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James Doyle Sell Mining Collection

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FACSIMILE MESSAGE

DATE: 10/24/96

TO: J. David Lowell

FROM: J D Sell

PHONE/FAX: \_\_\_\_\_

SUBJECT: Ag Bell East

NUMBER OF PAGES INCLUDING COVER 5

I have looked through all of my Silver Bell data and this is all I have of SBEast.

It is unknown if SBE-5 was used or not. ~~Further~~ Proposals were turned down by NY office for further drilling.

Bob Gilman just called from Bestree He is having a very slow time in checking for claims. I suggested he call you to clarify what should be done.

Jim

PS. ASARCO chum drills extended 2 miles east of Credit Pit (Center of the pit) but not as far as Coxi Wash.

1970's

R9E, T12S

SBE-1 SW<sup>1</sup>/<sub>4</sub> Sec. 12

Surface - 1440' alluv. & gravels

1440 - 2350 Ks (clastic & limy sands) No alt. No Cu.

2350 - 2480 T.D. Pt schist

SBE-2 Center S<sup>1</sup>/<sub>2</sub> S<sup>1</sup>/<sub>2</sub> Sec. 14

Surface - 1900' alluv. & gravels

1900 - 2038 Mony & da porp leached capping  
strong alteration

2038 - 2435 T.D. Waste porp & hf bx, py w/tn cc.  
(hornfels)

sulfide content 3% - 10% as pyrite  
copper, trace to 0.05% Cu.

alt is pervasive as strong crystallization  
and sericitization. Qtz veining, but  
no stockwork veining.

SBE-3 N side center, Sec. 24

Surface - 2340 alluvium & gravel.

2340 - 2370 T.D. Ks (clastic & limy sediments) No alt.  
No Cu.

SBE-4 N side center, Sec. 23

Surface - 1440' alluv. & gravels.

1440 - 2010 Waste porphyry. pyrite w/ wtz - mod. cc. No  
leached capping.

1700 - 1750 = 0.20% Cu

1750 - 1805 = 0.10% Cu

2010 - 2044 T.D. As above.

5-10% pyrite

Sericite & hydrothermal clay alteration.

SBE-5 SW<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> Sec. 14.

Rotary drilling @ 1350' (No further info).

12/26/95,, TEV-684, TEV-684/1580  
 ,CT 122195-1-11, 12/20/91 ,Courtland Gleeson, Roske, To Sky  
 12/26/95,, TEV-684, TEV-684/1580  
 ,ST 122295-1-18, 12/21/91 ,Stanfield, Roske, To Sky  
 12/26/95,, TEV-684, TEV-684/1580  
 ,ST 122695-1-8, 12/25/91 ,Stanfield, Roske, To Sky  
 12/26/95,, TEV-684, TEV-684/1580

\*\*\*\*\*  
 ,FL 122795-1-8, 12/26/91 ,Florence, Roske, To Actlab 1/5/96,, --/1583,  
 --/1583  
 ,GB 122895-1-3, 12/27/91 ,Grayback, Roske, To Actlab 1/5/96,, --/1583,  
 --/1583  
 ,FL 122895-1-3, 12/27/91 ,Florence, Roske, To Actlab 1/5/96,, --/1583,  
 --/1583  
 ,FL 122995-1-9, 12/28/91 ,Florence, Roske, To Actlab 1/5/96,, --/1583,  
 --/1583  
 x, SE 010396-1-17, 01/02/92 ,Superior East, Roske & Sell, To Actlab  
 1/5/96,, --/1583, --/1583  
 ,CT 010496-1-16, 01/03/92 ,Courtland, Roske, To Actlab 1/5/96,,  
 --/1583, --/1583  
 ,,1343 Samples as of 1/5/96,,,,,

\*\*\*\*\*  
 ,RM 010896-1-7, 01/07/92 ,Rosemont, Roske, To Sky  
 1-16-96,, TEV-685/1586, TEV-685/1586  
 ,RM 010996-1-7, 01/08/92 ,Rosemont, Roske, To Sky  
 1-16-96,, TEV-685/1586, TEV-685/1586  
 ,WK 011096-1-11, 01/09/92 ,Wickenburg, Roske, To Sky  
 1-16-96,, TEV-685/1586, TEV-685/1586  
 ,WK 011196-1-12, 01/10/92 ,Wickenburg, Roske, To Sky  
 1-16-96,, TEV-685/1586, TEV-685/1586  
 \*,WK 011129-1-17, 01/11/92 ,Wickenburg, Roske, To Sky  
 1-16-96,, TEV-685/1586, TEV-685/1586  
 ,\*Sample bags read WK 011296-1-17,,,,,

\*\*\*\*\*  
 ,WK 011696-1-4, 01/15/92 ,Wickenburg, Roske, To Actlab  
 1/30/96,, --/1593, --/1593  
 ,WK 011796-1-9, 01/16/92 ,Wickenburg, Roske, To Actlab  
 1/30/96,, --/1593, --/1593  
 ,WK 011896-1-11, 01/17/92 ,Wickenburg, Roske, To Actlab  
 1/30/96,, --/1593, --/1593  
 ,WK 011996-1-5, 01/18/92 ,Wickenburg, Roske, To Actlab  
 1/30/96,, --/1593, --/1593  
 ,WK 012596-1-6, 01/24/92 ,Wickenburg, Roske, To Actlab  
 1/30/96,, --/1593, --/1593  
 ,WK 012696-1-5, 01/25/92 ,Wickenburg, Roske, To Actlab  
 1/30/96,, --/1593, --/1593  
 ,,1437 Samples as of 1/30/96,,,,,

OFFICE OF THE SECRETARY

NOV

November 4, 1970

EXPLORATION DEPT.

J. H. C.  
DEC 16 1970  
RECORDED

NOV 8 1970

EXPLORATION DEPT.

Mr. C. P. Pollock

The following is an extract from the minutes of the meeting of the Advisory Committee held on October 21, 1970:

Mining Authorization 0012-01  
East Silver Bell Project  
Pima County, Arizona

At a meeting of the Advisory Committee held on July 1, 1970, there was approved an expenditure of \$90,000 (MA 0012-00) for locating claims, obtaining permits and for drilling at the Silver Bell East Prospect, Arizona.

Company geologists recommend an expenditure of \$148,000 for drilling at the Silver Bell East Prospect, Arizona.

There was approved, subject to ratification by the Board of Directors, an expenditure in the amount of \$148,000 for drilling at the Silver Bell East Prospect, Arizona.

J. F. Hornbostel, Jr

JFH:pf

Encl.

FGHamrick

HQStringham - 2 w/encl

JHCourtright w/encl

WESaegart w/encl

KA vd. Steinen w/encl

AUTHORIZATION FOR SUPPLEMENTAL MINERAL EXPLORATION

.....October 16.....19.70.

Originating Office .....Tucson.....

Application is hereby made for supplemental Authorization to cover cost, in excess of original estimate, of work authorized by New York.

No.....0012-00.....

Present total Estimated Cost (Form 302-MA attached)	\$ 238,000..
Amount previously authorized (date....7/1/70.....)	\$ 90,000..
Balance for which Authorization is now requested	\$ 148,000..

ADDITIONAL WORK CONTEMPLATED:

Perfect 190 Federal mining claims, relocate Ecological study site which conflicts with local mineral exploration, and drill approximately 12,600 feet in six holes to delimit Silver Bell East alteration zone and to prospect for an ore grade center of mineralization.

EXPLANATION OF INCREASED COST:

Reviewed by <i>Y. A. von der Steiner</i>	Approved by <i>C. P. Pallas</i>
Acct. Mgr. or Chief Acct.	Vice President
Recommended by <i>W. E. Sargant</i>	Approved by .....
Supervisor	Comptroller

Account Chargeable to *Exploration Expense*  
To be designated by Comptroller

Approved by Advisory Committee	Approved by Board of Directors
..... <i>Oct 21</i> .....19.70.....	..... <i>Oct 27</i> .....19.70.....
<i>[Signature]</i>	
Asst. Secretary	



AMERICAN SMELTING AND REFINING COMPANY  
Tucson Arizona

J. H. C.  
DEC 16 1970

October 16, 1970

Mr. J. J. Collins  
New York Office

Dear Sir:

Supplemental Authorization Request  
Silver Bell East Project  
Pima County, Arizona

The Silver Bell East Project, located 6-7 miles east of the Oxide Pit was initiated in July of this year to test an aeromagnetic low and its perimeter magnetic gradient areas. The Geophysical Division postulated that the low was caused by a granitoid pluton whose margins would be favorable loci for porphyry intrusions.

Drilling of an informational hole, SBE-1, located in the center of the aeromagnetic low did not confirm the existence of a granitoid mass. The hole penetrated a thick column of Cretaceous sediments and bottomed in Precambrian schist basement (T.D. 2680'). We concluded that the aeromagnetic low is the result of lower susceptibilities in the sediments and schist than the surrounding igneous rocks.

Three holes have been drilled on the southern gradient of the same aeromagnetic anomaly and along the eastern projection of the Silver Bell alteration zone. Two of the three have intersected strongly altered rocks and one contains significant copper mineralization.

Mr. J. R. King's progress memo is enclosed. 1"= mile and 1"= 1000' maps are also enclosed. Holes SBE-2 and SBE-4 intersected strongly altered rocks (dacite porphyry, monzonite porphyry and hornfels) at bedrock depths of 1,900' and 1,640' respectively. Strong pyrite (3-10%) occurs in both holes. Trace amounts of chalcocite are recognizable in Hole SBE-2 where copper assays range from trace to 0.05%. In hole SBE-4, which is still drilling, weak to moderate amounts of chalcocite occur as coatings on pyrite (both fracture fillings and disseminations). Assays received to date are summarized below:

<u>Hole</u>	<u>From</u>	<u>Interval (Ft.)</u>	<u>% Cu</u>
SBE-4	1,700	50	0.20
SBE-4	1,750	55	0.10

Color photographs of core samples from holes SBE-2 and SBE-4 are enclosed to illustrate the intensity of alteration-mineralization.

Although the copper content in SBE-4 is submarginal, a very substantial increase in mineralization has been demonstrated across the 1,000' interval from SBE-2 to SBE-4. In view of this grade increase and the strong pervasive alteration encountered in both holes, there is a good chance of finding ore grade porphyry copper mineralization with offset drilling of the zone. Without much doubt, we have penetrated an extension of the Silver Bell alteration zone which disappears under cover some two miles west of these new intersections (SBE-2 and SBE-4).

Six additional holes are proposed to delimit the alteration zone and to prospect for an ore grade center. The area immediately south of SBE-4 would have first priority in searching for better grade mineralization. Additional, more widely spaced holes are also important to determine the overall geometry of the alteration zone. Definition of the total zone is necessary before we can make any judgement as to whether the area has been adequately prospected - - - regardless of the number of holes drilled. With this line of thinking, we consider a minimum test can be effected with no less than six holes. Four or five of these holes would serve to delimit the zone and one or two would probe for an ore grade center. Proposed hole locations are plotted on the attached 1"= 1,000' map.

Within our area of interest and claim group is a 640 acre parcel on which the BLM has issued a surface use permit to a federally funded research project known as the Desert Biome. The project constitutes a five-year research program to study all living organisms within a desert ecosystem. This is a participating project of the "International Biological Year" and is funded by National Science Foundation grants.

We have had two meetings with the University of Arizona faculty members who are supervising the Desert Biome project. In their opinion, ASARCO'S continued exploration activity will disturb the natural ecosystem and render the site unusable. They are considering relocation to an alternate site located five miles to the north. Relocation would not involve a large duplication of research work since the project was not initiated until July of this year.

Our discussions have been somewhat strained but cordial. To preclude their animosity and subsequent adverse publicity, I have assured the Desert Biome personnel that if relocation is necessary due to our continued exploration, ASARCO will pay the direct costs of new site preparation. These are estimated at \$10,000.00 and would include, but would not necessarily be limited to, the following items:

1. Installation of power and telephone lines to the new site. A  $\frac{1}{2}$ -mile line may be needed. Trico Electric Cooperative, the franchised power company in this area, can make the installation for \$5,000.00.
2. Soil survey by Soil Conservation Service, U. S. Dept. of Agriculture.
3. Color aerial photos of new site.

We have initiated validation work on 190 of the 500 claims which were located in July. Claims are being surveyed and corner posts placed. Cornering must be complete by October 27th. A total of 18 shallow ( $\frac{1}{2}$  250 Ft. each) discovery holes to perfect the claims must be completed by November 26th.

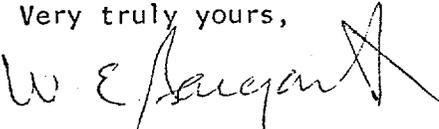
Costs of the second phase of exploration are detailed on attached forms 302MA and 302MB and are summarized below.

Cost Estimate - Silver Bell East Project - Phase II

10,600 Ft. rotary drilling in 6 holes	\$90,000.00
2,000 Ft. core drilling in 6 holes	26,000.00
18 claim validation discovery holes (\$100/claim as per Federal law)	17,000.00
Complete claim surveying and cornering	5,000.00
Relocate Desert Biome site	<u>10,000.00</u>
TOTAL COST	\$148,000.00

If you approve, please request a Supplemental Authorization for the Silver Bell East Project in the amount of \$148,000.00.

Very truly yours,

  
W. E. Saegart

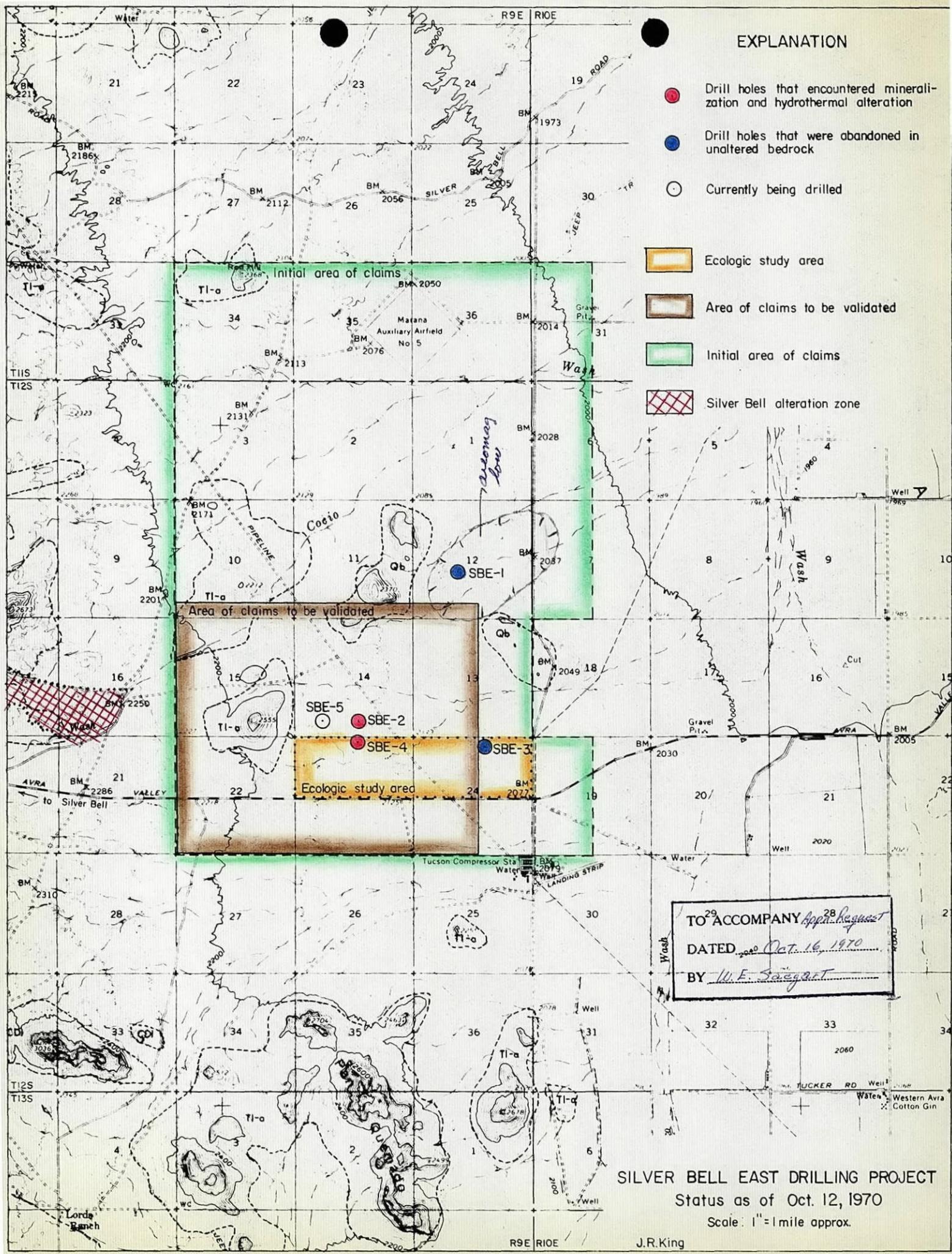
WES/van  
Enclosures  
Attachments

✓cc: J. H. Courtright - w/King report and maps  
R. J. Lacy - " " " "  
W. L. Kurtz - " " " "  
W. Farley - " " " "  
D. R. Jameson - " " " "  
J. R. King/R. H. Luning " " " "  
T. A. Snedden - w/o  
S. I. Bowditch - w/o  
K. von den Steinen - 302-Ma and 302-Mb Forms only

EXPLANATION

- Drill holes that encountered mineralization and hydrothermal alteration
- Drill holes that were abandoned in unaltered bedrock
- Currently being drilled

- Ecologic study area
- Area of claims to be validated
- Initial area of claims
- Silver Bell alteration zone



TO <sup>29</sup>ACCOMPANY *App'd Request*  
 DATED *Oct. 16, 1970*  
 BY *W. E. Saegert*

SILVER BELL EAST DRILLING PROJECT  
 Status as of Oct. 12, 1970  
 Scale: 1" = 1 mile approx.

AMERICAN SMELTING AND REFINING COMPANY  
Tucson Arizona

October 13, 1970

W.E.S.  
OCT 13 1970

TO: W. E. Saegart

FROM: J. R. King

SUBJECT: Silver Bell East  
Progress Report

The Silver Bell East exploratory drilling program has completed three drill holes. A fourth drill hole is currently being core drilled in favorable bed-rock while a fifth drill hole is being rotary drilled through alluvium. The location of all the holes are given on the attached map. Also located on the map are the boundaries of the ecologic study area and the area of ASARCO claims.

Two of the drill holes, SBE-4 and SBE-2, encountered intrusive rocks that show strong pervasive hydrothermal mineralization and alteration.

The other two drill holes encountered rock showing no evidence of either hydrothermal alteration or hydrothermal mineralization. Even though these drill holes did not encounter anything to stimulate further interest, any projected contact between these rocks and a mineralizing intrusive could constitute a potential area of mineralization.

The following is a brief summary of each drill hole:

SBE-2 - Bedrock, 1,900 (?) feet - 2,435 feet final depth

Five hundred and thirty-five feet of intensely mineralized and hydrothermally altered rock (porphyritic monzonite, dacite and hornfels(?)) were drilled in this hole. Total sulfide content varies from 3% to 10%; however, virtually all of the sulfides exist as pyrite grains. Chalcocite and molybdenite were also identified megascopically. Hydrothermal alteration is pervasive and is present as strong argillization and sericitization. Quartz veining and associated mineralization and alteration is present but never in stockwork intensity. Assays of the rock are attached and show minor amounts of copper concentration. A zone of enrichment which corresponds to a logged occurrence of chalcocite coatings on pyrite, is indicated by the assays.

SBE-4 - Bedrock, 1,640 feet - 1,790 feet current depth

Ninety feet of intensely mineralized and hydrothermally altered dacite(?) have been cored in this hole. Sulfide mineralization comprises from 5% to 10% of

October 13, 1970

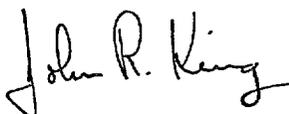
the dacite and is present as both disseminations and as massive veins. Pyrite comprises over 95% of the sulfide mineralization. Other sulfides identified are chalcocite and possibly molybdenite. The chalcocite exists as obvious thin coatings on pyrite grains and as individual grains. Two five foot sample runs from the uppermost ten feet of core assayed 0.12% and 0.16% copper. The dacite is strongly hydrothermally altered to sericite and moderately altered to hydrothermal clays.

SBE-1 - Bedrock, <sup>1,640</sup>~~1,500~~ feet - 2,680 feet final depth

Approximately one thousand feet of upper Cretaceous sedimentary rocks (Village Red Bed Formation and Amole Arkose Formation) were drilled. These rocks showed no hydrothermal mineralization or alteration. The Pinal Schist was encountered at 2,350 feet and over 300 feet of unmineralized and unhydrothermally altered schist was drilled before terminating the hole.

SBE-3 - Bedrock, 2,340 feet - 2,370 feet final depth

Bedrock encountered in this hole appeared to be correlative to the lower part of the Village Red Beds. Hydrothermal mineralization and alteration was not megascopically identifiable and thus the drilling was ended.



John R. King

JRK:mw

Att.

cc: W. L. Kurtz

P.S. Assay data from hole SBE-4, received October 15, 1970, is also attached.

ASSAYS FROM SBE-2

		<u>Cu (%)</u>	<u>Mo (%)</u>
SB-1	2030-2038	.028	.0002
SB-2	2038-2048	.051	.001
SB-3	2048-2060	.04	.002
SB-4	2060-2071	.03	.001
SB-5	2071-2081	.03	.0006
SB-6	2081-2090	.03	.002
SB-7	2090-2095	.04	.0007
SB-8	2095-2105	.01	.0006
SB-9	2105-2115	.01	.0006
SB-10	2115-2125	Tr	.0008
SB-11	2125-2135	Tr	.0008
SB-12	2135-2145	.01	.0016
SB-13	2145-2155	Tr	.001
SB-14	2155-2165	.01	.0048
SB-15	2165-2175	.01	.001
SB-16	2175-2189	.01	.001

ASSAYS FROM SBE-4

		<u>Cu (%)</u>	
SBE-4-49	1700-1705	0.12	} 50' C 0.20
SBE-4-50	1705-1710	0.16	
SBE-4-51	1710-1715	0.20	
SBE-4-52	1715-1720	0.23	
SBE-4-53	1720-1725	0.22	
SBE-4-54	1725-1730	0.29	
SBE-4-55	1730-1735	0.22	
SBE-4-56	1735-1740	0.22	
SBE-4-57	1740-1745	0.10	
SBE-4-58	1745-1750	0.20	
SBE-4-59	1750-1755	0.12	} 55' C 0.10
SBE-4-60	1755-1760	0.08	
SBE-4-61	1760-1765	0.20	
SBE-4-62	1765-1770	0.11	
SBE-4-63	1770-1775	0.10	
SBE-4-64	1775-1780	0.04	
SBE-4-65	1780-1785	0.09	
SBE-4-66	1785-1790	0.13	
SBE-4-67	1790-1795	0.02	
SBE-4-68	1795-1800	0.22	
SBE-4-69	1800-1805	0.03	

10

11

12

SBE-1

Bdr 1640'  
1640'-2350' Ks (clastic & limey seds) No Alt, No Cu  
2350'-2680' P6 schist  
T.D. 2680'



**EXPLANATION**

- PROPOSED DRILL HOLES
- COMPLETED DRILL HOLES
- Alteration & Mineralization
- Barren

ASARCO SBE Claim Group

TO ACCOMPANY *Report*  
DATED *Oct 16, 1970*  
BY *W.E. Sargent*

15

P  
14

13

SBE-5

rotary drilling @ 1350'

SBE-2

Bdr 1900'  
1900'-2038' monz & da por leached cap  
str alt  
2038'-2435' da por & hf bx-py w/tr cc  
T.D. 2435'

SBE-4

Bdr 1640'  
1640'-2010' da por-py w/wk-mod cc No leached cap  
1700'-1755' 0.20% Cu  
1755'-1810' 0.10% Cu  
T.D. 2049'

SBE-3

Bdr 2340'  
2340'-2370' Ks (clastic & limey seds) No Alt, No Cu  
T.D. 2370'

P

P

P

P

22

23

24

SILVER BELL ± 5 miles

AVRA VALLEY ROAD

P

EL PASO NATURAL GAS  
COMPRESSOR STATION

**PROPOSED EXPLORATION  
SILVER BELL EAST PROJECT  
PIMA COUNTY, ARIZONA**

Scale 1"=1000'

W.E.S.

Oct. 1970

MVK 2342

RECEIVED

JUL 13 1970

EXPLORATION DEPT.

J. H.  
AUG 5 - 1970

New York, N. Y., July 8, 1970.

Mr. C. P. Pollock

The following is an extract from the minutes of the meeting of the Advisory Committee held on July 1, 1970:

Mining Authorization No. 0012-00  
Silver Bell East Area Prospect,  
Pima County, Arizona

It was reported that Company Geologists have recommended an expenditure of \$90,000 to locate 500 Federal Mining Claims, obtain prospecting permits on 1040 acres of State Land and to drill four rotary holes, aggregating 8500 feet, at an area situated six miles east of Silver Bell, Pima County, Arizona, known as the Silver Bell East Prospect.

There was approved an expenditure of \$90,000 for locating claims, obtaining permits and for drilling at the Silver Bell East Prospect, Pima County, Arizona.

J. F. Hornbostel, Jr.

FGHamrick  
EQStringham - 2  
JHCourtright  
RJLacy  
WLKurtz  
TASnedden  
DRJameson  
SIBowditch  
K.vd. Steinen

AMERICAN SMELTING AND REFINING COMPANY  
Tucson Arizona

J. H. C.

JUL 9 1970

June 26, 1970

Mr. J. J. Collins  
Assistant Vice President  
New York Office

J.H.Courtright

Authorization Request  
Silver Bell East Area  
Pima County, Arizona

Dear Sir:

During the past year, the Geophysical Division and Mr. Wayne G. Farley's local staff have conducted various geophysical investigations in that part of Avra Valley which is on the eastern projection of the Silver Bell alteration zone. This work has included aeromagnetic and ground magnetic surveys, induced polarization surveys and gravity surveys. Interest in the area was generated by Mr. C. K. Moss' reference, in a Memorandum dated June 19, 1969, to a high flight level aeromagnetic low along the eastern projection of the Silver Bell zone. Subsequent magnetic coverage of the area at lower elevations and on the ground have enabled the geophysical personnel to more precisely locate the aeromagnetic low and to interpret its possible source and source depths. This anomaly has dimensions of 3 miles N-S by 4 miles E-W with a negative amplitude of approximately 300 gammas measured from flight lines at 4200 feet above sea level (2200 feet above ground surface).

Messrs. Moss and Farley interpret the source to be a deep seated intrusive mass having a lower magnetic susceptibility than the enclosing rocks into which it intrudes or abuts in fault contact. They have postulated that if the source is an intrusive, a favorable environment would exist for the occurrence of satellite porphyries and porphyry copper type mineralization. This theory is enhanced due to the spatial correlation between the south flank of the anomaly and the eastern projection of the Silver Bell alteration zone.

Induced Polarization surveys were unsuccessfully employed in an effort to define a specific target or targets within and along the perimeter of the magnetic low. Excessive depths of cover (alluvial and post-mineral volcanics) preclude effective induced polarization penetration except over the extreme western edge of the magnetic feature. Bedrock depths in the area as determined from gravity surveys and waterwell data vary from near surface (northwestern side) to at least 2000 feet (eastern side). A 2000 foot depth to the top of the source of the magnetic low has been interpreted by the Geophysical Division.

During our visit to Salt Lake City in May the Geophysical Division proposed a hole in the center of the anomaly to confirm the interpreted intrusive source. Mr. Farley has also recommended drilling this area. Based on the empirical relationships elsewhere in the Southwest, the most favorable location, magnetically, for the occurrence of porphyry copper mineralization is along the magnetic gradient bordering the anomaly. If the hole proposed by the Geophysical Division confirms an intrusive source, additional drilling on the margins of the anomaly will be necessary to effectively explore the area. Three perimeter exploration holes would constitute a minimum test for an initial exploration program of the area. Two of these are suggested along the projection of the Silver Bell alteration zone and a third is proposed on the covered projection of the Ragged Mountain fault. This latter structure is a post-mineral fault with large displacement which could represent reactivation along an older zone of weakness. The Ragged Mountain Fault marks the contact between pre-Cambrian and Tertiary rocks which could be a locus for porphyry emplacement.

I am attaching a map showing the location of the magnetic low relative to the Silver Bell alteration zone and generalized exposures of pre- and post-mineral rocks. This map also shows a proposed ASARCO claim block and recommended drill hole locations. The initial hole, which is classified as an informational test should be drilled to a depth of 3000 feet to determine the source of the magnetic low. Subsequent exploration hole depths on the margins of the anomaly should average 1500 to 2000 feet. The costs of our recommended minimum test would be as follows:

1. \$5,000 for location of some 500 mining claims and rental of 1040 acres of State Land; and
2. \$85,000 to rotary drill an aggregate total of 8500 feet and to spot core in bedrock.

Accounting Forms 302-M and 302-MA are attached, detailing the estimated costs. If you approve, please request an authorization in the amount of \$90,000 for the East Silver Bell Project.

The peripheral exploration holes would be drilled only if the informational hole confirms an intrusive source for the magnetic low. Conversely, if the initial hole penetrates only sediments (an alternative interpretation) the project will be terminated without incurring additional cost. We would not plan to validate claims (surveying, setting corners, and discovery holes) unless the drilling intersected alteration-mineralization. In this regard, we have to be prepared to carry out the program quickly since claim validation must be completed within 120 days of location. I have, therefore requested authorization to drill the second stage peripheral holes so that our minimum exploration test can be completed prior to our claim validation deadline. The cost of validating these claims in their entirety would be  $\pm$  \$70,000 which is prohibitive. We would plan to complete the proposed drilling within a period of 2 to 2 1/2 months. With this scheduling, only claims in areas of significant mineralization intercepts would be validated.

Mr. Collins,

3,

6/26/70

Copies of Mr. Farley's Memorandums <sup>a</sup> of September 5, 1969 and May 6, 1970 together with Mr. Moss' Memorandum of June 19, 1969 are enclosed.

Very truly yours,

*W. E. Saegart*

W. E. Saegart

Enclosures & Attachments

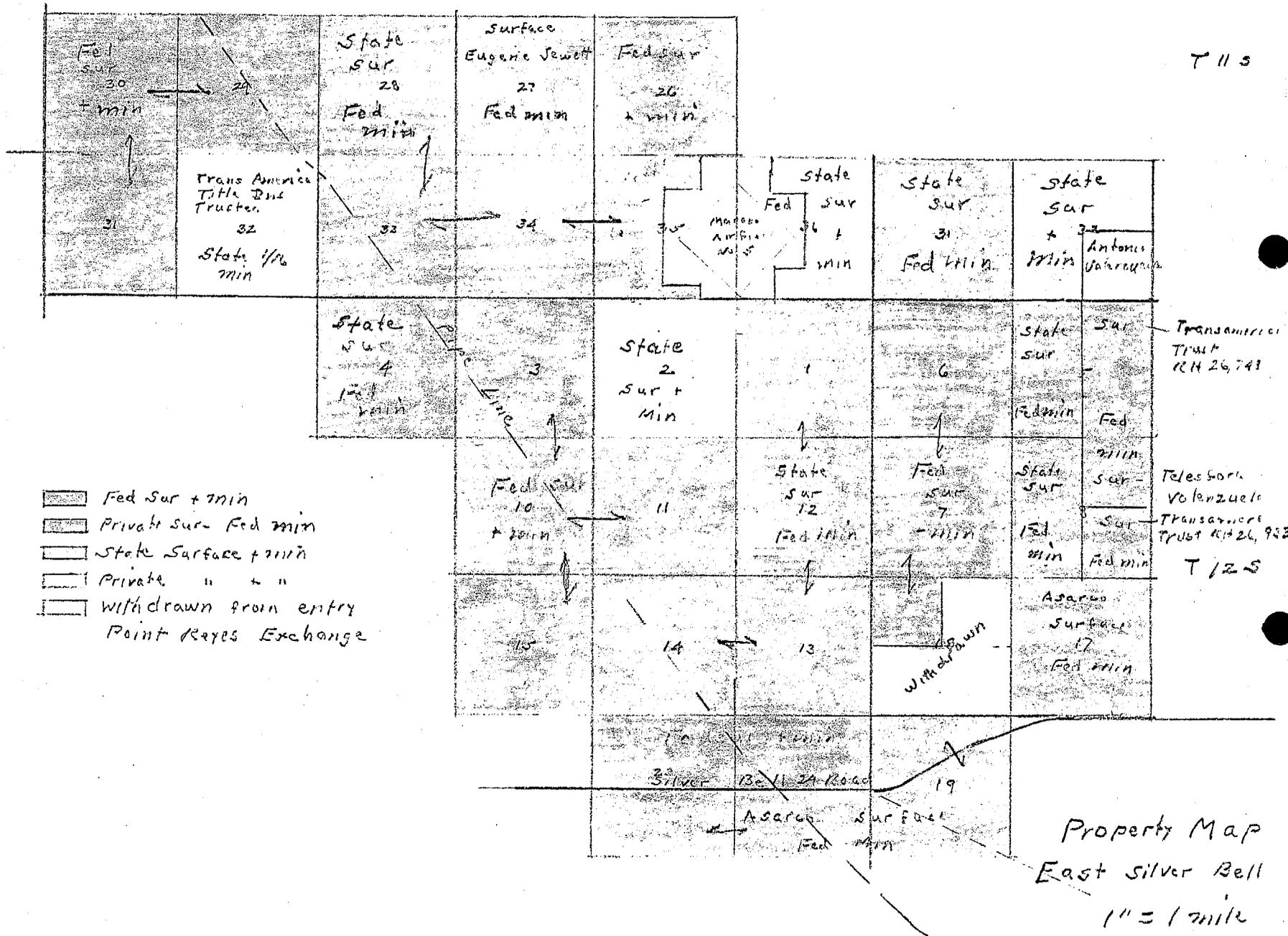
WES:lab

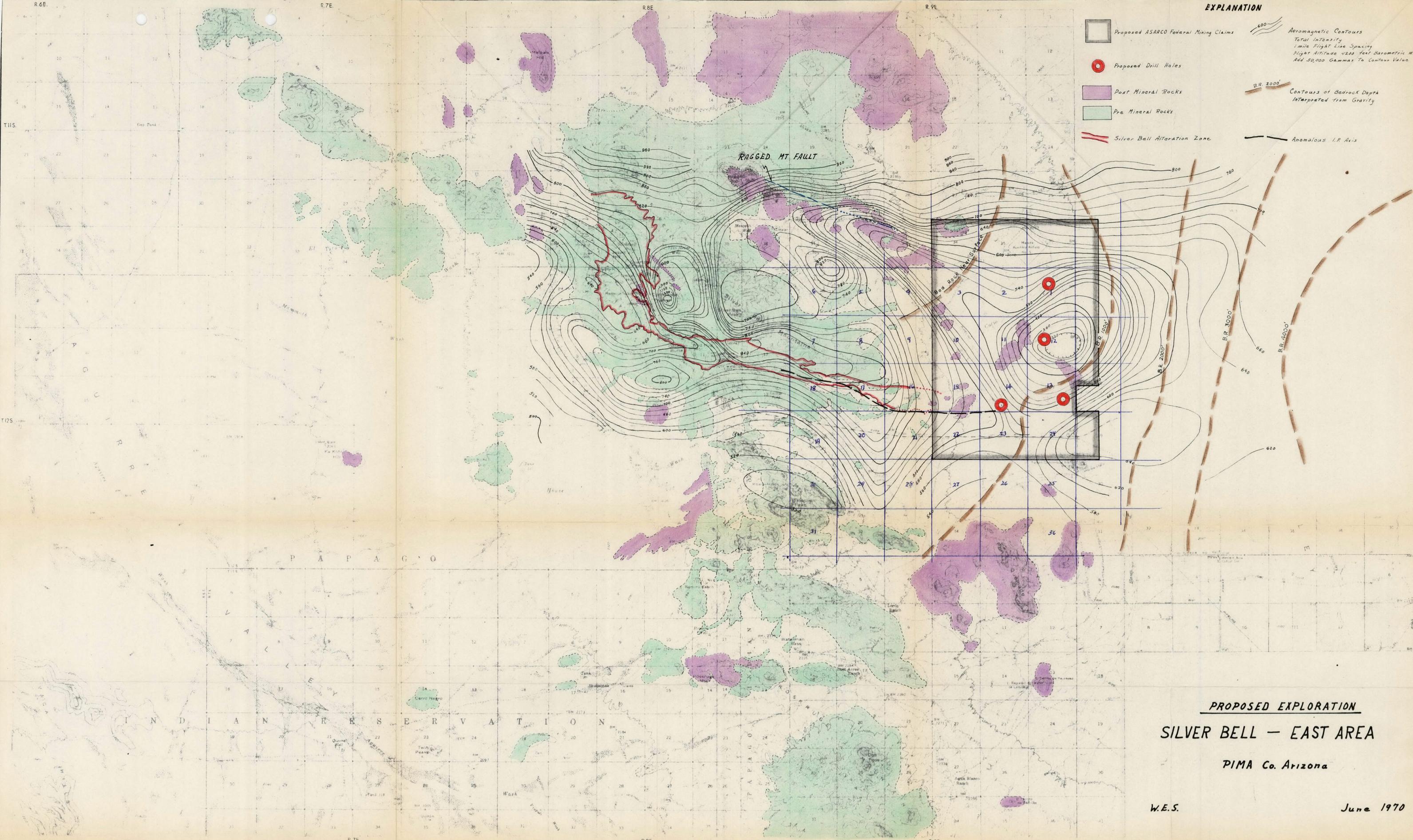
cc: J.H.Courtright, w/o encl., w/maps   
R.J.Lacy & CKMoss, " " " "  
W.L.Kurtz, " " " "  
W.G.Farley, " " " "  
T.A.Snedden, " " " "  
D.R.Jameson, " " " "  
S.I.Bowditch, " " " "  
K.v.d.Steinen, w/attachments

R 9 E

R 10 E

T 11 S





**EXPLANATION**

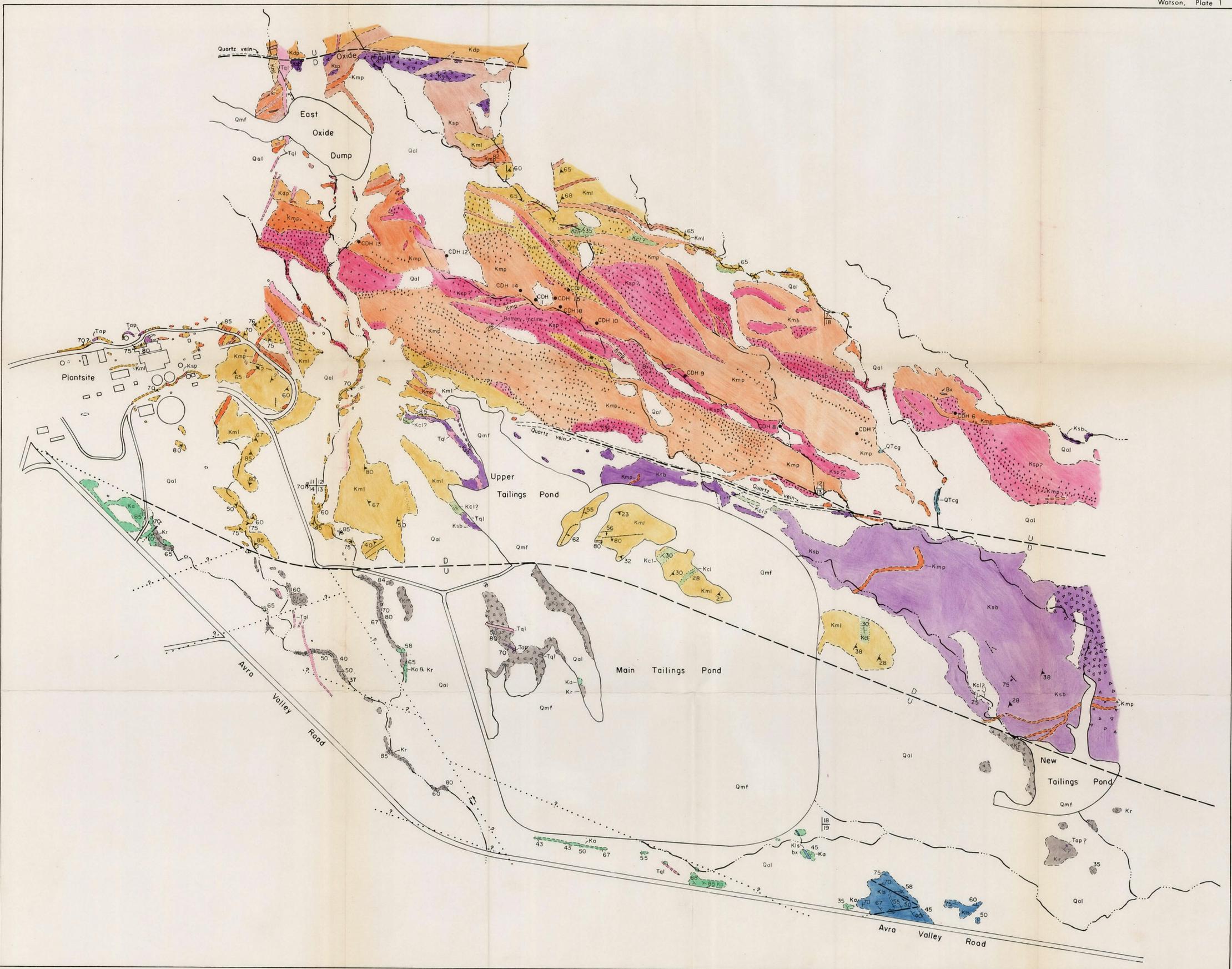
- Proposed ASARCO Federal Mining Claims
- Proposed Drill Holes
- Post Mineral Rocks
- Pre Mineral Rocks
- Silver Bell Alteration Zone
- Anomalous I.P. Axis
- Aeromagnetic Contours  
Total Intensity  
1 mile Flight Line Spacing  
Flight Altitude 4200 feet Barometric M.S.L.  
Add 50,000 Gammas To Contour Value
- B.R. 2000'  
Contours of Bedrock Depth  
Interpreted from Gravity

**RAGGED MT FAULT**

**PROPOSED EXPLORATION  
SILVER BELL — EAST AREA  
PIMA Co. Arizona**

W.E.S.

June 1970



EXPLANATION

- |            |        | Sedimentary rocks                             | Igneous rocks   |   |                              |
|------------|--------|---|---|---|------------------------------|
| QUATERNARY | [Qmf]  | Man-made fill                                 |   |   |                              |
|            | [Qal]  | Alluvium                                      |   |   |                              |
|            | [QTcg] | Stream conglomerates                          |   |   |                              |
|            |        |   | [Tal]   | Quartz latite porphyry dikes  |                              |
| TERTIARY   |        |   | [Tap]   | Andesite porphyry dikes   |                              |
|            |        |   | [Kmp]   | Monzonite porphyry stocks, dikes  |                              |
|            |        |   | [Ksp]   | Syenodiorite porphyry stocks, dikes   |                              |
|            |        |   | [Ksp?]  | Probable Ksp, but alteration makes indistinguishable from earlier andesite porphyries |                              |
|            |        |   | [Kml]   | Mount Lord ignimbrite   |                              |
|            |        |   | [Ksb]   | Silver Bell complex — breccias, flows, intrusions                                     |                              |
| CRETACEOUS |        |   | [Kdp]   | Dacite porphyry   |                              |
|            |        | [Kcl]   | Clafin Ranch formation  |   |                              |
|            |        | [UNCONFORMITY]                                | Recreation-type redbeds, red conglomerates                          |   |                              |
|            |        | [Kls]   | Limestone   |   |                              |
|            |        | [Ka]  | Amole-type arkoses, conglomerates                                   |   |                              |
|            |        | [Contact]                                     | dashed where approximate, dotted where concealed                    |   |                              |
|            |        | [U]   | High-angle fault — dashed where approximate, dotted where concealed |   |                              |
|            |        | [57]  | Strike and dip of beds  | [Silicification]  |                              |
|            |        | [73]  | Strike and dip of overturned beds                                   | [CDH]   | Old 'Mudd' churn drill holes |
|            |        | [23]  | Strike and dip of foliation   | [112]   | Section corner               |
|            | [1413] | Mineralized structure (quartz and/or calcite) |   |   |                              |

AREAL GEOLOGY  
of Area East of Oxide Pit  
Silver Bell, Ariz. A. S. & R. Co.  
Scale 1"=500' May, 1965

B. N. Watson