic sheared latite																	.044	.3
4839-A	" "	" "	Dump sample - sheared altd basalt																	.74	2.3
4839-B	" "	East shaft E of wash	Dump sample - sheared altd basalt																	.207	1.4
4839-C	" "	" "	Sample over 5 ft between 5 & 10 ft on ftwall of fault																	.091	1.1
4839-D	" "	Main wash	Bx basalt hematite, chlorite, CO_3 Alt basalt approx 200 ft N of fault																	.011	.2
4839-E	" "	" "	Altd basalt - chlorite & hematite Adj & on S side road																	.005	.4
4840	" "	Main wash approx 500 ft SE of shaft	Pyritic arg. alt bx. (pebble) E-W trend - alunite?																	.006	.3
4840-A	" "	" "	50 ft sample adj pyritic-argillic altd latite																	.006	.4
4841	SE/SW Sec 8 T5N, R17W	Val Pit on top of ridge	Shattered rhyolite Bx w/CuOx and minor thin qtz vlts																	.005	<.2
4841-A	" "	West side wash	Dense blocks of rhy Bx with minor fgr pyrite some chalcedony & qtz																	.004	<.2

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	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W ppm	Acid Sol Ba ppm	Total Ba %	F ppm	Hg ppb	Cu ppm	Mo ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Au ppm	Ag ppm
4842	SE/SE Sec 8 T5N, R17W	Adit on ridge E of Toughnut	5 ft. sample across East wall of decline hematitic limonite in sheared limestone & shale (?)																	.145	5.5
4842-A	" "	Dozer trench east of road	50 ft. sample of altd basalt, chlorite & carbonate																	.015	<.2
4843	NW/NW Sec 16 T6N, R17W	Wash west of shaft Southern Cross	50 ft. sample of blocky basalt north of sheared latite-hematite alt. & thin qtz-CO_3																	.005	<.2
4843-A	" "	" "	Somewhat sheared fgr basalt 170 ft. N of 4843																	.005	<.2
4844	" "	Southern Cross Wash west of main shaft	50-100 ft. of wkly altd basalt Some CO_3 -minor hematite																	.005	<.2
4844-A	Cent S edge Sec 9 T5N, R17W	N of main shaft	50-100 ft. wkly altd blocky basalt NE of road																	.021	.8
4844-B	SW cor Sec 9 T5N, R17W	Wash north of road	25 ft. sheared chloritic basalt adj to thin, steep dipping, reddish breccia.																	.003	<.2
4845	NE/SW Sec 16 T5N, R17W	Top of Ridge above Southern Cross	2-3 ft. N-S shear with minor qtz-rhyolite & latite																	.009	21.1
4845-A	" "	Top of Ridge above Southern Cross	Blocky, pyritic-argillic alt rhyolite west of vein above																	.002	15.8
4845-B	" "	Wash adj to west adit	25 ft. sample of altd basalt, carbonate, chlorite & hematite																	.002	<.2
4845-C	" "	" " N of road to adit	25-30 ft sample of altd basalt (?)																	.002	.6
4845-D	SW/NW Sec 16 T5N, R17W	West bank wash west of road	10 ft. sample of sheared altd basalt adj to shear zone																	.065	.4

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	LEGAL	GEOGRAPHIC	LITHOLOGY AND MINERALIZATION	U_3O_8	eU	eTh			W	Acid Sol Ba	Total Ba %	F	Hg	Cu	Mo	Pb	Zn	As	Sb	Au	Ag
4846	NW/NW Sec 15 T5N, R17W	Jewell Shaft Dump	Ore-pile. Limestone breccia w/CuOx and specularite																	7.0	52.5
4846-A	" "	Collar of shaft	3 ft sample of sheared & Bx latite SW½ of shear in shaft Pebble Bx & Cu oxides																	.63	37.5
4846-B	" "	Wash E of shaft	20 ft sample of wkly altd basalt 1st exp. north of Ls																	.007	8.5
4846-C	" "	" "	25 ft sample of wkly altd basalt 2nd exposure - N of 46-B																	.034	1.0
4846-D	" "	Old road N of shaft - poor exposure	30 ft sample of wkly altd basalt 75 ft NE of shaft																	.029	1.3
4846-E	" "	Validation Pit E end of hill	Shattered limestone																	.017	<.2
4846-F	" "	Validation Pit 100 ft W of shaft	Select sample of 2 inch-1 ft silica stringers - hematitic limonite & CuOx																	5.08	1748
4846-G	" "	" "	Shattered marble in same pit without siliceous stringers																	.054	9.0

1. VALUES IN PPM EXCEPT "TOTAL BARIUM" WHICH IS IN %.

Sample Index Map
Eastern Plomosa Mountains
La Paz County, Arizona

R.M. CORN, JUNE 1988

SCALE 1:24,000